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| A close up of a sign  Description automatically generated | **World Radiocommunication Conference (WRC-23) Dubai, 20 November - 15 December 2023** | |  |
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| PLENARY MEETING | | **Addendum 1 to Document 44(Add.26)-E** | |
|  | | **13 October 2023** | |
|  | | **Original: English** | |
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| Member States of the Inter-American Telecommunication Commission (CITEL) | | | |
| PROPOSALS FOR THE WORK OF THE CONFERENCE | | | |
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| Agenda item 9.3 | | | |

9 to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the ITU Convention;

9.3 on action in response to Resolution **80 (Rev.WRC-07)**;

Background

In response to the Report by the Radio Regulations Board (RRB) to WRC-23, Resolution **80** **(Rev.WRC-07)** (Doc. [WRC-23/50](https://www.itu.int/md/R23-WRC23-C-0050/en)), CITEL is providing the following comments and proposals with respect to the issue covered in Section 4.13 on the Long Term Space Sustainability and equitable access and rational use of the non-GSO orbit/spectrum resources.

Section 4.13 – Long-term sustainability and equitable access and rational use of the non-GSO orbit/spectrum resources

Section 4.13 of the Report by the Radio Regulations Board (RRB) to WRC-23 on Resolution **80** **(Rev.WRC-07)**, [Document 50 of WRC-23 input contributions](https://www.itu.int/md/R23-WRC23-C-0050/en), discusses the issue of Long-Term Space Sustainability (LTSS) and equitable access and rational use of the non-GSO orbit/spectrum resources and calls for consideration and possible decisions by the Conference under WRC-23 agenda item 9.3. During this study cycle (2020-23), the RRB witnessed an increased number of LEO systems filings that proposed to deploy tens to hundreds of thousands of satellites. The growth of the number of space stations within non-GSO satellite systems filings submitted to the ITU raises several questions in terms of the LTSS.

There are gaps in this area which could be addressed by the ITU to help preserve the LTSS without overlapping mandates, nor guidance, from other organizations and UN bodies dealing with space activities. As stated by the RRB, the ITU is involved in key constituent parts of the LTSS concept with its focus on the prevention of harmful interference and ensuring the rational, efficient, economic, and equitable use of the spectrum/orbit resources, including the LEO orbit/spectrum resource in conformity with the provisions of the Radio Regulations, taking due account of the special needs of the developing countries and the geographical situation of particular countries.

In its report, the RRB invited WRC-23 to, *inter alia*, instruct the ITU-R to develop ITU-R recommendations and reports that address the long-term sustainability of the non-GSO and spectrum resources and the equitable access to those orbits and frequencies***.*** The ITU has already adopted a recommendation that addresses the LTSS of the GSO orbit: [Recommendation ITU-R S.1003-2 on “Environmental protection of the geostationary-satellite orbit”](https://www.itu.int/dms_pubrec/itu-r/rec/s/R-REC-S.1003-2-201012-I!!PDF-E.pdf). The purpose of Recommendation ITU-R S.1003 is to provide guidance about disposal orbits for satellites in the geostationary-satellite orbit. The recommendation also provides comments on the increase in debris due to fragments resulting from increased numbers of satellites and their associated launches. The technical guidance provided in Recommendation ITU-R S.1003 is often incorporated into national satellite regulatory frameworks. The United Nations Office for Outer Space Affairs (UNOOSA) also references Recommendation ITU-R S.1003 on its website containing a [Compendium of space debris mitigation technical standards adopted by States and international organizations](https://www.unoosa.org/oosa/en/ourwork/topics/space-debris/compendium.html). However, there is no recommendation nor studies underway in the ITU-R that would address the protection of the non-GSO orbit.

CITEL administrations are of the view that the development of such an ITU-R recommendation would be complementary to UNOOSA guidelines on Long-Term Space Sustainability (LTSS), and it should not contradict, neither duplicate efforts nor reinvent the wheel in this area, but collaborate to the achievement of those guidelines from a spectrum and orbit management perspective. It would provide Member States with technical guidance for efficiently deorbiting satellites within national non-GSO satellite systems at their end of life in an environment where the number of players operating in space is growing, with many of them not having the same level of experience of established satellite operators, especially considering the amateur, research, academic and startup entities’ involvement in the smallsat industry. It would also assist spectrum regulators as they often rely on ITU-R standards and recommendations as the basis for establishing the technical conditions of the authorizations they issue for the use of radio frequency and orbital resources in their country. In the absence of such an ITU recommendation for the non-GSO, satellites would continue to be authorized without the requirement to comply with any best practices in this field.

Proposal

Section 4.13 – Long-term sustainability and equitable access and rational use of the non-GSO orbit/spectrum resources

IAP/44A26A1/1

To address part of the problem indicated by section 4.13 of the RRB Report to WRC-23, CITEL 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 would be requested to create a website entitled “environmental protection of non-geostationary satellite orbits for the sustainable use by space radiocommunications services”, available through a link from the main ITU-R 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. For example, as sources for ephemeris data, this website should have a link to the Space Data Organization ([Space Data Center – Space Data Association (space-data.org)](https://www.space-data.org/sda/space-data-center-3/) and Space Track ([Space-Track.org](https://www.space-track.org/documentation#odr)). This would provide a centralized location for members of the ITU-R and the public to find related information while the ITU-R is working on the technical Recommendation.

At the end of this document, a draft text is proposed for inclusion in the Minutes of the Plenary of WRC-23 to reflect the decision, if so agreed.

Proposed text for the MINUTES OF THE PLENARY of WRC-23 to implement the proposal above.

*“…In respect to the content of section 4.13 of the Report by the Radio Regulations Board on Resolution* ***80 (Rev.WRC-07)****, regarding the issue on Long-Term Space Sustainability, WRC-23 decided 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 order to provide a centralized location for members of the ITU-R and the public to find related information while the ITU-R is working on the technical Recommendation, the Director of the Radiocommunication Bureau is instructed to create a website with the title “environmental protection of non-geostationary satellite orbits for the sustainable use by space radiocommunications services”, available through a link from the main ITU-R 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 …”*

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