|  |  |  |
| --- | --- | --- |
| A close up of a sign  Description automatically generated | **World Radiocommunication Conference (WRC-23)Dubai, 20 November - 15 December 2023** |  |
|  |  |
|  |  |
| PLENARY MEETING | **Addendum 27 toDocument 148-E** |
|  | **30 October 2023** |
|  | **Original: English** |
|  |
| Iran (Islamic Republic of) |
| PROPOSALS FOR THE WORK OF THE CONFERENCE |
|  |
| Agenda item 10 |

10to recommend to the ITU Council items for inclusion in the agenda for the next world radiocommunication conference, and items for the preliminary agenda of future conferences, in accordance with Article 7 of the ITU Convention and Resolution **804 (Rev.WRC‑19)**,

Introduction

In preparation for WRC‑23, some administrations intended to propose an item for agenda of future WRCs to review and update regulatory provisions for sharing between non-geostationary-satellite orbit (non-GSO) systems and geostationary-satellite orbit (GSO) networks in frequency bands below 30 GHz in which Article **22** of the Radio Regulations (RR) epfd limits apply.

WRC-2000, under its agenda item 1.13, developed the aggregate epfd limits contained in Resolution **76** **(Rev.WRC‑15)** and the single-entry epfd limits contained in Article **22** of the Radio Regulations (RR), which are currently in force as mandatory conditions for relevant non-GSO systems. Such epfd limits were needed to establish a regulatory mechanism to ensure protection of GSO fixed-satellite service (FSS)/broadcasting-satellite service (BSS) networks from the maximum aggregate interference produced by multiple non-GSO FSS systems in frequency bands where epfd limits had been adopted. Based on the detailed procedures for establishment those limits (see Section 3.1.2 of the CPM Report to the WRC-2000 ([https://www.itu.int/itudoc/itu-r/archives/rsg/1998-00/report99/cpmrep-e.html)](https://www.itu.int/itudoc/itu-r/archives/rsg/1998-00/report99/cpmrep-e.html%29)), it is not appropriate just to compare the masks of single-entry epfd↓ limits with some commonly used protection criteria of GSO FSS/BSS networks, such as Recommendation ITU‑R S.1432 etc. In this respect, the current epfd limits contained in Resolution **76** **(Rev.WRC‑15)** and RR Article **22** are sufficient to adequately protect GSO FSS/BSS networks from all non-GSO FSS systems, which individually need to meet the limits RR Article **22**, especially RR No. **22.2** in principle, while allowing reasonable flexibility for non-GSO FSS systems.

WRC-19 developed a slightly different sharing framework for the Q/V bands, such as RR Nos. **22.5L** and **22.5M** and their associated Resolutions **770 (WRC‑19)** and **769 (WRC‑19)**. However, Section 3.2.4 (“Frequency outside of range 10-30 GHz”) of the CPM Report to WRC‑2000 mentioned that:

***Quote***

*There are fundamental differences between the situation in the 10‑30 GHz FSS bands identified in Resolution****130 (WRC‑97)*** *where a non‑GSO FSS service concept is being overlaid upon an existing and/or imminent GSO FSS service and other bands where both GSO and non‑GSO FSS systems are just now beginning to emerge. In these 10‑30 GHz bands, there is extensive deployment or long‑standing development of GSO systems and GSO operators have limited or no flexibility to adjust to the introduction of non‑GSO systems. In these bands, non‑GSO systems must thus bear most or all of the burden of implementing technical criteria to protect the GSO arc. In bands where there has been little or no deployment of satellite systems to date and satellite networks (GSO and non‑GSO alike) have only recently begun to be communicated to ITU‑R, the absence of current and imminent use by GSO and non‑GSO FSS systems means that both types of operators should expect to exhibit greater flexibility in achieving the appropriate balance among the competing technical, regulatory and policy considerations that will affect their sharing environment.*

***Unquote***

This situation is still the case.

In addition to the above-mentioned points, ITU‑R has recognized some fundamental problems regarding the proper application of the aggregate epfd limits contained in Resolution **76** **(Rev.WRC‑15)** and the single-entry epfd limits contained in RR Article **22** as follows:

- While the mandatory aggregate epfd limits are specified in Resolution **76 (Rev.WRC‑15)**, there is no clear methodology nor procedures outlined in Resolution **76 (Rev.WRC‑15)** for the administrations involved to collaboratively determine whether these aggregate levels are exceeded. This means, at this moment, nobody can officially validate the compliance with Resolution **76 (Rev.WRC‑15)**, whileseveral large-scale non-GSO FSS systems have been already in use. This matter will be discussed under WRC‑23 agenda item 7, Topic J.

- The practice of splitting a non-geostationary satellite system into several filed systems, which may affect the effectiveness of single-entry epfd limits contained in RR Article **22** to protect geostationary systems or have an impact in the implementation of Resolution **76** **(Rev.WRC‑15)**, is questioned. The only reason for misapplication of these single entry epfd limits by artificially splitting or combining non-GSO FSS systems, will be to lower the epfd levels and therefore to get a favourable finding status as a result of the regulatory examination performed by the Radiocommunication Bureau under RR No. **11.31**. This problem has been raised by the Director of the Radiocommunication Bureau in its preliminary draft Report to WRC‑23 as submitted to CPM23-2 (Section 3.1.4 of [Part 1 of Document CPM23‑2/236](https://safe.menlosecurity.com/https%3A/www.itu.int/md/R19-CPM23.2-C-0236/en)).

Therefore, it is totally unreasonable to change the epfd limit itself without solving these potential misapplications of Resolution **76 (Rev.WRC‑15)** as well as RR Article **22** by some notifying administrations of non-GSO FSS systems.

Proposals

 IRN/148A27/1

Considering the above background as well as the importance to retain the current aggregate and single-entry epfd limits which are broadly taken into account as design objectives of huge amount of operational GSO FSS/BSS satellite networks, it is not appropriate to review and update the regulatory provisions relevant to these epfd limits in the portions of the frequency bands 14/11 GHz and 30/20 GHz including RR Appendices **30**, **30A**, and **30B**, therefore this Administration objects any agenda item for future WRCs on this topic.

Moreover, this Administration proposes an item for agenda of WRC‑27 on development of regulatory and technical provisions to obtain explicit consent / agreement from the administration the national territory of which to be included in the service area of any future non-GSO FSS satellite system and the level of radiation of the non-GSO FSS space station in the direction of its national territory.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_