|  |  |
| --- | --- |
| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
|  |  |
|  |  |
| PLENARY MEETING | **Addendum 15 to Document 12-E** |
|  | **21 June 2019** |
|  | **Original: Russian** |
|  | |
| Regional Commonwealth in the field of Communications Common Proposals | |
| proposals for the work of the conference | |
|  | |
| Agenda item 1.15 | |

1.15 to consider identification of frequency bands for use by administrations for the land-mobile and fixed services applications operating in the frequency range 275-450 GHz, in accordance with Resolution **767 (WRC-15)**;

Introduction

Compatibility studies conducted in accordance with Resolution **767 (WRC-15)** showed that in the frequency bands 296-306 GHz, 313-318 GHz and 333-356 GHz compatibility cannot be provided between fixed and land mobile services and EESS (passive), with the result that these frequency bands cannot be identified for active services, whereas the remaining bands in the frequency range 275-450 GHz may be considered for such identification.

The RCC Administrations therefore support adding a new footnote in Article 5 of the Radio Regulations, identifying the following frequency bands for fixed and land mobile services while providing protection to passive services identified under RR No. **5.565**:

– 275-296 GHz;

– 306-313 GHz;

– 318-333 GHz;

– 356-450 GHz.

These frequency bands yield 137 GHz of bandwidth for the fixed and land mobile services, which exceeds their estimated spectrum needs of 50 GHz for each service, with possibility of overlap.

Proposal

To address this agenda item, the RCC Administrations support Method E, as set forth in section 1/1.15/4.5, and the wording of the regulatory text contained in section 1/1.15/5.5 of the CPM Report.

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

MOD RCC/12A15/1

248-3 000 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 275-3 000 (Not allocated) MOD 5.565 ADD 5.E115 | | |

**Reasons:** Addition of a new No. 5.E115, identifying frequency bands for the fixed and land mobile services, and corresponding modification of No. 5.565.

ADD RCC/12A15/2

5.E115 The frequency bands 275-296 GHz, 306-313 GHz, 318-333 GHz and 356‑450 GHz are identified for use by administrations for the implementation of the land mobile and fixed service.

Administrations wishing to make these above-mentioned frequency bands available for land mobile and/or fixed service applications are urged to take all practicable steps to protect passive services operating according to No. **5.565** until the date when the Table of Frequency Allocations is established in the 275-1 000 GHz frequency range. Considering the protection of the Earth exploration-satellite service (passive), the bands 296-306 GHz, 313-318 GHz and 333-356 GHz are not suitable for land mobile and fixed services.

In the frequency bands 275-296 GHz, 306-313 GHz, 318-323 GHz, 327-333 GHz, 356-371 GHz, 388-424 GHz and 426-442 GHz, some specific conditions (e.g. minimum separation distances and/or avoidance angles) may be necessary to ensure protection of radio astronomy sites from land mobile and/or fixed service applications, on a case-by-case basis.     (WRC‑19)

**Reasons:** Studies that evaluated the entire 275-450 GHz range show sharing is feasible between fixed service/land mobile service applications and the EESS (passive)/RAS in the particular bands proposed to be identified in RR No. **5.E115**. For the other frequency bands current studies have shown that sharing between FS/LMS applications and EESS (passive)/RAS applications is not feasible. The amount of spectrum (in total 137 GHz) identified in Method E for use by land mobile and fixed services’ applications overachieve the current spectrum needs of 50 GHz for each service (with possibility of overlap). Method E provides guidance to administrations in which bands land mobile and fixed services should operate.

MOD RCC/12A15/3

5.565 The following frequency bands in the range 275-1 000 GHz are identified for use by administrations for passive service applications:

– radio astronomy service: 275-323 GHz, 327-371 GHz, 388-424 GHz, 426‑442 GHz, 453‑510 GHz, 623-711 GHz, 795-909 GHz and 926-945 GHz;

– Earth exploration-satellite service (passive) and space research service (passive): 275-286 GHz, 296-306 GHz, 313-356 GHz, 361-365 GHz, 369-392 GHz, 397‑399 GHz, 409-411 GHz, 416‑434 GHz, 439-467 GHz, 477-502 GHz, 523‑527 GHz, 538-581 GHz, 611-630 GHz, 634‑654 GHz, 657-692 GHz, 713‑718 GHz, 729-733 GHz, 750-754 GHz, 771-776 GHz, 823‑846 GHz, 850‑854 GHz, 857-862 GHz, 866-882 GHz, 905-928 GHz, 951-956 GHz, 968‑973 GHz and 985-990 GHz.

The use of the frequency range 275-1 000 GHz by the passive services does not preclude use of this range by active services. Administrations wishing to make frequencies in the 275-1 000 GHz range available for active service applications are urged to take all practicable steps to protect the passive services from harmful interference until the date when the Table of Frequency Allocations is established in the above-mentioned 275-1 000 GHz frequency range.

The use of the range 275-450 GHz by land mobile and fixed services is subject to No. **5.E115**.

All frequencies in the range 1 000-3 000 GHz may be used by both active and passive services.    (WRC‑19)

**Reasons:** Consequential to the addition of RR No. 5.E115.

SUP RCC/12A15/4

RESOLUTION 767 (WRC-15)

Studies towards an identification for use by administrations for land-mobile and fixed services applications operating in the frequency range 275-450 GHz

**Reasons:** The Resolution has been implemented.

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