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| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
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|  | CPG(18)073 ANNEX V-16N |
| PLENARY MEETING | **Addendum 2 to Addendum 16 to Document XXXX-E** |
|  | **DATE** |
|  | **Original: English** |
|  | |
| European Common Proposals | |
| Proposals for the work of the conference | |
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| Agenda item 1.16 | |

1.16 to consider issues related to wireless access systems, including radio local area networks (WAS/RLAN), in the frequency bands between 5 150 MHz and 5 925 MHz, and take the appropriate regulatory actions, including additional spectrum allocations to the mobile service, in accordance with Resolution **239 (WRC-15)**;

Introduction

**5 250-5 350 MHz**

EESS (active) is allocated in the 5 250-5 350 MHz band in which number of altimeters and scatterometers sensors are currently operated and planned to operate in the future. This band represents a key spectrum source for Europe’s policy Earth exploration through the GMES/Copernicus Program with Sentinel and EUMETSAT satellites.

In addition, the band 5 250-5 350 is allocated to Radiolocation, where various types of Radars operate across Europe.

In preparation to WRC-19, studies in response to *invite c)* of Resolution 239 have shown that changing the WAS/RLAN operating conditions in 5 250-5 350 MHz as given in Resolution 229 (WRC-12), would not ensure protection of EESS (active) sensors. Results of studies demonstrated that the impact of allowing outdoor WAS/RLAN would cause unacceptable interference to radiodetermination systems without the application of appropriate mitigation technique. DFS was not considered in these studies.

**5 350-5 470 MHz**

Previous ITU-R sharing studies show that sharing between RLAN and the EESS (active) systems in the 5 350-5 470 MHz frequency band would not be feasible unless additional RLAN mitigation measures are implemented. After further study of currently available mitigation measures, study results show that there are no feasible mitigation techniques to facilitate sharing between RLAN and EESS (active) in this band.

In addition, the regulatory provisions in the 5 150-5 350 MHz and 5 470-5 725 MHz frequency ranges contained in Resolution 229 (Rev.WRC-12) are insufficient to ensure protection of certain radar types in the 5 350-5 470 MHz frequency band. After further study of currently available mitigation measures, study results show that there are no feasible mitigation techniques to facilitate sharing between RLAN and the different radar systems in the 5350-5470 MHz frequency band.

**5 850-5 925 MHz**

In the band 5850-5925 MHz, the Mobile Service is co-primary with the Fixed and the Fixed Satellite Service.

In Europe, there is an EC spectrum Decision for non-exclusive ITS use under the existing primary mobile allocation in this band. The current outcome of available studies within Europe, shows that none of the studied mitigation techniques is individually sufficient to protect ITS from WAS/RLAN and needs further investigation. In addition, CEPT is considering the principle of equal access to shared spectrum for Urban Rail systems in a portion of this band, in relation to ITS. The 5 725-5 875 MHz band is also designated as an ISM band in the Radio Regulations so services using this band would be expected to be robust enough to operate in a challenging environment.

CEPT notes that the current studies have shown difficulties in achieving co-existence between RLANs operating outdoor up to 1W with unrestricted use and other incumbent services without imposing any additional constraints on existing services such as FSS (space station receivers) and existing applications under the mobile service such as ITS (including urban rail).

A No Change to the RR is therefore proposed for the bands introduced above.

It is also reasonable to remove Resolution **239 (WRC-15)** since the compatibility studies are completed and the Resolution is not needed any more.

Proposal

ARTICLE 5

Frequency allocations

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

NOC EUR/XXXA16/1

5 250-5 570 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 5 250-5 255 EARTH EXPLORATION-SATELLITE (active)  MOBILE except aeronautical mobile 5.446A 5.447F  RADIOLOCATION  SPACE RESEARCH 5.447D  5.447E 5.448 5.448A | | |
| 5 255-5 350 EARTH EXPLORATION-SATELLITE (active)  MOBILE except aeronautical mobile 5.446A 5.447F  RADIOLOCATION  SPACE RESEARCH (active)  5.447E 5.448 5.448A | | |
| 5 350-5 460 EARTH EXPLORATION-SATELLITE (active) 5.448B  RADIOLOCATION 5.448D  AERONAUTICAL RADIONAVIGATION 5.449  SPACE RESEARCH (active) 5.448C | | |
| 5 460-5 470 EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION 5.448D  RADIONAVIGATION 5.449  SPACE RESEARCH (active)  5.448B | | |

**Reasons:** In the 5 250-5 350 MHz band, CEPT notes that the current studies have shown difficulties in achieving co-existence with incumbent services and therefore supports no change to the RR in this band.  
For the band 5 350-5 470 MHz, only a **NOC** is applicable. With the use of WAS/RLAN mitigation measures limited to the regulatory provisions of Resolution **229 (Rev.WRC-12)**, sharing between WAS/RLAN and EESS (active) and RLS systems in the frequency bands 5 350 to 5 470 MHz are not be feasible. After extensive study of current proposed additional mitigation techniques, results show that there are no feasible mitigation techniques available to facilitate sharing between RLAN and incumbent services in this band.

NOC EUR/XXXA16/2

5 570-6 700 MHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 5 850-5 925  FIXED  FIXED-SATELLITE  (Earth-to-space)  MOBILE | 5 850-5 925  FIXED  FIXED-SATELLITE (Earth-to-space)  MOBILE  Amateur  Radiolocation | 5 850-5 925  FIXED  FIXED-SATELLITE  (Earth-to-space)  MOBILE  Radiolocation |
| 5.150 | 5.150 | 5.150 |

**Reasons:** In the bands 5 850-5 925 MHz, CEPT notes that the current studies have shown difficulties in achieving co-existence between RLANs operating outdoor up to 1W with unrestricted use and other incumbent services without imposing any additional constraints on existing services such as FSS (space station receivers) and existing applications under the mobile service such as ITS (including urban rail). Therefore supports no change to the RR in this band.

NOC EUR/XXXA16A2/3

RESOLUTION 229 (Rev.WRC-12)

Use of the bands 5 150-5 250 MHz, 5 250-5 350 MHz and 5 470-5 725 MHz   
by the mobile service for the implementation of wireless access systems   
including radio local area networks

**Reasons:** In the 5 250-5 350 MHz band, CEPT notes that the current studies have shown difficulties in achieving co-existence with incumbent services and therefore supports no change to the RR in this band.

SUP EUR/XXXXA16/4

RESOLUTION 239 (WRC-15)

Studies concerning Wireless Access Systems including radio local   
area networks in the frequency bands between   
5 150 MHz and 5 925 MHz

**Reasons:** The compatibility studies in these frequency bands have been carried out and lead to negative results in relation to possible change of the existing allocation condition in the frequency bands between 5250 and 5350 MHz.

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