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3<sup>rd</sup> ITU INTER-REGIONAL WORKSHOP ON WRC-19 PREPARATION (Geneva, 4-6 September 2019)

### **Panel Session 4**

WRC-19 Agenda item 1.16

> Hector Marin Mexico







# WRC-19 agenda item 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).

Resolution 239 (WRC-15) calls for studies concerning Wireless Access Systems including radio local area networks in the frequency bands between 5 150 MHz and 5 925 MHz



#### **Frequency ranges**



The frequency bands investigated under this agenda item are denoted by the letters A, B, C, D, and E:

Band A	5 150-5 250 MHz
Band B	5 250-5 350 MHz
Band C	5 350-5 470 MHz
Band D	5 725-5 850 MHz
Band E	5 850-5 925 MHz







#### **Allocation to services**

Region 1		Region 2	Region 3		
5 150-5 250	FIXED-SATELLITE (Earth-to-space) 5.447A MOBILE except aeronautical mobile 5.446A 5.446B AERONAUTICAL RADIONAVIGATION 5.446 5.446C 5.447 5.447B 5.447C				
Method A1	No ch	ange to the RR			
Method A2	enable	on to Resolution <b>229</b> e outdoor RLAN opera ole associated conditio	ations including		
Method A3	enable the sa 5 250-	on to Resolution <b>229</b> e outdoor RLAN opera me conditions of use -5 350 MHz frequency colution <b>229 (Rev.WRC</b>	ations by applying as defined for the band in resolves 4		





- Method A4 Revisions to Resolution **229 (Rev.WRC-12)** to facilitate limited RLAN outdoor operation and RLAN in-vehicle (cars and trains) usage operation with associated e.i.r.p. levels
- Method A5 Revisions to Resolution **229 (Rev.WRC-12)** to enable in-car use of RLAN operation with e.i.r.p. up to 40 mW
- Method A6 Revision to Resolution **229 (Rev.WRC-12)** to enable outdoor RLAN operations including associated conditions for new e.i.r.p. limits and out-of-band emission limits





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-SATELLIT MOBILE except aeronautical mo RADIOLOCATION SPACE RESEARCH (active) 5.447E 5.448 5.448A	. ,				

Method B No change to the RR





Allocation to services						
Region 1	Region 2 Region 3					
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					

Method C No change to the RR



# Frequency range 5 725-5 850 MHz (D)



Allocation to services					
Region 1	Region 2	Region 3			
<b>5 725-5 830</b> FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur	<b>5 725-5 830</b> RADIOLOCATION Amateur				
5.150 5.451 5.453 5.455	5.150 5.453 5.455				
<b>5 830-5 850</b> FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur Amateur-satellite (space-to- Earth)	<b>5 830-5 850</b> RADIOLOCATION Amateur Amateur-satellite (space-to-Ear	rth)			
5.150 5.451 5.453 5.455	5.150 5.453 5.455				
Method D1 No c	hange to the RR				
Method D2 A ne	w Regional primary MS	allocation			
Method D3 Acco	mmodate WAS/RLAN i	n a new footnote			



# Frequency range 5 850-5 925 MHz (E)



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

#### Method E No change to the RR



# **Regional Positions**



Method	APT Frequen	ASMG cy range 5	ATU 150-5 250	CEPT MHz (A)	CITEL	RCC
A1 (NOC)	Some Support	Some Support	Some Support			Support
A2 (+outdoor)	Does not Support	Some Support			Support	Oppose
A3 (+outdoor & limits)	Some Support	Some Support	Some Support			Oppose
A4 (+cars & trains)	Does not Support			Partial Support		Oppose
A5 (+in-car, ≤ 40 mW)	Does not support					Oppose
A6 (+outdoor & OoB limits)	Does not support					Oppose



# **Regional Positions**



Method	APT	ASMG	ATU	CEPT	CITEL	PCC RCC
Frequency	ranges 5 2	50-5 350 N	1Hz (B) and	d 5 350-5 4	70 MHz (C	)
B, C (NOC)	Support	Support	Support	Support	Support	Support
	Frequen	cy range 5	725-5 850	MHz (D)		
D1 (NOC)		Support	Support	Support	Support	Support
D2 (+new Regional primary MS allocation)	Support					Oppose
D3 (new country footnote)						Oppose
Frequency range 5 850-5 925 MHz (E)						
E (NOC)	Support	Support	Support	Support	Support	Support





To take necessary actions, as appropriate, to facilitate global or regional harmonized frequency bands to support railway radiocommunication systems between train and trackside within existing mobile service allocations, in accordance with Resolution 236 (WRC-15).

Resolution **236 (WRC-15)** – Railway radiocommunication systems between train and trackside





To consider possible global or regional harmonized frequency bands, to the maximum extent possible, for the implementation of evolving Intelligent Transport Systems (ITS) under existing mobile-service allocations, in accordance with Resolution **237 (WRC-15)**.

Resolution **237 (WRC-15)** – Intelligent Transport Systems applications





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)**.

Resolution **767 (WRC-15)** – Studies towards an identification for use by administrations for landmobile and fixed services applications operating in the frequency range 275-450 GHz





Res. **764 (WRC-15)** – Consideration of the technical and regulatory impacts of referencing Recommendations ITU R M.1638-1 and ITU R M.1849-1 in Nos. **5.447F** and **5.450A** of the Radio Regulations