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RECOMMENDATION PCC.II/REC. XXX (XLIV-24) GUIDELINES ON THE TECHNICAL AND OPERATIONAL CONDITIONS FOR THE USE OF WAS/RLAN IN THE 5 925-7 125 MHZ FREQUENCY RANGE, OR PORTIONS THEREOF

(Item on the Agenda: 3.2)

(Document submitted by the Rapporteur)

Impact on the sector:

The proposed recommendation included in this document provides relevant information that could be used by CITEL Member States as guidelines on the technical and operational conditions for the use of WAS/RLAN in the 5 925-7 125 MHz frequency range, or portions thereof.

Executive Summary:

The proposed Recommendation was first proposed in 2021, at the 37th meeting of PCC.II and at its 44th meeting it is considered that the text is stable and agreeable as a new PCC.II Recommendation that contains guidelines of broadband RLAN technical and operational conditions in the 5 925-7 125 MHz, or portions thereof, and recommends the use of recognized international standards, while protecting incumbents and recognizing the results of the World Radiocommunications Conference in 2023 (WRC-23).

The Annex to the Recommendation includes guidelines on specific technical parameters that some CITEL Member States have provided and it includes a note to invite other CITEL Member States to provide additional information to complement the Recommendation.

PCC.II/REC. XXX (XLIV-24)

GUIDELINES ON THE TECHNICAL AND OPERATIONAL CONDITIONS FOR THE USE OF WAS/RLAN IN THE 5 925-7 125 MHZ FREQUENCY RANGE, OR PORTIONS THEREOF

The 44th Meeting of the Permanent Consultative Committee II: Radiocommunications,

CONSIDERING:

a) that the use of Wireless Access Systems including Radio Local Area Networks (WAS/RLAN) applications, specifically Wi-Fi technologies, has had great impact in the Region's economies, innovation, and connectivity;

b) that the amount of mobile data traffic to be offloaded to WAS/RLAN and the increased number of WAS/RLAN access points globally has led to a growth in demand for the radio spectrum;

c) that several CITEL Member States have designed, developed, and use WAS/RLAN applications to provide broadband internet access for the end user;

d) that some Member States have allowed or are considering allowing standard power RLAN devices subject to automated frequency coordination techniques, although such techniques are not defined within the Recommendation;

NOTING:

a) that some CITEL Member States have put into place, or are considering, regulations to use the 5 925-7 125 MHz frequency range, or portions thereof, for various license-exempt technologies, including WAS/RLAN applications;

b) that some CITEL Member States have put into place, or are considering, regulations on the certification requirements for license-exempt equipment to be used within the 5 925-7 125 MHz frequency range, or portions thereof;

RECOGNIZING:

a) that with regards to cross-border areas, there is the need to ensure adequate protection measures to the incumbent services when authorizing WAS/RLAN devices in the 5 925-7 125 MHz frequency range, or portions thereof;

b) that Recommendation PCC.II/REC.11(VI-05) proposed technical and operational limits for deployment of WAS/RLANS in the 5 GHz range;

c) that the authorization of WAS/RLANS is a national matter and, as such, operate under certain technical and operational conditions but typically exempt from license;

d) that Recommendation ITU-R M.1450 provides “Characteristics of broadband radio local area networks”;

e) that the frequency band 6 425-7 125 MHz may also be used by International Mobile Telecommunictions (IMT) in accordance with No**. 5. 457F** of the Radio Regulations by some countries in Region 2;

RECOMMENDS:

1. that CITEL Member States wishing to implement WAS/RLANs in the 5 925-7 125 MHz frequency range, or in portions thereof, consider the adoption of recognized international standards for WAS/RLAN devices, as well as the need to consider any necessary measures taking into account *recognizing a)* above;
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2. that CITEL Member States consider establishing rules that limit WAS/RLAN equipment with indoor only restrictions from operating outdoors;

3. that CITEL Member States wishing to implement WAS/RLAN in the 5 925–7 125 frequency range, or in portions thereof, consider the implementation of technical and operational conditions for use of different WAS/RLAN devices to facilitate coexistence and protection of incumbents taking into account the *recognizing*s above. Guidance on such technical and operational conditions, implemented by some CITEL Member States, is provided in the attached Annex.

ANNEX

CCP.II/REC/[XLIV]

Guidelines

WAS/RLAN Technical and Operational Conditions

for the 5 925 – 7 125 MHZ frequency range, or portions thereof

NOTE: CITEL Member States are invited to provide additional guidance on the conditions pertaining to the use of portions of the 5 925 – 7 125 MHZ frequency band.

Table 1-A

	Low Power Indoor (LPI)	
	Client	**Access point**
Type of use	Indoor	Indoor
Maximum e.i.r.p.	24 dBm	30 dBm
Maximum e.i.r.p. power spectral density (PSD)	-1 dBm/MHz	5 dBm/MHz
Maximum root mean square (RMS) e.i.r.p. power spectral density (PSD) for out of band emissions	- 27 dBm/MHz	

Table 1-B*

	Very Low Power (VLP)
Type of use	Indoor/Outdoor
Maximum e.i.r.p.	14 to 17 dBm
Maximum e.i.r.p. power spectral density (PSD)	-5 to 1 dBm/MHz
Maximum root mean square (RMS) e.i.r.p. power spectral density (PSD) for out of band emissions	- 27 dBm/MHz

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* **Note**: The limits provided in Table 1-B are for guidance purposes, and may be updated in subsequent revisions to this Recommendation. In some CITEL Member States, the use of VLP operations and adequate technical and operational conditions to ensure the protection of incumbent services, are still being considered. The definition of the maximum EIRP RMS spectral density limit (PSD) for out-of-band emissions of VLP operations requires further analysis. Some CITEL Member States may consider additional measures to allow the operation of applications such as Intelligent Transportation Systems (ITS).

Table 1-C*

	Standard Power (SP)	
	Client	**Access Point**
Type of Use	Indoor /Outdoor, controlled directly or indirectly by frequency coordination systems	
Maximum e.i.r.p.	30 dBm	36 dBm
Maximum e.i.r.p. power spectral density (PSD)	17 dBm/MHz	23 dBm/MHz
Maximum RMS e.i.r.p. power spectral density (PSD) for out of band emissions	-27 dBm/MHz	

* **Note 1** - The limits in Table 1-C are used by some CITEL Member States in 5 925 – 6 875 MHz and in some others limited to the 5 925 - 6 425 MHz and 6 525 - 6 875 MHz frequency bands to ensure the protection of their incumbent services. These limits are a guidance, applicable where a frequency coordination system, or other necessary measures, have been implemented.

Note 2 - To ensure cross-border compatibility with neighboring countries, some administrations are sharing information on fixed service operations to enable frequency coordination systems or other necessary measures.

Note 3 - CITEL Member States are encouraged to consider additional measures to protect FSS operation in the band.