



**30 MEETING OF PERMANENT
CONSULTATIVE COMMITTEE II:
RADIOCOMMUNICATIONS
November 27 to December 1, 2017
Barranquilla, Colombia**

**OEA/Ser.L/XVII.4.2.30
CCP.II-RADIO-30/doc. 4356-1-12/17
30 November 2017
Original: English**

PRELIMINARY VIEWS FOR WRC -19

AGENDA ITEM 1.12

(Item on the Agenda: 3.1 (SGT-1))

(Document submitted by CITELE Member States)

SGT-1

Coordinator: Luciana CAMARGOS – B – lcamargos@gsma.com

Vice-Coordinator: José COSTA – CAN – jose.costa@ericsson.com

Rapporteur Agenda Item: [name SURNAME] – [ARG] – [email]

Alternate Rapporteur Agenda Item: [Francisco SOARES – B – fsoares@qti.qualcomm.com]

Agenda Item 1.12: 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)

BACKGROUND

Research and development has been ongoing for decades to integrate information and communication technologies into vehicle systems to improve traffic management and assist safe driving. This is expected to be important in resolving road traffic problems such as congestion and accidents.

ITS applications, including ETC (Electronic Toll Collection) and millimetre-wave radars, have already been deployed worldwide. The 3rd Generation Partnership Project (3GPP) is standardizing the radio interface, system architecture and service requirements of “LTE-based V2X Services” for ITS application and new vehicular radiocommunication technologies and ITS broadcast systems are emerging. New connected vehicles will use intelligent technologies in the vehicles’ combined advanced traffic management, advanced traveler information, advanced public transportation management system and/or advanced fleet management systems. Vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communications, called “co-operative ITS,” have been developing to achieve safe drive support systems.

Given the expected exponential growth in ITS deployment and the enormous size and safety impact of the global automotive industry, now is the time for consideration of spectrum harmonization for ITS applications globally and/or regionally.

International standardization activities for ITS info-communication systems have been conducted at the global and regional levels (ITU-R, ISO and ETSI, CEN, ARIB) and in private sector (IEEE, SAE). Several recommendations and reports have been published:

- Recommendation ITU-R M.1890, “Intelligent Transport Systems – Guidelines and Objectives”, 2011
- Recommendation ITU-R M.1453-2, “Intelligent Transport Systems – Dedicated Short Range Communications at 5.8 GHz”, 2005.
- Recommendation ITU-R M.1452-2, “Millimetre wave radiocommunication systems for ITS applications”, 2012.
- Report ITU-R M.2228, “Advanced Intelligent Transport Systems (ITS) radiocommunications”, 2012.
- Recommendation ITU-R M.2084, “Radio interface standards of vehicle-to-vehicle and vehicle-to-infrastructure communications for intelligent transport systems applications”, 2015.
- Report ITU-R M.[ITS USAGE] “Intelligent transport systems usage Report in ITU Member States”, to be published in 2016.]

In the U.S. and Europe, the study of sharing ITS spectrum to be used for V2V and V2I, with Radio Local Area Network (RLAN) (WRC-19 agenda item 1.16), has begun. With the perspective of efficient use of the spectrum, some frequency bands which have been used for ITS applications for many years, or are planned to be used, and are allocated for mobile applications are being actively studied by some administrations and regions with a view to enable sharing with other applications.

ISSUES

- To determine spectrum needs for the evolving ITS applications.
- To identify global or regional harmonized frequency bands, if necessary, for the implementation of evolving ITS applications under existing mobile service allocations.
- To determine a definition for the applications covered under ITS radiocommunication systems.
- To determine potential technical and operational restrictions or mitigation techniques for evolving ITS applications operating in the mobile service to facilitate sharing with systems of incumbent services.
- To assess possible linkage to agenda item 1.16 dealing with frequency bands between 5150-5925 MHz given that some ITS systems operate in the upper part of that frequency range.

PRELIMINARY VIEWS

Canada

Canada is of the view that the agenda item 1.12 is restricted to studying spectrum for intelligent transport systems in spectrum already allocated to the mobile service; therefore, Canada is of the view that this agenda item can be satisfied through ITU-R Recommendations and Reports without the need of changes to the Radio Regulations.
