|  |  |  |
| --- | --- | --- |
|  | **Radiocommunication Study Groups** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
|  |  |
| Source: Document 5A/TEMP/23(Rev.1) | **Annex 8 to Document 5A/114-E** |
| **23 May 2016** |
| **English only** |
| Annex 8 to Working Party 5A Chairman’s Report |
| Elements of DRAFT CPM TEXT FOR WRC-19 Agenda item 1.12 |
|  |

Agenda item 1.12

*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)****;*

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

# 1/1.12/1 Executive summary

*[Text of the executive summary, not more than half a page of text to describe briefly the purpose of the agenda item, summarize the results of the studies carried out and, most importantly, provide a brief description of the method(s) identified that may satisfy the agenda item]*

# 1/1.12/2 Background

*[Text of the background, not more than half a page of text to provide general information in a concise manner, in order to describe the rationale of the agenda items (or issue(s))]*

[Since 1995, research and development activities have been conducted in info-communication systems as core technologies of ITS. ITS, including ETC (Electronic Toll Collection) have been globally deployed. Vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communications called *“co-operative ITS”* have been developing to achieve safe drive support systems.

Due to the widespread use of ITS technologies and the increasing need for safe driving through use of ITS technologies, the spectrum requirement for ITS applications is increasing, particularly since:

– Communicating with moving vehicles is one of the typical use cases for radiocommunications, and a variety of ITS applications, such as ETC (Electronic Toll Collection), greatly depend on functionality of radiocommunication.

– Radiocommunication technology would be essential to the next generation of ITS, especially for safe driving support system and automated driving system, etc.

As it is noted, ITS applications have been deployed worldwide. As core technologies, ITS became important in resolving road traffic problems such as congestion and accidents. However, ITS industries do not always recognize the significance of radio spectrum in the global or regional deployment of ITS applications, since ITS industries are combinations of electronics, communications, civil engineering, automotive and other related industries.

In the U.S.A. and Europe, the study of sharing ITS spectrum to be used for V2V and V2I, with Radio Local Area Network (RLAN), has begun. In this way or manner, from the perspective of efficient use of the spectrum, some frequency bands which have been used for ITS applications for many years or planned to be used allocated for mobile applications, are being actively studied with a view to sharing with other applications in some administrations or regions.]

# 1/1.12/3 Summary and Analysis of the results of ITU-R studies

*[This section should contain a summary of the technical and operational studies performed within ITU-R, including a list of relevant ITU-R Recommendations. Depending on the agenda item, this section could be divided in two parts, one part dealing with the summary of technical and operational studies* *and the other part dealing with the analysis of the results of studies.
The results of the ITU-R studies should also be analysed with respect to the possible methods of satisfying the agenda item, and presented in a concise manner.]*

[International standardization activities for ITS info-communication systems have been conducted by ITU-R and ISO at the global level, by ETSI, CEN, ARIB and others at the regional level, and by IEEE, SAE and other organizations in the private sector. In ITU-R, several recommendations and reports have been published, as follows:

– 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.]

# 1/1.12/4 Methods to satisfy the agenda item

*[This section should contain the brief description of the Method or Methods to satisfy the agenda item as per section 4 of Annex 2 to Resolution ITU-R 2-7]*

# 1/1.12/5 Regulatory and procedural considerations

*[Example(s) of regulatory text relating to the Method(s) to satisfy the agenda item]*