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| Summary: | | |
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| Proposal: | | |
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DRAFT CEPT BRIEF ON AGENDA ITEM 1.11

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

# ISSUE

Resolution 236 (WRC-15)“Railway radiocommunication systems between train and trackside” resolves to invite the 2019 World Radiocommunication Conference based on the results of ITU‑R studies, to take necessary actions, as appropriate, to facilitate global or regional harmonised frequency bands, to the extent possible, for the implementation of railway radiocommunication systems between train and trackside, within existing mobile-service allocations and invites ITU-R:

* to study the spectrum needs, technical and operational characteristics and implementation of railway radiocommunication systems between train and trackside

# Preliminary CEPT position

CEPT is of the view that it is reasonable to harmonize frequency bands at global or regional level for their use by railway radio communication systems between train and trackside within existing mobile service allocations.

CEPT is of the view that a harmonized use of frequency bands by railway transportation systems within existing mobile service allocations does not change the allocation conditions for the mobile service so that no additional constraints will be imposed on services to which these frequency bands are already allocated.

# Background

WRC-15 decided to invite ITU-R to undertake and complete the relevant studies allowing wireless technologies to be more widely implemented in railway transport infrastructure. WRC-15 adopted Resolution 236 (WRC-15), which invites ITU-R to study the spectrum needs, technical and operational characteristic for railway radiocommunication systems between train and trackside (RSTT). Information and radiocommunication technologies in railway radiocommunication systems between train and trackside provide improved railway traffic control, passenger safety and improved security for train operations. Furthermore, international standards and harmonized spectrum would facilitate global or regional deployment of railway radiocommunication systems between trains and trackside, within existing mobile-service allocations.

CEPT is currently discussing two possibilities to satisfy the requirement of global or regional spectrum harmonization for RSTT:

Through ITU-R Recommendations without the need of changes to the Radio Regulation;

Through appropriate modifications to the Radio Regulations (e.g. a WRC Resolution or a WRC Recommendation) without adding additional constraints on incumbent services.

# List of relevant documents

ITU-Documentation (Recommendations, Reports, other)

* DRAFT NEW REPORT ITU-R M.[RAIL.LINK] Introduction to specific railway communication systems in the millimetric wave frequency range (Doc.SG05/29);
* Document 5A/298 (Annex 07) - Work plan for preparation for WRC-19 agenda item 1.11;
* Document 5A/298 (Annex 06) - Working document towards preliminary draft CPM text for WRC-19 agenda item 1.11.
* Document 5A/298 (Annex 16) - Working document towards preliminary draft new Report ITU-R on technical and operational characteristics, implementation and spectrum needs of RSTT

CEPT and/or ECC Documentation (Decisions, Recommendations, Reports)

* [ECC Report 096](http://www.erodocdb.dk/Docs/doc98/official/Word/ECCREP096.DOC): Compatibility between UMTS 900/1800 and systems operating in adjacent bands (ECC PT1).
* [ECC Report 146:](http://www.erodocdb.dk/Docs/doc98/official/Word/ECCREP146.DOC) Compatibility between GSM MCBTS and other services (TRR, RSBN/PRMG, HC-SDMA, GSM-R, DME, MIDS, DECT) operating in the 900 and 1800 MHz frequency bands (SE7 and ECC PT1).
* [ECC Report 162](http://www.erodocdb.dk/Docs/doc98/official/Word/ECCREP162.DOC): Practical mechanism to improve the compatibility between GSM-R and public mobile networks an guidance on practical coordination
* [ECC Report 229](http://www.erodocdb.dk/Docs/doc98/official/Word/ECCREP229.DOCX): Guidance for improving coexistence between GSM-R and MFCN in the 900 MHz band (WGFM).

EU Documentation (Directives, Decisions, Recommendations, other), if applicable

* 2008/57/EC on the interoperability of the rail system in the community;
* 2016/919/EC Commission regulation on technical specifications for interoperability relating to the control-command and signalling sub-systems of rail system in the European Union.

# Actions to be taken

CEPT administrations are encouraged:

to study information upon railway radiocommunication systems on current status of frequency usages, technologies, national regulatory experiences of ITU Members and etc;

to collect relevant technical standards, technical evolving trends and the results of studies from international and regional organisations;

to investigate RSTT systems characteristics (description, architecture, functionality, working scenarios, etc.), and spectrum requirements for railway radiocommunication systems between train and trackside;

to consider the outcome of ITU-R WP 5A correspondence group CG on RSTT, which is to complete its deliverables by 14 April 2016.

to develop a coordinated response by CEPT administration on the Liaison Statement of ITU-R WP5A (see Doc PTD(17)08) to the May 2017 meeting of WP5A;

# Relevant information from outside CEPT (examples of these are below)

## European Union (date of proposal)

* Regional telecommunication organisations

APT (date of proposal)

ATU (date of proposal)

Arab Group (date of proposal)

CITEL (December 2016)

Canada is of the view that the agenda item 1.11 is restricted to examining spectrum for railway radiocommunication systems between train and trackside 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.

RCC (September 2016)

The RCC Administrations consider it reasonable to harmonize frequency bands at global or regional level for their use by railway radiocommunication systems between train and trackside within existing mobile service allocations.

The RCC Administrations in the view that harmonized use of frequency bands by railway transportation systems within existing mobile service allocations shall not impose additional constraints on other services to which these frequency bands are already allocated.

## International organisations

IATA (date of proposal)

ICAO (date of proposal)

IMO (date of proposal)

SFCG (June 2016)

SFCG supports the protection of existing space science service allocations. Since no specific frequency bands have been proposed for study, SFCG does not have a specific concern on this agenda item at this time.

WMO and EUMETNET (date of proposal)

## Regional organisations

ESA (date of proposal)

Eurocontrol (date of proposal)

## OTHER INTERNATIONAL AND REGIONAL ORGANISATIONS

EBU (date of proposal)

GSMA (date of proposal)

CRAF (December 2016)

CRAF supports the protection of existing RAS frequency allocations. No changes should be made to the RR unless acceptable sharing and compatibility criteria are developed to ensure the protection of RAS from future railway radiocommunication systems.