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| **World Radiocommunication Conference (WRC-19) Sharm el-Sheikh, Egypt, 28 October – 22 November 2019** |  |
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| PLENARY MEETING | **Addendum 11 to Document 47-E** |
|  | **7 October 2019** |
|  | **Original: English** |
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| Australia | |
| PROPOSALS for the work of the Conference | |
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| Agenda item 1.11 | |

1.11 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)**;

# 1 Introduction

ITU-R Working Party 5A (WP 5A) has developed two ITU-R Reports and one Recommendation for this agenda item, outlining the technical and operational characteristics, implementation and spectrum needs of railway radiocommunication systems between train and trackside (RSTT). These include:

– Report [ITU-R M.2418-0](https://www.itu.int/pub/R-REP-M.2418) – *Description of railway radiocommunication systems between train and trackside (RSTT) –* a summary of the technical and operational characteristics of RSTT, finalised by Study Group 5 (SG 5) in November 2017;

– Report [ITU-R M.2442-0](https://www.itu.int/pub/R-REP-M.2442) – *Current and future usage of railway radiocommunication systems between train and trackside* – a compendium of RSTT in operation today, along with typical implementation/deployment scenarios. Australia, like many other countries, contributed usage information that informed this report. The report was finalised in November 2018; and

– Working document towards a preliminary draft new Recommendation [ITU-R M.[RSTT\_FRQ]](https://www.itu.int/dms_pub/itu-r/md/15/wp5a/c/R15-WP5A-C-1065!N04!MSW-E.docx) – *Harmonisation of frequencies and related frequency arrangements for railway communications between train and trackside* – intended to provide a listing of recommended global, regional, and sub-regional frequency bands for use by future train & trackside systems involved in supporting train operations (i.e. excluding passenger information and entertainment).

The Conference Preparatory Meeting (CPM) Report to WRC-19 presents three methods to satisfy this agenda Item, including:

– Method A – no change to the Radio Regulations;

– Method B – a new ITU-R Resolution that specifies frequency ranges to guide harmonisation for RSTT, and references the most recent version of Recommendation ITU-R M.[RSTT\_FRQ]; and

– Method C – a new Resolution that does not specify frequency ranges for RSTT, that references Recommendation ITU-R M.[RSTT\_FRQ] to recommend globally/regionally harmonised frequency ranges.

Under all Methods Resolution **236 (WRC-15)** is to be suppressed.

It is evident from the completed Reports that the technical and operational characteristics of railway radiocommunication systems vary widely by country, and that there is a very broad range of frequencies in use today. Throughout this study cycle, there has been no consensus on the bands suitable for either global or regional harmonisation – which has resulted in the Working document towards a preliminary draft new Recommendation ITU-R M.[RSTT\_FRQ] remaining incomplete and not being elevated to SG 5 for approval.

Defining a limited set of frequency ranges or bands for harmonisation in the Radio Regulations will be detrimental to the large number of countries with different legacy arrangements and requirements. It may result in the already small number of manufacturers and vendors of specially-designed railway terminal devices and base-station equipment choosing to no longer support the undefined bands. The cost of devices and equipment for those other bands could also increase significantly, due to manufacturing efficiency considerations.

While Australia supports the harmonisation objective of this agenda item, it is best achieved through the flexibility afforded by the relevant ITU-R Recommendations, and supported by relevant ITU-R Reports. As there has been no consensus within WP 5A on the frequency ranges or bands to be considered for harmonisation, it is not appropriate or necessary to specify ranges or bands in an ITU-R Resolution.

# 2 Proposals

Australia supports Method A, NOC, and thereby proposes no regulatory change for this agenda item, as follows:

NOC AUS/47A11/1#49716

ARTICLES

**Reasons:** No change to Articles within Volume 1 of the Radio Regulations is appropriate or necessary to satisfy this agenda item.

NOC AUS/47A11/2#49717

APPENDICES

**Reasons:** No change to Appendices within Volume 2 of the Radio Regulations is appropriate or necessary to satisfy this agenda item.

SUP AUS/47A11/3#49720

RESOLUTION 236 (WRC-15)

Railway radiocommunication systems between   
train and trackside

**Reasons:** No longer required post WRC-19.

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