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| **World Radiocommunication Conference (WRC-15) Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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| PLENARY MEETING | **Document 114-E** |
|  | **15 October 2015** |
|  | **Original: English** |
|  | |
| Japan/Thailand | |
| Proposals for the work of the conference | |
|  | |
| Agenda item 1.18 | |

1.18 to consider a primary allocation to the radiolocation service for automotive applications in the 77.5-78.0 GHz frequency band in accordance with Resolution **654 (WRC‑12)**;

Resolution **654 (WRC-12)**: Allocation of the band 77.5-78 GHz to the radiolocation service to support automotive short-range high-resolution radar operations

Background

Japan and Thailand support a primary allocation to the radiolocation service (RLS) in the 77.5‑78 GHz frequency band considering compatibility studies with existing services conducted by ITU-R.

In accordance with Resolution 654 (WRC-12), a primary allocation to RLS for automotive applications in the 77.5-78 GHz frequency band will be considered under WRC-15 Agenda item 1.18. In this regard, ITU-R SG5 WP 5A and WP 5B have conducted technical, operational and regulatory studies as responsible groups for WRC-15 Agenda item 1.18 with the help of other concerned groups.

Achieving automotive radar in the 76-81 GHz band through a primary allocation to RLS in the 77.5-78 GHz frequency band makes it possible to reduce the number of traffic accidents.

In addition to automotive applications, this radar can also be expected to use for multiple applications. APT Common Proposals (ACP) allowed to use applications for this radar with technical characteristics in the most recent version of Recommendation ITU-R M.2057 which specified radar characteristics limited to only automotive applications.

Under the current Radio Regulations (RR), frequency bands 76-77.5 GHz and 78-81 GHz are allocated to RLS without any technical conditions. ACP applies technical limitations only to 77.5‑78 GHz frequency band in the frequency band 76-81 GHz. By this technical limitations, some possible applications such as taxiing aircraft and security surveillance will face difficulties to be introduced.

Proposals

Considering the operation of radar using 76-81 GHz band and current spectrum allocations on both adjacent sides of 77.5-78 GHz frequency band, Japan and Thailand support Method B in the CPM Report as a new primary allocation to RLS in the 77.5-78 GHz frequency band.

ARTICLE 5

Frequency allocations

Section IV – Table of Frequency Allocations  
(See No. 2.1)

MOD J/THA/114/1

66-81 GHz

|  |  |  |
| --- | --- | --- |
| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 76-77.5 RADIO ASTRONOMY  RADIOLOCATION  Amateur  Amateur-satellite  Space research (space-to-Earth)  5.149 | | |
| 77.5-78 AMATEUR  AMATEUR-SATELLITE  RADIOLOCATION  Radio astronomy  Space research (space-to-Earth)  5.149 | | |
| 78-79 RADIOLOCATION  Amateur  Amateur-satellite  Radio astronomy  Space research (space-to-Earth)  5.149 5.560 | | |
| 79-81 RADIO ASTRONOMY  RADIOLOCATION  Amateur  Amateur-satellite  Space research (space-to-Earth)  5.149 | | |

**Reasons:** Radars operated in the 77.5-78 GHz band for supporting automotive operations will be beneficial for worldwide industries.

SUP J/THA/114/2

RESOLUTION 654 (WRC‑12)

Allocation of the band 77.5-78 GHz to the radiolocation service to support automotive short-range high-resolution radar operations

**Reasons:** The Resolution is not required for post WRC-15.

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