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| **World Radiocommunication Conference (WRC-15)Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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| PLENARY MEETING | **Addendum 18 toDocument 66-E** |
|  | **15 October 2015** |
|  | **Original: Spanish** |
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| Cuba |
| 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)**;

Introduction

Short-range high-resolution radar systems in vehicles are one of the ways in which information and communications technology is applied to intelligent transport systems. Such applications are intended to improve road safety and may help to reduce traffic accidents and the resulting number of victims. High-resolution applications that directly add to the active and passive safety of a vehicle, which are essential to improving road safety, require a bandwidth of 4 GHz.

The spectrum between 77 GHz and 81 GHz has been identified as the best option for using such radar systems. This requires the frequency band 77.5-78 GHz, which is currently allocated to the amateur and amateur-satellite services on a primary basis and to the radio astronomy and space research (space-to-Earth) services on a secondary basis, to be allocated to the radiolocation service. This frequency band is also subject to the application of No. 5.149, which covers the need to protect the radio astronomy service from harmful interference.

The CPM Report considers the results of sharing studies conducted in ITU-R for sharing the 77.5-78 GHz band, while Report ITU-R SM.2507 concludes that if all possible mitigation factors are applied then sharing between automotive radar operating at around 79 GHz and radio astronomy facilities could be possible. This involves specific factors that need to be analysed case by case and may include the introduction of exclusion zones around radio astronomy facilities.

Based on all the above, and considering that harmonizing the spectrum facilitates economies of scale, the Administration of Cuba is submitting the following proposal to WRC-15.

ARTICLE 5

Frequency allocations

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

MOD CUB/66A18/1

66-81 GHz

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| Allocation to services |
| Region 1 | Region 2 | Region 3 |
| 77.5-78 AMATEUR AMATEUR-SATELLITE RADIOLOCATION ADD 5.A118 Radio astronomy Space research (space-to-Earth) 5.149 |

ADD CUB/66A18/2

5.A118 Use of the frequency band 77.5-78 GHz by the radiolocation service is limited to automotive applications. Emissions from radiolocation stations operating in this frequency band shall not exceed a maximum e.i.r.p. of -3dBm/MHz.

**Reasons:** To provide a contiguous 4 GHz frequency band allocated to the radiolocation service, which is necessary to support high-resolution automotive applications, while taking steps to enable effective sharing with existing services.

SUP CUB/66A18/3

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:** No longer necessary.

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