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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 to Document 130-E** |
|  | **16 October 2015** |
|  | **Original: English** |
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| Angola (Republic of)/Botswana (Republic of)/Lesotho (Kingdom of)/Madagascar (Republic of)/Malawi/Mauritius (Republic of)/Mozambique (Republic of)/Namibia (Republic of)/Democratic Republic of the Congo/Seychelles (Republic of)/South Africa (Republic of)/Swaziland (Kingdom of)/Tanzania (United Republic of)/Zambia (Republic of)/Zimbabwe (Republic of) | |
| Proposals for the work of the conference | |
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| 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

Portions of the frequency band 76-81 GHz are allocated to the RAS, ARS, ARSS and RLS on a primary or secondary basis and to the SRS (space-to-Earth) on a secondary basis. At frequencies above 30 GHz, radio propagation decreases more rapidly with distance than at lower frequencies. This does allow the reuse of frequencies over very short distances and, thereby enables a higher concentration of transmitters to be located in a geographical area than is possible at lower frequencies.

There has been significant growth in the use of automobile radar systems, and these systems are expected to become relatively common within a few years because of consumer demand for increased vehicle safety. Studies have shown that the use of collision avoidance technology can prevent or lessen the severity of a significant number of traffic accidents. In certain parts of the world, automotive radars have been successfully operated in this portion of the spectrum, particularly the 76-78 GHz band.

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The SADC member states support Method A option 1 of the CPM Report, which proposes to add a primary allocation to the RLS on a worldwide basis, limited to automotive applications, between 77.5 GHz and 78 GHz.

**Reasons:** The results of studies indicate that the allocation of the frequency band 77.5-78 GHz to the RLS is not expected to impose severe constraints on the incumbent primary services, particularly the Amateur Radio Service (ARS). In addition, the SADC member states currently do not have any Radio Astronomy Systems working in this frequency bands.

The importance attached to the use of collision avoidance technology on the roads as a means of preventing or lessening the severity of a significant number of traffic accidents was a major factor considered in choosing method A. Option 1 refers to Recommendation ITU-R M.2057 which provides more information on the characteristics of the automotive radar thereby helping in better understanding and more efficient implementation of the system.

ARTICLE 5

Frequency allocations

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

MOD AGL/BOT/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/SWZ/TZA/ZMB/ ZWE/130A18/2

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 AGL/BOT/LSO/MDG/MWI/MAU/MOZ/NMB/COD/SEY/AFS/SWZ/TZA/ZMB/ ZWE/130A18/3

5.A118 The use of the 77.5-78 GHz frequency band by the radiolocation service is limited to the use of short‑range radars with the following technical characteristics:

– maximum e.i.r.p. 33 dBm

– maximum transmit power to antenna 10 dBm

– antenna height above road 0.3 – 1 m.

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