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| A close up of a sign  Description automatically generated | **World Radiocommunication Conference (WRC-23) Dubai, 20 November - 15 December 2023** | |  |
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| PLENARY MEETING | | **Addendum 12 to Document 100-E** | |
|  | | **27 October 2023** | |
|  | | **Original: English** | |
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| Arab States Common Proposals | | | |
| PROPOSALS FOR THE WORK OF THE CONFERENCE | | | |
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| Agenda item 1.12 | | | |

1.12 to conduct, and complete in time for WRC‑23, studies for a possible new secondary allocation to the Earth exploration-satellite service (active) for spaceborne radar sounders within the range of frequencies around 45 MHz, taking into account the protection of incumbent services, including in adjacent bands, in accordance with Resolution **656 (Rev.WRC‑19)**;

Introduction

In accordance with Resolution **656 (Rev.WRC-19)**, ITU‑R is invited to conduct studies on spectrum needs and sharing studies between the Earth exploration-satellite (active) service and the radiolocation, fixed, mobile, broadcasting, amateur and space research services in the 40-50 MHz frequency range and in adjacent frequency bands. WRC‑23 is invited to consider the results of studies on spectrum needs for a possible new secondary allocation to the Earth exploration-satellite (active) service for spaceborne radar sounders within the range of frequencies around 45 MHz, taking into account the protection of incumbent services, and take appropriate action.

There is an interest among climate researchers in remote sensing in the vicinity of 40-50 MHz for remote measurements of the Earth’s subsurface providing radar maps of subsurface scattering layers with the intent of locating water/ice/deposits and examining sub-ice glacial bed surfaces using active spaceborne sensors. The reason for an allocation between 40 MHz and 50 MHz for a spaceborne sounding radar is based upon the following selection criteria: surface penetration, length scale of observation, region of electromagnetic scattering model, and previous work.

Proposals

In the light of the results of ITU‑R studies on this agenda item and analysis which indicate that the current sharing and compatibility studies have not fully demonstrated that the incumbent services could be protected from potential harmful interference from the operation of spaceborne radar sounders in the frequency band 40-50 MHz, the ASMG administrations support Method D which propose no change to the Radio Regulations (RR).

NOC ARB/100A12/1#1812

ARTICLES

**Reasons:** The results of ITU‑R studies do not show sufficient protection of the incumbent services.

NOC ARB/100A12/2#1813

APPENDICES

SUP ARB/100A12/3#1814

RESOLUTION 656 (REV.WRC-19)

Possible secondary allocation to the Earth exploration-satellite service (active) for spaceborne radar sounders in the range of frequencies around 45 MHz

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