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| **World Radiocommunication Conference (WRC-15) Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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| PLENARY MEETING | **Addendum 5 to Document 25(Add.1)-E** |
|  | **10 September 2015** |
|  | **Original: Arabic** |
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| Arab States Common Proposals | |
| Proposals for the work of the conference | |
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| Agenda item 1.1 | |

1.1 to consider additional spectrum allocations to the mobile service on a primary basis and identification of additional frequency bands for International Mobile Telecommunications (IMT) and related regulatory provisions, to facilitate the development of terrestrial mobile broadband applications, in accordance with Resolution **233 (WRC‑12)**;

Introduction

Resolution 233 (WRC-12) called for studies to be conducted on frequency-related matters on IMT and other terrestrial mobile broadband applications, given that mobile telecommunications, including mobile broadband telecommunications, make a positive contribution to the economic and social development of the developed and the developing countries. Many administrations are carefully studying a large range of applications and systems to close the digital gap using, *inter alia*, IMT and other terrestrial mobile broadband applications.

Studies have been conducted on future spectrum needs and potential IMT candidate bands, as well as on other terrestrial mobile broadband applications. Administrations have proposed, pursuant to paragraph 2 of *resolves to invite ITU‑R* of Resolution 233 (WRC‑12), studying the following frequency bands: 470-694/698 MHz, 1 300-1 525 MHz, 1 695-1 710 MHz, 2 025-2 110 MHz, 2 200-2 290 MHz, 2 700-2 900 MHz, 2 900-3 100 MHz, 3 300-3 400 MHz, 3 400-3 600 MHz, 3 600-4 200 MHz, 4 400-4 900 MHz, 4 800-5 000 MHz, 5 350-5 470 MHz, 5 725-5 850 MHz and 5 925-6 425 MHz.

Based on studies concerning sharing and compatibility with services already having allocations in the potential candidate bands and in adjacent bands and taking into account the current and planned use of these bands by the existing services, as well as providing them with the necessary protection, the Arab States administrations propose no modification to the Radio Regulations for the following bands:

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| 1 518-1 525 MHz, | 2 700-2 900 MHz, | 3 800-4 200 MHz, | 4 400-4 500 MHz, | 4 500-4 800 MHz, |
| 4 800-4 990 MHz, | 5 350-5 470 MHz, | 5 725-5 850 MHz, | 5 925-6 425 MHz |  |

Proposals

ARTICLE 5

Frequency allocations

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

NOC ARB/25A1A5/1

1 300-1 525 MHz

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| Allocation to services | | | | |
| Region 1 | Region 2 | | Region 3 | |
| 1 518-1 525  FIXED  MOBILE except aeronautical mobile  MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A  5.341 5.342 | | 1 518-1 525  FIXED  MOBILE 5.343  MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A  5.341 5.344 | | 1 518-1 525  FIXED  MOBILE  MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.351A  5.341 |

**Reasons:** No change concerning the frequency band 1 528-1 525 MHz, as sharing studies on coexistence with FS show that the calculated separation distances for co-channel operation under worst-case assumptions may appear quite large. Accordingly, harmonized usage of all or a portion of this frequency range by the MS for the implementation of IMT may not be feasible, in particular on a worldwide basis.

Furthermore, the band 1 518-1 525 MHz was allocated to the MSS by WRC‑03 and the capacity of MSS systems to share with other services is extremely limited. This is due in part to the comprehensive coverage it provides and high sensitivity to interference in these bands. Consequently, this band should not be identified for terrestrial IMT systems.

NOC ARB/25A1A5/2

2 700-4 800 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 2 700-2 900 AERONAUTICAL RADIONAVIGATION 5.337  Radiolocation  5.423 5.424 | | |

**Reasons:** No change concerning the frequency band 2 700-2 900 MHz, as the said frequency range is widely used for radars. The studies conducted by ITU‑R addressed the relationship between IMT base stations and UE and all relevant types of radar systems described in Recommendation ITU-R M.1464, as well as the interference caused by radar systems to IMT base stations and UE.

Studies show that within the same geographical area co-frequency operation of mobile broadband systems and radars is not feasible. In addition, usage of all or parts of this frequency range by the MS for the implementation of IMT may not be feasible, especially on a worldwide basis.

NOC ARB/25A1A5/3

2 700-4 800 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 3 600-4 200  FIXED  FIXED-SATELLITE (space-to-Earth)  Mobile |  | 3 600-3 700  FIXED  FIXED-SATELLITE (space-to-Earth)  MOBILE except aeronautical mobile  Radiolocation  5.435 |
|  | 3 700-4 200  FIXED  FIXED-SATELLITE (space to-Earth)  MOBILE except aeronautical mobile | |

**Reasons:** No change for the frequency band 3 800-4 200 MHz. In view of the wide satellite coverage in the band 3 800-4 200 MHz, this band has become an important part of the telecommunications infrastructure in many countries, offering a multitude of services, including very small aperture terminal (VSAT) networks, connectivity to Internet providers, point-to-multipoint links, satellite news gathering and TV broadcasting. Accordingly the signatory parties believe that this band is unsuitable for deploying MS stations.

NOC ARB/25A1A5/4

2 700-4 800 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 4 400-4 500FIXED  MOBILE 5.440A | | |

**Reasons:** No change concerning the frequency band 4 400-4 500 MHz, given that for co-channel interference, one sharing study shows that large separation distances are required to protect certain types of AMS stations. Furthermore, sharing studies with FS also indicate the need for separation distances of up to 70 km. It will be difficult to provide compatibility of proposed IMT systems with existing FS stations in the same geographical region where FS networks are widely deployed.

NOC ARB/25A1A5/5

2 700-4 800 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 4 500-4 800 FIXED  FIXED-SATELLITE (space-to-Earth) 5.441  MOBILE 5.440A | | |

**Reasons:** No change concerning the frequency band 4 500-4 800 MHz, given that Appendix 30B of the Radio Regulations contains worldwide plans in the bands 4/6 GHz and 10-11/13 GHz. This appendix and its plan for band 4/6 GHz will be used as support for telecommunications infrastructure. Accordingly, this band is unsuitable for deploying MS stations.

NOC ARB/25A1A5/6

4 800-5 570 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 4 800-4 990 FIXED  MOBILE 5.440A 5.442  Radio astronomy  5.149 5.339 5.443 | | |

**Reasons:** No change concerning the frequency band 4 800-4 990 MHz, given that studies on sharing with FS indicate the need for separation distances of up to 70 km. It will be difficult to ensure compatibility of proposed IMT systems with existing FS stations in the same geographical region where FS networks are widely deployed.

NOC ARB/25A1A5/7

4 800-5 570 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 5 350-5 460 EARTH EXPLORATION-SATELLITE (active) 5.448B  RADIOLOCATION 5.448D  AERONAUTICAL RADIONAVIGATION 5.449  SPACE RESEARCH (active) 5.448C | | |
| 5 460-5 470 EARTH EXPLORATION-SATELLITE (active)  RADIOLOCATION 5.448D  RADIONAVIGATION 5.449  SPACE RESEARCH (active)  5.448B | | |

**Reasons:** No change concerning the frequency band 5 350-5 470 MHz, and this is the only method for this band, because of the following pending issues:

a) Sharing between RLAN and EESS (active) systems in the 5 350-5 470 MHz frequency band would not be feasible. Sharing may only be feasible if additional RLAN mitigation measures are implemented, but no agreement was reached on the applicability of additional RLAN mitigation techniques.

b) The regulatory provisions for the 5 150-5 350 MHz and 5 470‑5 725 MHz frequency bands contained in Resolution 229 (Rev.WRC-12) are insufficient to ensure protection of certain radar types in the 5 350-5 470 MHz frequency band. Some additional RLAN mitigation techniques to enable sharing are being studied by expert groups in ITU-R but no conclusions can be drawn at this time.

NOC ARB/25A1A5/8

5 570-7 250 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 5 725-5 830  FIXED-SATELLITE (Earth-to-space)  RADIOLOCATION  Amateur | 5 725-5 830  RADIOLOCATION  Amateur | |
| 5.150 5.451 5.453 5.455 5.456 | 5.150 5.453 5.455 | |
| 5 830-5 850  FIXED-SATELLITE (Earth-to-space)  RADIOLOCATION  Amateur  Amateur-satellite (space-to-Earth) | 5 830-5 850  RADIOLOCATION  Amateur  Amateur-satellite (space-to-Earth) | |
| 5.150 5.451 5.453 5.455 5.456 | 5.150 5.453 5.455 | |

**Reasons:** No change concerning the frequency band 5 725-5 850 MHz, and this is the only method for this band, because of the failure to reach agreement on the conclusions of the studies submitted.

NOC ARB/25A1A5/9

5 570-7 250 MHz

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| Allocation to services | | |
| Region 1 | Region 2 | Region 3 |
| 5 925-6 700 FIXED 5.457  FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B  MOBILE 5.457C  5.149 5.440 5.458 | | |

**Reasons:** No change concerning the frequency band 5 925-6 425 MHz, given that this band is heavily used for point-to-point FS links and FSS stations. Accordingly, there is no potential for harmonization of the band, either regionally or worldwide, for IMT or other mobile broadband telecommunications.

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