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| **World Radiocommunication Conference (WRC-15) Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
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| PLENARY MEETING | **Addendum 3 to Document 59-E** |
|  | **13 October 2015** |
|  | **Original: English** |
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| Azerbaijani Republic | |
| Proposals for the work of the conference | |
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| Agenda item 9.1(9.1.2) | |

9 to consider and approve the Report of the Director of the Radiocommunication Bureau, in accordance with Article 7 of the Convention:

9.1 on the activities of the Radiocommunication Sector since WRC‑12;

9.1(9.1.2) Resolution **756 (WRC-12)** − Studies on possible reduction of the coordination arc and technical criteria used in application of No. **9.41** in respect of coordination under No. **9.7**

Introduction

With the view of simplifying the coordination process of satellite networks, the Republic of Azerbaijan proposes reviewing the reduction of coordination arc.

Background information

According to the Article 9 of the Radio Regulations and technical terms noted in Appendix 5 (WRC-12), a ±7º coordination arc is required in the frequency bands of Ku *(10.95-11.2 GHz (Region 2), 11.45-11.7 GHz (Region 2), 11.7-12.2 GHz (Region 2), 12.2-12.5 GHz (Region 3), 12.5‑12.75 GHz (Regions 1 and 3), 12.7-12.75 GHz (Region 2) and 13.75-14.5 GHz)* and a ±8° coordination arc is required in the frequency bands of Ka *(17.7-20.2 GHz (Regions 2 and 3), 17.3‑20.2 GHz (Region 1), 27.5-30 GHz) and C (3 400-4 200 MHz, 5 725-5 850 MHz (Region 1) and 5 850-6 725 MHz, 7 025-7 075 MHz)*.

At present, in practice, the real satellites operate in the same frequency and same polarization in the ±3÷4 degree orbital distance without interfering each other. It is possible to come to an agreement in the mentioned orbital distance interval during the meetings with some countries. However, majority of countries base on technical terms stipulated in the Table 5-1 of Appendix 5 of the Radio Regulations, and, therefore, it becomes impossible to come to a general agreement in terms of completion of coordination. Therefore, the Republic of Azerbaijan considers that it would be possible and reasonable to reduce the coordination arc.

Proposals

With the aim to facilitate the coordination works of satellite networks for the developing countries, the Republic of Azerbaijan proposes reducing the coordination arc in the Ku frequency band from ±7° to ±5°, and in the Ka and C frequency bands from ±8° to ±6°, in compliance with the No. 9.7 of the Radio Regulations and under the technical terms mentioned in Table 5-1 of Appendix 5.

Thus, the Republic of Azerbaijan supports the Option 2B, which is indicated on the CPM Report on the agenda item 9.1.2 of the WRC-15 Agenda *(a 2° reduction of the coordination arc in 6/4 GHz, 10/11/12/14 GHz and 30/20 GHz in the items 1, 2, 3 and 7 of Table 5-1 of Appendix 5 of the Radio Regulations, and in other cases, keeping the arc unchanged)*.

Reasons

At present, the works are underway by the Republic of Azerbaijan in seven orbital positions and there are certain difficulties in completion of coordination works on these orbital positions. If the coordination arc, which has been set forth for coordination requirements, is reduced, there will be no need for holding coordination meetings with the countries that do not need coordination and thus simultaneously reducing the loss of time and funds. Reduction of coordination arc can simplify the coordination process which will, in its turn, help the countries developing their satellite industries in obtaining the frequency resources to be used in their orbital positions.

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APPENDIX 5 (REV.WRC‑15)

Identification of administrations with which coordination is to be effected or  
agreement sought under the provisions of Article 9

TABLE 5-1     (Rev.WRC‑15)

Technical conditions for coordination

(see Article 9)

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| --- | --- | --- | --- | --- | --- |
| Reference of Article 9 | Case | Frequency bands (and Region) of the service for which coordination is sought | Threshold/condition | Calculation  method | Remarks |
| No. **9.7** GSO/GSO | A station in a satellite network using the geostationary-satellite orbit (GSO), in any space radiocommunication service, in a frequency band and in a Region where this service is not subject to a Plan, in respect of any other satellite network using that orbit, in any space radiocommunication service in a frequency band and in a Region where this service is not subject to a Plan, with the exception of the coordination between earth stations operating in the opposite direction of transmission | 1) 3 400-4 200 MHz 5 725-5 850 MHz (Region 1) and 5 850-6 725 MHz 7 025-7 075 MHz | i) Bandwidth overlap, and  ii) any network in the fixed-satellite service (FSS) and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±6° of the nominal orbital position of a proposed network in the FSS |  | With respect to the space services listed in the threshold/condition column in the bands in 1), 2), 3), 4), 5), 6), 7) and 8), an administration may request, pursuant to No. **9.41**, to be included in requests for coordination, indicating the networks for which the value of Δ*T*/*T* calculated by the method in § 2.2.1.2 and 3.2 of Appendix **8** exceeds 6%. When the Bureau, on request by an affected administration, studies this information pursuant to No. **9.42**, the calculation method given in § 2.2.1.2 and 3.2 of Appendix **8** shall be used |
| 2) 10.95-11.2 GHz 11.45‑11.7 GHz  11.7-12.2 GHz  (Region 2) 12.2-12.5 GHz  (Region 3) 12.5‑12.75 GHz (Regions 1 and 3) 12.7‑12.75 GHz (Region 2) and  13.75‑14.5 GHz | i) Bandwidth overlap, and  ii) any network in the FSS or broadcasting-satellite service (BSS), not subject to a Plan, and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±5° of the nominal orbital position of a proposed network in the FSS or BSS, not subject to a Plan |

TABLE 5-1 (*continued*)     (Rev.WRC‑15)

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| Reference of Article 9 | Case | Frequency bands (and Region) of the service for which coordination is sought | Threshold/condition | Calculation  method | Remarks |
| No. **9.7** GSO/GSO (*cont.*) |  | 3) 17.7‑20.2 GHz, (Regions 2 and 3),  17.3-20.2 GHz  (Region 1) and 27.5‑30 GHz | i) Bandwidth overlap, and  ii) any network in the FSS and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±6° of the nominal orbital position of a proposed network in the FSS |  |  |
|  |  | 4) 17.3‑17.7 GHz  (Regions 1 and 2) | i) Bandwidth overlap, and  ii) a) any network in the FSS and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±8° of the nominal orbital position of a proposed network in the BSS,  or  b) any network in the BSS and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±8° of the nominal orbital position of a proposed network in the FSS |  |  |

TABLE 5-1 (*continued*)     (Rev.WRC‑15)

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| --- | --- | --- | --- | --- | --- |
| Reference of Article 9 | Case | Frequency bands (and Region) of the service for which coordination is sought | Threshold/condition | Calculation  method | Remarks |
| No. **9.7** GSO/GSO (*cont.*) |  | 5) 17.7‑17.8 GHz | i) Bandwidth overlap, and  ii) a) any network in the FSS and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±8° of the nominal orbital position of a proposed network in the BSS,  or  b) any network in the BSS and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±8° of the nominal orbital position of a proposed network in the FSS  NOTE – No. **5.517** applies in Region 2. |  |  |
|  |  | 6) 18.0-18.3 GHz (Region 2) 18.1-18.4 GHz (Regions 1 and 3) | i) Bandwidth overlap, and  ii) any network in the FSS or meteorological-satellite service and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±8° of the nominal orbital position of a proposed network in the FSS or the meteorological-satellite service |  |  |

TABLE 5-1 (*continued*)     (Rev.WRC‑15)

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| Reference of Article 9 | Case | Frequency bands (and Region) of the service for which coordination is sought | Threshold/condition | Calculation  method | Remarks |
| No. **9.7** GSO/GSO (*cont.*) |  | 6*bis*) 21.4-22 GHz  (Regions 1 and 3)    7) Bands above 17.3 GHz, except those defined in § 3) and 6) | i) Bandwidth overlap; and  ii) any network in the BSS and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±12° of the nominal orbital position of a proposed network in the BSS (see also Resolutions **554 (WRC‑12)** and **553 (WRC‑12)**).  i) Bandwidth overlap, and  ii) any network in the FSS and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±6° of the nominal orbital position of a proposed network in the FSS (see also Resolution **901 (Rev.WRC‑07)**) |  | No. **9.41** does not apply. |
|  |  | 8) Bands above 17.3 GHz except those defined in § 4), 5) and 6*bis*) | i) Bandwidth overlap, and  ii) any network in the FSS or BSS, not subject to a Plan, and any associated space operation functions (see No. **1.23**) with a space station within an orbital arc of ±16° of the nominal orbital position of a proposed network in the FSS or BSS, not subject to a Plan, except in the case of a network in the FSS with respect to a network in the FSS (see also Resolution **901 (Rev.WRC‑07)**) |  |  |

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