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| World Radiocommunication Conference (WRC-15) Geneva, 2–27 November 2015 |  |
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|  | CPG15(15)055 Annex V-10 |
| PLENARY MEETING | Addendum 3  Addendum 2 Document 9-E |
|  | XX June 2015 |
|  | Original: English |
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| european common PROPOSALS FOR THE WORK OF THE CONFERENCE | |
| PART 2 | |
| Agenda item 1.2 | |

1.2 to examine the results of ITU-R studies, in accordance with Resolution **232 (WRC 12)**, on the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service in Region 1 and take the appropriate measures.

WRC-15 Agenda item 1.2 deals with studies conducted under Resolution 232 (WRC-12) about the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service in Region 1. The work carried out at ITU-R in preparation of WRC-15 for that Agenda item (conducted by JTG 4-5-6-7) has been focused on 4 issues:

• Issue A: Option for the refinement of the lower edge (see Add1 to Add2 to 009)

• Issue B: technical and regulatory conditions applicable to the mobile service concerning the compatibility between the mobile service (MS) and the broadcasting service (BS) (see Add2 to Add2 to 009).

• Issue C: Technical and regulatory conditions applicable to MS concerning the compatibility between the MS and the aeronautical radionavigation service (ARNS) for the countries listed in No. **5.312** (see Add3 to Add2 to 009).

• Issue D: Solutions for accommodating the requirements for applications ancillary to broadcasting (see Add1 to Add2 to 009).

Europe recognises that WRC-12 decided that the mobile allocation in the band 694-790 MHz is subject to agreement obtained under No. **9.21** with respect to the aeronautical radionavigation service (ARNS) in the countries listed in No. **5.312**.

SUBPART 3/Addendum 3 to Add.2 to 9

1 Methods supported by Europe

**Issue C**: Technical and regulatory conditions applicable to the mobile service concerning the compatibility between the mobile service and the aeronautical radionavigation service for the countries listed in No. **5.312**

No. **9.21** applies to the mobile service in relation to the aeronautical radionavigation service in the 694-790 MHz frequency band.

Europe proposes to include in a WRC Resolution the criteria for the identification of potentially affected administrations using the aeronautical radionavigation service in countries listed in No. **5.312**.

2 Regulatory provisions supported by Europe

ADD EUR/9A2A3/1

DRAFT RESOLUTION [EUR-AI1.2] (WRC-15)

Provisions relating to the use of the band 694-790 MHz in Region 1 by the mobile, except aeronautical mobile, service and by other services

…

2 that the use of the frequency band 694-790 MHz by the mobile service is subject to agreement obtained under No. **9.21** with respect to the aeronautical radionavigation service in the 694-790 MHz frequency band in countries listed in No. **5.312**, [taking into account noting e) Method C1,] and the criteria for identification of the affected administrations are provided in Annex 1 to this Resolution;

1. Further resolves regarding Issue A and D is subject to Subpart 1.

Annex 1 to Resolution [EUR-AI1.2] (WRC-15)

The criteria for identifying potentially affected administrations in the frequency   
band 694-790 MHz with respect to the aeronautical radionavigation service   
countries listed in No. 5.312

To identify potentially affected administrations when applying the procedure for seeking agreement under No. **9.21** by the mobile service (MS) with respect to the aeronautical radionavigation service (ARNS) operating in countries mentioned in No. **5.312**, the coordination distances (between a base station in MS and a potentially affected ARNS station) indicated below should be used.

When notifying, administrations may indicate in the notice sent to BR the list of administrations with which bilateral agreement has already been reached. BR shall take this into account in determining the administrations with which coordination under No. **9.21** is required.

1. Option 1: implementation of Method C1

Case where the mobile service is operated according to the frequency arrangement where the base stations transmit only in the band 758-788 MHz and receive only in the band  
703-733 MHz

Table X

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Scenario | Propagation type | Required coordination distance – Mixed environment | Required coordination distance – Rural environment | Required coordination distance – Sub-urban environment | Required coordination distance – Urban environment |
| MS base station to ground ARNS station | Land path | 15 km | 15 km | 17 km | 5 km |
| MS base station to ground ARNS station | Mixed: 50% sea/ 50% land path | 20 km | 19 km | 25 km | 7 km |

Case where the mobile base stations transmit within the band 733-758 MHz

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Scenario | Propagation type | Required coordination distance – Mixed environment | Required coordination distance – Rural environment | Required coordination distance – Sub-urban environment | Required coordination distance – Urban environment |
| MS base station to ground RLS 2 (Type 2) station | Land path | 69 km | 45 km | 124 km | 18 km |
| MS base station to ground RLS 2 (Type 2) station | Mixed: 50% sea/ 50% land path | 111 km | 65 km | 167 km | 29 km |
| MS base station to ground RSBN station | Land path | 15 km | 15 km | 17 km | 5 km |
| MS base station to ground RSBN station | Mixed: 50% sea/ 50% land path | 20 km | 19 km | 25 km | 7 km |

Other cases

Table X

|  |  |  |  |
| --- | --- | --- | --- |
| ARNS station | System type code | Coordination distances for the receiving MS base stations (km)3 | Coordination distances for the transmitting MS base stations (km)1 |
| RSBN | AA8 | Rural: <1  Suburban: <1  Urban: N/A1 | Rural: 15/19\*2  Suburban: 17/25\*2  Urban: 5/7\*2  Mixed: 15/20\*2 |
| RLS 2 (type 1) (airborne receiver) | BD | Rural: <1  Suburban: <1  Urban: <1 | Rural: >RH2  Suburban/urban: >RH2 Mixed: >RH2 |
| RLS 2 (type 1) (ground receiver) | BA | Rural: <1  Suburban: <1  Urban: N/A1 | Rural: 31/42\*  Suburban: 70/112\*  Urban: 13/18\*  Mixed: 40/61\* |
| RLS 2 (type 2) (airborne receiver) | BC | Rural: <1  Suburban: <1  Urban: <1 | Rural: 251  Suburban/urban: 403  Mixed: 373 |
| RLS 2 (type 2) (ground receiver) | AA2 | Rural: <1  Suburban: <1  Urban: N/A1 | Rural: 45/65\*  Suburban: 124/167\*  Urban: 18/29\*  Mixed: 69/111\* |
| RLS 1 (types 1 and 2) (ground receiver) | AB | Rural: <1  Suburban: <1  Urban: N/A1 | Rural: 112/163\*  Suburban: 230/274\*  Urban: 53/97\*  Mixed: 171/212\* |
| Other ARNS ground stations | Not applied | Rural: <1  Suburban: <1  Urban: N/A1 | Rural: 112/163\*  Suburban: 230/274\*  Urban: 53/97\*  Mixed: 171/212\* |
| Other ARNS airborne stations | Not applied | Rural: <1  Suburban: <1  Urban: <1 | Rural: >RH2  Suburban/urban: >RH2  Mixed: >RH2 |
| \* 50% ≤ land path ≤ 100% / 0% ≤ land path < 50%.  Note 1: Recommendation ITU-R P.1546 is not applicable for the urban case since both transmitter and receiver antenna heights are below the clutter height  Note 2: RH = radio horizon (The radio horizon for 30 m and 10 000 m antenna heights are 431 km) | | | |

1. Option 2: implementation of Method C4

1 The case of mobile service usage under the frequency allocation Plans when base stations transmit only in the frequency band 758−788 MHz and receive signals only in the frequency band 703−733 MHz

Table X

| ARNS station | System type code | Coordination distances for the receiving MS base stations (km) | Coordination distances for the transmitting MS base stations (km) |
| --- | --- | --- | --- |
| RSBN (ground receiver) | AA8 | - | 70 /125/175\* |
| \* 90% ≤ land path ≤ 100% / 50% ≤ land path < 90%/0% ≤ land path< 50% . | | | |

2 Other cases

| ARNS station | System type code | Coordination distances for the receiving MS base stations (km)\*\* | Coordination distances for the transmitting MS base stations (km) |
| --- | --- | --- | --- |
| RSBN | AA8 | 50 | 125/175\* |
| RLS 2 (type 1) (airborne receiver) | BD | 410 | 432 |
| RLS 2 (type 1) (ground receiver) | BA | 50 | 250/275\* |
| RLS 2 (type 2) (airborne receiver) | BC | 150 | 432 |
| RLS 2 (type 2) (ground receiver) | AA2 | 50/75\* | 300/325\* |
| RLS 1 (types 1 и 2) (ground receiver) | AB | 125/175\* | 400/450\* |
| Other ARNS ground stations | Not applied | 125/175\* | 400/450\* |
| Other ARNS airborne stations | Not applied | 410 | 432 |
| \* 50% ≤ land path ≤ 100% / 0% ≤ land path < 50%.  \*\* Coordination distances for the receiving MS base stations are based on protection of ARNS stations from the stations in the mobile service and do not ensure protection for receiving base stations of MS from ARNS stations. | | | |

**Reasons:** This new Resolution is proposed to specify the technical and regulatory conditions applicable to the mobile, except aeronautical, service allocation as required by resolves 5 of Resolution **232 (WRC-12)**, taking into account the results of ITU-R studies carried out in response to invites ITU-R 1 to 6 of Resolution **232 (WRC-12)**.

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