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| **World Radiocommunication Conference (WRC-15)Geneva, 2–27 November 2015** |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** |  |
|  |  |
| PLENARY MEETING | **Addendum 2 toDocument 103(Add.23)-E** |
|  | **19 October 2015** |
|  | **Original: English** |
|  |
| Japan |
| Proposals for the work of the conference |
|  |
| Agenda item 9.2 |

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

9.2 on any difficulties or inconsistencies encountered in the application of the Radio Regulations; and

Introduction

Proposals relating to conversion of BSS analogue in Regions 1 and 3 to digital

Section 2.2.3 of Addendum 2 to Document 4, Report of the Director on the activities of the Radiocommunication Sector, Part 2: Experience in the application of radio regulatory procedures and other related matters indicates in Table 3 the suppression of Footnote 26 of Annex 1 to AP30.

Section 3.2.6.9 of the same document indicates the improvement of the “worst-case approach” and states as follows.

*the Conference may wish to improve the worst-case approach so that it can accommodate wideband digital assignments.*

*Alternatively, WRC-15 may decide to completely remove the requirement to apply the “worst-case approach” (i.e. the analogue assignments are treated as digital assignments).*

This provides consideration of WRC-15 agenda item 9.2 to review the Appendices 30 and 30A provisions concerning analogue assignments in the Regions 1 and 3 BSS Plan and List. For the protection of BSS analogue assignments in the Regions 1 and 3 Plan and List brought into use before 17 October 1997 (See Table 1), the power flux-density limits described in the Footnote of Annex 1 to Appendix 30 shall be applied. However, the application of those limits expired on 1 January 2015, as mentioned in that footnote. Therefore, it is necessary for WRC-15 to suppress this obsolete footnote. In addition, the BSS analogue assignments in the Regions 1 and 3 Plan and List are proposed to be converted to BSS digital assignments. As the BSS analogue assignments in Table 1 are existing assignments, the co-channel protection ratio should remain the same (i.e. 24 dB), if they are converted to digital. However, the EPM would be changed as the method to calculate interference changes.

TABLE 1

List of existing analogue emissions in Regions 1 and 3

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Prov | Ntf | Plan ID | Notice ID | Satellite Name | Position | Emission |
|  | B | 00DN | 100550070 | HISPASAT-1  | -30 | 27M0F8W-- |
|  | B | 00DN | 100550116 | BS-3M  | 110 | 27M0F8W-- |
|  | B | 00DN | 100550117 | BS-3N  | 109.85 | 27M0F8W-- |
|  | B | 00DN | 100550125 | KOREASAT-1  | 116 | 27M0F8W-- |
|  | B | 00DN | 100550172 | RST-1  | 36 | 27M0F8W-- |
|  | B | 00UP | 100550416 | KOREASAT-1  | 116 | 27M0F8W-- |
|  | B | 00UP | 100550713 | HISPASAT-1  | -30 | 27M0F8W-- |
|  | B | 00UP | 100550758 | BS-3M  | 110 | 27M0F8W-- |
|  | B | 00UP | 100550759 | BS-3N  | 109.85 | 27M0F8W-- |
|  | B | 00UP | 100550806 | RST-1  | 36 | 27M0F8W-- |
| 4.1.12 | B | 00DN | 100551006 | EUTELSAT B-13E  | 13 | 27M0F9W-- |
| 4.1.12 | B | 00DN | 100551006 | EUTELSAT B-13E  | 13 | 33M0F9W-- |
| 4.1.12 | B | 00DN | 100551008 | SIRIUS-W  | -13 | 27M0F9WWW |
| 4.1.12 | B | 00DN | 100551015 | ARABSAT-BSS1  | 26 | 27M0F9WW- |
| 4.1.12 | B | 00DN | 100551015 | ARABSAT-BSS1  | 26 | 33M0F9WW- |
| 4.1.12 | B | 00UP | 100551605 | EUTELSAT B-13E  | 13 | 27M0F9W-- |
| 4.1.12 | B | 00UP | 100551605 | EUTELSAT B-13E  | 13 | 33M0F9W-- |
| 4.1.12 | B | 00UP | 100551606 | HISPASAT 2U3 | -30 | 27M0F8W-- |
| 4.1.12 | B | 00UP | 100551607 | SIRIUS-W  | -13 | 27M0F9WWW |
| 4.1.12 | B | 00UP | 100551608 | EUTELSAT B-36E  | 36 | 27M0F9W-- |
| 4.1.12 | B | 00UP | 100551608 | EUTELSAT B-36E  | 36 | 33M0F9W-- |
| 4.1.12 | B | 00UP | 100551614 | ARABSAT-BSS1  | 26 | 27M0F9WW- |
| 4.1.12 | B | 00UP | 100551614 | ARABSAT-BSS1  | 26 | 33M0F9WW- |
| RS548 | B | 00DN | 100551031 | SIRIUS-2-BSS | 5 | 27M0F8W-- |
| RS548 | B | 00DN | 100551031 | SIRIUS-2-BSS | 5 | 32M0F3F-- |
| RS548 | B | 00DN | 100551032 | SIRIUS-3-BSS | 5.2 | 27M0F8W-- |
| RS548 | B | 00DN | 100551032 | SIRIUS-3-BSS | 5.2 | 32M0F3F-- |
| RS548 | B | 00DN | 100551033 | HISPASAT 2U3 | -30 | 27M0F8W-- |
| RS548 | B | 00DN | 100551035 | BIFROST-BSS-0.8W-NOR | -0.8 | 27M0FXF-- |
| RS548 | B | 00UP | 100551626 | SIRIUS-2-BSS | 5 | 27M0F8W-- |
| RS548 | B | 00UP | 100551626 | SIRIUS-2-BSS | 5 | 32M0F3F-- |
| RS548 | B | 00UP | 100551627 | SIRIUS-3-BSS | 5.2 | 27M0F8W-- |
| RS548 | B | 00UP | 100551627 | SIRIUS-3-BSS | 5.2 | 32M0F3F-- |
| RS548 | B | 00UP | 100551630 | BIFROST-BSS-0.8W-NOR | -0.8 | 27M0FXF-- |
| 5.1.2 | N | 00DN | 90902815 | BS-3 | 110 | 27M0F3W-- |
| 5.1.2 | N | 00DN | 90902815 | BS-3 | 110 | 27M0F9W-- |
| 5.1.2 | N | 00DN | 92500242 | HISPASAT-1  | -30 | 27M0F3F-- |
| 5.1.2 | N | 00DN | 92500242 | HISPASAT-1  | -30 | 27M0F9W-- |
| 5.1.2 | N | 00DN | 93500314 | SIRIUS  | 5.2 | 27M0F8W-- |
| 5.1.2 | N | 00DN | 95500490 | KOREASAT-1  | 116 | 27M0F3F-- |
| 5.1.2 | N | 00DN | 95560001 | HISPASAT-2  | -30 | 27M0F8W-- |
| 5.1.2 | N | 00DN | 96500108 | BS-3N  | 109.85 | 27M0F3W-- |
| 5.1.2 | N | 00DN | 96500108 | BS-3N  | 109.85 | 27M0F9W-- |
| 5.1.2 | N | 00DN | 96500124 | BS-3M  | 110 | 27M0F3W-- |
| 5.1.2 | N | 00DN | 96500124 | BS-3M  | 110 | 27M0F9W-- |
| 5.1.2 | N | 00DN | 96500629 | TELE-X  | 5 | 27M0F8W-- |
| 5.1.2 | N | 00DN | 97500445 | BIFROST-2  | -0.8 | 27M0FXF-- |
| 5.1.2 | N | 00DN | 98560001 | RST-1  | 36 | 27M0F8W-- |
| 5.1.2 | N | 00DN | 98560003 | RST-1  | 36 | 27M0F8W-- |
| 5.1.2 | N | 00DN | 99500258 | BIFROST  | -0.8 | 27M0FXF-- |
| 5.1.2 | N | 00DN | 100500126 | EUTELSAT B-13E  | 13 | 27M0F9W-- |
| 5.1.2 | N | 00DN | 100500126 | EUTELSAT B-13E  | 13 | 33M0F9W-- |
| 5.1.2 | N | 00DN | 100500301 | SIRIUS-W  | -13 | 27M0F9WWW |
| 5.1.2 | N | 00DN | 100560001 | ARABSAT-BSS1  | 26 | 27M0F9WW- |
| 5.1.2 | N | 00DN | 100560001 | ARABSAT-BSS1  | 26 | 33M0F9WW- |
| 5.1.2 | N | 00DN | 100560021 | SIRIUS-2 | 5 | 32M0F3F-- |
| 5.1.2 | N | 00DN | 100560025 | SIRIUS-3  | 5.2 | 32M0F3F-- |
| 5.1.6 | N | 00UP | 92500247 | HISPASAT-1  | -30 | 27M0F3F-- |
| 5.1.6 | N | 00UP | 92500247 | HISPASAT-1  | -30 | 27M0F9W-- |
| 5.1.6 | N | 00UP | 93500319 | SIRIUS  | 5.2 | 27M0F8W-- |
| 5.1.6 | N | 00UP | 95500496 | KOREASAT-1  | 116 | 27M0F3F-- |
| 5.1.6 | N | 00UP | 95560002 | HISPASAT-2  | -30 | 27M0F8W-- |
| 5.1.6 | N | 00UP | 96500116 | BS-3N  | 109.85 | 27M0F3W-- |
| 5.1.6 | N | 00UP | 96500116 | BS-3N  | 109.85 | 27M0F9W-- |
| 5.1.6 | N | 00UP | 96500132 | BS-3M  | 110 | 27M0F3W-- |
| 5.1.6 | N | 00UP | 96500132 | BS-3M  | 110 | 27M0F9W-- |
| 5.1.6 | N | 00UP | 96500630 | TELE-X  | 5 | 27M0F8W-- |
| 5.1.6 | N | 00UP | 97500444 | BIFROST-2  | -0.8 | 27M0FXF-- |
| 5.1.6 | N | 00UP | 98560002 | RST-1  | 36 | 27M0F8W-- |
| 5.1.6 | N | 00UP | 98560004 | RST-1  | 36 | 27M0F8W-- |
| 5.1.6 | N | 00UP | 99500257 | BIFROST  | -0.8 | 27M0F8F-- |
| 5.1.6 | N | 00UP | 100500125 | EUTELSAT B-13E  | 13 | 27M0F9W-- |
| 5.1.6 | N | 00UP | 100500125 | EUTELSAT B-13E  | 13 | 33M0F9W-- |
| 5.1.6 | N | 00UP | 100500127 | EUTELSAT B-36E  | 36 | 27M0F9W-- |
| 5.1.6 | N | 00UP | 100500127 | EUTELSAT B-36E  | 36 | 33M0F9W-- |
| 5.1.6 | N | 00UP | 100500302 | SIRIUS-W  | -13 | 27M0F9WWW |
| 5.1.6 | N | 00UP | 100560002 | ARABSAT-BSS1  | 26 | 27M0F9WW- |
| 5.1.6 | N | 00UP | 100560002 | ARABSAT-BSS1  | 26 | 33M0F9WW- |
| 5.1.6 | N | 00UP | 100560024 | SIRIUS-2 | 5 | 32M0F3F-- |
| 5.1.6 | N | 00UP | 100560028 | SIRIUS-3  | 5.2 | 32M0F3F-- |

Proposals

APPENDIX 30 (REV.WRC‑12)\*

Provisions for all services and associated Plans and List1 for
the broadcasting-satellite service in the frequency bands
11.7-12.2 GHz (in Region 3), 11.7-12.5 GHz (in Region 1)
and 12.2-12.7 GHz (in Region 2)     (WRC‑03)

ANNEX 1     (REV.WRC‑03)

Limits for determining whether a service of an administration is affected
by a proposed modification to the Region 2 Plan or by a proposed
new or modified assignment in the Regions 1 and 3 List
or when it is necessary under this Appendix to seek
the agreement of any other administration25

MOD J/103A23A2/1

# 1 Limits for the interference into frequency assignments in conformity with the Regions 1 and 3 Plan or with the Regions 1 and 3 List or into new or modified assignments in the Regions 1 and 3 List

Under assumed free-space propagation conditions, the power flux-density of a proposed new or modified assignment in the List shall not exceed the value of −103.6 dB(W/(m2 · 27 MHz)).

With respect to § 4.1.1 *a)* or *b)* of Article 4, an administration in Region 1 or 3 is considered by the Bureau as being affected if the minimum orbital spacing between the wanted and interfering space stations, under worst-case station-keeping conditions, is less than 9°.

However, an administration in Region 1 or 3 is considered as not being affected if either of the following two conditions is met:

*a)* under assumed free-space propagation conditions, the power flux-density at any test point within the service area associated with any of its frequency assignments in the Plan or in the List or for which the procedure of Article 4 has been initiated, does not exceed the following values:

**Reasons:** The application of footnote 26 has expired on 1 January 2015.

MOD J/103A23A2/2

 Modify the designation of emission for all analogue (e.g. “27M0F8W”) assignments in the Regions 1 and 3 BSS Plan and List (**AP30/30A**) to digital assignments (e.g. “27M0G7W”).

**Reasons:** The concerned analogue emissions seem to be obsolete and not in use anymore.

ADD J/103A23A2/3

DRAFT NEW RESOLUTION [J-A92-ANALOGUE BSS TO DIGITAL BSS] (WRC-15)

CONVERSION OF ALL ANALOGUE ASSIGNMENTS IN THE APPENDICES 30 AND 30A REGIONS 1 AND 3 PLAN AND LIST INTO DIGITAL ASSIGNMENTS

The World Radiocommunication Conference (Geneva, 2015),

considering

*a)* that this Conference suppressed Footnote 26 to Annex 1 of Appendix **30**. The Footnote expired on 1 January 2015 and contained power flux-density limits to be applied for the protection of analogue assignments brought in service before 17 October 1997;

*b)* that the concerned analogue emissions are obsolete and have been not in use in the broadcasting-satellite service (BSS) and feeder-link for the BSS in the bands subject to Appendix **30** andAppendix **30A**,

recognizing

*a)* that the integrity of the Region 2 Plan and its associated provisions must be preserved;

*b)* that the compatibility between the broadcasting-satellite service (BSS) in Regions 1 and 3 and the other services in all three Regions must be ensured,

resolves

1 that, as from [01.01.2016]:

1.1 all analogue (e.g. “27M0F8W”) Plan assignments included in Article 9A of Appendix **30A** and Article 11 of Appendix **30** and in the Regions 1 and 3 Lists shall be converted to digital assignments (e.g. “27M0G7W”);

1.2 the Bureau shall update the reference situation (EPM) of the Regions 1 and 3 Plan and List and of other Article 4 submissions, which are still at the stage of application of that Article, as contained in the Appendices **30** and **30A** master database of [01.01.2016] without reviewing the past technical examination results;

2 that the Bureau shall continue to apply the current calculation method in regard of analogue assignments in the Region 2 Plan.

**Reasons:** The effective date is needed to convert the analogue emissions to digital and the update of the reference situation (EPM) is necessary.

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