

UPDATES to the

Rules of Procedure

(Edition of 2012)

approved by the Radio Regulations Board

Revision (Circular No.)	Date	Part	AR/AP	RR No. or other reference ¹	Pages to be removed	Pages to be inserted	
1 See CR/339	September 2012	A1	AR5	5.316A ²	5	5 (rev.1)	
				5.327A ³			
				5.397	7-8	7-8 (rev.1)	
				5.399			
				5.410 ²			
				5.444B ³	13-15	13-15 (rev.1)	
				5.446A			
				Receivability	1, 1.1 ³ , 1.2 2 b)	1-3	1-3 (rev.1)
				AR21	21.16, 3	2	2 (rev.1)
		AP18	AP18 ²	1-2	-		
AP30	An. 1, 1 b)	14-16	14-16 (rev.1)				
AP30A	An. 1, 4 b)	13-16	13-15 (rev.1)				
AP30B	6.3 a), 2.3 6.16 Art. 8, 8.17 ³	2-6	2-7 (rev.1)				
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2 See CR/342	November 2012	A1	AR9	9.2	1-2	1-2 (rev.2)	
				9.11A-1	10-11	10-11 (rev.2)	
				9.11A-2	16-17	16-17 (rev.2)	
				9.21 ³ -9.27	19-22	19-22 (rev.2)	
				9.41-9.42 ³	25	25 (rev.2)	
			AR11	11.43A ³	19-23	19-23 (rev.2)	
				11.44 ³			
				11.44B ³			
				11.47 ³			
				11.49 ³			

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3 See CR/346	April 2013	A1	AR9	Council decision 482	1-2	1-1bis (rev.3), 2
			AR11	Appendix 4 (Annex2, A4) ⁴ ,	1-2	1-1bis (rev.3), 1ter, 2
				11.31	6	6 (rev.3)
			Resolution 51	1-2.2.2	1	-
		A6	GE89	4	2	2 (rev.3)
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5 See CR/355	January 2014	A1	AR5	5.132A, 5.145A, 5.161A 5.399	3-4 7-8	3-3bis (rev.5)-4 7 (rev.5)-8
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6 See CR/368	August 2014	A1	Receivability	1.1 2 b)	1 (rev.1) 2 (rev.1)	1 (rev.6) 2 (rev.6)
			AR9	9.2B 9.5B ⁶ 9.47 9.62	1bis (rev.2) 2 (rev.2) 25 (rev.2) 30	1bis (rev.6) 2 (rev.6) 25 (rev.6) 30 (rev.6)-31
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8 See CR/390		A10	GE06	7	1-10	1 (rev.8)-12
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9 See CR/402	May 2016	A1	Effective date of entry into force AR9	8		1 (rev.9)
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10 See CR/412	November 2016	A1	AR1 AR5 Receivability AR9	1.112 ⁹	2	2(rev.10)
				5.316B ⁹	5(rev.1)	5(rev.10)
				5.328AA ⁹	6	6(rev.10)- 6bis(rev.10)
				5.341A ⁹ , 5.346 ⁹	7(rev.5)	7(rev.10)
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10 See CR/412	November 2016	A1	AR11	11.28 ⁹ 11.31 ⁹ 11.32A ⁹ 11.44 ⁹ , 11.44B ⁹ , 11.48 ⁹ , 11.49 and 11.49.1 ⁹ , 11.50 ⁹	4-5 15-16 21(rev.5)- 24(rev.7)	4(rev.10)- 5(rev.10) 15(rev.10)- 16(rev.10) 21(rev.10)- 24bis(rev.10)
			AR13 AR21	21.14 ⁹	1 1bis(rev.5)	1(rev.10) 1bis(rev.10)
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			AP30 AP30A AP30B RES49		17-18 14(rev.1)- 15(rev.1) 6(rev.1)	17(rev.10)- 18(rev.10) 14(rev.10)- 15(rev.10) 6(rev.10) 1(rev.10)*
		A10	GE06		4-5	4(rev.10)- 6(rev.10)
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- ¹ The new Rules or modifications to the existing Rules of Procedure take effect immediately or as otherwise indicated.
- ² Effective date of suppression: 1 January 2013.
- ³ Effective date of application: 1 January 2013.
- ⁴ Effective date of application: 1 July 2013.
- ⁵ Effective date of application: 1 January 2014.
- ⁶ Effective date of application: 1 January 2015.
- ⁷ Effective date of application: 6 February 2016.
- ⁸ Effective date of application: 28 November 2015.
- ⁹ Effective date of application: 1 January 2017.

* To be inserted after PART A1 / RES1 / page 2.

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Rules concerning

ARTICLE 1 of the RR

1.23

1 Number **1.23** states that the functions of the space operation service (space tracking, space telemetry, space telecommand) will normally be provided within the service in which the space station is operating. The question thus arises as to the appropriateness of considering frequency assignment notices with classes of stations performing these functions, to be in conformity with the Table of Frequency Allocations when the Table does not contain an allocation to the space operation service.

2 In the No. **11.31** examinations, notices concerned with space operation functions will be considered in conformity with the Table of Frequency Allocations (favourable Finding) in the case where the assigned frequency (and the assigned frequency band) lies in a frequency band allocated to the:

- space operation service, or
- the main service in which the space station is operating (e.g. fixed-satellite service (FSS), broadcasting-satellite service (BSS), mobile-satellite service (MSS)).

3 In the case where the assigned frequency concerning space operation functions lies in a frequency band allocated to a service in which the space station has no operating function the No. **11.31** Finding will be unfavourable.

1.61

When, in a given location or aboard a satellite, transmitters or receivers are used for different radiocommunication services, this constitutes several stations each corresponding to a separate radiocommunication service. This distinction is essential in space radiocommunications when a unique spacecraft is used for several services. (For the symbols of the different classes of station used in the notice forms for the services in which a station is operating, see Table No. 3 of the Preface to the BR IFIC.)

1.63

Transportable earth station: The Board considers a transportable earth station in the fixed-satellite service (see No. **1.21**) (or in any other space service) to be an earth station to be used only at fixed points. Consequently, its notice form is considered incomplete when it does not contain the geographical coordinates.

1.112

(MOD RRB16/58)

According to this definition, when a satellite system is composed of only one satellite it is at the same time a satellite network and when it is composed of more than one satellite each of its parts containing one satellite is a satellite network. The title of Annex 2 of Appendix 4 (as well as the sub-titles of § A and A1 of this Annex) indicate that the information contained in that Appendix shall be provided for each satellite network. Consequently the advance publication or coordination procedure, as appropriate, is to be applied for each satellite network. According to A.4.b.4 of Appendix 4 one notice can cover more than one satellite in a non-geostationary network if their characteristics are identical.

On the basis of the above the following parts of a space system are considered as satellite networks:

- a) a geostationary-satellite system using one satellite and two or more earth stations;
- b) in the case of a geostationary-satellite system in which the radio link between two earth stations use two or more satellites communicating through intersatellite-links, each satellite with its associated earth stations is considered as a separate network. The intersatellite links connecting these satellites are to be notified for each of the satellites of the system;
- c) a non-geostationary-satellite system composed of more than one satellite having identical characteristics and for which A.4.b.4 of Appendix 4 requires the indication of the number of satellites;
- d) a combined system consisting of one geostationary satellite and a number of non-geostationary satellites.

(See also comments under footnote () and § 4.2 of the Rules of Procedure concerning the Receivability of forms of notice)*

5.316B

(ADD RRB16/58)

1 This provision stipulates, *inter alia*, that in Region 1, the allocation to the mobile, except aeronautical mobile, service in the frequency band 790-862 MHz is subject to agreement obtained under No. **9.21** with respect to the aeronautical radionavigation service in countries mentioned in No. **5.312**.

2 The criteria for identifying potentially affected administrations under No. **9.21** in this band are given in Annex I to Resolution **749 (Rev. WRC-12)** in the form of coordination distances with the most stringent value of a 450 km distance between a base station in the mobile service and a potentially affected station in the aeronautical radionavigation service.

3 Taking into account that No. **5.312** contains only a few countries while a large number of other countries of Region 1 are located at distances that are sufficiently large to exclude a potential for interference to the aeronautical radionavigation service, the Board decided that those administrations whose territories are beyond the distance of 450 km from the countries mentioned in No. **5.312** do not need to apply the No. **9.21** procedure to their mobile service assignments operating under No. **5.316B**.

4 Administrations having territories within a distance of 450 km from the countries mentioned in No. **5.312** are the following: Albania, Armenia, Austria, Azerbaijan, Bosnia and Herzegovina, Belarus, Bulgaria, Czech Rep., Germany, Denmark, Estonia, Finland, Georgia, Greece, Hungary, Croatia, Italy, Iraq, Kazakhstan, Kyrgyzstan, Lithuania, Latvia, Moldova, the Former Yugoslav Rep. of Macedonia, Montenegro, Mongolia, Norway, Poland, Romania, the Russian Federation, Sweden, Serbia, Slovakia, Slovenia, the Syrian Arab Republic, Tajikistan, Turkmenistan, Turkey, Ukraine and Uzbekistan.

5.327A

1 Appendix **4** does not contain data elements which would enable examination as to whether the notified frequency assignment is associated to a system that operates in accordance with recognized international aeronautical standards or to a system that operates under other standards. As the Bureau has no means to make such differentiation, the Board decided that the Bureau shall make no examination of the notified frequency assignment to a station in the aeronautical mobile (R) service (AM(R)S) from the view point of its conformity with this provision. (MOD RRB12/60)

2 With respect to the requirements contained in *resolves* 2 and 3 of Resolution **417 (Rev.WRC-12)**, the Board decided that the Bureau shall make no examination of the notified frequency assignment to a station in the AM(R)S from the view point of its conformity with these provisions since Appendix **4** does not contain data elements which would enable to determine whether the notification is related to a Universal Access Transceiver system or to another system in the AM(R)S. (ADD RRB12/60)

3 With respect to the power limits contained in *resolves* 6 of Resolution **417 (Rev.WRC-12)**, the Board decided that the Bureau shall check the e.i.r.p. limits for the ground based and airborne stations only for the band 960 – 1 164 MHz since frequency assignments to stations in the AM(R)S notified in the band 960 – 1 164 MHz do not contain any information concerning out-of-band emissions in the frequency band 1 164 – 1 215 MHz. (ADD RRB12/60)

5.328AA

(ADD RRB16/58)

1 Appendix 4 does not contain data elements which would enable examination as to whether a notified frequency assignment in the aeronautical mobile-satellite (R) service (AMS(R)S) is associated to the space station reception of Automatic Dependent Surveillance-Broadcast (ADS-B) emissions from aircraft transmitters that operate in accordance with recognized international aeronautical standards or reception of emissions from aircraft transmitters that operates under other standards. As the Bureau has no means to make such differentiation, the Board decided that the Bureau shall make no examination of the notified frequency assignment in the AMS(R)S from the viewpoint of its conformity with this provision.

2 With respect to the requirements contained in *resolves* 1, 2 and 3 of Resolution 425 (WRC-15) and in the absence of relevant data elements in Appendix 4, the Board also decided that the Bureau shall make no examination on the conformity with the above *resolves* of Resolution 425 (WRC-15).

5.329

Assignments to stations of the radionavigation-satellite service if recorded need to indicate that they shall not cause harmful interference to assignments to stations of the radionavigation service of the countries listed in No. 5.331 and to stations of the radiolocation service (Symbol R in Column 13B2 and reference to No. 5.329 in Column 13B1).

5.340

The comments made under the Rules of Procedure concerning No. 4.4 apply.

5.341A

(ADD RRB16/58)

1 This provision stipulates, *inter alia*, that in Region 1 the use of IMT stations in the frequency bands 1 427-1 452 MHz and 1 492-1 518 MHz is subject to agreement obtained under No. 9.21 with respect to the aeronautical mobile service used for aeronautical telemetry in accordance with No. 5.342. Since No. 5.342 applies in the band 1 429-1 535 MHz, the use of IMT stations which operate in the frequency band 1 427-1 429 MHz and do not overlap into the band 1 429 – 1 535 MHz, used by aeronautical telemetry in the aeronautical mobile service, is not subject to the agreement obtained under No. 9.21.

2 Taking into account that No. 5.342 contains only a few countries while a large number of other countries of Region 1 are located at distances that are sufficiently large to exclude a potential for interference to the aeronautical mobile service, the Board decided that those administrations whose territories are beyond the distance of 670 km from the countries mentioned in No. 5.342 do not need to apply the No. 9.21 procedure to their IMT stations operating under No. 5.341A. For those administrations whose territories are closer than the distance of 670 km Section B6 applies.

3 Administrations having territories within a distance of 670 km from the countries mentioned in No. **5.342** are the following: Albania, Armenia, Austria, Azerbaijan, Bosnia and Herzegovina, Belarus, Bulgaria, Czech Rep., Germany, Denmark, Estonia, Finland, Georgia, Greece, Hungary, Croatia, Iraq, Italy, Kazakhstan, Kyrgyzstan, Lithuania, Latvia, Moldova, the former Yugoslav Republic of Macedonia, Montenegro, Mongolia, Norway, Poland, Romania, the Russian Federation, Sweden, Serbia, Slovakia, Slovenia, the Syrian Arab Republic, Tajikistan, Turkmenistan, Turkey, Ukraine and Uzbekistan.

5.346

(ADD RRB16/58)

1 This provision stipulates, *inter alia*, that the implementation of IMT in the frequency band 1 452-1 492 MHz in a number of Region 1 countries, which are listed in this footnote, is subject to agreement obtained under No. **9.21** with respect to the aeronautical mobile service used for aeronautical telemetry in accordance with No. **5.342**.

2 Taking into account that No. **5.342** contains only a few countries while a large number of the countries listed in No. **5.346** are located at the distances that are sufficiently large to exclude a potential for interference to the aeronautical mobile service, the Board decided that those administrations whose territories are beyond the distance of 670 km from the countries mentioned in No. **5.342** do not need to apply the No. **9.21** procedure to their IMT stations operating under No. **5.346**. For those administrations whose territories are closer than the distance of 670 km Section B6 applies.

3 The administration listed in No. **5.346** having territories within a distance of 670 km from the countries mentioned in No. **5.342** is Iraq.

5.351

1 This provision permits, in derogation of the definitions contained in Nos. **1.70**, **1.72**, **1.76** and **1.82**, the use of the bands allocated to a mobile-satellite service by a station at a specified fixed point (without being a coast, land, base or an aeronautical earth station).

2 The exceptional circumstances referred to in this provision cannot be evaluated by the Bureau.

3 The Board therefore concluded that assignments notified under this provision shall receive a favourable regulatory finding.

5.357

The terrestrial uses authorized by this provision appear to be closely related to the operational conditions within a combined aeronautical system using space and terrestrial radiocommunications. The Bureau has no means to verify such uses and considers this provision an additional allocation to the aeronautical mobile (R) service.

5.364

This provision contains two different types of equivalent isotropically radiated power (e.i.r.p.) density limits for transmitting mobile earth stations in the frequency band 1 610-1 626.5 MHz, namely:

- a) peak e.i.r.p. density limit, and
- b) mean e.i.r.p. density limit.

The peak e.i.r.p. density limit is derived from the maximum power density of the assignment as submitted by the responsible administration.

For the second type, it is not clear whether it is spectral mean, or temporal mean, or spatial mean. The Board decided that, on a provisional basis, and until the relevant ITU-R Recommendation is available, the Bureau use a spectral mean e.i.r.p. density when applying this provision. This spectral mean e.i.r.p. will be derived from the mean power density of an assignment, which is obtained from its total power divided by its necessary bandwidth and multiplied by 4 kHz.

5.366

This provision is considered an additional allocation to the aeronautical radionavigation-satellite service. The comments made under No. **5.49** apply. However, when the Special Section is to be published it shall contain an indication that the assignment is for use on a worldwide basis for “airborne electronic aids to air navigation and any directly associated ground-based or satellite-borne facilities”.

5.376

The comments made under the Rules of Procedure concerning No. **5.357** apply.

5.399

The Board instructed the Bureau when recording assignments to stations of the radiodetermination-satellite service operating in the frequency band 2 483.5-2 500 MHz to which this footnote applies to place Symbol R in Column 13B2 and a reference to footnote 5.399 in Column 13B1. (MOD RRB13/64)

5.415

1 In this provision, the allocation “is limited to national and regional systems”. The Board concluded that a national system is a system having a service area limited to the territory of the notifying administration. As a consequence of this, the regional system to which reference is made shall be considered to be an aggregate of two or more national systems; they shall be limited to the territories (which are not necessarily restricted to bordering countries) of the administrations concerned and they shall be notified by one of these administrations on behalf of all the administrations concerned. When the allocation is made to more than one Region, a regional system may cover territories in those Regions for which the allocation exists. The Board reached this conclusion keeping in mind No. **5.2.1**, relating to the interpretation of the word “regional” without a capital “R”.

2 In accordance with this provision, the fixed-satellite service is limited for use by national or regional systems in the band 2 500-2 690 MHz in Region 2 and in the bands 2 500-2 535 MHz and 2 655-2 690 MHz in Region 3. Only those assignments which satisfy the following conditions shall be considered to be in conformity with the Table of Frequency Allocations:

- a) The service area for a regional system is within the Region concerned, i.e. in Region 2 only in the band 2 535-2 655 MHz or in Regions 2 and 3 in the other bands between 2 500 and 2 690 MHz and:
 - i) When an administration submits a coordination request for a service area that covers its national territory and extends beyond it, the responsible administration shall submit at the same time the list of administrations that agreed to form the regional system and the service area shall be formed accordingly. If no agreement is obtained, the service area shall be limited to its national territory;
 - ii) When an administration submits a coordination request for a service area that does not include its national territory but only territories of other administrations, it shall submit at the same time the list of administrations that agreed to form the regional system and the service area shall be formed accordingly. If no agreement is obtained, the relevant assignments shall be considered not to be in compliance with the Table of Frequency Allocations and the finding shall be unfavourable.

- b) In the case of a national system, the service area is limited to the territory under the jurisdiction of the notifying administration.
- c) If the satellite network is operated within the framework of an international system to which other countries pertain, the notice must indicate that the use is limited to the Region(s) concerned.

5.416

- 1) See comments under the Rules of Procedure concerning No. **5.415** about the use limited to national and regional systems.
- 2) In view of the indications in this provision, the Board concluded that the reference to the coordination procedure of No. **9.19** in this provision is a matter for administrations. Consequently, at the stage of examination under No. **11.32**, the Bureau will not make any examination of the notified frequency assignment to a transmitting station of a terrestrial service or to a transmitting earth station in the FSS (Earth-to-space) from the viewpoint of its conformity with No. **9.19**.

5.418C

- 1 In accordance with provision No. **5.418C**, modified by WRC-03, the use of the band 2 630-2 655 MHz by geostationary-satellite networks is subject to the application of the provisions of No. **9.13** with respect to non-GSO satellite systems in the BSS (sound) pursuant to No. **5.418**, as of 3 June 2000. Resolution **33 (Rev.WRC-03)** resolves that for satellite networks for which the API has been received by the Bureau prior to 1 January 1999, only the procedure in Sections A to C in Resolution **33 (Rev.WRC-03)** shall be applied.
- 2 The Board undertook an in-depth examination of the different procedures and provisions that apply to satellite systems in the band 2 630-2 655 MHz and noted the difficulty in linking No. **5.418C** reference to “notification information” of GSO BSS systems to the No. **22.2** application referred to in No. **5.418A**.
- 3 In the above context, and taking into account of WRC-03 discussion and decision, the Board understands that No. **9.13** coordination applies as described in the Table below.

GSO satellite network	Date of receipt of coordination information (No. 9.6)	Date of receipt of notification information (No. 11.2)	No. 9.13 applicability
BSS (No. 5.418)	< 3.6.2000	< 3.6.2000	NO
	< 3.6.2000	≥ 3.6.2000	NO
	≥ 3.6.2000	≥ 3.6.2000	YES

Band 2 630-2 655 MHz

(MOD RRB16/58)

1 Provisions Nos. **5.416**, **5.418**, **5.418A**, **5.418B** and **5.418C** provide information on the different constraints and procedures applying to the broadcasting-satellite service (BSS) and fixed-satellite service (FSS) in the frequency range 2 630-2 655 MHz.

2 The Board undertook an in-depth examination of the different provisions and the applicability of the different coordination procedures (space network-to-space network (Nos. **9.7**, **9.12**, **9.12A** and **9.13**)) that apply to satellite systems in the band 2 630-2 655 MHz and noted the possible difficulty in assessing the service (BSS (sound), BSS (television), FSS) and the nature of the satellite network (GSO or non-GSO) to which Nos. **5.418A**, **5.418B** and **5.418C**, should apply, taking due account of the dates of reception of the complete Appendix 4 coordination or notification information, as appropriate. Indeed, in the band 2 630-2 655 MHz, No. **5.418A** refers to the application of the provisions of No. **9.12A** for non-GSO systems in the BSS (sound) in certain countries listed in No. **5.418**, in respect of GSO systems; without further details on the involved services; No. **5.418B** refers to the application of the provisions of No. **9.12** for non-GSO systems in the BSS under No. **5.418**, in respect of other non-GSO systems; and No. **5.418C** refers to the application of No. **9.13** by GSO networks in respect of non-GSO systems in the BSS (sound), allocated under No. **5.418**.

3 Taking the above into account and in the light of WRC-03 discussions and decisions, in particular the addition of an explicit reference to No. **5.418** in Nos. **5.418B** and **5.418C**, the Board understands Nos. **5.418A**, **5.418B** and **5.418C** to only address cases of coordination as follows: non-GSO BSS (sound) (Nos. **5.418**) systems vis-à-vis any GSO systems under No. **9.12A**, and vis-à-vis any non-GSO systems under No. **9.12**, and vice versa, i.e. any GSO systems vis-à-vis non-GSO BSS (sound) (Nos. **5.418**) systems under No. **9.13**, and any non-GSO systems vis-à-vis non-GSO BSS (sound) (Nos. **5.418**) systems under No. **9.12**, as described in the Table below. This Table applies to coordination requirements between GSO and non-GSO satellite systems for which the API has been received following 1 January 1999 and complete coordination/notification information was received after 2 June 2000 in the band 2 630-2 655 MHz.

Coordination request (CR): Column vis-à-vis Row (↔) (2 630-2 655 MHz)	Non-GSO BSS (sound) ↓ (5.418)	GSO BSS ↓ (5.416 , 5.418) or FSS ↓ (Region 2)	Non-GSO BSS ↓ (5.416) or FSS ↓ (Region 2)
Non-GSO BSS (sound) ↓ (5.418)	9.12 (5.418B)	9.13 (, 5.418C)	9.12 (5.418B)
GSO BSS (sound) ↓ (5.416 , 5.418) or FSS ↓ (Region 2)	9.12A (5.418A)	9.7	No CR 22.2
Non-GSO BSS ↓ (5.416) or FSS ↓ (Region 2)	9.12 (5.418B)	No CR 22.2	No CR

5.441

1 Article **5** defines, in the band 10.7-11.7 GHz, a bidirectional allocation for the fixed-satellite service (FSS) in Region 1. Three provisions (Nos. **5.441**, **5.484** and **5.484A**) further regulate the usage of the bands. The provisions of No. **5.484** apply to the up-link (Earth-to-space) allocation for BSS feeder links. Nos. **5.441** and **5.484A** (covering parts of the band 10.7-11.7 GHz) apply to the down-link. The following problems were noted:

1.1 the Table of Frequency Allocations defines a bidirectional allocation of the whole band 10.7-11.7 GHz for the FSS in Region 1. Number **5.484** defines the up-link allocation for Region 1, while Nos. **5.441** and **5.484A** regulate the down-link use for GSO and non-GSO FSS systems. The sub-bands 10.7-10.95 GHz and 11.2-11.45 GHz, for the space-to-Earth direction, are, for GSO applications, covered by the provisions of Appendix **30B**. The up- and down-link allocations, for GSO use, are of the same category. Non-GSO uses are under equivalent power flux-density limitations defined by Article **22** and are subject to certain conditions as stipulated in No. **5.484A**. The application of No. **22.2** is described in No. **22.5I**;

1.2 the applicable Radio Regulatory Procedures for the FSS are as follows:

a) Earth-to-space (No. **5.484**): 10.7-11.7 GHz (Region 1): Articles **9** and **11** apply;

b) space-to-Earth:

10.7-10.95 GHz and 11.2-11.45 GHz:

- for GSO use: Appendix **30B** (and Article **11**) apply (No. **5.441**);
- for non-GSO: Articles **9**, **11** and **22** apply.

10.95-11.2 GHz and 11.45-11.7 GHz:

- for GSO: Articles **9** and **11** apply;
- for non-GSO: Articles **9**, **11** and **22** apply.

2 The regulatory relationship between GSO FSS uses, namely the up-link (Region 1) and the down-link (Appendix **30B**) utilization of the spectrum is not covered by any Radio Regulatory procedure. The Board thus considered this situation as follows. Based on the general principle that the utilization of the spectrum by two internationally recognized applications (coordinated vs. planned use), with the same status, should be mutually taken into account even if the case is not covered by specific procedures and also on the basis of the existing analogies (Article 7 of Appendix **30**, Article 7 of Appendix **30A**, the Board considering that:

- a) up to now the Bureau has received only one case of the bidirectional use by GSO FSS of the bands 10.7-10.95 GHz and 11.2-11.45 GHz, and
- b) the complexity of the issue does not justify the establishment of a sophisticated methodology to treat this case, and thus decided that the Bureau act as follows:

2.1 Up-link FSS applications in the bands 10.7-10.95 GHz and 11.2-11.45 GHz (Article **9**)

The FSS up-link usage (according to No. **5.484**) should protect the continuing rights of the Appendix **30B** Plan as well as the entries in the Appendix **30B** List, as they evolve. To this effect the FSS up-link networks shall apply the coordination (Article **9**) and notification (Article **11**) procedures not only vis-à-vis other up-link FSS networks of the same direction (Earth-to-space) but also vis-à-vis the Plan and List entries of the opposite direction (space-to-Earth). To take into account the Appendix **30B** Plan within the Article **9** procedure, the Plan shall be considered as a coordinated usage of the spectrum. Administrations responsible for the FSS up-link shall obtain coordination agreements from those other administrations whose systems in the Plan or assignments in the List are likely to be affected. The method and criteria for the identification of the administrations to be coordinated with shall be, similar to the case of Appendix **30A** (where the same bidirectional problem exists between planned feeder links and other FSS), as follows:

- a) Since in the space-to-space interference scenario a receiving space station of the up-link FSS is subject to receive interference from a transmitting space station of the Appendix **30B** FSS Plan, and since currently an agreed method for the assessment of this interference is not available to the Bureau, assignments to receiving space stations operating in the up-link FSS submitted under Articles **9** or **11**, shall provisionally not undergo the examination relating to compatibility with Appendix **30B**. Therefore a note shall be included in the relevant Special Section to reflect the situation and a symbol shall be inserted in the Master Register to indicate that such assignments shall not claim protection from Appendix **30B**.
- b) For the compatibility assessment between earth stations (transmitting ES of the FSS up-links and the receiving ES within the Plan allotment) the method defined in Appendix **7** will be used. The service areas defined in Appendix **30B** will be extended by the coordination distance to form an “agreement area” within which a transmitting earth station of the FSS up-link has to be coordinated. For the calculation of the coordination distance the most up-to-date ITU-R Recommendation will be used.

5.504C

See Rules of Procedure relating to No. **5.504B**.

5.506A

As from 5 July 2003, No. **5.506A** requires ship earth stations in the frequency band 14-14.5 GHz with an e.i.r.p. greater than 21 dBW to operate under the same conditions as earth stations located on board vessels, as provided in Resolution **902 (WRC-03)**. While Annex 2 of that Resolution specifies a minimum antenna diameter of 1.2 m, Appendix **4** does not include antenna diameter of these ship earth stations as a required data element. The Bureau is instructed to use antenna gain value of 42.5 dBi when checking the compliance with the minimum ship earth station antenna diameter requirement (the relation between gain and diameter is derived for the lowest frequency of the band, i.e. $f = 14$ GHz, and antenna efficiency of 57.2%).

5.508A

See Rules of Procedure relating to No. **5.504B**.

5.509A

See Rules of Procedure relating to No. **5.504B**.

**5.509D and
5.509E**

(ADD RRB16/58)

When an administration submits a notification or a request for coordination for a frequency assignment to a space station of a satellite network subject to Resolutions **163 (WRC-15)** or **164 (WRC-15)**, the notice should include a commitment by the administration, as required under § A.16 *c*) of Annex 2 to Appendix **4**, indicating that any earth station associated with the filed satellite network will meet the separation distance as specified in No. **5.509E** and the power flux-density limits as specified in No. **5.509D**.

The Board decided to instruct the Bureau to use the commitment under § A.16 *c*) in its examination under No. **9.35/11.31** of a frequency assignment of a satellite network with respect to its conformity with No. **5.509D** and No. **5.509E**.

However, the Bureau's regulatory examination under No. **11.31** of a frequency assignment to an earth station notified under Article **11** will include checking for conformity with the limits of power-flux density produced by this earth station under No. **5.509D** and the distance indicated in No. **5.509E**.

For the examination under No. **5.509D**, the Bureau shall calculate the power flux-density under free-space propagation condition for all altitudes within line-of-sight up to 19 000 m above sea level at 22 km seaward from all coasts based on the IDWM (ITU's Digitized World Map).

5.510

(MOD RRB16/58)

1 Provision No. **5.510** limits the use of the band 14.5-14.8 GHz by the fixed-satellite service (FSS) (Earth to-space) to feeder-links for the broadcasting-satellite service (BSS) except in the countries and under the technical and operational limitations included in Resolution **163 (WRC-15)** and Resolution **164 (WRC-15)**, and reserves this use for countries outside Europe. It means that such use (feeder-link for the BSS) is authorized in Region 2. This allocation was made at WARC-79 with the view to provide feeder-links to the 12 GHz broadcasting-satellite service for the three Regions. Article 2 of Appendix **30A** indicates that the provisions of this Appendix applies to FSS feeder links in the band 14.5-14.8 GHz in Regions 1 and 3 for the BSS in Regions 1 and 3, but there is no mention of the same application in Region 2. Articles 4 and 7 of Appendix **30A** do not include the regulatory procedures to deal with the possible sharing situation between FSS feeder-link networks for the BSS in Region 2 and the Regions 1 and 3 BSS feeder-link Plan and List (outside Europe) in the 14.5-14.8 GHz band.

2 Taking account of the above context, where the utilisation of spectrum is not covered by specific procedures, and that similar existing procedures should be applicable to services having allocations with equal rights, the Board concluded that:

- a) the use of the band 14.5-14.8 GHz for BSS feeder-links in the FSS (Earth to-space) in Region 2 is in accordance with the Table of Frequency Allocation;
- b) coordination of a BSS feeder-link frequency assignment in the FSS (Earth-to-space) in Region 2 in the band 14.5-14.8 GHz with frequency assignments of the BSS feeder-link subject to a plan shall be effected using the provision of Section I of Article 7 of Appendix **30A**; and,
- c) coordination of a frequency assignment to be included in the Regions 1 and 3 feeder-link list with BSS feeder-link frequency assignments in the FSS (Earth-to-space) in Region 2 in the band 14.5-14.8 GHz shall be effected using Appendix **30A** § 4.1.1d).

5.523A

Provision No. **5.523A** obliges administrations which have communicated their GSO satellite systems in the bands 18.8-19.3 GHz and 28.6-29.1 GHz to the Bureau, prior to 18 November 1995, to “*cooperate to the maximum extent possible* to coordinate pursuant to No. **9.11A** with non-geostationary-satellite networks for which notification information has been received by the Bureau prior to that date, with a view to reaching results acceptable to all the parties concerned”. Since there is no basis on which the Bureau could formulate a regulatory finding in this respect, the Board decided on the following course of action:

Administration(s) responsible for the GSO satellite network, when notifying the assignments to the Bureau, shall include a statement indicating that the obligation “shall cooperate to the maximum extent possible” referred to in this provision has been fulfilled and the Bureau shall publish this information in its BR IFIC accordingly.

The above Rule of Procedure was to be applied by administrations and the Radiocommunication Bureau as of 14 July 1998.

**Rules concerning the Receivability of forms of notice generally
applicable to all notified assignments submitted to
the Radiocommunication Bureau in application
of the Radio Regulatory Procedures*** (MOD RRB16/58)

1 Submission of information in electronic format

1.1 Space services (ADD RRB12/60)

The Board noted the requirement for mandatory electronic filing and submission of comments/objections and requests for inclusion or exclusion specified in the *resolves* of Resolutions **55 (Rev.WRC-15)**. It also noted that capture and validation software had been made available to administrations by the Bureau, including software to submit information required in Annex 2 of Resolution **552 (WRC-15)**. Accordingly, all information indicated in the *resolves* of Resolution **55 (Rev.WRC-15)**¹ and in Annex 2 of Resolution **552 (WRC-15)** and in the Attachment to Resolution **553 (Rev.WRC-15)** under § 8 and § 9, shall be submitted to the Bureau in electronic format (except graphical data which can still be submitted in paper form) which is compatible with the BR electronic notice form capture software (SpaceCap) and comments/objections software (SpaceCom). (MOD RRB16/58)

(ADD RRB12/60)

1.2 Terrestrial services

Submission of frequency assignment/allotment notices for terrestrial services in the context of Articles **9, 11, 12** and Appendix **25** of the Radio Regulations and various regional agreements shall be made exclusively via the ITU web interface *WISFAT* (**W**eb **I**nterface for **S**ubmission of **F**requency **A**ssignments/allotments) available at <http://www.itu.int/ITU-R/go/wisfat/en>.

* **Note:** WRC-15 took the decision related to the RoP on the Receivability of forms of notice during the 8th Plenary, Par. 1.39 to 1.42 of Doc. CMR15/505, with the approval of Doc. CMR15/416 in relation to Section 3.2.2.4.1 of Doc. 4 (Add2) (Rev1), as follows:

“For the submission of a request for coordination under No. 9.30 related to a non-GSO satellite network or system, the notice will be receivable only in the cases described below:

- i) satellite systems with one (or more than one) set(s) of orbital characteristics and inclination value(s) with all frequency assignments to be operated simultaneously; and,*
- ii) satellite systems with more than one set of orbital characteristics and inclination values with, however, a clear indication that the different sub-sets of orbital characteristics would be mutually exclusive; in other terms, frequency assignments to the satellite system would be operated on one of the sub-sets of orbital parameters to be determined at the notification and recording stage of the satellite system at the latest.”* (ADD RRB16/58)

¹ Except comments submitted in accordance with §§4.1.7, 4.1.9, 4.1.10 of Article 4 of Appendix **30** and **30A** and Article 2A of Appendix **30** and **30A** in Region 1 and Region 3.

2 Receipt of notices (MOD RRB12/60)

It is incumbent on all administrations to meet deadlines established in the Radio Regulations and, accordingly, to take account of possible mail delays, holidays or periods during which ITU may be closed².

Having regard to the various means available for transmission and delivery of notices and other related correspondence, the Board has decided that:

- a) Mail received through the postal service³ shall be recorded as received on the first working day on which it is delivered to the ITU/BR's offices in Geneva. Where the mail is subject to a regulatory time limit that occurs on a date on which the ITU is closed, the mail should be accepted if it has been recorded as received on the first working day following the period of closure.
- b) E-mail, telefax documents or WISFAT submissions shall be recorded as received on the actual date of receipt, irrespective of whether or not that is a working day at the ITU/BR's offices in Geneva. (MOD RRB16/58)
- c) In the case of e-mails (except those to which electronic forms created using SpaceCom are attached), an administration is required to send, within 7 days of the date of the e-mail, a confirmation by either telefax or mail, which shall be regarded as being received on the same date as the original e-mail.
- d) All mail must be sent to the following address:

Radiocommunication Bureau
International Telecommunication Union
Place des Nations
CH-1211 Geneva 20
Switzerland

- e) All telefaxes must be sent to:

+41 22 730 57 85 (several lines)
- f) All e-mails must be sent to:

brmail@itu.int
- g) Information received in the ITU/BR by e-mail shall be acknowledged immediately by e-mail by the ITU/BR.

² The Radiocommunication Bureau shall inform administrations by circular letter at the beginning of each year, and as appropriate, about holidays or periods in which ITU may be closed in order to assist them in meeting their obligations.

³ Includes courier, messenger or other services.

3 Establishment of a formal date of receipt of information in accordance with Annex 2 to Appendix 4

3.1 According to provisions Nos. **11.28**⁴ and **11.29**, complete notices are examined by date order of their receipt and the Bureau cannot act upon a notice having a technical bearing on an earlier notice until the earlier notice has been dealt with. While similar provisions do not exist in all the regulatory procedures defined in the Radio Regulations, nevertheless, several other provisions tacitly require the same general concept. The Board decided that the principle of treatment by date order of receipt of any submission is to be applied in each of the procedures described in Articles **9** and **11**, Appendices **30**, **30A** and **30B** and Resolutions containing specific procedures. When more than one submission is received on the same date, all those submissions shall be mutually taken into account.

3.2 In order to establish a formal date of receipt for the purpose of treatment of the submissions (notices for advance publication under Sub-Section IA of Article **9**, request for coordination, modification to the Region 2 Plan or proposed new or modified assignments in the Regions 1 and 3 Lists under Article 4 of Appendices **30** or **30A**, proposed new or modified assignments in the guardbands to provide space operation functions under Article 2A of Appendices **30** or **30A**, or request for application of Articles 6 or 7 of Appendix **30B**, and notifications for recording in the Master International Frequency Register (Master Register)), the Bureau shall examine *inter alia* the completeness and correctness of the information submitted by administrations. It shall also take account of the requirements of No. **9.1** when establishing the formal date of receipt of notification information with respect to the date of publication (when coordination is not required by Section II of Article **9**) of advance information. (MOD RRB16/58)

3.3 Considering the requirement for mandatory electronic filing and availability to administrations of capture and validation software, where a notice received by the Bureau does not contain all of the mandatory information as defined in Annex 2 of Appendix **4** or appropriate reason for any omissions, the Bureau shall regard the notice as incomplete. The Bureau shall immediately inform the administration and seek the information not provided. Further processing of the notice by the Bureau will remain in abeyance and a formal date of receipt (see § 3.1 above) will not be established until the missing information is received. The formal date of receipt will be the date of receipt of the missing information (see also § 3.6 to 3.10 below).

⁴ The Board notes that there is an inconsistency between the English (and Spanish) and French texts of provision No. **11.28**. While the English (and Spanish) texts stipulate that “it shall be examined in the date order of their receipt”, the French text stipulates that “... il les examinera dans l'ordre ou il les reçoit”. There is no mention of “date” in the French text. The current practice of processing in the date order of their receipt will continue until the matter is considered by the next WRC.

3.4 The latest version of the validation software available to administrations, as advised by Circular Letter, is used by the Bureau when assessing the completeness of Appendix 4 Forms of Notice. Administrations are encouraged to run the validation software themselves in order to overcome any difficulties in the notices before they are submitted to the Bureau.

3.5 After processing the Appendix 4 Form of Notice as set out in § 3.3, if the Bureau finds that further clarification is required concerning the correctness of the mandatory data submitted, it shall request the administration responsible for the station or network to provide the clarification within 30 days, otherwise it shall establish the formal date of receipt as that recorded in accordance with § 2 and § 3.2 above.

3.6 If the information or clarification is provided within that period of 30 days (counted from the date of the dispatch of Bureau's message), the date of receipt established by the Bureau in accordance with § 2 and § 3.2 above will be considered as the formal date of receipt for the purpose of any subsequent processing of the notice.

3.7 Nevertheless, for replies received within the above period of 30 days, a new formal date of receipt is established in those cases (or for the concerned part of the station or network) where the information submitted subsequently is outside the scope and beyond the objective of the Bureau's enquiry pursuant to § 3.5 above, if the new or modified data has impact on the regulatory and technical examination, irrespective of whether the newly provided information adds new affected administrations or not. See also the Rules of Procedure relating to provision No. **9.27**.

3.8 If the information or clarification is not provided within the above period of 30 days, the submission shall be considered incomplete and the Bureau will establish no formal date of receipt. A new formal date of receipt will be established when the complete information is received.

3.9 One year after the Bureau sought information under § 3.3 or 3.5, as appropriate, unless otherwise specified in the relevant procedure, any pending submissions containing incomplete information shall be returned to the notifying administration.

3.10 In case of the request for deletion of an assignment, a group of assignments, an emission, beams or other characteristics of a satellite network or satellite system, two situations may arise:

- a) The satellite network or satellite system in question has not yet been examined and published by the Bureau. In that case, the initial formal date of receipt will be maintained for the remaining part of the satellite network or system, if any.
- b) The satellite network or satellite system in question has already been examined and published by the Bureau. In that case, the request for deletion shall be published in a modification to the previously published relevant Special Section and the technical bearing of the deletion will be examined by the Bureau in the date order of receipt of the request.

4 Other non-receivable submissions

There are, in addition to the above case of incomplete notice, other circumstances when a notice is not receivable. These cases are described in the following non-exhaustive paragraphs.

4.1 A notification received by the Bureau earlier than the date limits prescribed in provisions No. **11.25** (date limits relate to the date of bringing into use of a station in a space service) is not receivable and shall be returned to the administration responsible for the network. (MOD RRB16/58)

4.2 One coordination request of satellite network and possible subsequent modifications can only correspond to one API, including its possible modifications and vice-versa. In accordance with the Rule of Procedure concerning the definition of a satellite network contained in No. **1.112**, this coordination request would thus have only one set of orbital characteristics, i.e. those specified in Section A4 of Appendix **4**. A modification to a coordination request making reference to the same API will only be receivable if the set of orbital characteristics included in that submission are unchanged relative to those in the earlier coordination request submission or are intended to replace that earlier set of orbital characteristics. In all other cases a new coordination request is required as the submission then pertains to a new satellite network (No. **9.2C** refers). (In case of non-GSO satellite system with more than one satellite, see also comments under footnote (*) of the Rules of Procedure concerning the Receivability of forms of notice). (MOD RRB16/58)

4.3 The Radio Regulations prescribe, in some cases, the application of multiple procedures, which have to be applied, for the same stations or satellite network, one after another. In such cases, a notice for a particular procedure is receivable only if the previously applicable procedure has been effected. (MOD RRB16/58)

4.3.1 A notification under Article **11** is not receivable if the coordination request, where applicable, was not received for the satellite network (No. **9.6** refers) and shall be returned to the notifying administration.

4.3.2 A notification under Article **11** is not receivable if the advance publication information under Sub-Section IA of Article **9**, where applicable, was not received for the satellite network and shall be returned to the notifying administration.

4.3.3 A notification of frequency assignments of an earth station under Article **11** is not receivable if the advance publication information or coordination request, as appropriate, was not received for the associated space station. If the frequency assignments notified under Article **11** for the associated space station are not received nor recorded in the MIFR within the regulatory time-limit, the frequency assignments notified for the earth station shall be suppressed from the MIFR.

4.4 A notification, received under Article 8 of Appendix **30B** and Article **11** relating to a satellite network/system for which the regulatory time limit (8 or 7 years, as appropriate) has expired, is not receivable and shall be returned to the notifying administration. (MOD RRB16/58)

5 Whenever the Bureau returns a form of notice, the necessary justification for such an action shall be provided to the notifying administration.

Rules concerning

ARTICLE 9 of the RR¹

(ADD RRB13/62)

Rules concerning the late payment of cost recovery fees and cancellation of satellite network filings due to non-payment of cost recovery fees in accordance with Council Decision 482

1 The provisions of Nos. 9.2B.1 and 9.38.1 of Article 9, A.11.6 of Article 11, footnotes 7 to § 4.1.5, 8 to § 4.1.15, 16 to § 4.2.8, 17 to § 4.2.19, 18 to the title of Article 5, of Appendix 30, footnotes 9 to § 4.1.5, 10 to § 4.1.15, 19 to § 4.2.8, 20 to § 4.2.19, 22 to the title of Article 5, of Appendix 30A and footnote 1 to the title of Article 6, footnote 11 to the title of Article 8 of Appendix 30B, stipulate that if the payments for a notice submitted in accordance with the above provisions are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite networks filings, the Bureau shall cancel the publication after informing the administration concerned.

2 Council Decision 482 stipulates that payment of charges shall be made within a period of a maximum of six months after issue of the invoice, on the basis of an invoice issued upon receipt of the filing by the Bureau and sent to the notifying administration.

3 Due to administrative delay related mainly to the confirmation of payment by financial institutions and internal validation between the Bureau and the Financial Resources Management Department of the General Secretariat, the decision by the Bureau on a late or non-payment of a satellite network notice is normally submitted for consideration and confirmation at the BR IFIC meeting which normally takes place no more than six weeks after the six-month deadline for cost-recovery fees of the considered notices.

4 In view of the above, the Board decided that satellite networks filings for which the payment has been received after the six-month deadline but prior to the BR IFIC meeting where the late payment is considered, shall continue to be taken into account.

5 Any satellite network filing for which a payment is received after the BR IFIC meeting where a decision to cancel that filing for non-payment has been taken, shall no longer be taken into account, and the information would be reported to a meeting of the Radio Regulations Board.

¹ This Rule of Procedure refers to Article 9, 11, to Articles 4 and 5 of Appendices 30 and 30A, and to Articles 6 and 8 of Appendix 30B of the Radio Regulations. (ADD RRB13/62)

Advance publication (Article 9, Section I) (MOD RRB16/58)

9.3

See comments relating to the exclusion of the territory made under the Rules of Procedure concerning No. **9.50**.

9.5

This provision concerns the publication of administrations' comments after the publication by the Bureau of advance publication information of a satellite network or a satellite system that are not subject to the coordination procedures of Section II of Article **9**. The Bureau, using the information received from administrations, will publish a summary of the comments received under No. **9.3** together with the report submitted by the administration responsible for the network under No. **9.4**, if any, in a manner that correctly reflects the situation.

When the administration responsible for the network or any other administration having submitted comments finds the published summary unsatisfactory, the Bureau will publish that administration's comments in extenso.

Coordination of frequency assignments (Article 9, Section II)

9.6

1 Based on an analysis of Articles **9** and **11** and Appendix **5**, the Board agreed that as far as coordination requests, submitted to the Bureau under Nos. **9.30** or **9.32** (space network coordination cases), are concerned:

- a)* publication, under No. **9.38**, of requests for coordination shall be made in the order of their date of receipt (see also the general Rules of Procedure on Receivability);

- b)* the intent of Nos. **9.6** (**9.7** to **9.21**), **9.27** and Appendix **5** is to identify to which administrations a request for coordination is to be addressed, and not to state an order of priorities for rights to a particular orbital position;

- c) the coordination process is a two way process. This understanding was included in the Radio Regulations by WARC Orb-88 with the adoption of the former RR provision No. 1085A which was confirmed by WRC-97 in No. **S9.53**;
- d) in the application of Article **9** no administration obtains any particular priority as a result of being the first to start either the advance publication phase (Section I of Article **9**) or the request for coordination procedure (Section II of Article **9**).

2 Cases of continuing disagreement or unsuccessful coordination (See No. **9.65**) are dealt with in Article **11** where the goal of the procedures, i.e. the international recognition of frequencies, is secured through the recording of frequency assignments in the Master Register (see also Nos. **11.32A**, **11.33**, **11.41** and **11.41A**).

9.11A

1 With the provisional date of entry into force of the “Simplified Radio Regulations” on 1 January 1999, the provisions of No. **9.11A**, relating to Nos. **9.12** to **9.16** and **9.17A** as appropriate together with associated part of Appendix **5** as well as the relevant provisions of Article **11** replace Resolution **46 (Rev.WRC-97)***.

2 Application of No. 9.11A to different services/frequency bands

2.1 This provision does not specifically define the services to which the coordination procedure required under Nos. **9.12** to **9.16** applies.

2.2 Administrations found some difficulties in applying the equivalent procedure contained in Resolution **46 (Rev.WRC-97)*** now incorporated in Articles **9**, **11** and Appendix **5** with respect to certain categories of services. The question was whether, in addition to the space services specifically mentioned in the footnotes (MSS and radiodetermination-satellite service as well as non-GSO MSS feeder links and non-GSO FSS), the procedure is applicable or not to the other terrestrial and space services not specifically mentioned in the appropriate footnotes.

2.3 While recognizing the difficulties of harmonizing the text of the footnotes to Article **5** introduced by WARC-92, WRC-95 and WRC-97 on the one hand and the text of the provision of No. **9.11A** (including Nos. **9.12** to **9.16**) and **9.17A**, as appropriate with respect to the services to which this provision is applicable, on the other hand, the Board concluded that the procedure is applicable to all other space and terrestrial services with respect to those satellite services having allocations with equal rights and mentioned in the specific footnotes to which this provision applies. The frequency bands are those to which, in a footnote, reference is made to this provision in the Table of Frequency Allocations (see Tables 9.11A-1 and 9.11A-2 below). In these Tables, there is an indication of those other space services

* *Note by the Secretariat:* This Resolution was suppressed by WRC-03.

However, GSO and non-GSO satellite systems in the frequency bands 18.8-18.9 GHz and 28.6-28.7 GHz, which were at the stage of coordination (under former Article 11 of the RR) procedure in the period between 18 November 1995 and 17 February 1996¹ are subject to application of § 2.1 and 2.2 of Annex 1 of Resolution **46 (Rev.WRC-95)*** (to “effect” coordination). This means that, when they are examined under the notification procedure of Article **S11**, the provisions of No. **S11.32** with respect to the application of No. **S9.11A** will apply with respect to them and these networks already under coordination or under Master Register recording in that period in the above-mentioned bands, will be published by the Bureau in a Special Section in the application of No. **S9.11A/Resolution 46***.

- c) GSO satellite networks (under coordination or coordinated under provisions other than No. **S9.11A/Resolution 46***) as well as GSO and non-GSO cases notified to the Bureau under former Article 13 of the RR before 18 November 1995 will be taken into account in the coordination process under No. **S9.11A** initiated by other administrations after 18 November 1995 or 22 November 1997, as appropriate, in application of No. **S9.27**.

4.2 One of the new frequency bands allocated by WRC-95 to MSS feeder links (FSS allocation limited to this use in the space-to-Earth direction) is the band 6700-7075 MHz. The band had already been allocated to the FSS (Earth-to-space) and a portion of the band (6725-7025 MHz) is used through the application of the Appendix **S30B** (allotment) Plan. From the establishment of maximum PFD limits to be observed by non-GSO MSS feeder links at the GSO and within a sector of $\pm 5^\circ$ included in the provisions of § 2.2 of Annex 1 to Appendix **S5** and of No. **S22.5A** (for the protection of emissions in the Earth-to-space direction received by GSO space stations), the Board understands that, when applying No. **S9.11A** to MSS feeder links, Appendix **S30B** entries (Part A allotments, Part B or List assignments) in the band 6725-7025 MHz or other GSO receiving space stations (operating in the Earth-to-space direction) in the bands 6700-6725 MHz and 7025-7075 MHz, shall not be taken into account under No. **S9.27**.

¹ Between 18 February 1996 and 22 November 1997, the use of this frequency was frozen by WRC-95.

* *Note by the Secretariat:* This Resolution was suppressed by WRC-03.

TABLE 9.11A-1 (MOD RRB16/58)

Applicability of the provisions of Nos. 9.11A-9.15 to stations of space services

1	2	3	4	5	6	7
Frequency band (MHz)	Footnote No. in Article 5	Space services mentioned in a footnote referring to Nos. 9.11A, 9.12, 9.12A, 9.13 or 9.14, as appropriate	Other space services or systems to which Nos. 9.12 to 9.14 provisions(s) apply equally, as appropriate	Applicable Nos. 9.12 to 9.14 provision(s), as appropriate	Terrestrial services in respect of which No. 9.14 apply equally	Notes
137-137.025 137.175-137.825	5.208	MOBILE-SATELLITE (non-GSO) ↓	SPACE OPERATION METEOROLOGICAL-SATELLITE SPACE RESEARCH ↓	9.12, 9.12A, 9.13, 9.14	FIXED (5.204, 5.205) LAND MOBILE (5.204, 5.205) MARITIME MOBILE (5.204, 5.205) AERONAUTICAL MOBILE (OR) (5.204, 5.206) BROADCASTING (5.207)	1
137.025-137.175 137.825-138	5.208	Mobile-satellite (non-GSO) ↓	---	9.12, 9.14	Fixed (in countries other than those listed in Nos. 5.204 and 5.205) Land mobile (in countries other than those listed in Nos. 5.204 and 5.205) Maritime mobile (in countries other than those listed in Nos. 5.204 and 5.205) Aeronautical mobile (OR) (in countries other than those listed in Nos. 5.204 and 5.206)	
148-149.9	5.219	MOBILE-SATELLITE (non-GSO) ↑	---	9.12	---	
149.9-150.05	5.220	MOBILE-SATELLITE (non-GSO) ↑	---	9.12	---	1
312-315	5.255	Mobile-satellite (non-GSO) ↑	Mobile-satellite (GSO) ↑	9.12, 9.12A, 9.13	---	
312-315	5.255	Mobile-satellite (non-GSO) (5.254) ↑	Mobile-satellite (non-GSO) (5.254) Mobile-satellite (GSO) (5.254) ↓ ↑	9.12, 9.12A, 9.13	---	2
387-390	5.255	Mobile-satellite (non-GSO) ↓	Mobile-satellite (GSO) ↓	9.12, 9.12A, 9.13	---	
387-390	5.255	Mobile-satellite (non-GSO) (5.254) ↓	Mobile-satellite (non-GSO) (5.254) Mobile-satellite (GSO) (5.254) ↑ ↑	9.12, 9.12A, 9.13	---	2
399.9-400.05	5.220	MOBILE-SATELLITE (non-GSO) ↑	---	9.12	---	

TABLE 9.11A-1 (continued)

1	2	3	4	5	6	7
Frequency band (MHz)	Footnote No. in Article 5	Space services mentioned in a footnote referring to Nos. 9.11A, 9.12, 9.12A, 9.13 or 9.14, as appropriate	Other space services or systems to which Nos. 9.12 to 9.14 provisions(s) apply equally, as appropriate	Applicable Nos. 9.12 to 9.14 provision(s), as appropriate	Terrestrial services in respect of which No. 9.14 apply equally	Notes
400.15-401	5.264	MOBILE-SATELLITE (non-GSO) ↓	METEOROLOGICAL-SATELLITE ↓	9.12, 9.12A, 9.13, 9.14	FIXED (5.262) MOBILE (5.262) METEOROLOGICAL AIDS	1
454-455	5.286A	MOBILE-SATELLITE (non-GSO) (5.286D, 5.286E) ↑	---	9.12	--- (See Nos. 5.286B and 5.286C)	
455-456 459-460	5.286A	MOBILE-SATELLITE (non-GSO) (Region 2 (5.286E)) ↑	---	9.12	--- (See Nos. 5.286B and 5.286C)	
1 164-1 215	5.328B	RADIONAVIGATION-SATELLITE ↓ ↔	---	9.12, 9.12A, 9.13	---	
1 215-1 260	5.328B	RADIONAVIGATION-SATELLITE ↓	--- (See No. 5.332)	9.12, 9.12A, 9.13	--- (See No. 5.329)	
1 215-1 300	5.328B	RADIONAVIGATION-SATELLITE ↔	--- (See No. 5.332 and 5.329A)	9.12, 9.12A, 9.13	--- (See No. 5.329)	
1 260-1 300	5.328B	RADIONAVIGATION-SATELLITE ↓	EARTH EXPLORATION-SATELLITE (active) ↓	9.12, 9.12A, 9.13	--- (See No. 5.329)	
1 518-1 525	5.348	MOBILE-SATELLITE (except USA (5.344)) ↓	---	9.12, 9.12A, 9.13, 9.14	FIXED MOBILE (except on the territory of USA in Region 2, see No. 21.16)	
1 525-1 530	5.354	MOBILE-SATELLITE ↓	SPACE OPERATION (No. 9.14, Region 2 only, see No. 21.16) ↓	9.12, 9.12A, 9.13, 9.14	FIXED (Region 1, Region 3, see also No. 5.352A) LAND MOBILE (5.349) MARITIME MOBILE (5.349) AERONAUTICAL MOBILE (5.342, 5.350)	
1 530-1 535	5.354	MOBILE-SATELLITE ↓	SPACE OPERATION ↓	9.12, 9.12A, 9.13, 9.14	AERONAUTICAL MOBILE (5.342)	
1 535-1 545	5.354	MOBILE-SATELLITE ↓	---	9.12, 9.12A, 9.13	---	
1 545-1 550	5.354	MOBILE-SATELLITE ↓	---	9.12, 9.12A, 9.13, 9.14	AERONAUTICAL MOBILE (R) (5.357)	3
1 550-1 555	5.354	MOBILE-SATELLITE ↓	---	9.12, 9.12A, 9.13, 9.14	FIXED (5.359) AERONAUTICAL MOBILE (R) (5.357)	3
1 555-1 559	5.354	MOBILE-SATELLITE ↓	---	9.12, 9.12A, 9.13, 9.14	FIXED (5.359)	
1 559-1 610	5.328B	RADIONAVIGATION-SATELLITE ↓	---	9.12, 9.12A, 9.13	---	
1 559-1 610	5.328B	RADIONAVIGATION-SATELLITE ↔	--- (See No. 5.329A)	9.12, 9.12A, 9.13	---	

TABLE 9.11A-1 (continued) (MODRRB16/58)

1	2	3	4	5	6	7
Frequency band (MHz)	Footnote No. in Article 5	Space services mentioned in a footnote referring to Nos. 9.11A, 9.12, 9.12A, 9.13 or 9.14, as appropriate	Other space services or systems to which Nos. 9.12 to 9.14 provisions(s) apply equally, as appropriate	Applicable Nos. 9.12 to 9.14 provision(s), as appropriate	Terrestrial services in respect of which No. 9.14 apply equally	Notes
1 610-1 626.5	5.364	MOBILE-SATELLITE ↑ RADIODETERMINATION-SATELLITE (Region 2 (except country in No. 5.370), countries in No. 5.369)	AERONAUTICAL MOBILE-SATELLITE (R) (5.367) ↓↑ ↔	9.12, 9.12A, 9.13	---	
1 610-1 626.5	5.364	Radiodetermination-satellite (Region 1 (5.371), Region 3, country in No. 5.370)) ↑	---	9.12, 9.12A, 9.13	---	
1 613.8-1 626.5	5.365	Mobile-satellite ↓	---	9.12, 9.12A, 9.13, 9.14	Fixed (5.355)	
1 626.5-1 660.5	5.354	MOBILE-SATELLITE ↑	---	9.12, 9.12A, 9.13	---	
1 668-1 668.4	5.379B	MOBILE-SATELLITE ↑	SPACE RESEARCH	9.12, 9.12A, 9.13	---	
1 668.4-1 670	5.379B	MOBILE-SATELLITE ↑	---	9.12, 9.12A, 9.13	---	
1 670-1 675	5.379B	MOBILE-SATELLITE ↑	METEOROLOGICAL-SATELLITE ↓	9.12, 9.12A, 9.13	---	6
1 980-2 010	5.389A	MOBILE-SATELLITE ↑	---	9.12, 9.12A, 9.13	---	
2 010-2 025	5.389C	MOBILE-SATELLITE (Region 2) ↑	---	9.12, 9.12A, 9.13	---	
2 160-2 170	5.389C	MOBILE-SATELLITE (Region 2) ↓	---	9.12, 9.12A, 9.13, 9.14	FIXED (Region 2) MOBILE (Region 2) (see also No. 5.389E)	
2 170-2 200	5.389A	MOBILE-SATELLITE ↓	---	9.12, 9.12A, 9.13, 9.14	FIXED MOBILE (see also No. 5.389F)	
2 483.5-2 500	5.402	MOBILE-SATELLITE ↓ RADIODETERMINATION-SATELLITE	---	9.12, 9.12A, 9.13, 9.14	FIXED MOBILE RADIOLOCATION (Region 2, Region 3) (see also No. 5.398A & 5.399)	
2 483.5-2 500	5.402	Radiodetermination-satellite (Region 1 and Region 3) ↓	---	9.12, 9.12A, 9.13	---	
2 500-2 520	5.414	MOBILE-SATELLITE (Region 3) ↓	FIXED SATELLITE (Region 2 and Region 3), RADIODETERMINATION-SATELLITE (5.404) ↓	9.12, 9.12A, 9.13, 9.14* * Only applicable to MSS in J and IND (see No. 5.414A)	FIXED LAND MOBILE MARITIME MOBILE	

TABLE 9.11A-1 (continued) (MOD RRB16/58)

1	2	3	4	5	6	7
Frequency band (MHz)	Footnote No. in Article 5	Space services mentioned in a footnote referring to Nos. 9.11A, 9.12, 9.12A, 9.13 or 9.14, as appropriate	Other space services or systems to which Nos. 9.12 to 9.14 provisions(s) apply equally, as appropriate	Applicable Nos. 9.12 to 9.14 provision(s), as appropriate	Terrestrial services in respect of which No. 9.14 apply equally	Notes
2 520-2 535	5.403	MOBILE-SATELLITE (except AERONAUTICAL MOBILE-SATELLITE) (Region 3)	BROADCASTING-SATELLITE, FIXED SATELLITE (Region 2 and Region 3) AERONAUTICAL MOBILE-SATELLITE (countries in No. 5.415A)	9.12, 9.12A, 9.13, 9.14* * Only applicable to MSS, including AMSS in J and IND (see Nos. 5.414A and 5.415A)	FIXED LAND MOBILE MARITIME MOBILE	
2 630-2 655	5.418A 5.418B 5.418C	BROADCASTING-SATELLITE (sound) (5.418)	BROADCASTING-SATELLITE (Region 2) FIXED-SATELLITE (Region 2)	9.12, 9.12A, 9.13	---	4, 5
2 655-2 670	5.420	MOBILE-SATELLITE (except AERONAUTICAL MOBILE-SATELLITE) (Region 3)	BROADCASTING-SATELLITE FIXED SATELLITE (Region 2 and Region 3)	9.12, 9.12A, 9.13	---	
2 670-2 690	5.419	MOBILE-SATELLITE (Region 3)	FIXED SATELLITE (Region 2 and Region 3)	9.12, 9.12A, 9.13	---	
5 010-5 030	5.328B	RADIONAVIGATION-SATELLITE	AERONAUTICAL MOBILE-SATELLITE (R)	9.12, 9.12A, 9.13	---	
5 030-5 091	5.443D	AERONAUTICAL MOBILE-SATELLITE (R)	---	9.12, 9.12A, 9.13, 9.14	AERONAUTICAL MOBILE (R)	
5 091-5 150	5.444A	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links)	AERONAUTICAL MOBILE-SATELLITE (R)	9.12, 9.12A, 9.13	---	
5 150-5 216	5.447A 5.447B	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links)	RADIOTERMINATION-SATELLITE (non-GSO) (5.446), with date of bringing into use prior to 17.11.1995 (see No. 5.447C)	9.12, 9.12A, 9.13	---	
5 216-5 250	5.447A	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links)	---	9.12, 9.12A, 9.13	---	
6 700-7 075	5.458B	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links)	FIXED-SATELLITE in bands 6 700-6 725 MHz and 7 025-7 075 MHz (see also No. 5.441 for the bands 6 725-7 025 MHz)	9.12, 9.12A, 9.13		

TABLE 9.11A-1 (continued) (MOD RRB16/58)

1	2	3	4	5	6	7
Frequency band (GHz)	Footnote No. in Article 5	Space services mentioned in a footnote referring to Nos. 9.11A, 9.12, 9.12A, 9.13 or 9.14, as appropriate	Other space services or systems to which Nos. 9.12 to 9.14 provisions(s) apply equally, as appropriate	Applicable Nos. 9.12 to 9.14 provision(s), as appropriate	Terrestrial services in respect of which No. 9.14 apply equally	Notes
10.7-11.7	5.441 5.484A	FIXED-SATELLITE (non-GSO) ↓	FIXED-SATELLITE (non-GSO) (Region 1) ↑	9.12	---	
11.7-12.2	5.488 and Res. 142 (WRC-03)	FIXED-SATELLITE (GSO) (Region 2) ↓	---	9.14	FIXED (except in United States of America and Mexico (see No. 5.486), in the band 11.7-12.1 GHz FIXED (Regions 1 and 3) and in Peru, (see No. 5.489), in the band 12.1-12.2 GHz MOBILE except aeronautical mobile (Regions 1 and 3)	
11.7-12.5	5.484A 5.487A	FIXED-SATELLITE (non-GSO) ↓	---	9.12	---	
12.5-12.7	5.484A 5.487A	FIXED-SATELLITE (non-GSO) ↓	FIXED-SATELLITE (non-GSO) (Region 1) ↑ BROADCASTING-SATELLITE (non-GSO) (Region 3) ↓	9.12	---	
12.7-12.75	5.484A	FIXED-SATELLITE (non-GSO) (Region 1 and Region 3) ↓	FIXED-SATELLITE (non-GSO) (Region 1 and Region 2) ↑ BROADCASTING-SATELLITE (non-GSO) (Region 3) ↓	9.12		
12.75-13.25	5.441	FIXED-SATELLITE (non-GSO) ↑	---	9.12	---	
13.75-14.5	5.484A	FIXED-SATELLITE (non-GSO) ↑	---	9.12	---	
15.43-15.63	5.511A	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links) ↑	---	9.12	---	
17.3-17.7	5.516	FIXED-SATELLITE (non-GSO) (Region 1 and Region 3) ↑	FIXED-SATELLITE (non-GSO) (Region 1) ↓ BROADCASTING-SATELLITE (Non-GSO) (Region 2)	9.12	---	
17.7-17.8	5.516	FIXED-SATELLITE (non-GSO) (Region 1 and Region 3) ↑	FIXED-SATELLITE (non-GSO) (Region 1 and Region 3) ↓ BROADCASTING-SATELLITE (Non-GSO) (Region 2)	9.12	---	
17.8-18.1	5.516 5.484A	FIXED-SATELLITE (non-GSO) ↑ ↓	---	9.12	---	
18.1-18.6	5.484A	FIXED-SATELLITE (non-GSO) ↓	---	9.12	---	
18.8-19.3	5.523A	FIXED-SATELLITE ↓	---	9.12, 9.12A, 9.13	---	

TABLE 9.11A-2 (continued) (MOD RRB16/58)

1	2	3	4	5	6	7
Frequency band (MHz/GHz)	Footnote No. in Article 5	Terrestrial services to which No. 9.16 applies and in respect of which No. 9.15 applies	Space services mentioned in a footnote referring to No. 9.11A to which No. 9.15 applies and in respect of which No. 9.16 applies		Applicable Nos. 9.15, 9.16 provision(s)	Notes
2 670-2 690	5.419	FIXED LAND MOBILE MARITIME MOBILE	MOBILE-SATELLITE (R3)	↑	9.15	1
5 030-5 091	5.443D	AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE SATELLITE (R)	↑	9.15	1
5 030-5 091	5.443D	AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE SATELLITE (R)	↓	9.15, 9.16	1
5 091-5 150	5.444A	AERONAUTICAL MOBILE	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links)	↑	9.15	1
5 150-5 216	5.447B	AERONAUTICAL RADIONAVIGATION LAND MOBILE MARITIME MOBILE AERONAUTICAL MOBILE (5.447)	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links)	↓	9.15, 9.16	1
5 150-5 250	5.447A	AERONAUTICAL RADIONAVIGATION	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links)	↑	9.15	1
6 700-7 075	5.458B	FIXED MOBILE	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links)	↓	9.15, 9.16	1
15.43-15.63	5.511A	AERONAUTICAL RADIONAVIGATION	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links (5.511A))	↑	9.15	1, 5
18.8-19.3	5.523A	FIXED MOBILE	FIXED-SATELLITE	↓	9.15, 9.16	1
19.3-19.6	5.523B	FIXED MOBILE	FIXED-SATELLITE (limited to non-GSO MOBILE-SATELLITE SERVICE feeder links)	↑	9.15	1
19.3-19.6	5.523B	FIXED MOBILE	FIXED-SATELLITE (non-GSO MOBILE-SATELLITE SERVICE feeder links) (see also No. 5.523C)	↓	9.15, 9.16	1

TABLE 9.11A-2 (end)

1	2	3	4	5	6	7
Frequency band (GHz)	Footnote No. in Article 5	Terrestrial services to which No. 9.16 applies and in respect of which No. 9.15 applies	Space services mentioned in a footnote referring to No. 9.11A to which No. 9.15 applies and in respect of which No. 9.16 applies		Applicable Nos. 9.15, 9.16 provision(s)	Notes
19.6-19.7	5.523D	FIXED MOBILE	FIXED-SATELLITE (non-GSO MOBILE-SATELLITE SERVICE feeder links) (see also No. 5.523E)	↓	9.15, 9.16	1
28.6-29.1	5.523A	FIXED MOBILE	FIXED-SATELLITE (non-GSO)	↑	9.15	1
29.1-29.5	5.535A	FIXED MOBILE	FIXED-SATELLITE (non-GSO MOBILE-SATELLITE SERVICE feeder links)	↑	9.15	1

¹ See § 2.4.b), 2.4.c) and 2.5 of the Rules of Procedure relating to No. 9.11A for the application of Nos. 9.15, 9.16, 9.17 and 9.18.

² See Rule of Procedure relating to No. 5.357.

³ Not subject to the provisions of No. 9.15 in respect of the METEOROLOGICAL AIDS service in countries listed in No. 5.379E.

⁴ Not subject to the provisions of No. 9.15 in respect of the FIXED and MOBILE service in CAN and USA (No. 5.379D).

⁵ Stations in the aeronautical radionavigation service in this band are subject to power limits indicated in Recommendation ITU-R S.1340 (see No. 5.511C).

9.15 to 9.19

1 The expression in Nos. 9.15, 9.17 and 9.17A of “band allocated with equal rights” is understood to mean equality of rights between services to which the band is allocated. According to footnote 1 to § 1 of Appendix 5 the “equality of right” condition is extended to all coordination forms under Nos. 9.15 to 9.19.

2 See also the Rules of Procedure concerning Appendix 7.

9.18

The coordination procedure of No. 9.18 is to be applied only in frequency bands allocated to a space service in the direction space-to-Earth, i.e. when transmitting terrestrial stations are inside the coordination area of a receiving earth station for which coordination under No. 9.17 has already been initiated and in the case where both services have the same category of allocation.

The coordination between receiving terrestrial stations and transmitting earth stations is done only when the transmitting earth station is coordinated in application of No. **9.17**. Once that coordination is initiated an administration wishing to operate terrestrial stations within the coordination area of the transmitting earth station can evaluate the level of interference that its station may receive and decide by itself whether to proceed or not with the implementation of its terrestrial stations.

9.19

This provision relates to the requirements of coordination of transmitting terrestrial stations and transmitting earth stations in the FSS (Earth-to-space) with respect to typical BSS earth stations. To date, there is no ITU-R Recommendation defining the power flux-density level produced by the terrestrial stations and transmitting earth stations in the FSS at the edge of the service area of non-planned BSS to be used for triggering the coordination. Until such time that a calculation method and technical criteria are included in the relevant ITU-R Recommendations, in applying this provision, for the identification of affected administrations, the Bureau, in addition to the frequency overlap examination, also uses, on a provisional basis, the power flux-density limits in the nearest frequency band(s), where available.

Note: WRC-15 took the decision related to the RoP on No. **9.19**^{*}, see items 2.9 – 2.13 of the Minutes of the 6th Plenary meeting, Doc. CMR15/430, as follows:

“The conference agreed:

1 to confirm the current Bureau’s practice for application of provision No. 9.19 of the Radio Regulations related to coordination of transmitting terrestrial stations with respect to typical earth station included in the service area of a space station in the broadcasting-satellite service in the bands shared with equal rights between these services as follows:

“Since the pfd threshold values are only available for the band 11.7-12.7 GHz, and given the fact that different propagation conditions and criteria may apply to the other bands, in examination of frequency notices for terrestrial stations under No. 9.19 the Bureau currently establishes coordination requirements using only frequency overlap as the coordination threshold for the following bands: 620-790 MHz, 1 452-1 492 MHz, 2 310-2 360 MHz, 2 520-2 670 MHz, 17.7-17.8 GHz, 40.5-42.5 GHz and 74-76 GHz.”

2 the conference invites the relevant ITU-R Study Groups to identify the applicable pfd values and calculation methods for establishing coordination requirements under No. 9.19 in the relevant frequency bands, including 620-790 MHz, 1 452-1 492 MHz, 2 310-2 360 MHz, 2 520-2 670 MHz, 17.7-17.8 GHz, 40.5-42.5 GHz and 74-76 GHz.” (ADD RRB16/58)

^{*} This Rule of Procedure shall be brought in conformity with the decision of WRC-15 on coordination of terrestrial stations under No. **9.19** reflected in the Minutes of the 6th Plenary meeting. To this end, the Board instructed the Bureau to develop a modification to the RoP on No. **9.19** which would ensure its consistency with the above-mentioned WRC-15 decision and which might contain additional elements aimed at the reduction of unnecessary coordination under No. **9.19**. (ADD RRB16/58)

9.21

1 Notification under Article 11 before the completion of the procedure of No. 9.21

The Bureau accepts notifications under Article **11** with a reference to No. **4.4** in a band where the coordination procedure of No. **9.21** is to be applied at any moment before starting the procedure or during the application of the procedure of No. **9.21** (See No. **11.31.1**). For cases of notification under Article **11**, where the coordination of No. **9.21** was already initiated but not yet fully completed, see comments under the Rules of Procedure relating to No. **11.31.1** and No. **11.37**.

2 Secondary services

2.1 Upgrade of the status of the allocation for specific assignments

The following Rule has been adopted by the Board for application in cases where the application of the coordination procedure of No. **9.21** will upgrade a secondary allocation made in the Table or in a footnote (e.g. No. **5.371**) to a primary status for specific assignments (e.g. Nos. **5.325** and **5.326**). (MOD RRB12/61)

For the purpose of identifying other administrations (Administration B) likely to be affected, assignments to stations of secondary services already entered in the Master Register and subject to provisions of Nos. **5.28** to **5.31** shall not be taken into consideration in cases involving those services of the requesting administration (Administration A) which are

subject to the coordination procedure of No. **9.21** and will have primary status once that procedure has been successfully applied. Consequently, when criteria are drawn up for identifying affected administrations, secondary services shall not be regarded as enjoying protection against a primary service subject to the coordination procedure of No. **9.21**.

2.2 Coordination of assignments in allocation situations on a secondary basis

There are several provisions where the allocation is made on a secondary basis subject to the application of the procedure defined in No. **9.21** (e.g. **5.181**, **5.197**, **5.259**, **5.371**). For the application of the **9.21** procedure in these cases, some specific elements would need to be taken into account.

It is to be noted that in accordance with No. **9.52**, any administration may object to the planned use on the basis of its existing or planned stations and that No. **9.52C** stipulates that “an administration not responding ... shall be regarded as unaffected”. An administration may consider that the application of the No. **9.21** procedure will result in a secondary status, and assume that there is no need for it to comment, since the secondary service is required to not cause harmful interference to a primary service. Consequently an assignment for which the No. **9.21** procedure was applied shall be considered secondary with respect to administrations which have given their agreement as well as to administrations which have not commented upon it within the time-limits specified in No. **9.52**. Any other arrangement between administrations when reaching agreement in application of the No. **9.21** agreement procedure is considered only in the relations between those administrations.

3 Coordination of a satellite network

When an administration communicates Appendix **4** data (AP4/II Notice Forms) for a satellite network to initiate the coordination procedure of No. **9.21**, the Bureau will act under Nos. **9.36** to **9.38** for that satellite network with respect to other satellite networks and for the space station of that satellite network with respect to terrestrial services, as appropriate.

If the administration requests that No. **9.21** be also initiated for earth stations of the satellite network, the request shall be accompanied with the AP4/III Notice Forms. The Bureau will then establish coordination and/or “agreement” areas, as appropriate, for specific and/or typical earth stations located on the territory of the requesting administration, and publish the information under No. **9.38**. In case horizon elevation data were not provided, as well as in the case of typical earth stations, a value of 0° will be assumed by the Bureau.

9.23

(MOD RRB16/58)

1 When the information under Nos. **9.30** and **9.32**, as the case may be, relating to only one form of coordination (e.g. No. **9.7**) has been received by the Bureau, in the case where there is a need to effect more than one form of coordination in accordance with Nos. **9.30** and **9.32**, as the case may be, it is in the interest of administrations that the Bureau establishes those other forms of coordination requirement immediately, rather than to proceed with them after receiving the request at a later date. Moreover, it will be more efficient, expeditious and easy to proceed with the publication required under Nos. **9.34/9.38** at one time (same date of receipt) on the same information.

In view of the above the Board decided to take the following practical approach. The Bureau, as far as possible, identifies any administrations with which coordination may need to be effected under Nos. **9.7** to **9.14** and **9.21** where applicable and includes their names in the publication even if the requests for a specific coordination form is not received by the Bureau at that time. If no comment is received from the administration responsible within the four months from the date of publication, it shall be considered that this publication is implemented according to the request of the administration and the corresponding coordination requirement has been established.

9.41-9.42

1 The Board has closely studied provisions Nos. **9.36.2**, **9.41** and **9.42** (modified by WRC-12) and has arrived at the following conclusions regarding the application of the provisions of No. **9.41** by an administration which considers that its name or any of its satellite networks should have been identified under No. **9.36** in the context of a request for coordination stemming from the application of No. **9.7**: (MOD RRB12/61)

2 Administrations are entitled, based on the $\Delta T/T > 6\%$ criterion, to include themselves, or any of their networks, in coordination, in application of Nos. **9.41** and **9.42**. Requests under No. **9.41** must be substantiated by $\Delta T/T > 6\%$ calculations. To minimize the administrative burden on the Bureau and administrations, it shall be deemed sufficient for an administration wishing to be added in a coordination request under No. **9.41** to provide $\Delta T/T > 6\%$ calculations for only one pair of assignments for each satellite network to be further considered in the coordination process (a pair consisting of one assignment of the published network and one assignment of the network of the requesting administration); the Bureau will then examine all assignments of the specific networks of the requesting administration and then establish coordination requirements for all the assignments of the network referred to in the publication vis-à-vis the requesting administration under No. **9.42** commensurate with the results of such examination. (MOD RRB12/61)

3 Calculations showing that $\Delta T/T$ ratios do not exceed 6% for all groups of assignments of involved satellite networks shall be submitted by an administration believing that an administration, or a satellite network of an administration, identified under No. **9.36.2** should not have been included under No. **9.36** in the coordination request of its own satellite network. (MOD RRB12/61)

9.47

(MOD RRB16/58)

Following the application of Nos. **9.48** - **9.49** and in accordance with No. **9.47**, the Bureau shall communicate to the concerned administration the application of Nos. **9.48** and **9.49** and provide a copy of that communication to the requesting administration.

9.48

The Board concluded that this provision applies only to those radiocommunication stations which were taken into consideration when the coordination request was either sent to the other administration as stipulated in No. **9.29** or submitted to the Bureau in the case of application of Nos. **9.30** and **9.32**. Other existing assignments of the administration to which this provision is not applied remain entitled to protection. Assignments of the same administrations which are considered at a later date are also entitled to protection.

9.49

The comments made in the Rules of Procedure concerning No. **9.48** apply. This administration is deemed to have undertaken not to cause interference to those stations for which the agreement was requested.

9.50**Comments relating to the exclusion of the territory of a country from the service area of a space station**

1 When an Administration B requests the Bureau to exclude its territory from the service area of a space station of an Administration A, this raises the following questions:

- should that comment have any effect on the identification of the administrations concerned in the coordination process or on the assessment of the level of harmful interference?
- what action shall the Bureau take in respect of it?

2 The question of a request concerning the exclusion of the territory of a country from the service area of a space station can be studied at two different levels:

- the compatibility between services and stations and the related status that may be derived from the application of the procedures contained in the Radio Regulations, on one hand, and
- the principles embodied in the Preamble to the Convention and the Radio Regulations as well as in Resolution **1 (Rev.WRC-97)** in respect of the sovereign right of each country to use the frequency spectrum and the GSO, on the other hand.

3 Compatibility matters are well defined in the Radio Regulations; they involve:

- power flux-density limitations which are deemed to avoid any problem of incompatibility without any recourse to coordination with terrestrial services;
- coordination between administrations using or intending to use stations of the same service or of different services sharing the same frequency band;
- examination by the Bureau of the probability of harmful interference in cases where, for one reason or another, agreement on coordination could not be reached between the administrations concerned.

5 Case of administrations having responded

An Administration B may, when it accepts the proposed use, stipulate conditions of use. If such conditions are accepted by the administration requesting the agreement, the Bureau will take this as an agreement.

5.1 When an administration has responded in application of No. **9.52** within four months and requested the assistance of the Bureau, the latter will act according to Article **13**.

5.2 When an Administration B has responded, in application of No. **9.52**, more than four months after the date of publication of the relevant Special Section or the date of dispatch of the coordination data under No. **9.29**, and the Bureau has been informed of a continuing disagreement between the two administrations, the Bureau has to literally apply No. **9.52C**; it will consider Administration B as not having responded in due time. Therefore, despite the comments expressed by Administration B, Administration A will be considered to have successfully completed the procedure.

5.3 When an Administration B has responded, in application of No. **9.52**, more than four months after the date of publication of the Special Section in application of No. **9.38** or the dispatch of the coordination data under No. **9.29**, and an agreement is reached between the two administrations, the Bureau will take this situation into account.

9.52C

1 Case of administrations not responding

With respect to an administration not responding, an administration having applied the procedure shall be regarded as having successfully completed the procedure of this Article for assignments for which there was no response.

2 Publication of Special Sections containing the status of the coordination procedures under Nos. 9.11 to 9.14 and 9.21

2.1 Any comment which does not explicitly express objection to the request for coordination is not considered as a disagreement under No. **9.52**. In case of doubt concerning the nature of comments, the administration concerned should be consulted.

2.2 The appropriate Special Section shall include the following information:

- a) the names of administrations whose disagreement to the request for coordination were received within the regulatory deadline;
- b) a Note, which reads:

“Pursuant to No. **9.52C**, all administrations other than those listed above shall be regarded as unaffected, and in the case of Nos. **9.11** to **9.14** the provision of Nos. **9.48** and **9.49** shall apply.”

2.3 See also § 2.4 a) of the Rules of Procedure relating to No. **9.11A**.

9.53

See comments under the Rules of Procedure concerning No. **9.6** (§ 1 c)).

9.58

This provision refers to changes in the characteristics which have been decided during the coordination procedure of the assignment of the network. For processing of the modification, the Bureau will apply § 2 of the Rules concerning No. **9.27**. When publishing the modified characteristics in a modification to the Special Section containing the original coordination request, the Bureau will indicate the nature of the modification as specified in No. **9.58**.

9.60

In application of No. **9.11A**, when the information on a station in the fixed service upon which an administration’s disagreement is based cannot be provided as referred to under No. **9.52**, the reference parameters contained in Annex 1 to Appendix 5 can be used to determine the need for coordination.

9.62

(MOD RRB16/58)

1 Following application of Nos. **9.48** and **9.49** and in accordance with No. **9.62**, the Bureau shall communicate to the concerned administration the application of Nos. **9.48** and **9.49** and provide a copy of that communication to the administration requesting for assistance.

2 Consequently, with respect to the administration not responding, the administration having applied the procedure shall be regarded as having successfully completed the procedure of this Article with respect to the assignments for which there was no response.

3 The Bureau shall apply No. **9.61** only if an administration with which coordination is sought fails to give its agreement or its disagreement together with information concerning its own assignments on which its disagreement is based. This information may be the reference to the previous publications including concerned assignments. In case of requests for assistance due to other difficulties in coordination, No. **13.1** shall apply.

9.63

In the absence of reply to provide the required information (to enable the Bureau to carry out the compatibility analysis), the Bureau shall use the information available to it.

9.65

See the Rules of Procedure under No. **9.6** (§ 2), Nos. **11.32A** and **11.33**.

11.17

This provision and provisions of Nos. **11.18** to **11.21B** identify assignments to terrestrial stations to be notified individually. All other assignments^{1, 2, 3} can be notified either as a typical station or as individual stations, as the administration concerned considers appropriate. The frequency assignments which shall be notified individually, under the procedure of Article **11**, are the following:

- 1 Assignments to stations covered by the Allotment Plans of Appendices **25**, **26** and **27** (No. **11.18**) and by any Frequency Assignment Plan.
- 2 Assignments to stations of the broadcasting service in any band (No. **11.19**).
- 3 Assignments to stations of all terrestrial services which are within the coordination area of an earth station (No. **11.20**) if the notified bandwidth of the terrestrial station is situated wholly or partially within a frequency band which is allocated with equal rights to terrestrial and space services where coordination is required under Appendix **5**, Table 5-1.

According to No. **11.20**, no notification of a typical terrestrial station is receivable if the terrestrial station is within the coordination area of an earth station. In view of the current difficulties of the Bureau to ascertain, at the time of the receipt of the notice, whether a terrestrial station is situated within the coordination area of an existing earth station or one for which the coordination has been effected or initiated, the Board instructed the Bureau to encourage administrations to submit individual notices to terrestrial stations in every case where the notified bandwidth of the terrestrial station is situated wholly or partially in any of the bands shared between terrestrial and space services with equal rights if the allocation to the space service comprises the space-to-Earth direction. The Bureau may also accept a notification to a typical station in these bands, if the notifying administration so wishes, under the understanding that the subject notice form may be returned to the notifying administration at a later stage, if the Bureau's examinations confirm that the notified geographical area of operation of the typical terrestrial station overlaps the coordination area of an earth station. Such a notice, when published in Part 1 of the BR IFIC, shall bear a special symbol making reference to this Rule of Procedure.

- 4 Assignments to any terrestrial stations in bands shared with space services with equal rights which exceed the limits of the terrestrial station parameters specified in Tables 8a, 8b, 8c and 8d of Appendix **7** and in No. **21.3** (No. **11.21**).

¹ Frequencies for common use listed in Chapter VI of the Preface to the IFL shall not be notified.

² Frequency assignments to stations in the amateur service shall not be notified (No. **11.14**).

³ Frequency assignments to broadcasting stations in the high frequency bands allocated to the broadcasting service between 5 900 kHz and 26 100 kHz which are subject to the procedure of Article **12** shall not be notified under Article **11** (see No. **11.14**).

The Board concluded that the first part of this provision is intended to afford appropriate protection to receiving earth stations when the terrestrial stations are using a high e.i.r.p. Given the variety of conditions specified in the referred Tables of Appendix 7, the Board decided that administrations shall submit individual notice whenever the e.i.r.p. exceeds the following limits:

50 dBW (for analogue modulation) and 37 dBW (for digital modulation), in any of the frequency bands below 3 GHz that are mentioned in Tables 8a and 8b;

55 dBW (for analogue modulation)⁴ and 42 dBW (for digital modulation), in any of the frequency bands between 3 GHz and 15 GHz that are mentioned in Tables 8b and 8c;

55 dBW (for analogue modulation)⁴ and 40 dBW (for digital modulation), in any of the frequency bands above 15 GHz that are mentioned in Tables 8c and 8d.

5 Assignments to terrestrial stations in the frequency bands listed in Table 21-2 (No. 11.21A).

The Board concluded that this provision is intended to protect the GSO. It should be applied to all terrestrial services in the bands referred to above, irrespective of their category of allocation.

6 Assignments to terrestrial stations which are governed by the procedure for seeking agreement under No. 9.21 (No. 11.21B).

11.28

(MOD RRB16/58)

Comparison of data with those submitted under Article 9

Number 11.28 does not refer to the need to compare the notified characteristics with those published in the Special Sections for advance publication, for coordination, and for results/status of the coordination. A frequency notice submitted under No. 11.2 or 11.9 whose characteristics differ from those published in a Special Section necessarily requires consideration by the Bureau for appropriate actions. The following actions shall be taken:

- 1) The date of bringing into use of frequency assignments to a space station shall be compared with the date of receipt of the relevant complete information under No. 9.1 or 9.2 in the case of satellite networks or systems not subject to Section II of Article 9 or under No. 9.1A in the case of satellite networks or systems subject to Section II of Article 9. In the case that this period exceeds seven years, the notice is returned to the notifying administration with a recommendation to restart the Article 9 procedure.
- 2) When the notified characteristics are different from those published in the Special Section relating to the advance publication submitted by an administration or automatically generated by the Bureau the need to re-apply the Article 9 procedure shall be examined under No. 9.2. If required, the notice is returned to the notifying administration with a recommendation to restart the Article 9 procedure.

⁴ The e.i.r.p. given in Tables 8c and 8d of Appendix 7 is derived from a total e.i.r.p. of 55 dBW.

- 3) When the notified characteristics are different from those published in the Special Section relating to the advance publication of the coordination request as appropriate, the difference is assumed to have resulted from coordination.
- 4) For practical reasons, the Bureau could not systematically undertake the comparison of coordination information contained in the notice form submitted under No. **11.2** or **11.9** and that from the voluminous correspondence from the coordination phase. The Board thus decided that the No. **11.32** examinations of the Bureau shall be based on the coordination information available from the notice forms (Boxes A5/A6). This information being the most up to date for the case under examination, the Bureau shall consider the notified data of the network submitted in the notice form as coordinated with those countries mentioned in Boxes A5/A6.

11.31

1 Provision No. **11.31.2** requires that the “other provisions” mentioned in No. **11.31** should be identified and included in the Rules of Procedure. This chapter intends to answer the above problem.

The regulatory examination under No. **11.31** includes the following⁵:

- conformity with the Table of Frequency Allocations, including its footnotes and any Resolution or Recommendation which is referred to in such a footnote;
- the successful application of No. **9.21**, when mention is made of that provision in a footnote (see also Rules of Procedure relating to Nos. **9.21** and **11.37**);
- all “other” mandatory provisions that are contained in Articles **21** to **57**, in Appendices to the Radio Regulations and/or in Resolutions that are relevant to the service in the frequency band in which a station of that service operates.

2 The list of these “other provisions”, referred to in No. **11.31.2**, with respect to which the notices to stations in terrestrial (§ 2.1 to 2.5.2) or space services (§ 2.6 to 2.6.6) are examined, is given below:

2.1 *Broadcasting service:* Those contained in No. **23.7** concerning the power limit (50 kW) of the broadcasting transmitters operating in the Tropical bands in the frequency bands listed in No. **23.6**.

2.2 *Fixed service:* Those of No. **24.2** which stipulate that F3E and G3E emissions are prohibited in the fixed service below 30 MHz.

⁵ With respect to the application of this provision to assignments of the BSS submitted under Resolution **33 (Rev.WRC-03)** see comments under Rules of Procedure concerning No. **23.13**.

2.3 *Aeronautical mobile service:* There are mandatory provisions only for the frequency bands that are allocated exclusively to the aeronautical mobile service. These provisions (obligatory channelling arrangement, permitted classes of emission, power limits) are contained in Appendices **26** and **27**. The provisions of No. **43.4** also falls into this category of mandatory regulatory provisions, i.e. the prohibition of using the exclusive frequency allocations to the aeronautical mobile service for any kind of public correspondence.

2.4 *Maritime mobile service:* Most of them are related to the frequency bands that are allocated exclusively to the maritime mobile service (obligatory channelling arrangements, permitted classes of emission, power limits, etc.); however many of them are also applicable to the non-exclusive allocations to the maritime mobile service. A summary of the provisions that are applicable to the frequency assignments subject to notification is given in the Table below:

(MOD RRB13/62)

	Provision No.
Power limits	52.104 52.117, 52.127 (Region 1 only), 52.143, 52.144, 52.172 52.184-52.186, 52.188, 52.202 (Region 1 only) 52.219, 52.220, 52.227, 52.265, 52.266
Class of emission	52.2, 52.3 52.101, 52.177, 52.183, 52.188, 52.198, 52.217
Mandatory sub-division	52.10 (Region 1 only), 52.13 Appendix 17

2.5 The list of these “other provisions”, referred to in No. **11.31.2**, with respect to which notices to stations in terrestrial services⁶ in the bands that are shared with equal rights with space services are examined, is given below:

2.5.1 conformity with the limits concerning the maximum equivalent isotropically radiated power (e.i.r.p.), in the context of services and frequency bands indicated in Table **21-2** (Nos. **21.3, 21.4, 21.5A** and **21.6**);

2.5.2 conformity with the limits concerning the power delivered by a transmitter to the antenna of a station in the fixed or mobile services (13 dBW in frequency bands between 1 GHz and 10 GHz, 10 dBW in frequency bands above 10 GHz), in the context of services and frequency bands indicated in Table **21-2** (Nos. **21.5** and **21.6**).

⁶ In bands shared by terrestrial and space radiocommunication services, the administration may use passive repeaters in the fixed service (radio-relay systems). While generally the passive repeater is situated close to the transmitting or receiving station, it usually involves a major change in the direction of the maximum radiation which may further affect the orbit; for this reason, the Board decided that administrations shall be requested to notify both parts of the link as separate stations, i.e., transmitting stations to passive repeater and passive repeater to receiving stations; and that each of the notices, containing information in accordance with Appendix **4**, is treated as a separate assignment representing a separate station.

6 Examination of frequency assignments to an inter-satellite link of a geostationary space station communicating with a non-geostationary space station (MOD RRB16/58)

6.1 The Board noted the specific nature of inter-satellite links where one end of the link is on a GSO space station and the other on a non-GSO space station. Under Article 9 (No. 9.7) there is a requirement to effect coordination for frequency assignments of GSO networks, but there is no similar requirement for assignments of non-GSO networks. It is thus unclear whether coordination under Section II of Article 9 applies:

- a) to both ends of the inter-satellite link, i.e. to the GSO as well as to the non-GSO station of the link, thus rendering the entire link coordinated (as is the case in all other forms of coordination); or
- b) only to the GSO station of the inter-satellite link, leaving the other end uncoordinated; or
- c) to none of the stations of the inter-satellite link, leaving the entire inter-satellite link uncoordinated (as is the case when coordination does not apply, e.g. non-GSO networks).

6.2 In view of the above, the Board decided that, until WRC clarifies this matter, assignments in inter-satellite links between GSO and non-GSO space stations shall be treated as follows:

6.2.1 The general description of the inter-satellite link shall be sent to the Bureau for advance publication in accordance with Sub-Section IA of Article 9.

6.2.2 Provisionally, these assignments shall not be considered as being subject to the coordination procedure under Section II of Article 9.

6.2.3 At notification stage, no finding shall be given under 11.32 (Column 13A2) and symbol “K” will be inserted in Column 13B2 with the following meaning:

“K”:
this frequency assignment to an inter-satellite link of a geostationary space station communicating with a non-geostationary space station is not taken into account by the Bureau in its examination under No. 11.32.

6.3 Cases already recorded in the Master Register by the Bureau shall not be reviewed under this Rule.

6.4 This Rule applies to links between GSO and non-GSO satellites in all frequency bands allocated to inter-satellite service as well as to other space services in the space-to-space direction, with the exception of cases where the need for coordination is explicitly stipulated in the Radio Regulations. In particular, this Rule does not apply to cases in which the need for coordination under No. 9.11A, 9.12A or 9.13, as the case may be, is mentioned in a footnote to the Table of Frequency Allocations (see also the Rule of Procedure relating to No. 9.11A).

Note: WRC-15 took the decision related to the RoP on No. 11.32 during the 8th Plenary, Par. 1.39 to 1.42 of Doc. CMR15/505, Approval of Doc. CMR15/416 in relation to section 3.2.3.2 of Doc. 4 (Add2) (Rev1), as follows:

“Taking into account the fact that affected administrations can submit information on a different coordination status at any time before or after Part II-S publications, and in order not to unduly delay the processing of notification submissions, the Bureau is examining the notification information under No. 11.32 as follows:

- i) *If the enquiry process is completed before the Bureau's Weekly Approval Meeting, then the coordination status based on the results of the enquiry will be taken into account in the formulation of findings;*
- ii) *If the enquiry process is not yet completed before the Bureau's Weekly Approval Meeting, the findings with respect to the affected administration will be based on the coordination status submitted by the notifying administration at the time of notification. The Bureau will then take appropriate action, whether to review or not the findings, after the conclusion of the Bureau's enquiry process.” (ADD RRB16/58)*

11.32A

The calculation method to assess the probability of harmful interference and the criteria for the formulation of the Findings of the Bureau for the coordination under No. **9.7** are contained in the Rules of Procedure **B3** except for the cases mentioned in No. **11.32A.2** and Resolution **762 (WRC-15)**. (MOD RRB16/58)

11.34

1 Bands governed by Appendix 25

1.1 With regard to these examinations of conformity with the allotment Plan of Appendix **25**, the Board took into consideration the following elements:

1.1.1 The “original” Plan, produced at the MWARC-74, contains only an indication of the allotment areas on the given channel. The conformity of the relevant assignments with the allotments was checked using that information and the other general mandatory provisions of the Radio Regulations concerning the channelling arrangement, the class of emission and the transmitter power.

1.1.2 The updates of the Plan, through the application of the procedure of the former Article 16 of the Radio Regulations (edition of 1990, revised in 1994) and Section I of Appendix **25**, contain more data, notably information of the transmitter power, characteristics of the antenna, hours of operation and service area as a result of the coordination with the administrations concerned. Consequently, the characteristics of the notified assignments have to correspond to the characteristics resulting from the coordination.

1.1.3 For the purpose of the implementation of Resolution **325 (Mob-87)***, the ex-IFRB asked for (and obtained) more precise data concerning the intended use of the new channels, which were made available by WARC Mob-87. However, many administrations indicated that the subject information had to be considered as a working assumption, since the definitive characteristics would depend on the established allotment arrangement (number of allotments per channel, characteristics of the other allotments and the actual use of the allotments by other administrations). Consequently, the characteristics of the allotments entered in the new channels of the Appendix **25** Plan, as indicated in ex-IFRB Circular-letter No. 860 of 22 March 1991, are considered as working assumptions only and not as compulsory conditions.

* *Note by the Secretariat:* This Resolution was suppressed by WRC-95.

11.44

(MOD RRB12/61)

1 The information concerning the date of bringing into use is to be provided in the following occasions:

- in AP4 notice forms when submitted under No. **11.15**; and
- in the confirmation of the date of bringing into use under Nos. **11.44.2, 11.47** and **11.44B**.

It should be noted that the information concerning the date of bringing into use shall be provided for each assignment or group of assignments. (See also the Rules of Procedure concerning No. **11.44B**).

2 The Board considered the information to be provided for the bringing into use of any frequency assignment to space stations of a non-geostationary satellite system in the FSS or MSS prior to the adoption of regulatory provisions by a future world radiocommunication conference and concluded as follows:

In order to consider any frequency assignment to a space station of a non-geostationary satellite system as having been brought into use, the notifying administration has to inform the Bureau that at least one space station with the confirmed capability of transmitting or receiving that frequency assignment has been deployed for a continuous period of ninety days on one of the notified orbital planes of the non-geostationary satellite system, irrespective of the notified number of orbital planes and satellites per orbital plane in the system. The notifying administration shall so inform the Bureau within thirty days from the end of the ninety day period. A frequency assignment to a space station of a non-geostationary satellite system with a notified date of bringing into use more than 120 days prior to the date of receipt of the notification information shall also be considered as having being brought into use if the notifying administration confirms, when submitting the notification information for this assignment, that at least one space station with the capability of transmitting or receiving that frequency assignment has been deployed on one of the notified orbital planes of the non-geostationary satellite system and maintained for a continuous period of time from the notified date of bringing into use until the date of receipt of the notification information for this frequency assignment. The date of deployment of the first satellite at its intended orbit shall be within the seven-year time limit for bringing frequency assignments to a space station into use under No. **11.44**. (MOD RRB16/58)

11.44B

(ADD RRB12/61)

1 This provision concerns the bringing into use of a frequency assignment to a space station in the geostationary-satellite orbit. In order to consider such a frequency assignment as having been brought into use, the notifying administration has to inform the Bureau within thirty days from the end of the ninety-day period during which a space station in the geostationary satellite orbit with the capability of transmitting or receiving that frequency assignments has been deployed and maintained continuously at the notified orbital location.

2 The Board carefully studied the relationship between the various provisions related to bringing into use of frequency assignments for a GSO satellite network under Nos. **11.43A, 11.44, 11.44.2, 11.44.3, 11.44B, 11.44B.1, 11.44B.2** and **11.47** and concluded that the Bureau will apply the following procedure. (MOD RRB16/58)

3 No. **11.44**¹⁰ establishes the regulatory time limit for bringing frequency assignments to a space station into use and states that the Bureau shall cancel those frequency assignments which are not brought into use within the required regulatory period. Nos. **11.44B** and **11.44B.2** established the conditions upon which a frequency assignment to a space station in the geostationary-satellite orbit shall be considered as having been brought into use. The Bureau will record the date of the commencement of the ninety-day period defined in No. **11.44B**, or the date provided by the administration in accordance with No. **11.44B.2**, as the notified date of bringing into use (see No. **11.44.2**). The date of bringing into use of an assignment will be made available on the BR web with indication of status of confirmation and subsequently be published in PART II-S of the BR IFIC if the assignment is to be recorded in MIFR. In the absence of the confirmation information under No. **11.44B** and No. **11.44B.2**, the Bureau shall cancel the assignments provisionally recorded in the MIFR under No. **11.44**¹¹ and/or delete the relevant special sections under No. **11.48**¹², as appropriate. (MOD RRB16/58)

4 Frequency assignments for which an administration has submitted notification information for recording in the MIFR without submitting the mandatory information required under provision No. **11.44B**, will be recorded provisionally in the MIFR. Thereafter, at the end of the period provided under No. **11.44**, the Bureau shall act in accordance with the provisions of No. **11.47** and/or No. **11.44B**.

11.47

The reference in No. **11.47** to No. **11.44** and its regulatory period should be considered as five years from the date of receipt of a notice of a change referred to in No. **11.43A**. (See also the comments made under the Rules of Procedure concerning No. **11.43A** and No. **11.44B**) (MOD RRB12/61)

11.48

(ADD RRB16/58)

Note: WRC-15 took the decision related to RR No. **11.48** during the 8th Plenary, Par. 1.39 to 1.42 of Doc. CMR15/505, Approval of Doc. CMR15/416 in relation to Section 2.2.2, as follows:

*“WRC-15 noted the inconsistency between RR No. **11.48** and § 8 of Annex 1 to Resolution 552 (WRC 12) and confirmed its understanding that frequency assignments of satellite networks operating in the 21.4-22 GHz band shall be cancelled by the Bureau 30 days after the end of the seven-year period following the date of receipt by the Bureau of the relevant complete information under RR No. **9.1** or **9.2**, as appropriate, and after the end of the three-year period following the date of suspension under RR No. **11.49***.”*

¹⁰ Similarly applicable to §§4.1.3 or 4.1.3bis or 4.2.6 or 4.2.6bis of Article 4 of Appendices **30** and **30A** and §§6.1 or 6.31bis, and 6.33 of Article 6 of Appendix **30B**.

¹¹ Similarly applicable to §5.3.1 of Article 5 of Appendices **30** and **30A** and §8.16 of Article 8 of Appendix **30B**.

¹² Similarly applicable to §§4.1.3 or 4.1.3bis or 4.2.6 or 4.2.6bis of Article 4 of Appendices **30** and **30A** and §6.33 of Article 6 of Appendix **30B**.

* *Note by the secretariat:* WRC-15 further amended the provisions of No. **11.49**. As a consequence, the “three-year period following the date of suspension” is understood to refer to the end of the maximum period of suspension under No. **11.49**.

11.49 and 11.49.1¹³

1 Suspended assignments

1.1 Under the provisions of No. **11.49**, the Board understands that an administration may inform the Bureau of the suspension of the use of a frequency assignment to a space station for a period not exceeding three years and that during this period the frequency assignment shall still continue to enjoy the protection acquired by virtue of the coordination agreements already obtained. (MOD RRB16/58)

1.2 The Board decided that the procedure described below shall apply. The procedure will only be valid for suspended assignments which are not modified before being brought back into use.

2 Recording of a suspension of use

2.1 When the Bureau is informed, either under No. 11.49 or in response to an inquiry under No. **13.6**, that the use of a frequency assignment to a space station recorded in the Master Register is suspended, this information is published in the relevant Part of the BR IFIC and posted on the BR web page maintained for that purpose (in order to inform all administrations) and the entry in the Master Register will be amended to include the expected date of resumption of use indicated by the notifying administration. (MOD RRB16/58)

2.2 Frequency assignments to space stations whose suspension is notified for a period of not more than three years will continue to be taken into account for the purposes of the examination of other assignments in accordance with Nos. **9.36**, **11.31.1**, **11.32**, **11.32A** and **11.33** until the time that the consultation concerning their resumption of use is completed (see § 2.4 below).

2.3 Frequency assignments to space stations whose suspension is notified for a period of more than three years will not be taken into account for the purpose of examinations of other assignments under Nos. **9.36**, **11.31.1**, **11.32** and **11.32A**, and **11.33** as of the date of such notification or after confirmation from the administration of the period of suspension exceeding three years and shall be cancelled.

2.4 Consultation concerning resumption of use of an assignment

At the expiry of the period of suspension of the use of a frequency assignment, the notifying administration is consulted as to the date of resumption of use. According to the results of the consultation, the Bureau will apply the following procedures:

2.4.1 When the administration informs that the use has been resumed this information is published in PART II-S of the BR IFIC and/or posted on the webpage as appropriate, provided that the effective date of resumption indicated by the administration is prior to the date limit for the resumption of use established in accordance with No. **11.49**. Where the

¹³ Similarly applicable to §§5.2.10 and 5.2.11 of Article 5 of Appendices **30** and **30A** and §8.17 of Article 8 of Appendix **30B**. (ADD RRB16/58)

resumption of frequency assignments pertains to a GSO satellite network, the Bureau will publish the resumption in PART II-S of the BR IFIC only when the notifying administration confirms the deployment and maintenance of the GSO satellite network in accordance with the provision No. **11.49.1**. See also Resolution **40 (WRC-15)**. (MOD RRB16/58)

2.4.2 When the administration notifies that the use will be resumed at a date subsequent to the date limit for the resumption of use established in accordance with No. **11.49**, these assignments shall be cancelled according to the provision No. **11.49**. For those assignments for which the use would be resumed later than the date limit established in accordance with No. **11.49**, the administration responsible for the assignment shall apply again the relevant procedure of Article **9**, Appendix **30, 30A** and **30B**, as appropriate. (MOD RRB16/58)

Note: WRC-15 took the decision related to the RoP on Nos. **11.49** and **11.49.1** during the 12th Plenary, Par. 3.1 to 3.8 of Doc. CMR15/509, Approval of Document CMR15/453, as follows:

*“WRC-15 decided to invite the Radio Regulations Board, in its application of No. **11.49** as revised by WRC -15, to consider any legitimate mitigating circumstances that could result in a notifying administration's inability to meet the six-month deadline. If the Bureau has reliable information that the use of a frequency assignment has been suspended, but it still is within the six-month period, the Bureau is encouraged, as a courtesy, to remind the notifying administration of its obligation to inform the Bureau of the suspension under No. **11.49**.”*
(ADD RRB16/58)

11.50

(ADD RRB14/67)

This provision instructs the Bureau to periodically review the Master Register (MIFR) with the aim of maintaining or improving its accuracy, with particular emphasis on the review of the findings so as to adjust them to the changing allocation situation after each World Radiocommunication Conference. Concerning the latter part of this provision “...with particular emphasis on...”, given a large variety of possible changes in allocation situations and the considerable number of fields used for storing finding information in the MIFR, the Board concluded that the most appropriate way of providing instructions to the Bureau concerning the review of findings would be to determine the main elements for such a review. The Board therefore decided that, in reviewing the findings under No. **11.50**, the following main principles shall be applied, unless otherwise decided by the Conference:

1. When new or modified regulatory provisions enter into force, the findings of the recorded assignments concerned shall be revised and updated by the Bureau with a view to reflecting their compliance with the modified regulatory provisions/allocations.
2. Prior to any action, the Bureau shall contact each notifying administration concerned about the review of findings of the assignments concerned and provide information concerning the possible courses of action, which shall be based on the principles specified in items 3 to 6 below. If no reply is received before the deadline established by the Bureau (normally 30 days from the date of the Bureau’s communication), the Bureau shall send a reminder. If no reply is received within 30 days after the date of the reminder, the Bureau shall implement the proposed course of action.

3. When a change to Article 5 results in abrogation of an allocation to a radiocommunication service, the recorded assignment concerned should be suppressed from the Master Register. If the notifying administration requests to retain the assignment and states that it will be operated in accordance with No. 4.4, the assignment shall be kept in the MIFR for information purposes under the conditions of No. 8.5.

4. When a change to Article 5 results in downgrading of the category of allocation and the downgraded allocation is not subject to any additional conditions, or when the recorded assignment meets all the additional conditions to which the downgraded allocation is subject, the status of the recorded assignment concerned shall be downgraded accordingly and the assignment shall be retained in the Master Register, unless the notifying administration requests its suppression.

When the downgraded allocation is subject to additional conditions and the conditions related to the regulatory examination under No. 11.31 (e.g. power limits, restrictions to national operation, requirements for agreement under No. 9.21, separation distances, etc.) are not met, the Bureau shall propose the deletion of the assignment to the notifying administration, or that its characteristics be modified to comply with the new conditions. If the administration requests to retain the assignment with its characteristics unchanged and states that it will be operated in accordance with No. 4.4, the assignment shall be kept in the MIFR for information purposes under the conditions of No. 8.5. Concerning the application of the relevant coordination procedures, the Bureau shall propose to the notifying administration to suppress or to resubmit the assignment for the application of these procedures. Concerning examination under No. 11.32, the recorded assignment, with its characteristics unchanged, shall be considered as having successfully completed, as of the date of its original recording in the MIFR, the applicable coordination procedures in respect of the services allocated with equal rights.

5. When a change to Article 5 results in the allocation to a new service or upgrade of the category of an existing service, the Bureau shall draw the notifying administration's attention to the recorded assignment concerned, which previously had a lower status or was recorded under the conditions of No. 4.4, and propose to the administration that it submit a new assignment to replace the previous one. The relevant coordination procedures shall apply to the newly submitted assignment and no particular priority shall be given to it in this process. The status of the assignment should be upgraded only if all relevant provisions of the Radio Regulations have been applied. If concurrently with the above new or upgrade allocation to a service (S2), the change to Article 5 also results in the upgrade of the category of another existing service (S1) in the same frequency band, the Bureau shall draw the attention of the administration to its assignments to service S1 recorded in the MIFR or received for coordination prior to the decision of the conference and propose to the administration that it submits a new assignment to replace the previous one within a time limit of up to four months. The Bureau shall then consider that any such new S1 assignment submission received within the time limit does not have to apply the relevant coordination procedure with the assignments of the new or upgrade service S2. (MOD RRB16/58)

Rules concerning

ARTICLE 13 of the RR*

In reviewing Sections III and IV of Article **13**, the Board noted that modifications were introduced by WRC-97 and WRC-03 particularly in relation to the process of considering proposed changes or additions to the Rules of Procedure and the opportunity available to administrations to comment on such proposals.

Nos. **13.12A**, **13.14** and **13.15** in Section III establish procedures for changes to the Rules of Procedure and a sequence for Board consideration, publication, comment by administrations and possible further review or special study. On the other hand, No. **13.17** in Section IV also refers to preparation of draft modifications or additions to the Rules of Procedure.

The Board has concluded that there is a lack of clarity in the procedures to be followed for modifications or additions to the Rules of Procedure.

Accordingly, the Board decided that the following procedures should be followed with respect to the application of Nos. **13.14**, **13.15** and **13.17**:

- a) Proposals for changes or additions to the Rules of Procedure can emerge from administrations, from the Bureau, or from the Board itself. Irrespective of the source of proposals, the Board regards No. **13.17** as requiring that the Bureau should prepare draft modifications or additions to the Rules of Procedure arising from such proposals. In accordance with No. **13.12A c)**, such drafts shall be available to administrations at least ten weeks prior to the start of the Board meeting.
- b) The Bureau, in accordance with No. **13.14**, shall submit to the Board the final drafts of all proposed changes to the Rules of Procedure, as well as the comments received in response to the procedure in *a)* above.
- c) Any need pursuant to No. **13.15**, for a special study in relation to the Rules of Procedure submitted by an administration or identified by the Board or the Bureau, or the need for any new Rules or modification or addition to the existing Rules of Procedure shall be handled in accordance with the procedure in *a)* and *b)* above.

See also Rules of Procedure in Part C (Rules concerning working methods of the RRB).

* **Note:** WRC-15 took the decision related to RR No. **13.6** during the 8th Plenary, Par. 1.39 to 1.42 of Doc. CMR15/505, approval of Doc. CMR15/416 in relation to Section 6 of Doc. 4 (Add2) (Rev1) (Add1)), as follows: *“With regards to the issue of whether partial evidence provided by an administration to support the use of frequency assignments across a frequency band may be considered as sufficient, in a reply to a RR No. **13.6** query, to demonstrate the use, or continuation of use, of frequency assignments in accordance with the notified characteristics recorded in the MIFR, WRC-15 was of the view that administrations need to respond as completely as practicable to queries under RR No. **13.6**. If the Bureau receives what it considers to be a partial reply to a query, it is expected that the Bureau would further clarify the scope of its query for the administration or request additional or alternative information. In addition, it was recognized that WRC-15 agreed some revisions to RR No. 13.6 that are intended to ensure greater transparency in the application of this provision. These revisions should have the consequence of helping to address such issues.”* (ADD RRB16/58)

Rules concerning

ARTICLE 21 of the RR

Table 21-2

(ADD RRB13/64)

Table **21-2** specifies the frequency bands that are shared with equal rights between space services, on the one hand, and the fixed and mobile service, on the other hand, where the terrestrial station is subject to power limits specified in provision Nos. **21.2** to **21.5A**. These power limits are verified during processing frequency assignments by the Bureau under “other provisions” mentioned in No.**11.31** that are mandatory for verification during regulatory examination.

WRC-12 allocated the frequency band 24.75-25.25 GHz to the fixed-satellite service in the Earth-to-space direction in Region 1. As a result, this band is shared with equal rights between the fixed-satellite service (Earth-to-space) and the fixed service; however, this situation is not reflected in Table **21-2**. Recognizing the need for a consistent approach in protection of the fixed-satellite service in Regions 1 and 3, the Board decided that the power limits specified in Nos. **21.3** and **21.5** shall apply to the frequency assignments of the fixed service in the band 24.75-25.25 GHz in Region 1.

21.11

1 When the agreement of an administration concerned is not obtained, the assignment is not in conformity with the Radio Regulations. In order to identify the administrations concerned, the Bureau shall calculate a nominal contour based in all azimuths on the limits specified under No. **21.8** and compare it with the appropriate contour resulting from the notified e.i.r.p. and the antenna diagram. In any azimuth where the second contour exceeds the first one, an agreement under this provision is required with any administration having a territory which lies within the contour. The communication to the Bureau of the agreement of this administration is required for the formulation of a favourable Finding under No. **11.31**.

2 In accordance with this provision, any frequency assignment having an e.i.r.p. that exceeds the limits by more than 10 dB will receive an unfavourable Finding under No. **11.31**.

21.14

Elevation angles lower than 3° would create a high value of the e.i.r.p. towards the horizon. The Board concluded that this provision is to be used together with Section III of Article 21. This means the following:

Irrespective of the e.i.r.p. of the earth station, an elevation angle lower than 3° is subject to the agreement of the administrations concerned. In the case of receiving earth stations, to identify the administrations concerned, a nominal coordination contour is drawn at a 3° elevation angle and compared with the contour for the notified elevation angle. In any azimuth where the second contour exceeds the first one, an agreement under this provision is required with any administration having a territory which lies within the coordination area. The Bureau shall formulate a favourable Finding under No. 11.31 only when it is informed of the formal agreement of these administrations.

Note: WRC-15 took the decision related to the RoP on No. 21.14 during the 8th Plenary, Par. 1.39 to 1.42 of Doc. CMR15/505, approval of Doc. CMR15/416 in relation to Section 3.2.5.2.6 of Doc. 4 (Add2) (Rev1), as follows:

“WRC-15 considered whether existing practice of limiting grid-points to 3° elevation should be maintained when identifying affected administrations and networks under Nos. 9.36 and 9.36.2 and, possibly, extended to No. 9.41 requests from administration, or to remove this limitation from GIBC/AP8/PXT software.

The conference decided to request BR to remove the 3 degree limitation.” (ADD RRB 16/58)

21.16

Application of power flux-density (PFD) limits to steerable beams

1 Use of steerable beams is becoming widespread. PFD values produced by assignments in steerable beams often exceed the applicable hard PFD limits for some or all positions of those beams. In these cases, administrations tend to state that PFD limits will be met and sometimes provide appropriate technical description as to how it would be done.

Rules concerning

ARTICLE 23 of the RR

23.13B and 23.13C

1 In case of a disagreement by an administration on the inclusion of its territory in the service area of a broadcasting-satellite service (except sound broadcasting) network, the Bureau shall modify the service area by excluding the territory of the objecting administration, and for submissions under Article 4 of Appendix **30** the test points situated on that territory, from the service area of the proposed BSS space station. The exclusion of the territory of the objecting administrations from the service area shall be reflected in the Bureau's Space Network System (SNS). In these cases, the reception of the emission of the BSS space station is not entitled to protection within the territory excluded from the service area.

2 If, as a consequence of the above, the notifying administration requests the Bureau to move test points to ensure that the rest of the service area is not adversely affected, the Bureau shall implement the requested changes and update the Reference Situation of the subject network. Nevertheless, the Bureau does not need to review the coordination requirements of subsequent networks that have already been published as a result of the above-mentioned update.

Note: WRC-15 took the decision related to the RoP on Nos. **23.13B** and **23.13C** during the 8th Plenary, Par. 1.39 to 1.42 of Doc. CM15/505, approval of Doc. CMR15/416 in relation to Section 3.2.4.2 of Doc. 4 (Add2) (Rev1), as follows:

*“According to No.23.13B of the Radio Regulations, if an administration, within the four-month period following the publication of a special section for a broadcasting-satellite service (BSS) network submitted under Appendix **30**, informs the Bureau that all technical means have not been used to reduce the radiation over its territory, the Bureau shall draw the attention of the responsible administration to the comment received.*

*Although there is no time-limit for the Bureau to take action, the Bureau has so far sent a telefax immediately to the objecting and the responsible administrations when the comment is received, requesting both administrations to make every effort possible to resolve the issue. Due to the ever-increasing number of comments received under No. **23.13B**, the current approach is affecting the workload for the Bureau.*

*In order to perform this task in a more efficient manner and optimize the resources of the Bureau, the Bureau shall send a multi-countries communication to all those administrations who have made comments under No. **23.13B**, and to the responsible administration for the satellite network in the broadcasting-satellite service at the expiry date of the four-month regulatory period for comments on the BSS satellite network submitted under Appendix **30**.”* (ADD RRB16/58)

Rules concerning

APPENDIX 4 to the RR

An. 1

ITEM 3A1

When submitting a notice within the procedure of Article **11**, the administrations are required to provide information on the call sign or other identification used, as requested by Nos. **19.7** to **19.9** and **19.29**. Bearing in mind the variety of special arrangements concluded between administrations concerning notification of frequency assignments, the Board instructed the Bureau not to perform systematic control of the call signs referred to in No. **19.29** during the validation and examination of the notice. Nevertheless, if non-conformity of the call sign with the international call series is identified, the notifying administration is to be informed thereof.

An. 2

(ADD RRB16/58)

Commitment regarding the implementation or resolves 1.4 of Resolution 156 (WRC-15)

The Board noted that *resolves* 1.5 of Resolution **156 (WRC-15)** requests administrations to submit to the Bureau a commitment for implementation of *resolves* 1.4 of the same resolution. The Board further noted that this data element is mandatory in the case of submission of notification or coordination of a geostationary satellite network using the frequency bands 19.7-20.2 GHz and 29.5-30.0 GHz for earth stations in motion communicating in the fixed-satellite service.

However this data element is missing in Appendix **4**. To correct this inconsistency, the Board decided that the Administrations will be requested to provide, in addition to the relevant characteristics listed in Appendix **4**, and in accordance of *resolves* 1.5 of Resolution **156 (WRC-15)** a commitment for implementation of *resolves* 1.4 of the same Resolution. The Bureau will then subsequently take account of this data element in its completeness check of the submitted data and in the examination under Nos. **9.35** and **11.31** of the Radio Regulations.

A.17.d

(ADD RRB16/58)

WRC-15 modified item A.17.d to submit the mean power flux-density (pfd) produced at the Earth's surface by any space borne sensor for the frequency band 9 900 – 10 400 MHz for satellite system operating in the Earth exploration-satellite service (active) as defined in Table 21-4. As the limits are dependent on the angles of arrival, the mean pfd has to be provided for each angle of arrival. The formula defining the mean pfd defined in Table 21-4 is given in No. **21.16.8**. The Bureau may calculate the mean power flux-density based on the angles of arrival if the information on the necessary bandwidth (item C.7a), which is not currently required for active or passive sensors, is submitted. The necessary bandwidth information is also required

for the Bureau to examine the conformity of the submitted frequency assignments with respect to No. **5.474A**.

In view of the above the Board decided that the Administrations shall provide, in addition to the relevant characteristics listed in Appendix **4**, the SAR emission bandwidth information under C.7.a (necessary bandwidth) for active sensors operating in the Earth exploration-satellite service (active) in the frequency band 9 900-10 400 MHz instead of submitting the mean pfd. The Bureau will then subsequently take account of this data element in the examination under No. **11.31** of the Radio Regulations. (ADD RRB16/58)

A.18 a)

The Board noted that the description of Annex 2 of Appendix **4**, § A.18 a) corresponds to the commitment required from an administration in the case of the possible communication of aircraft earth stations in the secondary aeronautical mobile-satellite service with space stations in the fixed-satellite service, in accordance with No. **5.504A**. The Board further noted that this data element is mandatory in the case of submission of notification or coordination of a geostationary or a non-geostationary satellite network.

However, this data element is also required to check under No. **11.31** the compliance with respect to No. **5.504A** of the notification of an aircraft earth station in the secondary aeronautical mobile-satellite service communicating with a space station in the fixed-satellite service. This requirement was probably omitted by inadvertence at WRC-03.

To correct this inconsistency, the Board decided that the Administrations will be requested to provide, in addition to the relevant characteristics listed in Appendix **4**, the data element described in § A.18 a) of Annex 2 of Appendix **4**, when submitting the notification information of an aircraft earth station in the secondary aeronautical mobile-satellite service communicating with a space station in the fixed-satellite service in accordance with No. **5.504A**. The Bureau will then subsequently take account of this data element § A.18 a) in its completeness check of the submitted data.

B.4 a)

When submitting a notice within the applicable procedures of Articles 9 or 11, in order to better describe the power flux-density pattern on the surface of the Earth resulting from the emission of a space station aboard a non-GSO satellite in circular orbit, the following optional information can be provided together with the other data contained in Appendix 4:

Appendix 4, Annex 2A, § B.4 a) (non-GSO space station antenna characteristics)

1 In addition to the information currently contained in Appendix 4 to be provided under this item, if appropriate, indicate:

1.1 in the case of a transmitting space station aboard a non-GSO satellite in a circular orbit that is intended to communicate with earth stations via a transmitting antenna pointing in a direction that is fixed with respect to the satellite, the maximum isotropic gain (dBi) and the gain contours plotted in a radial projection from the satellite onto a plane perpendicular to the axis from the centre of the Earth to the satellite. The space station antenna gain contours shall be drawn as isolines of the isotropic gain at least for -2, -4, -6, -10, and -20 dB and at 10 dB intervals thereafter, as necessary, relative to the maximum antenna gain, when any of these contours is located either totally or partially within the limit of visibility of the Earth from the given non-GSO satellite;

1.2 in the case of a space station aboard a non-GSO satellite in a circular orbit where a steerable beam is used, data on the antenna radiation characteristics as follows:

- if the effective boresight area (see No. 1.175) is identical with the global or nearly global service area, provide only the maximum isotropic antenna gain (dBi) that is then applicable to all points on the surface of the Earth;
- if the effective boresight area (see No. 1.175) is less than the global or nearly global service area, provide the maximum isotropic gain and the effective gain contours (see No. 1.176) as defined above.

2 The additional information detailed in § 1.1 and 1.2 above is considered as optional. When examining such a case, the Bureau shall use the more detailed information to calculate power flux-density values if it is provided; if it is not the calculation shall be made as at present and be based on the maximum e.i.r.p. transmitted.

An. 4

Need for coordination of a transmitting space station in the fixed-satellite service or in the broadcasting-satellite service where this service is not subject to a Plan: in Region 2 (11.7-12.2 GHz) with respect to the Plan, the List or proposed new or modified assignments in the List for Regions 1 and 3; in Region 1 (12.5-12.7 GHz) and in Region 3 (12.2-12.7 GHz) with respect to the Plan or proposed modifications to the Plan in Region 2; in Region 3 (12.2-12.5 GHz) with respect to the Plan, List or proposed new or modified assignments in the List for Region 1

(See Article 7)

Clarification on the implementation of Annex 4 to Appendix 30

1 The examination will consider only those administrations having assignments to BSS space stations subject to a Plan whose necessary¹² bandwidth overlaps the necessary¹² bandwidth of the proposed FSS (or BSS not subject to a Plan) assignment.

2 In the absence of available service area contour of the BSS assignment, the methodology described in Annex 4 to Appendix 30 will be applied but instead of verifying the power flux-density compliance over any portion of the service area, it will be verified at each of the BSS test-points associated with the service area of the corresponding BSS assignment.

An. 5

Technical data used in establishing the provisions and associated Plans and the Regions 1 and 3 List, which should be used for their application

**3.5.1
and 3.8**

(MOD RRB16/58)

These sections govern the channel spacing between the assigned frequencies of two adjacent channels and the necessary bandwidth values for systems in the Plans for Regions 1, 2 and 3. They also state that “if different bandwidths and/or channel spacing are submitted, they will be treated in accordance with applicable ITU-R Recommendations for protection masks when

¹² In the absence of a clear indication of the precise frequency of each carrier within the assigned frequency band, the Bureau uses in its analysis the assigned frequency band (i.e. data item C.3 a) of Annex 2A of Appendix 4) instead of the necessary bandwidth (i.e. data item C.7 a) of Annex 2A of Appendix 4).

available. In the absence of such Recommendations, the Bureau will use the worst-case approach.”

Noting that Recommendation ITU-R BO.1293-2 provides a method for calculation of interference only between assignments using different channelling and bandwidth in the case of a digital interferer, the Board therefore decided that, as an interim measure, until the applicable ITU-R Recommendations for protection masks/calculation method are available the calculation methods shown in the Table 1 shall be applied when calculating interference between two assignments in the Plans and/or modifications to Plans.

TABLE 1 (MOD RRB16/58)

Wanted assignment	Interfering assignment	Method to be applied
“Standard” ¹ analogue	“Standard” analogue	As defined in Annex 5 to Appendix 30
“Non-standard” analogue	“Standard” analogue	As described in the Bureau’s MSPACE Manual
“Standard” analogue	“Non-standard” analogue	As described in the Bureau’s MSPACE Manual
“Non-standard” analogue	“Non-standard” analogue	As described in the Bureau’s MSPACE Manual
Digital	“Standard” or “non-standard” analogue	As described in the Bureau’s MSPACE Manual
“Standard” or “non-standard” analogue	Digital	As defined in Recommendation ITU-R BO.1293-2 ²
Digital	Digital	As defined in Recommendation ITU-R BO.1293-2 ²

¹ The standard analogue assignments mentioned in the Table 1 above are those assignments in the Region 2 Plan with 24 MHz bandwidth, 14.58 MHz channel spacing and the assigned frequencies as specified in Article 10 of Appendix 30.

² Recommendation ITU-R BO.1293-2 (Annexes 1 and 2) is applied which is referred to in § 3.4 of Annex 5 to Appendix 30 and § 3.3 of Annex 3 to Appendix 30A.

b) *Implementation of the power flux-density limit referred to in the first paragraph of Section 4 of Annex 1 to Appendix 30A*

The power flux-density limit of $-76 \text{ dB(W/(m}^2 \cdot 27 \text{ MHz))}$ which is indicated in the first paragraph of Section 4 of Annex 1 to Appendix 30A was established in order to protect BSS feeder-link assignments from interference which may be caused by BSS feeder-link networks located outside an arc of $\pm 9^\circ$ around the wanted BSS feeder-link network, under worst-case station-keeping conditions. Therefore, this power flux-density limit was intended to be considered as a hard-limit that shall not be exceeded. (MOD RRB12/60)

c) *Implementation of the equivalent protection margin degradation criterion referred to in the third paragraph of Section 4 of Annex 1 to Appendix 30A*

1 In accordance with the third paragraph of Section 4 of Annex 1 to Appendix 30A, an administration, which has assignment(s) in the 14 or 17 GHz Plan, in the 14 or 17 GHz List or assignment(s) for which the procedure of Article 4 of Appendix 30A has already been initiated, is considered as affected by a proposed new or modified assignment in the 14 or 17 GHz List if all the following conditions are met:

- the orbital spacing between both assignments is less than 9° , under worst-case station-keeping conditions; and
- there is a frequency overlap between the bandwidths assigned to each assignment; and
- the reference equivalent protection margin of at least one of the test-points⁵ of that wanted assignment falls more than 0.45 dB below 0 dB, or if already negative, more than 0.45 dB below that reference equivalent protection margin value.

d) *Reference protection margin*

See comments made under § d) of the Rules of Procedure relating to § 1 of Annex 1 to Appendix 30.

⁵ In the case of a wanted assignment in the Plan, the test-points referred to in this paragraph are those defined in that Plan. In the case of a wanted assignment in the List or for which the procedure of Article 4 of Appendices 30/30A has already been initiated, the test-points referred to in this paragraph are those provided under former Annex 2 to Appendices 30/30A or under Appendix 4.

An. 3

**Technical data used in establishing the provisions and associated Plans
and Regions 1 and 3 feeder-link Lists, which should be used
for their application**

1.7

(MOD RRB16/58)

The footnote to this provision states that “in certain cases (e.g. when the channel spacing and/or bandwidth are different from the values given in § 3.5 and 3.8 of Annex 5 to Appendix 30), the Bureau will use the worst-case approach until a relevant ITU-R Recommendation is incorporated in this Annex by reference”.

Noting that Recommendation ITU-R BO.1293-2 provides a method for calculation of interference only between assignments using different channelling and bandwidth in the case of a digital interferer, the Board therefore decided that, as an interim measure, until the applicable ITU-R Recommendations for protection masks/calculation method are available the calculation methods shown in Table 1 shall be applied when calculating interference between two assignments in the Plans and/or modifications to Plans.

TABLE 1 (MOD RRB16/58)

Wanted assignment	Interfering assignment	Method to be applied
“Standard” ¹ analogue	“Standard” analogue	As defined in Annex 3 to Appendix 30A
“Non-standard” analogue	“Standard” analogue	As described in the Bureau’s MSPACE Manual
“Standard” analogue	“Non-standard” analogue	As described in the Bureau’s MSPACE Manual
“Non-standard” analogue	“Non-standard” analogue	As described in the Bureau’s MSPACE Manual
Digital	“Standard” or “non-standard” analogue	As described in the Bureau’s MSPACE Manual
“Standard” or “non-standard” analogue	Digital	As defined in Recommendation ITU-R BO.1293-2 ²
Digital	Digital	As defined in Recommendation ITU-R BO.1293-2 ²

¹ The standard analogue assignments mentioned in the Table 1 above are those assignments in the Region 2 Plan with 24 MHz bandwidth, 14.58 MHz channel spacing and the assigned frequencies as specified in Article 9 of Appendix 30A.

² Recommendation ITU-R BO.1293-2 (Annexes 1 and 2) is applied which is referred to in § 3.4 of Annex 5 to Appendix 30 and § 3.3 of Annex 3 to Appendix 30A.

3

Power-control

Paragraph 3.11.4 of Annex 3 to Appendix 30A states that “In the event of modifications to the Plan, the Bureau shall recalculate the value of power control for the assignment subject to modification and insert the appropriate value for assignment in the Plan. A modification to the Plan shall not require the adjustment of the values of permissible power increase of other assignments in the Plan”. Therefore, the Board decided that, the Bureau, immediately after the Regions 1 and 3 feeder-link Plan (14 GHz or 17 GHz) is updated and before Part B publication is effected, shall recalculate the power control values and inform about its findings the responsible administration, as appropriate. If the values referred to in the above paragraph need to be adjusted, the responsible administration shall seek all the possible means to solve the matter with the affected administrations.

Note: WRC-15 took the decision related to the RoP on Annex 3 of Appendix 30A during the 8th Plenary, Par. 1.39 to 1.42 of Doc. CMR15/505, approval of Doc. CMR15/416 in relation to Section 3.2.6.2 of Doc. 4 (Add2) (Rev1), as follows:

*“WRC-15 clarified that the use of power control should be extended to assignments in the Region 1 and 3 List and the corresponding RoP should be modified accordingly.”**
(ADD RRB16/58)

* This Rule of Procedures on Annex 3 of Appendix 30A §3 shall be brought in conformity with the decision of WRC-15 reflected in the minutes of the 8th Plenary meeting. To this end, the Board instructed the Bureau to develop a modification to the RoP on power control which would ensure its consistency with the above-mentioned WRC-15 decision. (ADD RRB16/58)

3 In order to facilitate the implementation of the orbital position selection approach described in § 8 below, the new Member State may provide under § 7.2 *c*) of Article 7 of Appendix **30B** its preferred orbital position(s) and/or its preferred orbital arc(s), bearing in mind that the implementation of these preferences might not be possible due to excesses of interference to or from other allotments or assignments of Appendix **30B**.

4 The Bureau shall establish the required minimum elevation angles associated to each test-point in accordance with § 1.3 of Annex 1 to Appendix **30B**. The service arc shall then be calculated in order to meet the required minimum elevation angles of all test-points.

5 With regard to the generation of the minimum ellipse to cover the national territory of the new Member State, the Bureau shall use a space station antenna beam pointing error of 0.1° for the generation of elliptical beams under Article 7 of Appendix **30B**.

6 With regard to the transmitting and receiving space station antenna maximum gain values, as a function of the major and minor axes of the ellipse, instead of using the definition contained in § 1.7.2 of Annex 1 to Appendix **30B** the Bureau shall use the more precise formula defined in § 3.13.1 of Annex 5 and § 3.7.1 of Annex 3 of Appendices **30** and **30A**, respectively.

7 With regard to the calculation of the maximum power density values, the Bureau shall assume the worst-case conditions in terms of space station antenna pointing error and rotational accuracy for the calculation of the antenna gain in the direction of each test-point, in order to ensure that the objective *C/N* ratios defined in § 1.2 of Annex 1 to Appendix **30B** are met for all test points, i.e., assume the minimum gain value of the antenna, taking into account a pointing error of 0.1° and a rotational accuracy of $\pm 1.0^\circ$.

8 With regard to the selection of orbital position, the Bureau shall use an automated approach based on an iterative process as follows:

8.1 Once the service arc is calculated, as mentioned in § 4 above, an iterative process is implemented to identify suitable orbital position(s) within that arc for the allotment to the new Member State in question.

8.2 The Bureau shall assume a minimum orbital position step of 0.1° in this process.

8.3 Each new possible orbital position shall be examined by the Bureau as follows:

- regenerate the elliptical beam parameters;
- recalculate the required power density values;
- using the criteria³ of Annex 3 and Annex 4 of Appendix **30B**, determine whether the new allotment at that orbital position is compatible with the allotments and the assignments as mentioned in § 7.5 of Article 7.

9 The Bureau shall identify the most appropriate orbital position(s) with the aim to minimize the *C/I* excesses caused or received from other allotment(s), or assignment(s) of Appendix **30B** and send this information to the requesting administration in accordance with § 7.3 of Article 7.

³ For a request from a new Member State received before 17 November 2007, a single entry of 25 dB and an aggregate *C/I* of 21 dB shall be applied.

7.5 a)

See Rules of Procedure relating to § 6.3 a).

(ADD RRB12/60)

Art. 8

**Procedure for notification and recording in the Master Register
of assignments in the Planned bands for the
fixed-satellite service**

8.8

See Rules of Procedure relating to § 6.3 a).

(ADD RRB16/58)

Rules concerning

RESOLUTION 49 (Rev.WRC-15)

Administrative due diligence applicable to some satellite radiocommunication services

In accordance with *resolves* 1 of this Resolution, the administrative due diligence procedure contained in Annex 1 to this Resolution shall be applied as from 22 November 1997 for a satellite network or satellite system of the fixed-satellite service, mobile-satellite service or broadcasting-satellite service for which the advance publication information was published under No. **9.2B**.

WRC-15 suppressed the submission of API for satellite systems that are subject to coordination procedure in Section II of Article 9 and modified the provisions Nos. **9.1** and **9.2** accordingly, with provision No. **9.2B** applicable now only to API for satellite systems that are not subject to coordination procedure in Section II of Article 9.

In conformity with footnote 4 (No. **A.9.4**) to the title of Article 9 and §1 to Annex 1 to Resolution **49 (Rev.WRC-15)**, Resolution **49** shall continue to be applied with respect to those satellite networks and satellite systems that are subject to coordination under Nos. **9.7**, **9.11**, **9.12**, **9.12A** and **9.13**. The Board understands that *resolves* 1 of Resolution **49 (Rev.WRC-15)** is also applicable for a satellite network or satellite system of the fixed-satellite service, mobile-satellite service or broadcasting-satellite service for which the advance publication information was published under No. **9.1A**.

9) The Board also noted that this Rule of Procedure does not require any modification to the current practice by the Bureau in processing notices for the application of Articles 4 and 5 of the GE06 Agreement. Similarly this Rule of Procedure does not apply to other primary terrestrial services.

10) This ROP is applicable immediately, irrespective of the date of entry in the Plan/MIFR of the concerned assignments/allotments.

Art. 4

Procedure for modifications to the Plans and procedure for coordination of other primary terrestrial services

4.1.1

1) This provision specifies the various cases envisaged in the procedure for modifications to the Plans. Essentially, the procedure provides a phased approach in the case when an administration wishes to add to the digital Plan an allotment and assignment(s) stemming from that allotment: the administration firstly needs to successfully complete the Plan modification procedure for the allotment and, once the allotment is entered in the digital Plan, the administration could apply the procedure referred to in No. 4.1.1 *c*). Therefore, the Board concluded that there was no possibility for simultaneous application of the procedure for adding an allotment to the Plan and the procedure of adding assignment(s) stemming from that allotment and instructed the Bureau to act accordingly.

2) In the case of proposed changes to the characteristics of an allotment already included in the Plan, which also comprises one or several assignments stemming from the allotment already included in the Plan, the Bureau will follow the following procedure:

- in the application of No. 4.1.1 *a*), the Bureau will publish the characteristics of the modified allotment; to this end, the Bureau will include such notes in the concerned Special Section, as may be appropriate, to indicate the applicable situations, notably: (1) that the Plan contains one or more assignments stemming from the original allotment which would be reviewed after the successful completion of the Plan modification procedure in respect of the concerned allotment, and (2) that the administration concerned announced a submission of other assignments stemming from the modified allotment, which would be examined after the successful completion of the Plan modification procedure for the modified allotment and appropriately reflected in another Special Section;

- until the successful completion of the Plan modification procedure for the modified allotment, the Bureau will retain the previous allotment (together with the assignments stemming from that allotment);
- after the successful completion of the Plan modification procedure for the modified allotment, the Bureau will include it in the Plan (as a replacement for the previous allotment) and will examine all the assignments stemming from the previous allotment, if any, with respect to their conformity with the replacement allotment. If the assignments are in conformity with the replacement allotment, they will be maintained in the Plan; otherwise they will be deleted from the Plan and the administration concerned will be informed accordingly. The notifying administration, if it so wishes, may submit other assignment(s) stemming from the modified allotment under provision No. 4.1.1 c); upon receipt of these other assignments stemming from the modified allotment, the Bureau will examine them under No. 4.1.2.7 and will act accordingly.

4.1.4/4.2.4

(ADD RRB16/58)

Rule of Procedure

Sections 4.1.4 and 4.2.4 of the GE06 Regional Agreement outline the procedures to be followed by administrations and the Bureau for obtaining the agreement from administrations which are considered to be affected and whose agreement are yet to be obtained.

Paragraphs 4.1.4.10 and 4.2.4.9, in particular, instruct the Bureau to send, upon request of an administration, a reminder requesting a decision from administrations, which did not reply within the 75-day period after the date of the publication of the relating BR IFIC.

In addition to sending the reminders pursuant to § 4.1.4.10 or § 4.2.4.9 of the GE06 Regional Agreement, the Bureau will make them available simultaneously for the administrations concerned using another electronic means of communication e.g. using the web application “MyAdmin” (see CR/408, dated 5 July 2016).

Paragraphs 4.1.4.11 and 4.2.4.10 state that if no decision is communicated to the Bureau within 40 days after the date of dispatch of the reminder, it shall be deemed that the administration has agreed to the proposed modification.

Art. 5

Notification of frequency assignments

5.1.2

1) This provision deals with the examination by the Bureau of the assignment with respect to No. **11.34** of the Radio Regulations (RR), i.e., its conformity with the Plans and the associated provisions. For the case of an analogue television assignment, sub-paragraph a) applies and it requires that the conditions of Section II of Annex 4 be met. However, Section II of Annex 4 deals only with the examination of conformity with the digital Plan entry. The Board concluded that, by analogy with § 4.2 of Section II of Annex 4 (dealing with digital plan entry comprising one assignment only), the notified frequency assignment to an analogue television assignment will be considered as compliant with the analogue television

Plan if it fulfils the conditions specified in § 4.2 of Section II of Annex 4, as adapted to the case of analogue television assignment.

2) In addition, the Board concluded that the analogue television assignments in the bands 174-230 MHz (for Morocco 170-230 MHz) and 470-862 MHz, which were recorded in the Master Register at the time of the establishment of the GE06 analogue Plan with favourable findings under No. **11.34** of the RR, shall retain such favourable findings as long as their characteristics and the characteristics of the equivalent entry in the analogue television plan of the GE06 Agreement remain unchanged.

5.1.2 e)

1) If the digital Plan entry bears a remark with respect to assignments in the analogue Plan or to existing assignments to other primary terrestrial services, the finding of the notified frequency assignment referring to this digital Plan entry and being within the scope of provision No. 5.1.2 e) shall be favourable if all the necessary agreements have been obtained and if the conditions specified in Section II of Annex 4 are met.

2) If the digital Plan entry bears a remark with respect to entries in the digital Plan, the finding of the notified frequency assignment referring to this digital Plan entry and being within the scope of provision No. 5.1.2 e) shall be favourable if the notifying administration states that all conditions associated with the remark are fully met, and the conditions of Section II of Annex 4 are met.

3) For the case of a T-DAB frequency assignment, notified under No. 5.1.2 e) of the GE06 Agreement, using a DVB-T single assignment Plan entry in the digital Plan, if the notified frequency assignment uses the same part of the spectrum of the DVB-T Plan assignment more than once, the finding of the notified assignment will be unfavourable and the notice will be returned to the notifying administration.

4) For the case of a T-DAB frequency assignment, notified under No. 5.1.2 e) of the GE06 Agreement, using a DVB-T Plan (assignment or allotment) entry, when examining if the conditions in Section II of Annex 4 of the GE06 Agreement are met, the Bureau will augment the notified e.r.p. of the T-DAB assignment by a corresponding correction factor indicated in the table below to take into account the difference in spectral power densities as a result of the different bandwidths of the T-DAB assignment and the DVB-T Plan entry. The values of the correction factor are calculated as the ratio of the digital television broadcasting Plan entry bandwidth and the necessary bandwidth of the notified assignment.

**Correction factor to be applied to the e.r.p.
of notified T-DAB assignments**

	DVB-T Plan entry channel arrangement	
	7 MHz	8 MHz
Correction factor	6.371 dB	6.950 dB

NOTE – If there is one or more DVB-T Plan entries using system variant of 64-QAM 7/8, located within 1000 km (the limit of the propagation model described in Annex 2 of the Agreement) of the transmitter site of the notified T-DAB assignment, a correction factor of 8.1 dB will be used.

5.1.3

1) This provision deals with notification of a digital broadcasting entry in the Plan with characteristics different from those appearing in the Plan. The definition of the “digital Plan entry”, as contained in No. 1.3.18 of Annex 1 to the GE06 Agreement, includes both assignments and allotments. However, and in view of the formulation of No. 5.1 of the GE06 Agreement, the Board concluded that, in the application of No. 5.1.3 of the GE06 Agreement, administrations can notify only frequency assignments.

2) For the examination of the conformity of the frequency assignment in the broadcasting service or in other primary services, notified under No. 5.1.3 of the GE06 Agreement, with the corresponding “digital entry in the Plan”, the Bureau would need to ascertain that the notified frequency assignment does not exceed the interference potential of the corresponding digital broadcasting entry in the Plan. Provision No. 5.1.3 indicates only the condition that the peak power density of the notified frequency assignment, in any 4 kHz, shall not exceed the spectral power density in the same 4 kHz of the digital broadcasting entry in the Plan. Item 5.6 of Table 3 of Annex 3 to the GE06 Agreement indicates that this is the spectral power density delivered to the antenna transmission line. The Board understands that the maximum spectral power-density (dB(W/Hz)) (Item 8AC, Annex 1 of Appendix 4 (Rev.WRC-07)) averaged over the worst 4 kHz band is based on the maximum effective radiated power. The Bureau will take into account the spectral power-density of the notified assignment by first calculating the equivalent maximum effective radiated power (e.r.p.) of the notified frequency assignment to which is applied a correction factor that takes into account the difference in spectral power-densities as a result of the different necessary bandwidths of the frequency assignment and the corresponding Plan entry. The equivalent effective radiated power is derived from the necessary bandwidth and the peak spectral power-density of the notified assignment and the bandwidth of the digital broadcasting Plan entry, as given in the equation below:

$$e.r.p_{eq, max} = SPD_{max} + 10 \log_{10}(BW_{NA}) + 10 \log_{10}\left(\frac{BW_{PE}}{BW_{NA}}\right) \quad \text{dBW}$$

where:

SPD_{max} : maximum spectral power density (dB(W/Hz)) (Item 8AC, Annex 1 to Appendix 4 (Rev.WRC-07)) averaged over the worst 4 kHz band and based on the maximum effective radiated power

BW_{NA} : notified necessary bandwidth (Hz) (Item 7AB, Annex 1 to Appendix 4 (Rev.WRC-07));

PART B

SECTION B6

(MOD RRB16/58)

Rules concerning criteria for applying the provisions of No. 9.36 to a frequency assignment in the terrestrial services whose allocation or identification is governed by Nos. 5.292, 5.293, 5.295, 5.296A, 5.297, 5.308, 5.308A, 5.309, 5.323, 5.325, 5.326, 5.341A, 5.341C, 5.346, 5.346A, 5.429D and 5.429F¹

1 The identification of the administrations with which coordination may need to be effected is based on the characteristics of the assignment that is subject to the procedure of No. 9.21 and the worst-case assumptions relating to the propagation characteristics and other technical parameters. These worst-case assumptions were developed on the basis of the information contained in various sources (GE06 Regional Agreement, ITU-R Recommendations and Reports), since the Radiocommunication Bureau has no Technical Standards for application in several frequency bands above 28 MHz.

2 For identification of the administrations whose agreement may need to be obtained, in the context of the provisions of Nos. 5.292, 5.293, 5.295, 5.296A, 5.297, 5.308, 5.308A, 5.309, 5.323, 5.325, 5.326, 5.341A, 5.341C, 5.346, 5.346A, 5.429D and 5.429F, the following criteria are applied:

2.1 the *coordination distance concept* is applied with respect to the services that are allocated according to Article 5 (these services are indicated in the Table below under the heading “Protected service”);

¹ See also Rules of Procedure to Nos. 5.316B, 5.341A and 5.346.

TABLE 1
Applicability of No. 9.21

Footnote	Frequency band (MHz)	Allocated service (No. 9.21)	Protected service
5.292 ¹	470-512	FS, MS	BS
5.293 ¹	470-512 and 614-806	FS, MS	BS
5.295	470-512	LMS (IMT)	BS, FS
	512-608	LMS (IMT)	BS
5.296A	470-698	LMS (IMT)	BS, FS
	585-610	LMS (IMT)	RNS
5.297	512-608	FS, MS	BS
5.308	614-698	MS	BS
5.308A	614-698	MS (IMT)	BS
5.309 ¹	614-806	FS	BS, MS
5.323	862-960	ARNS	FS, MS
5.325 ¹	890-942	RLS	FS, MS
5.326 ¹	903-905	LMS, MMS	FS
5.341A ²	1 429-1 452	LMS (IMT)	AMS
	1 492-1 518		
5.341C	1 429-1 452	LMS (IMT)	AMS
	1 492-1 518		
5.346 ²	1 452-1 492	LMS (IMT)	AMS
5.346A	1 452-1 492	LMS (IMT)	AMS
5.429D	3 300-3 400	LMS (IMT)	RLS
5.429F	3 300-3 400	LMS (IMT)	RLS

¹ Different category of service.

² For frequency assignments subject to this provision the No. 9.21 procedure does not apply to those administrations whose territories are outside of the distances specified in the corresponding Rules of Procedure on No. 5.341A and No. 5.346.

2.2 The *case-by-case* verification is performed for the assignments submitted under the procedure of No. 9.21. This verification consists in determining the distance from the location of a station subject to No. 9.21 to the border of a neighbouring country. In case this distance is shorter than the respective coordination distance, the administration of this neighbouring country is identified as affected.

3 In the calculation of the coordination distances the following approach is used:

3.1 For the protection of the broadcasting (television) service in the frequency band 470-806 MHz, from the radio services indicated in Column 3 of Table 1, in the context of the provisions of Nos. **5.292**, **5.293**, **5.295**, **5.296A**, **5.297**, **5.308**, **5.308A** and **5.309**, the coordination distances are calculated using propagation curves of Recommendation ITU-R P.1546-5 for 1% of time and 50% of locations with the coordination trigger field strengths produced at a height of 10 m above ground level as provided in the GE06 Agreement and given in Table 2.

TABLE 2

Coordination trigger field strengths for protection of BS

Service to be protected	Trigger field strength (dB(μ V/m))		
	470-582 MHz	582-718 MHz	718-806 MHz
BS	18	20	22

3.2 For the protection of the fixed service in the frequency band 470-698 MHz from IMT, in the context of the provision of Nos. **5.295** and **5.296A**, the coordination trigger field strength of 13 dB(μ V/m) produced at a height of 10 m above ground level is used.

3.3 For the protection of the radionavigation services in the frequency band 585-610 MHz from IMT, in the context of the provision of No. **5.296A**, the coordination distances are calculated using propagation curves of the Recommendation ITU-R P.1546-5 for 10% of time and 50% of locations with the trigger field strength 13 dB(μ V/m), as given in the GE06 Agreement, produced at height of 10 m above ground level.

3.4 For the protection of the fixed and mobile services, from the radionavigation and radiolocation services, in the context of the provisions of Nos. **5.323** and **5.325**, propagation curves from Recommendation ITU-R P.528-3 are used in connection with the following data:

Minimum field strength to be protected (FX): 30 dB(μ V/m), $PR = 8$ dB.

3.5 For the protection of the fixed service in the frequency band 903-905 MHz, from the land mobile and maritime mobile services, in the context of the provisions of No. **5.326**, the coordination distances are calculated using propagation curves of the Recommendation ITU-R P.1546-5 for 10% of time and 50% of locations with the coordination trigger of 17 dB (μ V/m) produced at the height of 10 m above ground level.

3.6 For protection of ground-based stations in the aeronautical mobile service in the frequency band 1 429-1 518 MHz from IMT, in the context of the provisions of Nos. **5.341A**, **5.341C**, **5.346** and **5.346A**, the coordination distances are calculated using the propagation curves given in Recommendation ITU-R P.1546-5 for 10% of time and 50% of locations with the coordination trigger power flux density of -181 dB(W/m²) within 4 kHz of reference bandwidth produced at the height of 10 m above ground level as given in Recommendation ITU-R M.1459-0.

For protection of stations on-board aircraft in the aeronautical mobile service, the coordination distance of 450 km is used.

3.7 For protection of the radiolocation service in the frequency band 3 300-3 400 MHz from IMT in the context of the provisions of Nos. **5.429D** and **5.429F**, the coordination distance is contained in Table 3.

TABLE 3

**Coordination distance for protection of the RLS
(from the IMT system, effective antenna height 30 m)
in the frequency band between 3 300-3 400 MHz**

Footnote	Frequency range (MHz)	Allocated service (application) (No. 9.21)	Protected service	Coordination distance (km)
5.429D 5.429F	3 300-3 400	LMS (IMT)	RLS	616

NOTE – The coordination distance was calculated using the propagation curves of Recommendation ITU-R P.528-3 for 1% of time and 50% of locations with the interference level of -107 dBm for protection of the airborne radar at the height of 10 000 m derived from Recommendation ITU-R M.1465-2. A reference IMT Advanced station was assumed as having radiated power of 31 dBW (e.i.r.p.) and a bandwidth of 10 MHz as used in Report ITU-R M.2292-0.

