

# **ЗАКОН**

## **О ПОТВРЂИВАЊУ ЗАВРШНИХ АКТА СВЕТСКЕ КОНФЕРЕНЦИЈЕ О РАДИО-КОМУНИКАЦИЈАМА (WRC-07)**

### **Члан 1.**

Потврђују се Завршна акта Светске конференције о радио-комуникацијама (WRC-07), сачињена 16. новембра 2007. године у Женеви, Швајцарска, у оригиналу на енглеском језику.

### **Члан 2.**

Текст Завршних аката Светске конференције о радио-комуникацијама (WRC-07), у оригиналу на енглеском језику и у преводу на српски језик, гласи:

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**of the World Radiocommunication Conference**  
**(WRC-2007)**  
Geneva, 2007

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**Partial revision of the Radio Regulations**

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## Preamble

The World Radiocommunication Conference (Geneve, 2003) resolved, by Resolution **802 (WRC-03)**, to recommend to the ITU Council that a World Radiocommunication Conference be held in 2007 for a period of four weeks.

At its 2004 session, the Council resolved, by its Resolution 1227, that the Conference be convened in Geneva from 22 October to 16 November 2007, and established its agenda. The agenda, dates and place were approved by the required majority of the Member States of the Union.

The World Radiocommunication Conference (WRC-07) met in Geneva for the stipulated period and worked on the basis of the agenda approved by the Council. It adopted a revision of the Radio Regulations and Appendices thereto, as contained in these Final Acts.

In accordance with its agenda, the Conference also took other decisions that it considered necessary or appropriate, including the review and revision of existing Resolutions and Recommendations as contained in these Final Acts.

The majority of the provisions revised by WRC-07, as contained in the revision of the Radio Regulations referred to in this Preamble, shall enter into force as from 1 January 2009; the remaining provisions shall apply as from the dates indicated in the Resolutions listed in Article **59** of the revised Radio Regulations.

The delegates signing the revision of the Radio Regulations contained in these Final Acts, which is subject to approval by their competent authorities, declare that, should a Member State of the Union make reservations concerning the application of one or more of the provisions of the revised Radio Regulations, no other Member State shall be obliged to observe that provision or those provisions in its relations with that particular Member State.

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IN WITNESS WHEREOF, the delegates of the Member States of the International Telecommunication Union named below have, on behalf of their respective competent authorities, signed one copy of these Final Acts. In case of dispute, the French text shall prevail. This copy shall remain deposited in the archives of the Union. The Secretary-General shall forward one certified true copy to each Member State of the International Telecommunication Union.

Done at Geneva, 16 November 2007

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Abderrahim KHAF AJI

Adil ARAMJA

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**For the Republic of Montenegro:**

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**For the Republic of Mozambique:**

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**For the Union of Myanmar:**

Nyunt SWE

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**For the Republic of Namibia:**

Berthos HARA-GAEB

**For Nepal:**

Sohan B. NYACHAYON

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**For the Republic of Niger:**

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**For the Federal Republic of Nigeria:**

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**For Norway:**

Geir Jan SUNDAL

**For New Zealand:**

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Bruce EMIRALI  
Alex ORANGE  
Alan JAMIESON  
Peter LAKE  
Ian GOODWIN

**For the Sultanate of Oman:**

Suad Bin S. AL-NABHANI

**For the Republic of Uganda:**

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Geoffrey SENGENDO  
Joanita NAMPEWO

**For the Republic of Uzbekistan:**

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**For the Islamic Republic of Pakistan:**

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Mohammad K. NOOR

**For the Republic of Panama:**

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Fokko BOS

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Nabil EL-DEBES

Moustafa AJENEH

Mohammed HASSAN

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**For the Democratic People's Republic of Korea:**

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Michele GIRI

**For the Republic of Senegal:**

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**For the Republic of Seychelles:**

George AH-THEW

**For the Republic of Singapore:**

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Nattawut ARD-PARU

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**For Turkey:**

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**For Ukraine:**

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**For the Bolivarian Republic of Venezuela:**

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**For the Socialist Republic of Viet Nam:**

Doan Quang HOAN

**For the Republic of Yemen:**

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Abdulhameed S. ALI HAIDARAH  
Abdulhafidih AL-BUTHIGI  
Abdullah M. Yeslm BIN SAAD

**For the Republic of Zambia:**

Patrick M. MUTIMUSHI

**For the Republic of Zimbabwe:**

Charles M. SIBANDA

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## Declarations and Reservations

At the time of signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the undersigned delegates take note of the following declarations and reservations made by signatory delegations:

### 1

*Original: Spanish*

*For the Republic of Paraguay:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Paraguay declares that it reserves for its Government the right:

- to take any action it considers necessary to safeguard its interests, should other Members of the International Telecommunication Union fail in any way to observe the Final Act, the Annexes hereto and Radio Regulations, or should reservations by other Members jeopardize the proper functioning of telecommunication services or its full sovereign rights;
- to formulate, under the Vienna Convention on the Law of Treaties, 1969 years, additional declarations or reservations to these Final Acts at any time its sees fit between the date of signature and the date of the possible ratification of international instruments constituting these Final Acts.

### 2

*Original: English*

*For Iceland, the Principality of Liechtenstein and Norway:*

The delegation of the above-mentioned Member States of the European Economic Area declare that the above-mentioned Member States of the European Economic Area will apply the revision of the Radio Regulations adopted at this Conference in accordance with their obligations under the Treaty establishing the European Economic Area.

### 3

*Original: Spanish*

*For the Eastern Republic of Uruguay:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Eastern Republic of Uruguay declares that it reserves for its Government the right:

- to take any action it considers necessary to safeguard its interests, should other Members of the International Telecommunication Union fail in any way to observe the Final Act, the Annexes hereto and Radio Regulations, or should reservations by other Members jeopardize the proper functioning of telecommunication services or its full sovereign rights;
- to make additional reservations, under the Vienna Convention on the Law of Treaties 1969 years, to the Final Acts of the World Radiocommunication Conference (Geneve, 2007) at any time its sees fit between the date of signature and the date of the possible ratification of international instruments constituting these Final Acts.

4

*Original: English*

*For the Republic of Bulgaria:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Bulgaria reserves for its Government the right to take such action as it may consider necessary to safeguard its interests should any Member of the Union fail to comply with the provisions of the Final Acts adopted by the Conference or should reservations by other countries jeopardize the proper operation of its telecommunication services.

5

*Original: English*

*For the Union of Myanmar:*

The delegation of the Union of Myanmar to the World Radiocommunication Conference (WRC-07) reserves the right to Mijanmarske Union Government the right to take any action it deems necessary to safeguard its interests should any Member or Members of the International Telecommunication Union fail, in any way, to comply with the Final Act of the Conference and the Annex attached thereto, or should any of the reservations made by other Members jeopardize its telecommunication services or infringe its national sovereignty.

6

*Original: English*

*For the Socialist Republic of Viet Nam:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Socialist Republic of Vietnam Government reserves for its Government the right to take any measures and actions that it might deem necessary to safeguard its interests if another Member of the International Telecommunication Union should in any way fail respect the conditions specified in the Final Acts or if the reservation and declaration made by any Members of the Union should be prejudicial to the operation of telecommunications / information and communication services of Viet Nam or violate fundamental principles of laws and public order in Viet Nam.

The Delegation of Viet Nam further declares that it reserves for its Government the right to make any declaration or reservation at any time.

7

*Original: English*

*For the Republic of Singapore:*

The delegation of the Republic of Singapore reserves its Government the right to take any action it considers necessary to safeguard its interests should any Member of the Union fail in any way to comply with the requirements of the Final Act of the World Radiocommunication Conference (Geneva, 2007), or should reservations by any Member of the Union jeopardize the Republic of Singapore's telecommunication services, affect its sovereignty or lead to an increase in its contributory share towards defraying the expense of the Union.

8

*Original: English*

*For the Republic of Zambia:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Zambia reserves the right for its Government to take any action and preservation measures it deems necessary to safeguard its national interest should any Member States in any way fail to comply with the provisions of the Radio Regulations, the Constitution and Convention of the International Telecommunication Union and Resolutions of the World Radiocommunication Conference (Geneva, 2007), directly or indirectly affect its sovereignty or be in contravention to the Constitution, Laws and Regulations of the Republic of Zambia as a party the other treaties and conventions and conventions and any principles of international law.

9

*Original: English*

*The Democratic People's Republic of Korea:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Democratic People's Republic of Korea reserves for its Government the right to take any measures it might deem necessary to protect its interest, should any Member State of the Union fail to abide by the provisions of these Final Acts or comply with them or should reservations, made by other countries, jeopardize the efficient operation of its telecommunication services.

10

*Original: English/*

*Spanish/*

*French*

*For the Federal Republic of Germany, Austria, Belgium, Bulgaria, Republic of Cyprus, Denmark, Spain, the Republic of Estonia, Finland, France, Greece, Hungary, Ireland, Italy, Republic of Latvia, the Republic of Lithuania, Luxembourg, Malta, the Kingdom of the Netherlands, the Republic of Poland, Portugal, Slovak Republic, Czech Republic, Romania, United Kingdom of Great Britain and Northern Ireland, the Republic of Slovenia, Sweden:*

The delegations of the Member States of the European Union declare that the Member States of the European Union will apply the revision of the Radio Regulations adopted at this Conference in accordance with their obligations under the EC Treaty.

11

*Original: Spanish*

*For the Dominican Republic:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Dominican Republic:

- a) reserves for its Administration the right to take any measures it may consider necessary, in conformity with its domestic law, to safeguard its interest should any other Member of the Union fail to respect the Final Acts, or enter reservations that may jeopardize the operation of telecommunication services within its territory;
- b) reserves as well the right to amend the foregoing reservations and declarations and to enter further reservations or declarations at the time of depositing with the International Telecommunication Union its consent to be bound by the revision of the Radio Regulations adopted by the World Radiocommunication Conference (Geneva, 2007).

**12**

*Original: Spanish*

*For the Bolivarian Republic of Venezuela:*

The delegation of the Bolivarian Republic of Venezuela reserves for its Government the right to take such action as it may consider necessary to safeguard its interests should another Member State of the International Telecommunication Union fail in any way to comply with the provisions of these Final Acts or should reservations entered by any other country be prejudicial to or liable in any way to have an adverse effect on the operation of its telecommunication services .

**13**

*Original: English*

*For the Republic of San Marino:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of San Marino declares that it reserves for its Government the right:

1. to take any action preservation measures it deems necessary should the consequences of reservations by any Member State put in danger San Marino's radiocommunication services or affect its sovereignty to comply with the provisions of the Final Acts, the Annexes thereto or the Radio Regulations;
2. to express declarations or reservations with respect to the Final Acts of the World Radiocommunication Conference (Geneva, 2007) at the time of deposit of the corresponding instruments of ratification with the International Telecommunication Union.

**14**

*Original: English*

*For the Republic of Kenya:*

The delegation of the Republic of Kenya to the WRC-07 herewith declares on behalf of its Government and on behalf of the powers conferred on it:

1. that it reserves the right of its Government to take any actions it may consider necessary to safeguard and protect its interests should any Member fail to comply as required with the provisions in the Final Acts and Annexes thereto adopted by this Conference;
2. that the Government of Kenya does not accept responsibility for consequences arising out of the reservations made by Members of the Union.

**15**

*Original: English*

*For the Kingdom of Bahrain:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Kingdom of Bahrain reserves for its Government the right to take any actions and measures it deems necessary to protect its interests should any Member State of the International Telecommunication Union (ITU) fail to respect fully the provisions and Resolutions of the Final Acts to comply with them, or should reservations by any Member State jeopardize in any way the telecommunication service of the Kingdom of Bahrain.

**16**

*Original: English*

*For the Kingdom of Bahrain:*

The delegation of the Kingdom of Bahrain for the World Radiocommunication Conference (Geneva, 2007), declares that the signature and possible ratifications by its Government of the Final Acts of this Conference shall not be valid for the ITU Member under the name of "Israel", and in no way whatsoever implies its recognition by its Government to this member.

**17**

*Original: English*

*For the Republic of Angola:*

In signing the Final Acts of the World Radiocommunication Conference (WRC-07), for dealing with frequency allocations in certain parts of the spectrum, the delegation of the Republic of Angola states the intention of its Administration to comply with the provisions of the Final Acts of the Conference without prejudice to the Republic of Angola's sovereign right to safeguard and protect its broadcasting, telecommunication and other services from any Member failing to comply with the provisions of the Radio Regulations as revised by this Conference, particularly new allocations made by this Conference provided on the condition of causing no harmful interference to existing services.

**18**

*Original: English*

*For the Republic of Mozambique:*

In signing the Final Acts of the World Radiocommunication Conference (WRC-07), for dealing with frequency allocations in certain parts of the spectrum, the delegation of the Republic of Mozambique states the intention of its Administration to comply with the provisions of the Final Acts of the Conference without prejudice to the Republic of Mozambique's sovereign right to safeguard and protect its broadcasting, telecommunication and other services from any Member failing to comply with the provisions of the Radio Regulations as revised by this Conference, particularly new allocations made by this Conference provided on the condition of causing no harmful interference to existing services.

**19**

*Original: French*

*For the Gabonese Republic:*

In signing the Final Acts of the ITU World Radiocommunication Conference, held in Geneva (Switzerland) from 22 October to 16 November 2007, the delegation of the Gabonese Republic reserves for its Government the right:

1. to take any necessary measures to safeguard its interests should certain Member States fail, in any way, to comply with the provisions of the Radio Regulations of International Telecommunications Union or the instruments of amendment adopted by the World Radiocommunication Conference (Geneva, 2007), or should the reservations made by other Member States during this Conference be such as to jeopardize the proper functioning of its telecommunication services;
2. to accept or not any financial consequences that may arise from such reservations;
3. to enter any additional reservations it may deem necessary until such time as the instruments of ratification are deposited.

**20**

*Original: Spanish*

*For Spain:*

1. The delegation of Spain declares on behalf of its Government that it reserves for the Kingdom of Spain the right, in accordance with the Vienna Convention on the Law of Treaties of 23 May 1969, year, to express reservations to the Final Acts adopted by this Conference until such time as, in accordance with Article 54 of the Constitution of the International Telecommunication Union, it consents to be bound by the revision to the Radio Regulations contained in those Final Acts.
2. The delegation of Spain declares on behalf of its Government that "country" in any reference in the Radio Regulations and in the Resolutions and Recommendations adopted by this Conference, as a subject to rights and obligations will be understood only as constituting a sovereign State.

**21**

*Original: English*

*For the Islamic Republic of Iran:*

In the name of God, Compassion and Mercy.

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Islamic Republic of Iran formally declares that:

1. The delegation of the Islamic Republic of Iran reserves for its Government the right to take all actions it deems necessary to safeguard its interest should it be affected by decisions taken at this Conference, or by failure on the part of any other country or administration in any way to comply with the provisions of the instruments amending the Constitution and Convention of the International Telecommunication Union, or the Annex or Protocols and Regulations, attached thereto, or the Final Acts of this Conference, or should the reservations, declarations or additional reservation and declarations by other countries or administration jeopardize the proper and efficient operation of its telecommunication services, or infringe the full exercise of the sovereign rights of the

Islamic Republic of Iran.

2. The delegation of the Islamic Republic of Iran reserves for its Government the right to make additional reservation when ratifying the Final Act of this Conference.

**22**

*Original: English*

*For Turkey:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Turkey formally declares that reserves the rights for its Government to take any measures which it deems necessary to protect taken by the Conference in modifying, amending, deleting and adding provisions, footnotes, tables, Resolutions and Recommendations in the Radio Regulations, should any Member of the Union fail, in any way, to comply with the provision of the Final Acts, Annexes and the Radio Regulations thereto, in using its existing services and introducing new services for space, terrestrial and other applications or should any reservation made by other Members jeopardize the proper operation of its telecommunication services.

2. The delegation of Turkey further reserves the rights of its Government to make additional declarations and reservation as may be necessary when depositing its instruments of ratification of the Final Act of the World Radiocommunication Conference (Geneva, 2007).

**23**

*Original: English*

*For the Federal Republic of Nigeria:*

In signing the Final Acts of of the World Radiocommunication Conference (WRC-07) held in Geneva (Switzerland) from 22 October to 16 November 2007. , the delegation on behalf of the Administration of the Federal Republic of Nigeria declares as follows:

a) that, it acknowledges the need for the development of radiocommunication services and networks worldwide as a means of enhancing sustainable development in the interests of humanity and the environment;

b) that, the Administration of the Federal Republic of Nigeria reserves the right to take any action it considers necessary to safeguard its interests and in particular its existing and planned radiocommunication services and networks should a Member of the Union not comply with the provisions of the Final Acts of this Conference in such a way that it affects the proper functioning of the radiocommunication systems, services and networks;

c) further, the Administration of the Federal Republic of Nigeria reserves the right to make additional declarations and reservations at the time of its notification to the ITU of its ratification of these Final Acts.

**24**

*Original: French*

*For the Republic of Côte d'Ivoire:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the Republic of Côte d'Ivoire declares:

1. that it reserves for its Government the right to take any measures it may deem necessary to safeguard its interests should any Member State of the International Telecommunication Union fail,

in any way, to comply with or apply the provisions of the Radio Regulations or of the Constitution and the Convention of the International Telecommunication Union;

2. that it also reserves for its Government the right to take any safeguard or other measures it may deem necessary should reservations by any Member State jeopardize the radiocommunication service or impair sovereignty of Côte d'Ivoire;

3. that it reserves the right to make additional declarations or reservations with regard to the Final Acts of the World Radiocommunication Conference (Geneva, 2007) at the time of deposit of the corresponding instrument of ratification with the International Telecommunication Union.

**25**

*Original: French*

*For the Republic of Senegal:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Senegal reserves the right:

1. to take all measures necessary to safeguard its interests, should any Members fail in any way whatsoever to comply with the decisions taken at WRC-07 (Geneva, 2007), or should reservations made by other Members be such as to jeopardize the operation of its radiocommunication services;

2. to accept, or not accept, the consequences of certain decisions that might impair its sovereignty.

**26**

*Original: English*

*For South Africa:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of South Africa reserves for its Government the right to take any such action as it may consider or deem necessary:

1. to safeguard its interests should any Member of the Union, in any way, fail to comply with the provisions of the Constitution and Convention of the International Telecommunication Union, the Radio Regulations of the ITU and the Final Acts of the World Radiocommunication Conference (Geneva, 2007);

2. should any reservation by a Member of the Union, directly or indirectly, affect the operation of its telecommunication services; and

3. to protect its telecommunication services, if any Member of the Union contravenes any term or condition of the Final Acts of the World Radiocommunication Conference (Geneva, 2007) either in whole or in part.

The Government of the Republic of South Africa reserves its right to make any such additional declarations and reservations as may be necessary up to, and including, the time of ratification of the Final Acts of the World Radiocommunication Conference (Geneva, 2007).

Further, the Government of the Republic of South Africa reiterates and incorporates by reference, all declarations made at all prior world radiocommunications conferences.

**27**

*Original: French*

*For the Togolese Republic:*

In signing the Final Acts of the World Radiocommunication Conference (WRC-07), the Togolese delegation declares that the Togolese Republic shall not be bound by any provisions thereof which may impair its sovereignty or infringe its national laws or the international agreements to which it is party.

In addition, the Togolese Republic shall not be obliged to apply the provisions of the Final Acts in respect of parties that fail to apply them, and reserves the right to propose amendments, should the need arise and in accordance with the rules of form and procedure established for that purpose .

**28**

*Original: English*

*For the Republic of India:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of India reserves for its Government the right to take such actions, as may be considered necessary, to safeguard its interests, should any administration make reservation and/or not accept the provisions of the Final Acts or fail to comply with one or more provisions of the Final Acts, including those which form a part of the Radio Regulations.

**29**

*Original: English*

*For Australia:*

The delegation of Australia at the 2007 World Radiocommunication Conference hereby declares that it reserves for its Government the right to make declarations or reservations before or at the time of depositing an instrument of ratification for the Final Acts of the 2007 World Radiocommunication Conference of the International Telecommunication Union held in Geneva from 22 October to 16 November 2007, in accordance with Article 32B of the Convention of the International Telecommunication Union (Geneva, 1992), as amended by the Plenipotentiary Conference (Minneapolis, 1998).

**30**

*Original: Arabic*

*For the Kingdom of Saudi Arabia:*

The delegation of the Kingdom of Saudi Arabia, in signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), reserves for its Government the full right to take any actions and measures it deems necessary to protect its interests should any Member State of the International Telecommunication Union ( ITU) fail to respect fully the provisions and Resolutions of the Final Acts or to comply with them or should any actions or reservations by any Member State jeopardize in any way the telecommunication services of the Kingdom of Saudi Arabia.

**31**

*Original: Spanish*

*For Costa Rica:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Costa Rica:

1. declares that it reserves for its Government the right to take any measures it considers necessary, in conformity with its domestic legislation and international law, to safeguard its national interests should other Members fail to comply with the provisions of the Final Acts of the World Radiocommunication Conference (Geneva, 2007), or should reservations by representatives of other States jeopardize the telecommunication services of the Republic of Costa Rica or its full sovereign rights,
2. declares that the Republic of Costa Rica shall be bound by the provisions contained in the Final Acts of the World Radiocommunication Conference (Geneva, 2007) only insofar as it expressly and duly consents to be bound, and subject to the fulfilment of the appropriate constitutional procedures.

**32**

*Original: English*

*For the Federal Republic of Brazil:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the Brazilian delegation reserves for its Administration the right to take such measures as it might deem necessary to safeguard its interests if any Member State of the Union should in any way fail to respect the conditions specified in the Final Acts, or if the reservation made by any Member State should be prejudicial to the operation of radiocommunications services in Brazil. Furthermore, Brazil reserves the right to make additional specific declarations or reservations at the time of deposit of its notification to the International Telecommunication Union of its consent to be bound by the revisions to the Radio Regulations adopted by the World Radiocommunications Conference (Geneva, 2007).

**33**

*Original: English*

*For the Republic of Indonesia:*

On behalf of the Republic of Indonesia, the delegation of the Republic of Indonesia to the World Radiocommunication Conference WRC-07 (Geneva, 2007):

- reserves the right for its Government to take any action and preservation measures it deems necessary to safeguard its national interests should any provision, Recommendations and Resolution of the World Radiocommunication Conference (Geneva, 2007), directly or indirectly affect its sovereignty or be in contravention to the Constitution, Laws and Regulations of the Republic of Indonesia as a party to other treaties and conventions and any principles of international law;
- further reserves the right for its Government to take any action and preservation measures it deems necessary to safeguard its national interest should any Member in any way fail to comply with the provisions of the Radio Regulations, the Constitution and the Convention of International Telecommunication Union, or should the consequences of reservations by any Member jeopardize its telecommunication services or result in an increase of its contributory share towards defraying expenses of the Union.

**34**

*Original: English*

*For New Zealand:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the New Zealand delegation reserves for its Government the right to take such measures as it might deem necessary to safeguard its interests if any other country should in any way fail to respect the conditions specified in the Final Acts or if the reservation made by any other country should be prejudicial or detrimental to New Zealand's interests. In addition, New Zealand reserves the right to make appropriate specific reservations and statements prior to ratification of the Final Acts.

**35**

*Original: French*

*For the Republic of Mali:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Mali reserves for its Government the right to take any measures it may deem necessary to safeguard its interests should other Members fail to comply with the provisions of these Final Acts or the Annexes thereto, or should reservations by other countries cause harmful interference or jeopardize the smooth operation of its telecommunication services.

**36**

*Original: English*

*For Japan:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of Japan reserves for its Government the right to take such actions as it may consider necessary to safeguard its interests should any Member State fail in any way to comply with the requirements of the Constitution and Convention of the International Telecommunication Union, the Radio Regulations of the International Telecommunication Union, or the Final Acts of the World Radiocommunication Conference (Geneva, 2007), or should reservations by other countries jeopardize its interests in any way.

In addition, Japan reserves the right to make additional declarations or reservations prior to its notification to the International Telecommunications Union which expresses its consent to be bound by revisions to the Radio Regulations.

**37**

*Original: English*

*For Brunei Darussalam:*

The delegation of Brunei Darussalam reserves for its Government the right to take any action which it deems necessary to safeguard its interests should any Member of the Union fail in any way to comply with the Radio Regulations as amended by the Final Acts of the World Radiocommunication Conference (Geneva, 2007), or should any reservations by any Member of the Union jeopardize Brunei Darussalam's radiocommunication or telecommunication services, affect

its sovereignty or lead to an increase in its contributory share towards defraying the expenses of the Union.

The delegation of Brunei Darussalam further reserves for its Government the right to make any additional reservations which it deems necessary up to and including the time of its ratification of the Final Acts of the World Radiocommunication Conference (Geneva, 2007).

**38**

*Original: English*

*For Mongolia:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the Mongolian delegation declares on behalf of its Government that:

1. to take any action it consider necessary to safeguard its interests, and in particular, to protect its existing or planned telecommunication networks, systems and services, should a Member of the Union not comply or cease to comply with the provisions of the Acts, or should declarations or reservations made by other Members of the Union affect the proper functioning of its telecommunication networks, systems and services.
2. The Mongolian delegation reserves the right for its Government to take such action as it may consider necessary to safeguard its interests should any Member State of the Union fail in any way to observe or comply with the provisions of these Final Acts or should reservations by other countries jeopardize the proper operation of its radiocommunication services.
3. The Mongolian delegation reserves its right to take any action deemed necessary to protect its interests and to safeguard the operation of its telecommunication services.

**39**

*Original: Spanish*

*For Mexico:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the United Mexican States reserves for its Government the right:

1. to take any measures its considers necessary to protect and safeguard its sovereignty and interests, and in particular, to protect its telecommunications networks, systems and srevise, both existing and planned, should any Member State of the Union in any way fail or neglect to apply the provisions contained in these Acts, including the Decisions, Recommendations, Resolutions and Annexes that from an intergal part of the same, or those provisions contained in the Constitution and Convention of the International Telecommunication Union, or should the proper functioning of its telecommunication networks, systems and services be jeopardize by reason of any declarations or reservations by any Member State of the Union;
2. to take whatever measures it considers necessary to safeguard its interests will respect to the occupation and the use of geostationary orbital positions and the associated radio frequencies, as well as with respect to the use of the radio spectrum to provide telecommunication services, should procedures relating to coordination, notification or associated frequency assignments meet with delays or be hindered, causing prejudice to the country, whether *per se* or by acts of other Member States;
3. to express further reservations, pursuant to the Vienna Convention on the Law of Treaties, with regard to these Acts at any time it sees fit between the date of signature and the date of ratification of the same, in accordance with the procedures established in its domestic legislation; and not to

consider itself bound by any provision in these Acts that might limit its right to express any reservations it may thinkfit; and

In addition to the foregoing, the reservations entered by the Government of the United Mexican States upon signing and ratifying the Final Acts of past World Radiocommunication Conferences and World Administrative Radio conferences, as well as those entered at the time of signature and ratification of the Final Acts of the Additional Plenipotentiary Conference (Geneva, 1992), the Plenipotentiary Conference (Kyoto, 1994), the Plenipotentiary Conference (Minneapolis, 1998), the Plenipotentiary Conference (Marrakesh, 2002) and the Plenipotentiary Conference (Antalya, 2006), have reaffirmed and considered to be reproduced herein as if they had been repeated in full.

**40**

*Original: English*

*For the Vatican City State:*

In signing the Final Acts of the World Radiocommunication Conferences (Geneva, 2007), the delegation of Vatican City State declares that it reserves for its Government the right:

- to express declarations or reservations with respect to the Final Acts of the World Radiocommunication Conferences (Geneva, 2007) at the time of deposit of the corresponding instruments of ratification with the International Telecommunication Union.

**41**

*Original: Spanish*

*For the Republic of Argentina:*

In signing the Final Acts of the WRC-07, the delegation of Argentina declares that, having noted the declarations and reservations expressed by the Member States, its reserves for its Government:

1. the right to adopt any measures that it may deem necessary to safeguard its interests, should other Members of the International Telecommunication Union fail in any way to comply with the Final Acts, the Annexes thereto or the Radio Regulations;
2. The right to express declarations or reservation with respect to the Final Acts of WRC-07, at the time of deposit of the corresponding instrument of ratification with the International Telecommunication Union.

**42**

*Original: English*

*For the Kingdom of Bhutan:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Kingdom of Bhutan:

1. reserves the rights of its Government to take any action and preservation measures it deems necessary to safeguard its national interests should any provision, Recommendation and Resolution of the World Radiocommunication Conference (Geneva, 2007), directly or indirectly affect its sovereignty or be in contravention to the Constitution, Laws and Regulations of the Kingdom of Bhutan;
2. declares that it reserves for its Government the right to take any measures it might deem

necessary to safeguard its interests and to protect the operation of radiocommunication services if any other Member States of the Union should in any way fail to respect the conditions specified in the Final Acts;

3. Further declares that its Government will not accept responsibilities for the consequences of reservations expressed by other Member of the Union.

**43**

*Original: Spanish*

*For the Republic of Guatemala:*

In signing the Final Acts of the World Radiocommunications Conference (Geneva, 2007), the delegation of the Republic of Guatemala declares that:

- a) it reserves for its Administration the adoption of any measures it may deem necessary, in accordance with domestic legislation and international law, to safeguard its interests should any other Members of the Union fail to observe those Final Acts or should reservations be expressed that are prejudicial to the operation of telecommunications services within its territory;
- b) the Republic of Guatemala further reserves the right to amend previous reservations and declarations and to express new reservations and declarations when it decides to deposit with the International Telecommunication Union its consent to be bound by the revisions to the Radio Regulations adopted by the 2007 World Radiocommunications Conference.

**44**

*Original: in Russian*

*For the Republic of Belarus:*

The Government of the Republic of Belarus reserves the right to take any measures it may consider necessary to protect its interests should any Member State of the Union fail to comply with the provisions of the Final Acts of the 2007 World Radiocommunications Conference, or should reservations made upon signing these Final Acts, or other measures taken by any Member State of the Union, jeopardize the efficient operation of telecommunication services of the Republic of Belarus.

**45**

*Original: English*

*For the Republic of Uganda:*

In signing the Final Acts of the World Radiocommunications Conference of 2007 (WRC-07) and having noted some of the declarations of the Member States, the delegation of Uganda (Republic of ) to the World Radiocommunication Conference, reserves for its Government the right to take such measure it considers appropriate to safeguard its legitimate interests on the decision taken by the Conference.

The Government of Uganda, within the provisions of the International Telecommunication Union and the Radio Regulations as revised during the conference deliberations and contained in the Final Acts of the WRC-07, further reserves its right to take any action it finds necessary to safeguard its national interests should the reservations by any administrations affect its national sovereignty.

**46**

*Original: French*

*For the Islamic Republic of Mauritania:*

In signing the Final Acts of the World Radiocommunication Conference (WRC-07) (Geneva, 2007), the delegation of the Islamic Republic Mauritania reserves for its Government the right:

1. to take any measures it deems necessary to safeguard its interests should any Member State of the Union fail to respect or comply with the provisions of these Final Acts, or should reservations by another country be such as to jeopardize the development and smooth functioning of its telecommunication services;
2. to accept, or not accept, the consequences of certain decisions that might have a direct adverse effect upon its sovereignty.

**47**

*Original: in Russian*

*For the Republic of Armenia, the Republic of Azerbaijan, the Republic of Belarus, the Russian Federation, Georgia, Republic of Moldova, Republic of Uzbekistan, the Kyrgyz Republic, the Republic of Tajikistan and Ukraine:*

The delegation of the above-mentioned countries reserves for their respective Governments the right to take action they may consider necessary to protect their interests should any Member State of the Union fail to comply with the provisions of the Final Acts of this Conference, or should reservations made upon signing the Final Acts, or other measures taken by any Member State of the Union , jeopardize the proper operation of those countries telecommunications services.

**48**

*Original: French*

*For the Confederation of Switzerland:*

The Swiss delegation reserves for its Government of the Confederation of Switzerland the right to take any measures it deems appropriate to safeguard its interests relating to the broadcasting service and other radiocommunication services should any Member of the Union fail to abide by its obligations arising from the provisions of the Final Acts of the World Radiocommunication Conference (Geneva, 2007), or should reservations made by or actions on the part of a Member State be such as to jeopardize or are aimed at hindering the smooth functioning of the said services in Switzerland.

**49**

*Original: English*

*For the Republic of Angola:*

World Radiocommunication Conference (WRC-07):

The improvement of the macroeconomic situation of Angola has generated a new dynamics in the sector of telecommunications fostering a considerable growth in recent years, favourable to public

investments and new jobs. This result from the rehabilitation of the main transportation of telecommunications networks, which has improved the traffic flow between provinces, and has also increased the number of users and operators.

Given the fundamental importance of this sector to a developing economy and one with such growth potential, as it is the case of Angola, some legislative reforms have been created to address the management and exploration of the infrastructure, licensing, and equal opportunities.

The modernization of the telecommunication network is one of the concerns of the Angolan Government, which defined it in its development policies as the priority activity sector through public-private partnerships. Other items on the agenda for the restructuring efforts of the sector have been professional education, technical capacity, and technology transfer.

Presently, Angola can rely on the growth and on the significant increase of the number of users of cellular telephony technology, in which the analogue networks have been replaced by digital networks for better quality of service, reduction of costs, mass distribution of information technology, the extension of the radio and television signal to rural areas in the interior of the country, in order to shorten distances, and to facilitate economic stability by rehabilitating the supporting infrastructure of the sector.

**50**

*Original: English*

*For Malaysia:*

The Permanent Representative of Malaysia to the United Nations Office and other international organizations in Geneva, in her capacity as the Alternate Head of the delegation of Malaysia to the 2007 World Radiocommunication Conference (WRC-07), presents her compliments to the Secretary-General of the International Telecommunication Union in Geneva, and with the reference to the Final Acts drawn up in connection with WRC-07, held in Geneva, has the honour to convey the following reservations of Malaysia:

1. The Government of Malaysia reserves the right to take any action or preservation measures it deems necessary to safeguard its national interests should the Final Acts drawn up in the World Radiocommunication Conference (Geneva, 2007), directly or indirectly affect its sovereignty, or be in contravention with the Constitution, Laws and Regulations of Malaysia which exist and may result from any principles of international law, or should reservation by any Member of the Union jeopardize Malaysia's telecommunication and radiocommunication services, or lead to an increase in its contributory share toward defraying the expenses of the Union.
2. The Government of Malaysia further reserves the right to make reservations as may be necessary up to, and including, the time of ratification of the Final Acts of the World Radiocommunication Conference (Geneve, 2007).

The Permanent Representative of Malaysia to the United Nations Office and other international organizations in Geneva avails herself of this opportunity to renew to the Secretary-General of the International Telecommunication Union in Geneva the assurances of her highest consideration.

**51**

*Original: English*

*For the Republic of Hungary:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Hungary reserves for its Government the right to take such action as it may consider necessary to safeguard its interests should any Member State of the Union fail in any way to observe or comply with the provisions of these Final Acts or should reservations by other countries jeopardize the proper operation of its radiocommunications services.

The delegation of the Republic of Hungary, further declares that it reserves for its Government the right:

- to make any additional statements or reservation when depositing its instruments of ratification for the Final Acts of the World Radiocommunication Conference (Geneva, 2007);
- to take action if necessary, to protect its broadcasting service covered by the GE06 Agreement in safeguarding its interest and for its satisfactory operation as may be stipulated under its national regulations.

**52**

*Original: English*

*For the United Republic of Tanzania:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the United Republic of Tanzania declares that it reserves the right for its Government:

1. to take any measures that it may deem necessary to safeguard its interests, should other Members of the International Telecommunication Union, in any way fail to comply with the provisions of the Constitution and Convention of the Union, the Radio Regulations of the Union and the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the Annexes thereto; and
2. to make such additional declarations and reservations that it may be necessary up to, and including, the time of ratification of the Final Acts of the World Radiocommunication Conference (Geneva, 2007);
3. to take any measures it may deem necessary and appropriate to protect and safeguard its national interests and rights with respect to radiocommunications, should they be affected or prejudiced, directly or indirectly by reservations expressed by other administrations or by actions not in accordance with international laws;
4. to accept, or not accept, any financial consequences that may arise from such reservations.

**53**

*Original: English*

*For the Republic of Ghana:*

1. The delegation of Ghana, in signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007) held in Geneva, Switzerland, from 22 October to 16 November, 2007. year, reserves for its Government the right to take any such action it may consider necessary to safeguard its interests, should any Member of the Union fail to comply with the provisions of the Constitution and Convention of the International Telecommunications Union (ITU), the Radio Regulations of the ITU and the Final Acts of the World Radiocommunication Conference (Geneva,

2007).

2. The Government of Ghana reserves the right to express reservations on any provisions of the Final Acts deemed to be incompatible with the constitution, laws and regulations of the country.

**54**

*Original: English*

*For the Republic of Zimbabwe:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Zimbabwe declares that the Government of the Republic of Zimbabwe reserves the right to take all measure it may deem necessary to protect its sovereignty and national interests, if any of the regulations are used by any country against the sovereign right of the Republic of Zimbabwe to regulate the orderly deployment and operation of its national and international telecommunication and radiocommunications networks.

**55**

*Original: English*

*For the Republic of Cyprus:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Cyprus reserves for its Government the right to take such measures as it may deem necessary to safeguard its interests should other Member States services fail to comply with the provisions of these Final Acts or under their radiocommunication services for purposes contrary to those established in the Preamble to the Constitution of the International Telecommunication Union. Accordingly, the Republic of Cyprus reserves the right to make additional declarations or reservations at the time of deposit of its instruments of ratification of these revisions to the Radio Regulations. The Republic of Cyprus shall not be deemed to have consented to be bound by revisions to the Radio Regulations adopted at this Conference without the specific notification to the International Telecommunication Union by the Republic of Cyprus of its consent to be bound.

**56**

*Original: English*

*For the Republic of Botswana:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Botswana declares that its Administration will comply with the provisions of the Final Acts without prejudice to its sovereign right to take any measures that the Government of Botswana deems necessary to safeguard its telecommunication services in the event of harmful interference caused to the said services by any Member of the Union failing to comply with the provisions of the Radio regulations as revised and adopted by this Conference. Further, the delegation of Botswana declares that for its Government reserves the right to provide any statements and reservations when depositing its instruments of ratification of the Final Acts of the World Radiocommunication Conference (Geneva, 2007).

**57**

*Original: English*

*For the State of Kuwait:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), a delegation of the State of Kuwait reserves for its Government the right to take any actions and measures it deems necessary to protect its interests, should any Member State of the International Telecommunication Union (ITU) fail to respect fully the provisions and Resolutions of the Final Acts or to comply with them, or should reservations by any Member State jeopardize in any way the telecommunication services of the State of Kuwait.

**58**

*Original: English*

*For Canada:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of Canada reserves for its Government the right to take any measure it might deem necessary to protect its interests if another Member State of the Union in any way fails to comply the conditions specified in the Final Acts or if the reservations made by any Member State should be prejudicial to the operation of radiocommunication services in Canada.

Further, the delegation of Canada declares that it reserves its Government the right to make declarations or reservations when depositing its instrument of ratification for the amendments adopted at this World Radiocommunication Conference (Geneva, 2007) to the Radio Regulations and the amendments thereto. Canada further reiterates and incorporates by reference all reservations and declarations made at world radiocommunication conferences prior to the signing of these Final Acts.

**59**

*Original: English*

*For the Sultanate of Oman:*

In signing the Final Acts of the World Radiocommunication Conference (WRC-07), the delegation of the Sultanate of Oman reserves for its Government the right:

- to take any actions and measures it may deem necessary and appropriate to protect and safeguard its national interests, should any Member State of the International Telecommunication Union (ITU) fail to fully respect the provisions and Resolution of the Final Acts or to comply with them or should reservations by any Member State jeopardize in any way the telecommunication services of the Sultanate of Oman;
- to apply the reservations of the Radio Regulations that are adopted at this Conference in accordance with its obligations under its national rules and regulations;
- to express any additional reservations that it may deem necessary up to, and including, the time of its ratification of the Final Acts of this Conference;

In addition, the delegation of Oman to this Conference states the following reservation:

- the Sultanate of Oman is not in favour of authorizing any satellite networks crossing its national airspace that may affect the existing and planned services.

**60**

*Original: French*

*For the Republic of Rwanda:*

In signing the Final Acts of the World Radiocommunication Conference 2007, the delegation of the Republic of Rwanda reserves for its Government the right to take any measure it may deem necessary to protect its interests, in accordance with national legislation and the international treaties to which Rwanda is party, should Members State of the International Telecommunication Union fail in any way to abide by the provisions of the ITU Constitution and Convention or should reservations expressed by other countries jeopardize its interests.

**61**

*Original: English*

*For the State of Qatar:*

The delegation of the State of Qatar to the World Radiocommunication Conference (WRC-07) reserves the right of the Government of the State of Qatar to take any action deemed necessary to protect the interests of the State of Qatar, in the event of any Member country failing, in any way, to comply with the provisions, Resolutions or Recommendations contained in the Final Acts of this Conference or in the event of any reservations made by other countries jeopardizing the implementation or operation of the provisions contained therein.

**62**

*Original: Chinese*

*For the People's Republic of China:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the People's Republic of China states:  
The Chinese delegation reserves the right for its Government to take any measures and actions it may deem necessary to protect its interests should other Member State of the International Telecommunication Union in any way fail to comply with or to execute the provisions of the Final Acts or the Radio Regulations, or should reservations or declarations made by of other Member States jeopardize the legitimate use by the Chinese Government of its radio spectrum and satellite orbit resources as well as the security of its radio services or the proper operation of its telecommunication services or affect the full exercise of its sovereign rights. In addition, it also reserves the right for its Government to make any additional reservation it may consider necessary up to and at the time of its ratification of these Final Acts.

**63**

*Original: Arabic*

*For the Arab Republic of Syria:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, WRC-07), the delegation of the Syrian Arab Republic reserves for its Government the following rights when depositing the approval of said instruments:

1. To confirm all the written and oral declaration submitted by its delegation separately or jointly with other Arab delegations attending the Conference, and its right to make any other additional

reservations upon ratification.

2. To take any measures it deems necessary to protect its interests, especially its sovereign right to protect its wireless stations on its territory from harmful interference.

3. The signature of these Final Acts shall be considered valid only with Member States of the International Telecommunication Union which are recognized by the Syrian Arab Republic.

**64**

*Original: English*

*For the State of Israel:*

The Government of the State of Israel hereby rejects the following decision in the Final Acts of the World Radiocommunication Conference International Telecommunication Union (Geneva, 2007) in line with the regard to the addition of the sentence "This allocation is in effective until 16 June 2015" to No. 5.316 of the Radio Regulations and with regard to the possible situation pertaining to No. 5.316B in which stations operating under the conditions of No. 5.316 and has the right to claim protection under that footnote, but are according to certain claims (which Israel does not accept) may be subjected to the successful application of the procedure of the GE06 Agreement after 16 June 2015.

**65**

*Original: English*

*For the Republic of Sudan:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Sudan reserves for its Government the right to take any actions and measures as it might deem necessary to protect its national interests should any Member of the Union, in any way, fail to comply with the provisions of the Constitution and Convention of the International Telecommunication Union (ITU), the Radio Regulations and the Final Act of the World Radiocommunication Conference (Geneva, 2007), or should reservation by any Member State jeopardize in any way the telecommunication services of the Republic of Sudan.

**66**

*Original: English*

*For Malta:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of Malta reserves for its Government the right to take such action as it may consider necessary to protect its interests should any Member of the Union fail in any way to observe or comply with the provisions of the Final Acts adopted by the Conference or should reservations by other countries jeopardize the proper operation of its telecommunication services.

**67**

*Original: English*

*The United Arab Emirates:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the United Arab Emirates formally declares:

1. that the delegation of the United Arab Emirates reserves for its Government the right to take any action as it may consider necessary to protect its interests should they be affected by decisions taken at this Conference, or by failure on the part of any other country or administration in any way to comply with the provisions amending the Constitution and Convention of the International Telecommunication Union, or the Annex or Protocols, and Regulations attached thereto, or the Final Acts of this Conference, or should the reservations, declarations or additional reservations and declarations by other countries or administrations jeopardize the proper and efficient operation of its telecommunication services, or infringe the full exercise of the sovereign rights of the United Arab Emirates.
2. that the delegation of the United Arab Emirates reserves for its Government the right to make additional reservations when ratifying the Final Acts of this Conference.

**68**

*Original: English*

*For the Republic of Korea:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Korea reserves for its Government the right to take any measures as it might deem necessary to safeguard its interests if any other Member State of the Union should in any way fail to respect the conditions specified in the Final Acts or if the reservations made by other countries should be prejudicial to the efficient operation of its telecommunication services.

**69**

*Original: English*

*For the Republic of Namibia:*

In signing the Final Acts of the World Radiocommunication Conference (WRC-07), for dealing with frequency allocations in certain parts of the spectrum the delegation of the Republic of Namibia states the intention of its Administration to comply with the provisions of the Final Acts of the Conference without prejudice the Republic of Namibia's sovereign rights to take any measures that the Government deems necessary to safeguard and protect its broadcasting, telecommunication and other services in the event of harmful interference caused to the said services by any Member failing to comply with the provisions of Conference on the condition of causing no harmful interference to existing services.

**70**

*Original: English*

*Republic of Montenegro:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Montenegro declares that it reserves for its Government the right:

1. to take any actions and preservation measures it deems necessary should the consequences of reservations by any Member State put in danger Montenegro's radiocommunication services or affect its sovereignty to comply with the provisions of the Final Acts, the Annexes thereto or the Radio Regulations;
2. to express declarations or reservations with respect to the Final Acts of the World Radiocommunication Conference (Geneva, 2007) at the time of deposit of the corresponding instruments of ratification with International Telecommunication Union.

71

*Original: Spanish*

*For Cuba:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of Cuba reserves for its Government the right to take such action as it may consider necessary to safeguard its interests, should other Member State:

- fail to comply with the provisions of the Final Acts;
- use their radiocommunication services, for purposes contrary to those established in the Preamble to the Constitution of the International Telecommunication Union;
- fail to fulfill their international obligations in regard to radiocommunications or fail to abide by the provisions of the Radio Regulation, and particularly the principle contained in No. 0.4 of the Preamble thereto, or should they use broadcasting stations operating abroad an aircraft to transmit solely into Cuban territory without permission of Cuba, a practice which this Conference has determined to be contrary to the Radio Regulations.

The delegation of Cuba incorporates by reference the declarations and reservations entered in Cuba's name at previous world radiocommunication conferences and in particular Declaration 80 entered at the Plenipotentiary Conference (Antalya, 2006).

The delegation of Cuba reserves for its Government the right to make any additional declarations or reservation that it may consider necessary until the time of its ratification of these documents.

72

*Original: French*

*For the Kingdom of Morocco:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Kingdom of Morocco reserves for its Government the right to take any action or measures as it may deem necessary to safeguard its interests, should a Member State of the International Telecommunication Union (ITU) fail to respect fully the provisions or Resolution of the Final Acts, or fail to comply with them, or should the reservations entered by another Member State in any way jeopardize the smooth operation of the telecommunication services of the Kingdom of Morocco.

73

*Original: English*

*For Papua New Guinea:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of Papua New Guinea, on behalf of the Government of Papua New Guinea, in light of declarations and reservations deposited by other Member State of ITU, is obliged to reserve for its Government the right to take such action as it may consider necessary to safeguard and preserve its national interests should any Member State of ITU fail to observe the provisions of the Final Acts adopted by this Conference and in so doing cause harmful and / or unacceptable interference to, or, should reservations or actions of such Member States jeopardize the proper operation of radiocommunication and/or telecommunication systems and services which are under the jurisdiction of the Government of Papua New Guinea.

74

*Original: Spanish*

*For the Republic of Colombia*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Colombia:

1. Declares that it reserves Government the right:

a) to take any measures it considers necessary, in conformity with its domestic legislation and international law, to safeguard its national interests should other members fail to comply with the provisions of the Final Acts of the World Radiocommunication Conference (Geneva, 2007), or should reservations by representatives of other States jeopardize the telecommunications services of the Republic of Colombia or its full sovereign rights;

b) to express reservations, under the Vienna Convention on the Law of Treaties of 1969, with regard to the Final Acts of the World Radiocommunication Conference (Geneva, 2007), at any time it sees fit between the date of the signature and the date of the possible ratification of the international instruments constituting those Final Act.

2. Reaffirms, in their essence, reservations Nos. 40 and 79 made at the World Administrative Radio Conference (Geneva, 1979), and reservation No. 41 entered at the World Radiocommunication Conference (Geneva, 2003), especially with regard to the new provisions included in the documents of the Final Acts.

3. Declares that the Republic of Colombia shall only be bound by the instrument contained in the Final Acts insofar as it expressly and duly consents to be bound by that international instrument, and subject to the completion of the appropriate constitutional procedures.

4. Declares that, pursuant to its constitutional requirements, its Government cannot give provisional effect to the international instruments which constitute the Final Acts of the World Radiocommunication Conference (Geneva, 2007).

75

*Original: French*

*For France:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of France reserves for its Government the right to enter further declarations or reservations at the time of depositing its instruments of ratification of these revisions of the Radio Regulations.

More generally, the delegation of France reserves for its Government the right to take any action it might deem necessary to safeguard its interests should any Member State of the Union fail to respect the provisions of these Final Acts or to comply with them or should reservations made by other countries jeopardize the smooth operation of its telecommunication services.

76

*Original: English*

*For the United States of America:*

1. The United States of America refers to Article 32, Section 16 (2), the International Telecommunication Convention (Geneva, 1992), as amended by the Plenipotentiary Conference (Kyoto, 1994) and notes that in considering the Final Acts of the World Radiocommunication

Conference (Geneva, 2007 ), the United States of America may find it necessary to make additional declarations or reservations. Accordingly, the United States of America reserves the right to make additional declarations or reservation at the time of deposit of its instruments of ratification of these revisions of the Radio Regulations.

2. The United States shall not be deemed to have consented to be bound by revisions to the Radio Regulations adopted at this Conference without specific notification to the International Telecommunication Union by the United States of America of its consent to be bound.

3. The United States of America reiterates and incorporates by reference all declarations and reservations made at prior world administrative radiocommunication conferences and world radiocommunication conferences.

77

*Original: English*

*For the United States of America and Canada:*

The United States of America and Canada state that, in application the Final Acts of the World Radiocommunication Conference (Geneva, 2007) pertaining to the use of the 450-470 MHz band, they intend to make use of applications in the mobile service and fixed service, including the use of networks of public safety, in the 450-470 MHz band, as appropriate, which will preclude its use for terrestrial International Mobile Telecommunications (IMT).

78

*Original: English*

*For the United States of America and Canada:*

For the United States of America and Canada refer to the footnote number 5.394 of Article 5 of the Radio Regulations concerning the use of the 2300-2390 MHz band in the United States and the 2300-2400 MHz band in Canada and state that, in application of the Final Acts of the World Radiocommunication Conference (Geneva, 2007) in those bands, the aeronautical mobile service for telemetry has priority over other use by the mobile services. Furthermore, in conformity with additional allocations specified in the footnote under number 5.393 of Article 5 of the Radio Regulations in the 2310-2360 MHz band, the United States of America and Canada state that, in application of the Final Acts of the World Radiocommunication Conference (Geneva, 2007 ) in the band of 2310-2360 MHz, they intend to use parts of this band for the broadcasting-satellite service (sound) and complementary terrestrial sound broadcasting services, which may preclude its use for terrestrial International Mobile Telecommunications (IMT).

79

*Original: English*

*For the Kingdom of Lesotho:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Kingdom Lesotho declares that its Administration will comply with the provisions of the Final Acts without prejudice to its sovereign right to take any measures that the Government of Lesotho deems necessary to protect its telecommunications services in the event of harmful interference caused to the said services by any Member State of the Union failing to comply with the provisions of the Radio regulations as revised and adopted by this Conference.

The delegation of the Kingdom of Lesotho further declares that it reserves for its Government the right to make any statements or reservation when depositing its instruments of ratification of the Final Acts of the World Radiocommunication Conference (Geneva, 2007).

**80**

*Original: English*

*For the Federal Republic of Germany, Vatican City, the Republic of Croatia, Luxembourg, Malta, the Republic of Montenegro, the Kingdom of the Netherlands, Portugal, the United Kingdom of Great Britain and Northern Ireland and Turkey:*

The delegations of the above-mentioned countries regret that this Conference was unable to agree to any allocation of additional spectrum for high-frequency broadcasting to help address the long-standing inadequacy of spectrum in the 4-10 MHz range referenced in Resolution 544 (WRC-03). This Conference presented a genuine opportunity to meet this need based on comprehensive ITU-R studies and pragmatic balanced proposals that took into account all of the radio services concerned. These Administrations reserve the right to take such action as may be necessary, consistent with the Radio Regulations, to meet the needs of their high-frequency broadcasting service.

**81**

*Original: French*

*For Burkina Faso:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of Burkina Faso reserves for its Government the right to take any actions necessary to ensure the effective and efficient utilization of the radio-frequency spectrum within its territory should any Member fail in any way to respect the relevant provisions of the Constitution and Convention of the International Telecommunication Union.

**82**

*Original: English*

*For the Republic of Albania, the Federal Republic of Germany, Austria, the Republic of Bulgaria, the Republic of Cyprus, the Republic of Croatia, Denmark, Spain, the Republic of Estonia, Finland, France, Georgia, Greece, the Republic of Hungary, Ireland, Iceland, the Principality of Liechtenstein, the Republic of Lithuania, Luxembourg, Malta, the Republic of Moldova, the Republic of Montenegro, Norway, the Kingdom of the Netherlands, the Republic of Poland, Portugal, the Slovak Republic, the Czech Republic, the United Kingdom of Great Britain and Northern Ireland, the Republic of Serbia, the Republic of Slovenia, Sweden and the Confederation of Switzerland:*

At the time of signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the above-mentioned countries formally declare that they maintain the declarations and reservations made by their countries when signing the Final Acts of previous treaty-making conferences of the Union as if they were made in full at this World Radiocommunication Conference.

**83**

*Original: Spanish*

*For Chile:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of Chile reserves for its Government the right: to take any action it considers necessary to protect and safeguard its interests, particularly to protect its existing and planned telecommunications networks, systems and services, should any Member State of the Union in any way fail or neglect to apply the provisions contained in these Acts, including the decisions, Recommendations, Resolutions and Annexes, that form an integral part of the same, or those provisions contained in the Constitution and Convention of the International Telecommunications Union, or should the proper functioning of its telecommunication networks, systems or services be jeopardized by reason of any declarations or reservations entered by any Member State of the Union.

**84**

*Original: French*

*For the Republic of Benin:*

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Benin declares:

1. that it reserves of its Government the right to take any action that it deems necessary to safeguard the interests of Benin and to protect its telecommunication service installations should any other Member country of the Union breach the provisions of the Final Acts or provisions of the Constitution or Convention;
2. that its Government will not accept responsibility for the consequences of failure by Member States to respect the basic texts of the Union.

**85**

*Original: Arabic*

*For the Kingdom of Saudi Arabia, the Kingdom of Bahrain, the United Arab Emirates, the Republic of Iraq, the State of Kuwait, Lebanon, the Syrian Arab Republic and the Republic of Sudan:*

The above-mentioned delegations to the World Radiocommunication Conference (Geneva, 2007) declare that the signature and possible ratification by their respective Governments of the Final Acts of this Conference should not be valid for the Union Member under the name "Israel", and in no way whatsoever imply its recognition by those Governments.

**Additional declarations and reservations**

**86**

*Original: English*

*For the State of Israel:*

1. Declaration under numbers 16, 63 and 85 made by certain Member States in respect of the Final Acts, contravene the principles and purposes of the International Telecommunication Union, and therefore devoid of legal validity.

2. The Government of the State of Israel wishes to put on record that it rejects these above-mentioned declarations, which politicize and undermine the work of ITU.
3. Should any Member State that has made the foregoing declaration act towards Israel in a manner which violates Israel's rights as a Member State of the ITU, or breaches such Member State's obligations towards Israel as such, the State of Israel reserves its right to act toward such Member State in a reciprocal fashion.

**87**

*Original: English*

*For Canada:*

Having noted the declarations and reservations contained in Document 427 of the World Radiocommunication Conference of the International Telecommunication Union (Geneva, 2007), the delegation of Canada further reserves on behalf of its Government the right to take whatever measures it may consider necessary to safeguard its interests should other Member States fail to comply with the provisions of the Radio Regulations, particularly to those pertaining to the use of radio frequencies and any associated orbits, including the geostationary-satellite orbit.

**88**

*Original: English*

*For the Republic of Djibouti:*

Having regard to the declarations set forth in the Document 427 of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Djibouti:

- a) reserves for its Administration the right to take any measures it may consider necessary, in conformity with its domestic law and with international law, to safeguard its interests should any other Member of the Union fail to respect the Final Acts, or enter reservations that may jeopardize the operation of telecommunication services within its territory ;
- b) also reserves the right to amend the foregoing reservations and declarations and to enter further reservations or declarations at the time of depositing with the International Telecommunication Union its consent to be bound by the revisions to the Radio Regulations adopted by the World Radiocommunication Conference (Geneva, 2007) .

**89**

*Original: English*

*For the Republic of Croatia:*

In reviewing the declarations and reservations made by Member States and contained in Document 427, the delegation of the Republic of Croatia, on behalf of its Government, declares the additional declaration as follows:

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Croatia reserves for its Government the right to take such action as it may consider necessary to safeguard its interests should any Member of the Union fail to comply with the provisions of the Final Acts adopted by the World Radiocommunication Conference (Geneva, 2007) or should reservations made by other countries jeopardize the proper operation of its electronic communication services.

The delegation of the Republic of Croatia further declares that the Republic of Croatia, as a candidate country for future membership of the European Union, will apply the revision of the Radio Regulations adopted at this Conference, but from the date of its accession to the European Community the application of these acts will be in regulations shall be in accordance with its obligations under the EC Treaty.

**90**

*Original: English*

*For the Arab Republic of Egypt:*

In reviewing the declarations made by Member States and contained in Document 427, the delegation of Egypt, on behalf of its Government, declares the additional declaration as follows:

In signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of Egypt reserves for its Government the following rights:

1. To take any necessary actions and measures it deems to protect its interests should any Member State of the International Telecommunication Union (ITU) fail to fully respect the provisions and Resolutions of the Final Acts or to comply with them, or should reservations by any Member State jeopardize in any way the telecommunications services in Egypt.
2. To make additional provisions when ratifying the Final Acts of this Conference.

**91**

*Original: French*

*For the Republic of Niger:*

Bearing in mind the declaration contained in Document 427, the delegation of the Republic of Niger declares, on behalf of its Government, that the latter reserves the right:

- to make reservations to the Final Act of the World Radiocommunication Conference (Geneva, 2007), by virtue of the Vienna Convention on the Law of Treaties of 1969, at any time it may think fit between the date of signature and the date of ratification of the international instruments constituting such Final Acts.

**92**

*Original: English*

*For the Federal Republic of Germany, Australia, the Republic of Bulgaria, the Republic of Cyprus, the Republic of Croatia, Denmark, the United States of America, France, Greece, the Republic of Hungary, Ireland, Japan, the Republic of Latvia, the Principality of Liechtenstein, the Republic of Lithuania, Luxembourg, Malta, the Republic of Marshall Islands, Norway, New Zealand, the Kingdom of the Netherlands, the Republic of Poland, Portugal, the Slovak Republic, the Czech Republic, the United Kingdom of Great Britain and Northern Ireland, the Republic of Slovenia, Sweden, the Confederation of Switzerland, Turkey, Ukraine:*

The delegations of the above-mentioned States, referring to the declaration made by the Republic of Colombia (No. 74), inasmuch as these and any similar statements refer to the Bogota Declaration of 3 December 1976 made by equatorial countries and to the claims of those countries to exercise sovereign rights over segments of the geostationary-satellite orbits, and to any related claims, consider that the claims in question cannot be recognized by this Conference..

The above-mentioned delegations also wish to state that reference in Article 44 of the Constitution

to the "geographical situation of particular countries" does not imply the recognition of a claim to any preferential rights to the geostationary-satellite orbits.

**93**

*Original: English*

*For Turkey:*

The delegation of the Republic of Turkey, in signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007) and having read the declarations and reservations in Document 427, declares that it reserves the right for its Government to implement the provisions of the Final Acts only to the State parties with which it has diplomatic relations.

**94**

*Original: French*

*For the Republic of Cameroon:*

In signing the Final Acts of the World Radiocommunication Conference held in Geneva from 22 October 2007 to 16 October 2007, the Delegation of the Republic of Cameroon, after having noted the declaration made in Document 427, by other administrations present at the conference, declares:

1. that it reserves for its Government the sovereign right to take any measures that it may deem necessary and appropriate to safeguard its interests should any Member State of the International Telecommunication Union (ITU) fail to comply with the provisions of these Final Acts;
2. that its Government will not accept responsibility for the consequences of reservations made by Member States of ITU;
3. that its Government reserves the right to make any additional reservations that it may deem necessary up to the time deposit of the instruments of ratification.

**95**

*Original: English*

*For the United States of America:*

1. The United States points to the declarations are put forward by different Member States, including those numbered 51 and 39 that retain the right to take action they deem necessary to protect the Interests in accordance with the application of the provisions of the Constitution and Convention of the International Telecommunication Union (Geneva, 1992 ), and any changes since then. The United States reserves the right to take whatever measures they deem necessary to protect the interests of America, in response to such actions.
2. United States, given the declaration under number 71, given by the delegations of Cuba, calls for its broadcast rights in Cuba, at the appropriate frequencies, which are exempt from the congestion and other harmful interference, and reserves the right, in accordance with existing and any smaetnjama additional obstacle in the future that comes from Cuba, and the impact on broadcasting in the United States. The United States also included as a reference and complete an additional Declaration No. 104, which is part of the Final Acts of the Plenipotentiary Conference (Antalya, 2006) International Telecommunications Union.

96

*Original: English*

*For the Republic of Marshall Islands:*

Having considered the declarations and reservations contained in Document 427, the delegation of the United States of America, acting on behalf of the Government of the Republic of Marshall Islands, pursuant to Article 31 of the International Telecommunication Union Convention (Geneva, 1992), as amended by the Plenipotentiary Conference (Kyoto, 1994), declares that it reserves for the Government of the Republic of Marshall Islands the right to make any declarations and reservations necessary to Marshallese interests should declarations and reservations made by other Member States jeopardize the proper operation of the telecommunications services of the Republic of the Marshall Islands.

97

*Original: English*

*For the Republic of Philippines:*

The delegation of the Republic of the Philippines, having considered Document 427 of WRC-07, declares that it reserves for its Government the right to take any action it deems necessary and appropriate, consistent with its national law to safeguard its interests, should any Member or members of the International Telecommunication Union (ITU) fail in any way to observe the Final Acts of WRC-07 and the Annexes thereto, or should reservations made by representatives of other Member States jeopardize the operation of its telecommunications, broadcast and radiocommunication network services or prejudice its rights as a sovereign country.

98

*Original: English*

*For the Republic of Azerbaijan:*

Having considered the declarations included in Document 427, the delegation of the Republic of Azerbaijan in signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), reserves for its government the right:

- to take any measures it might deem necessary to protect its interests if another Member State of the Union should in any way fail to observe or violate the provisions contained in the Constitution and Convention of the International Telecommunication Union, or those set out in the Resolutions, Decisions, Recommendations, Annexes and Protocols constituting the Final Acts of the World Radiocommunication Conference (Geneva, 2007) or if the reservations made by any Member State should be prejudicial to the operation of radiocommunication services in the Republic of Azerbaijan;
- to take any measures that may be thought fit in order to regulate its domestic telecommunications in accordance with the applicable national laws and regulations on the territories of Azerbaijan. In this context, all radio transmitters and radiocommunication equipment operating within the territories of the Republic of Azerbaijan, without prior agreement of the Government of Azerbaijan, will be assumed as operating illegally.

**99**

*Original: English*

*For the Republic of Latvia:*

After having considered the declarations and reservations contained in Document 427, the delegation of the Republic of Latvia maintains the declarations and reservations made by itself when signing the Final Acts of previous treaty-making conferences of the Union as if they were in full at this World Radiocommunication Conference.

**100**

*Original: English*

*For the Kingdom of Cambodia:*

After having considered the declarations and reservations contained in Document 427 World Radiocommunication Conference (Geneva, 2007), the delegation of Cambodia declares that the Royal Government of the Kingdom of Cambodia reserves the right to take all measure it may deem necessary to protect its sovereignty and national interests, if any of the regulations are used by any country against the sovereign right of the Kingdom of Cambodia to regulate the orderly deployment and operation of its national and international telecommunication and radiocommunication networks.

The delegation further declares that it reserves for its Royal Government the right to make any declaration and reservation at any time if necessary.

**101**

*Original: English*

*For the Republic of Iran:*

In the name of God, Compassion and Merciful.

With the respect to Declaration No. 64, the delegation of the Islamic Republic of Iran to the World Radiocommunication Conference (Geneva, 2007) declares that the signature and possible ratification by its Government of the Final Acts of the Conference should not be valid for the UnionMember under the name "Israel", and in no way whatsoever imply its recognition by the Islamic Republic of Iran.

**102**

*Original: English*

*For Papua New Guinea:*

After having considered the declarations and reservations in Conference Document 427, the delegation of Papua New Guinea further declares that it reserves for its Government the right to make any additional statements or reservations it may consider necessary up to and including the time when it deposits its instruments of ratification for the Final Acts of the World Radiocommunication Conference (Geneva, 2007).

**103**

*Original: French*

*For the Republic of Burundi:*

Having considered the declarations in Document 427 of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Burundi declares that its Administration will comply with the provisions of the Final Acts without prejudice to its sovereign right to take any measures that the Government of Burundi may deem necessary to protect its telecommunication services in the event of harmful interference caused to the said services by any Member of the Union failing to comply with the provisions of the Radio Regulations as revised and adopted by this Conference.

The delegation of the Republic of Burundi further states that it reserves for its Government the right to make any declaration and reservation when depositing its instrument of ratification of the Final Acts of the World Radiocommunication Conference (Geneva, 2007).

**104**

*Original: English*

*For Italy:*

Having reviewed the text of the declaration contained in Document 427 and signing the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Republic of Italy declares that it reserves for its Government the right:

1. to take any action and preservation measures it deems necessary should the consequences of reservations by any Member State put in danger Italy's radiocommunication services or affect its sovereignty to comply with the provisions of the Final Acts, the Annexes thereto or the Radio Regulations;
2. to express declarations and reservation with respect to the Final Acts of the World Radiocommunication Conference (Geneva, 2007) at the time of the corresponding instruments of ratification with the International Telecommunications Union.

**105**

*Original: English*

*For Thailand:*

After having considered the declarations and reservations contained in Document 427 and in signing of the Final Acts of the World Radiocommunication Conference (Geneva, 2007), the delegation of the Kingdom of Thailand reserves for its Government the right to take any actions and measures it deems necessary to protect its interests should any Member State of the International Telecommunication Union (ITU) fail to fully respect the provisions and Resolutions of the Final Acts or to comply with them, or should reservations by any Member State jeopardize in any way the telecommunication services of the Kingdom of Thailand.

*For the People's Democratic Republic of Algeria:*

After having noted the declarations expressed in Document 427 of the World Radiocommunication Conference (Geneva, 2007), the delegation of the People's Democratic Republic of Algeria for WRC-07 hereby declares, in the name of its Government, and by virtue of the powers with which it has been invested,

that it reserves for its Government the right:

1. to take any measures that it may deem necessary to protect its national interests should they be affected by decisions taken at this Conference, or should other countries or administrations fail in any way whatsoever to comply with the provisions of the instruments amending the Constitution and Convention of ITU or the Annexes, Protocols or Rules attached thereto, or the Final Acts of this Conference, or should any reservations or declarations made by other countries or administrations infringe the normal operation of its telecommunication services or threaten the full exercise of the sovereign rights of the People's Democratic Republic of Algeria;
2. not to accept responsibility in respect of consequences of any reservations made by other Members of the Union;
3. to make any additional declarations or reservations concerning the Final Acts of the World Radiocommunication Conference (Geneva, 2007) when it deposits the corresponding instruments of ratification with the International Telecommunication Union.

# ARTICLES

ARTICLE 2

**Nomenclature**

**Section I – Frequency and wavelength bands**

**MOD** COM6/382/1 (B20/414/1)

**2.1** The radio spectrum shall be subdivided into nine frequency bands, which shall be designated by progressive whole numbers in accordance with the following table. As the unit of frequency is the hertz (Hz), frequencies shall be expressed:

- in kilohertz (kHz), up to and including 3 000 kHz;
- in megahertz (MHz), above 3 MHz, up to and including 3 000 MHz;
- in gigahertz (GHz), above 3 GHz, up to and including 3 000 GHz.

However, where adherence to these provisions would introduce serious difficulties, for example in connection with the notification and registration of frequencies, the lists of frequencies and related matters, reasonable departures may be made<sup>1</sup>.

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<sup>1</sup> **2.1.1** In the application of the Radio Regulations, the Radiocommunication Bureau uses the following units:

kHz	for frequencies up to 28 000 kHz inclusive
MHz	for frequencies above 28 000 kHz up to 10 500 MHz inclusive
GHz	for frequencies above 10 500 MHz.

ARTICLE 4

**Assignment and use of frequencies**

**Section I – General rules**

**MOD**    COM4/296/8    (B9/305/1)    (R4/335/1)

**4.19**                    In certain cases provided for in Articles **31** and **51**, aircraft stations are authorized to use frequencies in the bands allocated to the maritime mobile service for the purpose of communicating with stations of that service (see No. **51.73**). (WRC-07)

ARTICLE 5

**Frequency allocations**

**Section IV – Table of Frequency Allocations**

(See No. 2.1)

**MOD** COM6/227/1 (B3/224/38) (R6/410/1)

**5.14** The “European Broadcasting Area” is bounded on the west by the western boundary of Region 1, on the east by the meridian 40° East of Greenwich and on the south by the parallel 30° North so as to include the northern part of Saudi Arabia and that part of those countries bordering the Mediterranean within these limits. In addition, Armenia, Azerbaijan, Georgia and those parts of the territories of Iraq, Jordan, Syrian Arab Republic, Turkey and Ukraine lying outside the above limits are included in the European Broadcasting Area.

**MOD** COM5/264/1 (B6/268/1) (R3/292/1)

**5.55** *Additional allocation:* in Armenia, Azerbaijan, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the band 14-17 kHz is also allocated to the radionavigation service on a primary basis. (WRC-07)

**MOD** COM5/264/2 (B6/268/2) (R3/292/2)

**5.56** The stations of services to which the bands 14-19.95 kHz and 20.05-70 kHz and in Region 1 also the bands 72-84 kHz and 86-90 kHz are allocated may transmit standard frequency and time signals. Such stations shall be afforded protection from harmful interference. In Armenia, Azerbaijan, Belarus, Bulgaria, the Russian Federation, Georgia, Kazakhstan, Mongolia, Kyrgyzstan, Slovakia, Tajikistan and Turkmenistan, the frequencies 25 kHz and 50 kHz will be used for this purpose under the same conditions. (WRC-07)

**MOD** COM4/296/57 (B9/305/2) (R4/335/2)

**110-255 kHz**

Allocation to services		
Region 1	Region 2	Region 3
...		
<b>130-135.7</b> FIXED MARITIME MOBILE 5.64 5.67	<b>130-135.7</b> FIXED MARITIME MOBILE 5.64	<b>130-135.7</b> FIXED MARITIME MOBILE RADIONAVIGATION 5.64
<b>135.7-137.8</b> FIXED MARITIME MOBILE Amateur ADD 5.4C03 5.64 5.67 ADD 5.4C04	<b>135.7-137.8</b> FIXED MARITIME MOBILE Amateur ADD 5.4C03 5.64	<b>135.7-137.8</b> FIXED MARITIME MOBILE RADIONAVIGATION Amateur ADD 5.4C03 5.64 ADD 5.4C04

Allocation to services		
Region 1	Region 2	Region 3
<b>137.8-148.5</b> FIXED MARITIME MOBILE 5.64 5.67	<b>137.8-160</b> FIXED MARITIME MOBILE 5.64	<b>137.8-160</b> FIXED MARITIME MOBILE RADIONAVIGATION 5.64
...	...	...

**ADD** COM4/296/58 (B9/305/3) (R4/335/3)

**5.4C03** Stations in the amateur service using frequencies in the band 135.7-137.8 kHz shall not exceed a maximum radiated power of 1 W (e.i.r.p.) and shall not cause harmful interference to stations of the radionavigation service operating in countries listed in No. **5.67**. (WRC-07)

**ADD** COM4/296/59 (B9/305/4) (R4/335/4)

**5.4C04** The use of the band 135.7-137.8 kHz in Algeria, Egypt, Iran (Islamic Republic of), Iraq, Libyan Arab Jamahiriya, Lebanon, Syrian Arab Republic, Sudan and Tunisia is limited to the fixed and maritime mobile services. The amateur service shall not be used in the above-mentioned countries in the band 135.7-137.8 kHz, and this should be taken into account by the countries authorizing such use. (WRC-07)

**MOD** COM5/264/3 (B6/268/3) (R3/292/3)

**5.67** *Additional allocation:* in Mongolia, Kyrgyzstan and Turkmenistan, the band 130-148.5 kHz is also allocated to the radionavigation service on a secondary basis. Within and between these countries this service shall have an equal right to operate. (WRC-07)

**MOD** COM5/264/4 (B6/268/4) (R3/292/4)

**5.70** *Alternative allocation:* in Angola, Botswana, Burundi, the Central African Rep., Congo (Rep. of the), Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Oman, the Dem. Rep. of the Congo, Rwanda, South Africa, Swaziland, Tanzania, Chad, Zambia and Zimbabwe, the band 200-283.5 kHz is allocated to the aeronautical radionavigation service on a primary basis. (WRC-07)

**MOD** COM4/332/1 (B13/347/1) (R7/411/1)

**200-495 kHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>415-435</b> MARITIME MOBILE 5.79 AERONAUTICAL RADIONAVIGATION 5.72	<b>415-495</b> MARITIME MOBILE 5.79 MOD 5.79A Aeronautical radionavigation 5.80	
<b>435-495</b> MARITIME MOBILE 5.79 MOD 5.79A Aeronautical radionavigation 5.72 MOD 5.82	5.77 5.78 MOD 5.82	

**MOD** COM5/264/5 (B6/268/5) (R3/292/5)

**5.75** *Different category of service:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Moldova, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine and the Black Sea areas of Romania, the allocation of the band 315-325 kHz to the maritime radionavigation service is on a primary basis under the condition that in the Baltic Sea area, the assignment of frequencies in this band to new stations in the maritime or aeronautical radionavigation services shall be subject to prior consultation between the administrations concerned. (WRC-07)

**MOD** COM6/341/1 (B14/365/1) (R7/411/2)

**5.77** *Different category of service:* in Australia, China, the French Overseas Communities of Region 3, India, Iran (Islamic Republic of), Japan, Pakistan, Papua New Guinea and Sri Lanka, the allocation of the band 415-495 kHz to the aeronautical radionavigation service is on a primary basis. Administrations in these countries shall take all practical steps necessary to ensure that

aeronautical radionavigation stations in the band 435-495 kHz do not cause interference to reception by coast stations of ship stations transmitting on frequencies designated for ship stations on a worldwide basis (see No. **52.39**). (WRC-07)

**MOD** COM4/332/3 (B13/347/2) (R7/411/3)

**5.79A** When establishing coast stations in the NAVTEX service on the frequencies 490 kHz, 518 kHz and 4 209.5 kHz, administrations are strongly recommended to coordinate the operating characteristics in accordance with the procedures of the International Maritime Organization (IMO) (see Resolution **339 (Rev.WRC-07)**). (WRC-07)

**ADD** COM4/332/4 (B13/347/3) (R7/411/4)

**5.79B** The use of the band 495-505 kHz is limited to radiotelegraphy. (WRC-07)

**MOD** COM4/332/5 (B13/347/4) (R7/411/5)

**5.82** In the maritime mobile service, the frequency 490 kHz is to be used exclusively for the transmission by coast stations of navigational and meteorological warnings and urgent information to ships, by means of narrow-band direct-printing telegraphy. The conditions for use of the frequency 490 kHz are prescribed in Articles **31** and **52**. In using the band 415-495 kHz for the aeronautical radionavigation service, administrations are requested to ensure that no harmful interference is caused to the frequency 490 kHz. (WRC-07)

**MOD** COM4/332/2 (B13/347/5) (R7/411/6)

**495-1 800 kHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>495-505</b>	MOBILE ADD 5.79B ADD 5.4C01	
<b>505-526.5</b> MARITIME MOBILE 5.79 MOD 5.79A MOD 5.84 AERONAUTICAL RADIONAVIGATION  5.72	<b>505-510</b> MARITIME MOBILE 5.79	<b>505-526.5</b> MARITIME MOBILE 5.79 MOD 5.79A MOD 5.84 AERONAUTICAL RADIONAVIGATION Aeronautical mobile Land mobile
	<b>510-525</b> MOBILE MOD 5.79A MOD 5.84 AERONAUTICAL RADIONAVIGATION	

**SUP** COM4/332/6 (B13/347/6) (R7/411/7)

**5.83**

**ADD** COM4/332/7 (B13/347/7) (R7/411/8)

**5.4C01** Administrations authorizing the use of frequencies in the band 495-505 kHz by services other than the maritime mobile service shall ensure that no harmful interference is caused to the maritime mobile service in this band or to the services having allocations in the adjacent bands, noting in particular the conditions of use of the frequencies 490 kHz and 518 kHz, as prescribed in Articles **31** and **52**. (WRC-07)

**MOD** COM4/332/8 (B13/347/8) (R7/411/9)

**5.84** The conditions for the use of the frequency 518 kHz by the maritime mobile service are prescribed in Articles **31** and **52**. (WRC-07)

**MOD** COM5/264/6 (B6/268/6) (R3/292/6)

**5.93** *Additional allocation:* in Angola, Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Moldova, Mongolia, Nigeria, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Rep., Tajikistan, Chad, Turkmenistan and Ukraine, the bands 1 625-1 635 kHz, 1 800-1 810 kHz and 2 160-2 170 kHz are also allocated to the fixed and land mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-07)

**MOD** COM5/264/7 (B6/268/7) (R3/292/7)

**5.98** *Alternative allocation:* in Angola, Armenia, Azerbaijan, Belarus, Belgium, Cameroon, Congo (Rep. of the), Denmark, Egypt, Eritrea, Spain, Ethiopia, the Russian Federation, Georgia, Greece, Italy, Kazakhstan, Lebanon, Lithuania, Moldova, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tunisia, Turkmenistan, Turkey and Ukraine, the band 1 810-1 830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

**MOD** COM5/264/8 (B6/268/8) (R3/292/8)

**5.99** *Additional allocation:* in Saudi Arabia, Austria, Iraq, the Libyan Arab Jamahiriya, Uzbekistan, Slovakia, Romania, Serbia, Slovenia, Chad, and Togo, the band 1 810-1 830 kHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

**MOD** COM5/264/9 (B6/268/9) (R3/292/9)

**5.102** *Alternative allocation:* in Bolivia, Chile, Mexico, Paraguay, Peru and Uruguay, the band 1 850-2 000 kHz is allocated to the fixed, mobile except aeronautical mobile, radiolocation and radionavigation services on a primary basis. (WRC-07)

**MOD** COM4/332/9 (B13/347/9) (R7/411/10)

**5.108** The carrier frequency 2 182 kHz is an international distress and calling frequency for radiotelephony. The conditions for the use of the band 2 173.5-2 190.5 kHz are prescribed in Articles **31** and **52**. (WRC-07)

**MOD** COM4/332/10 (B13/347/10) (R7/411/11)

**5.111** The carrier frequencies 2 182 kHz, 3 023 kHz, 5 680 kHz, 8 364 kHz and the frequencies 121.5 MHz, 156.525 MHz, 156.8 MHz and 243 MHz may also be used, in accordance with the procedures in force for terrestrial radiocommunication services, for search and rescue operations concerning manned space vehicles. The conditions for the use of the frequencies are prescribed in Article **31**.

The same applies to the frequencies 10 003 kHz, 14 993 kHz and 19 993 kHz, but in each of these cases emissions must be confined in a band of  $\pm 3$  kHz about the frequency. (WRC-07)

**MOD** COM5/264/10 (B6/268/10) (R3/292/10)

**5.112** *Alternative allocation:* in Denmark, Malta, Serbia and Sri Lanka, the band 2 194-2 300 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

**MOD** COM5/264/11 (B6/268/11) (R3/292/11)

**5.114** *Alternative allocation:* in Denmark, Iraq, Malta, and Serbia, the band 2 502-2 625 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

**MOD** COM4/332/11 (B13/347/11) (R7/411/12)

**5.115** The carrier (reference) frequencies 3 023 kHz and 5 680 kHz may also be used, in accordance with Article **31** by stations of the maritime mobile service engaged in coordinated search and rescue operations. (WRC-07)

**MOD** COM5/264/12 (B6/268/12) (R3/292/12)

**5.117** *Alternative allocation:* in Côte d'Ivoire, Denmark, Egypt, Liberia, Malta, Serbia, Sri Lanka and Togo, the band 3 155-3 200 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

**MOD** COM5/264/13 (B6/268/13) (R3/292/13)

**5.119** *Additional allocation:* in Honduras, Mexico and Peru, the band 3 500-3 750 kHz is also allocated to the fixed and mobile services on a primary basis. (WRC-07)

**MOD** COM5/264/14 (B6/268/14) (R3/292/14)

**5.122** *Alternative allocation:* in Bolivia, Chile, Ecuador, Paraguay, Peru and Uruguay, the band 3 750-4 000 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

**MOD** COM4/380/63 (B17/404/1)

**5.128** Frequencies in the bands 4 063-4 123 kHz and 4 130-4 438 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W, on condition that harmful interference is not caused to the maritime mobile service. In addition, in Afghanistan, Argentina, Armenia, Azerbaijan, Belarus, Botswana, Burkina Faso, the Central African Rep., China, the Russian Federation, Georgia, India, Kazakhstan, Mali, Niger, Kyrgyzstan, Tajikistan, Chad, Turkmenistan and Ukraine, in the bands 4 063-4 123 kHz, 4 130-4 133 kHz and 4 408-4 438 kHz, stations in the fixed service, with a mean power not exceeding 1 kW, can be operated on condition that they are situated at least 600 km from the coast and that harmful interference is not caused to the maritime mobile service. (WRC-07)

**SUP** COM4/380/64 (B17/404/2)

**5.129**

**MOD** COM4/332/12 (B13/347/12) (R7/411/13)

**5.130** The conditions for the use of the carrier frequencies 4 125 kHz and 6 215 kHz are prescribed in Articles **31** and **52**. (WRC-07)

**MOD** COM5/264/15 (B6/268/15) (R3/292/15)

**5.133** *Different category of service:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Latvia, Lithuania, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 5 130-5 250 kHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. **5.33**). (WRC-07)

**MOD** COM4/380/65 (B17/404/3)

**5.134** The use of the bands 5 900-5 950 kHz, 7 300-7 350 kHz, 9 400-9 500 kHz, 11 600-11 650 kHz, 12 050-12 100 kHz, 13 570-13 600 kHz, 13 800-13 870 kHz, 15 600-15 800 kHz, 17 480-17 550 kHz and 18 900-19 020 kHz by the broadcasting service is subject to the application of the procedure of Article **12**. Administrations are encouraged to use these bands to facilitate the introduction of digitally modulated emissions in accordance with the provisions of Resolution **517 (Rev.WRC-07)**. (WRC-07)

**MOD** COM4/380/66 (B17/404/4)

**5.136** *Additional allocation:* Frequencies in the band 5 900-5 950 kHz may be used by stations in the following services, communicating only within the boundary of the country in which they are located: fixed service (in all three Regions), land mobile service (in Region 1), mobile except aeronautical mobile (R) service (in Regions 2 and 3), on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

**MOD** COM5/264/16 (B6/268/16) (R3/292/16)

**5.139** *Different category of service:* until 29 March 2009, in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Latvia, Lithuania, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 6 765-7 000 kHz to the land mobile service is on a primary basis (see No. **5.33**). (WRC-07)

**MOD** COM4/380/67 (B17/404/5)

**5.143** *Additional allocation:* Frequencies in the band 7 300-7 350 kHz may be used by stations in the fixed service and in the land mobile service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

**MOD** COM4/332/13 (B13/347/13) (R7/411/14)

**5.145** The conditions for the use of the carrier frequencies 8 291 kHz, 12 290 kHz and 16 420 kHz are prescribed in Articles **31** and **52**. (WRC-07)

**MOD** COM4/380/68 (B17/404/6)

**5.146** *Additional allocation:* Frequencies in the bands 9 400-9 500 kHz, 11 600-11 650 kHz, 12 050-12 100 kHz, 15 600-15 800 kHz, 17 480-17 550 kHz and 18 900-19 020 kHz may be used by stations in the fixed service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies in the fixed service, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

**MOD** COM4/380/69 (B17/404/7)

**5.151** *Additional allocation:* Frequencies in the bands 13 570-13 600 kHz and 13 800-13 870 kHz may be used by stations in the fixed service and in the mobile except aeronautical mobile (R) service, communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not caused to the broadcasting service. When using frequencies in these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

**MOD** COM5/264/17 (B6/268/17) (R3/292/17)

**5.155** *Additional allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the band 21 850-21 870 kHz is also allocated to the aeronautical mobile (R) service on a primary basis. (WRC-07)

**MOD** COM5/264/18 (B6/268/18) (R3/292/18)

**5.155A** In Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the use of the band 21 850-21 870 kHz by the fixed service is limited to provision of services related to aircraft flight safety. (WRC-07)

**MOD** COM5/264/19 (B6/268/19) (R3/292/19)

**5.162A** *Additional allocation:* in Germany, Austria, Belgium, Bosnia and Herzegovina, China, Vatican, Denmark, Spain, Estonia, the Russian Federation, Finland, France, Ireland, Iceland, Italy, Latvia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Lithuania, Luxembourg, Monaco, Montenegro, Norway, the Netherlands, Poland, Portugal, Slovakia, the Czech Rep., the United Kingdom, Serbia, Slovenia, Sweden and Switzerland the band 46-68 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with Resolution **217 (WRC-97)**. (WRC-07)

**MOD** COM5/264/20 (B6/268/20) (R3/292/20)

**5.163** *Additional allocation:* in Armenia, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Moldova, Uzbekistan, Kyrgyzstan, Slovakia, the Czech Rep., Tajikistan, Turkmenistan and Ukraine, the bands 47-48.5 MHz and 56.5-58 MHz are also allocated to the fixed and land mobile services on a secondary basis. (WRC-07)

**MOD** COM5/264/21 (B6/268/21) (R3/292/21)

**5.164** *Additional allocation:* in Albania, Germany, Austria, Belgium, Bosnia and Herzegovina, Botswana, Bulgaria, Côte d'Ivoire, Denmark, Spain, Estonia, Finland, France, Gabon, Greece, Ireland, Israel, Italy, the Libyan Arab Jamahiriya, Jordan, Lebanon, Liechtenstein, Luxembourg, Madagascar, Mali, Malta, Morocco, Mauritania, Monaco, Montenegro, Nigeria, Norway, the Netherlands, Poland, Syrian Arab Republic, Romania, the United Kingdom, Serbia, Slovenia, Sweden, Switzerland, Swaziland, Chad, Togo, Tunisia and Turkey, the band 47-68 MHz, in South Africa the band 47-50 MHz, in the Czech Rep. the band 66-68 MHz, and in Latvia and Lithuania the band 48.5-56.5 MHz, are also allocated to the land mobile service on a primary basis. However, stations of the land mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations of countries other than those mentioned in connection with the band. (WRC-07)

**MOD** COM5/264/22 (B6/268/22) (R3/292/22)

**5.167** *Alternative allocation:* in Bangladesh, Brunei Darussalam, India, Iran (Islamic Republic of), Pakistan, Singapore and Thailand, the band 50-54 MHz is allocated to the fixed, mobile and broadcasting services on a primary basis. (WRC-07)

**ADD** COM5/264/23 (B6/268/23) (R3/292/23)

**5.167A** *Additional allocation:* in Indonesia, the band 50-54 MHz is also allocated to the fixed, mobile and broadcasting services on a primary basis. (WRC-07)

**SUP** COM5/264/24 (B6/268/24) (R3/292/24)

**5.174**

**MOD** COM5/264/25 (B6/268/25) (R3/292/25)

**5.175** *Alternative allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting service on a primary basis. In

Latvia and Lithuania, the bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting and mobile, except aeronautical mobile, services on a primary basis. The services to which these bands are allocated in other countries and the broadcasting service in the countries listed above are subject to agreements with the neighbouring countries concerned. (WRC-07)

**MOD** COM5/264/26 (B6/268/26) (R3/292/26)

**5.176** *Additional allocation:* in Australia, China, Korea (Rep. of), the Philippines, the Dem. People's Rep. of Korea and Samoa, the band 68-74 MHz is also allocated to the broadcasting service on a primary basis. (WRC-07)

**MOD** COM5/264/27 (B6/268/27) (R3/292/27)

**5.177** *Additional allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 73-74 MHz is also allocated to the broadcasting service on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-07)

**MOD** COM5/264/28 (B6/268/28) (R3/292/28)

**5.179** *Additional allocation:* in Armenia, Azerbaijan, Belarus, China, the Russian Federation, Georgia, Kazakhstan, Lithuania, Mongolia, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the bands 74.6-74.8 MHz and 75.2-75.4 MHz are also allocated to the aeronautical radionavigation service, on a primary basis, for ground-based transmitters only. (WRC-07)

**MOD** COM4/318/5 (B11/329/1) (R6/410/2)

**75.2-137.175 MHz**

Allocation to services		
Region 1	Region 2	Region 3
108-117.975	AERONAUTICAL RADIONAVIGATION 5.197 MOD 5.197A	

**MOD** COM4/332/15 (B13/347/14) (R7/411/15)

**75.2-137.175 MHz**

Allocation to services		
Region 1	Region 2	Region 3
117.975-137	AERONAUTICAL MOBILE (R) 5.111 MOD 5.200 5.201 5.202	

**MOD** COM5/265/1 (B6/268/29) (R3/292/29)

**75.2-137.175 MHz**

Allocation to services		
Region 1	Region 2	Region 3
137-137.025	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) MOD 5.208A 5.209 MOD 5.347A SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208	

<b>137.025-137.175</b>	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile-satellite (space-to-Earth) MOD 5.208A 5.209 MOD 5.347A Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208
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**SUP** COM5/264/29 (B6/268/30) (R3/292/30)

**5.184**

**MOD** COM5/264/30 (B6/268/31) (R3/292/31)

**5.194** *Additional allocation:* in Azerbaijan, Kyrgyzstan, Somalia and Turkmenistan, the band 104-108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-07)

**MOD** COM5/264/31 (B6/268/32) (R3/292/32)

**5.197** *Additional allocation:* in Pakistan and the Syrian Arab Republic, the band 108-111.975 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. **9.21**. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedures invoked under No. **9.21**. (WRC-07)

**MOD** COM4/318/6 (B11/329/3) (R6/410/4)

**5.197A** *Additional allocation:* the band 108-117.975 MHz is also allocated on a primary basis to the aeronautical mobile (R) service, limited to systems operating in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution **413 (Rev.WRC-07)**. The use of the band 108-112 MHz by the aeronautical mobile (R) service shall be limited to systems composed of ground-based transmitters and associated receivers that provide navigational information in support of air navigation functions in accordance with recognized international aeronautical standards. (WRC-07)

**SUP** COM4/318/3 (B11/329/4) (R6/410/5)

**5.198**

**SUP** COM4/332/14 (B13/347/15) (R7/411/17)

**5.199**

**MOD** COM4/332/16 (B13/347/16) (R7/411/18)

**5.200** In the band 117.975-137 MHz, the frequency 121.5 MHz is the aeronautical emergency frequency and, where required, the frequency 123.1 MHz is the aeronautical frequency auxiliary to 121.5 MHz. Mobile stations of the maritime mobile service may communicate on these frequencies under the conditions laid down in Article **31** for distress and safety purposes with stations of the aeronautical mobile service. (WRC-07)

**SUP** COM6/341/3 (B14/365/3) (R7/411/19)

**5.203**

**SUP** COM5/264/32 (B6/268/33) (R3/292/33)

**5.203A**

**MOD** COM5/265/2 (B6/268/36) (R3/292/36)

**137.175-148 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>137.175-137.825</b>	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) MOD 5.208A 5.209 MOD 5.347A SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208	

Allocation to services		
Region 1	Region 2	Region 3
<b>137.825-138</b>	SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile-satellite (space-to-Earth) MOD 5.208A 5.209 MOD 5.347A Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208	

**SUP** COM6/341/4 (B14/365/4) (R7/411/20)

**5.203B**

**MOD** COM5/264/33 (B6/268/34) (R3/292/34)

**5.204** *Different category of service:* in Afghanistan, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, China, Cuba, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Kuwait, Montenegro, Oman, Pakistan, the Philippines, Qatar, Serbia, Singapore, Thailand and Yemen, the band 137-138 MHz is allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis (see No. **5.33**). (WRC-07)

**MOD** COM5/265/3 (B6/268/35) (R3/292/35)

**5.208A** In making assignments to space stations in the mobile-satellite service in the bands 137-138 MHz, 387-390 MHz and 400.15-401 MHz, administrations shall take all practicable steps to protect the radio astronomy service in the bands 150.05-153 MHz, 322-328.6 MHz, 406.1-410 MHz and 608-614 MHz from harmful interference from unwanted emissions. The threshold levels of interference detrimental to the radio astronomy service are shown in the relevant ITU-R Recommendation. (WRC-07)

**MOD** COM5/264/34 (B6/268/37) (R3/292/37)

**5.210** *Additional allocation:* in Italy, the Czech Rep. and the United Kingdom, the bands 138-143.6 MHz and 143.65-144 MHz are also allocated to the space research service (space-to-Earth) on a secondary basis. (WRC-07)

**MOD** COM5/264/35 (B6/268/38) (R3/292/38)

**5.211** *Additional allocation:* in Germany, Saudi Arabia, Austria, Bahrain, Belgium, Denmark, the United Arab Emirates, Spain, Finland, Greece, Ireland, Israel, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Liechtenstein, Luxembourg, Mali, Malta, Montenegro, Norway, the Netherlands, Qatar, the United Kingdom, Serbia, Slovenia, Somalia, Sweden, Switzerland, Tanzania, Tunisia and Turkey, the band 138-144 MHz is also allocated to the maritime mobile and land mobile services on a primary basis. (WRC-07)

**MOD** COM5/264/36 (B6/268/39) (R3/292/39)

**5.212** *Alternative allocation:* in Angola, Botswana, Burundi, Cameroon, the Central African Rep., Congo (Rep. of the), Gabon, Gambia, Ghana, Guinea, Iraq, Libyan Arab Jamahiriya, Jordan, Lesotho, Liberia, Malawi, Mozambique, Namibia, Oman, Uganda, Syrian Arab Republic, the Dem. Rep. of the Congo, Rwanda, Sierra Leone, South Africa, Swaziland, Chad, Togo, Zambia and Zimbabwe, the band 138-144 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-07)

**MOD** COM5/264/37 (B6/268/40) (R3/292/40)

**5.214** *Additional allocation:* in Eritrea, Ethiopia, Kenya, The Former Yugoslav Republic of Macedonia, Malta, Montenegro, Serbia, Somalia, Sudan and Tanzania, the band 138-144 MHz is also allocated to the fixed service on a primary basis. (WRC-07)

**MOD** COM4/332/17 (B13/347/17) (R7/411/21)

**148-223 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>150.05-153</b> FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149	<b>150.05-156.4875</b> FIXED MOBILE	
<b>153-154</b> FIXED MOBILE except aeronautical mobile (R) Meteorological Aids		
<b>154-156.4875</b> FIXED MOBILE except aeronautical mobile (R) MOD 5.226	5.225 MOD 5.226	
<b>156.4875-156.5625</b> MARITIME MOBILE (distress and calling via DSC) MOD 5.111 MOD 5.226 MOD 5.227	<b>156.4875-156.5625</b> MARITIME MOBILE (distress and calling via DSC)  MOD 5.111 MOD 5.226 MOD 5.227	
<b>156.5625-156.7625</b> FIXED MOBILE except aeronautical mobile (R) MOD 5.226	<b>156.5625-156.7625</b> FIXED MOBILE  5.225 MOD 5.226	
<b>156.7625-156.8375</b>	MARITIME MOBILE (distress and calling) MOD 5.111 MOD 5.226	
<b>156.8375-174</b> FIXED MOBILE except aeronautical mobile MOD 5.226 5.229 ADD 5.4C02	<b>156.8375-174</b> FIXED MOBILE  MOD 5.226 5.230 5.231 5.232 ADD 5.4C02	

**MOD** COM5/264/38 (B6/268/41) (R3/292/41)

**5.221** Stations of the mobile-satellite service in the band 148-149.9 MHz shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations in the following countries: Albania, Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Brunei Darussalam, Bulgaria, Cameroon, China, Cyprus, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Croatia, Cuba, Denmark, Egypt, the United Arab Emirates, Eritrea, Spain, Estonia, Ethiopia, the Russian Federation, Finland, France, Gabon, Ghana, Greece, Guinea, Guinea Bissau, Hungary, India, Iran (Islamic Republic of), Ireland, Iceland, Israel, Italy, the Libyan Arab Jamahiriya, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lesotho, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Malaysia, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Mozambique, Namibia, Norway, New Zealand, Oman, Uganda, Uzbekistan, Pakistan, Panama, Papua New Guinea, Paraguay, the Netherlands, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Kyrgyzstan, Dem. People's Rep. of Korea, Slovakia, Romania, the United Kingdom, Senegal, Serbia, Sierra Leone, Singapore, Slovenia, Sri Lanka, South Africa, Sweden, Switzerland, Swaziland, Tanzania, Chad, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Viet Nam, Yemen, Zambia, and Zimbabwe. (WRC-07)

**MOD** COM4/332/18 (B13/347/18) (R7/411/22)

**5.226** The frequency 156.8 MHz is the international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service. The conditions for the use of this frequency and the band 156.7625-156.8375 MHz are contained in Article **31** and Appendix **18**.

The frequency 156.525 MHz is the international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service using digital selective calling (DSC). The conditions for the use of this frequency and the band 156.4875-156.5625 MHz are contained in Articles **31** and **52**, and in Appendix **18**.

In the bands 156-156.4875 MHz, 156.5625-156.7625 MHz, 156.8375-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz, each administration shall give priority to the maritime mobile service on only such frequencies as are assigned to stations of the maritime mobile service by the administration (see Articles **31** and **52**, and Appendix **18**).

Any use of frequencies in these bands by stations of other services to which they are allocated should be avoided in areas where such use might cause harmful interference to the maritime mobile VHF radiocommunication service.

However, the frequencies 156.8 MHz and 156.525 MHz and the frequency bands in which priority is given to the maritime mobile service may be used for radiocommunications on inland waterways subject to agreement between interested and affected administrations and taking into account current frequency usage and existing agreements. (WRC-07)

**MOD** COM4/332/19 (B13/347/19) (R7/411/23)

**5.227** *Additional allocation:* the bands 156.4875-156.5125 MHz and 156.5375-156.5625 MHz are also allocated to the fixed and land mobile services on a primary basis. The use of these bands by the fixed and land mobile services shall not cause harmful interference to nor claim protection from the maritime mobile VHF radiocommunication service. (WRC-07)

**ADD** COM4/332/20 (B13/347/20) (R7/411/24)

**5.4C02** *Additional allocation:* the bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz are also allocated to the mobile-satellite service (Earth-to-space) on a secondary basis for the

reception of automatic identification system (AIS) emissions from stations operating in the maritime-mobile service (see Appendix **18**). (WRC-07)

**MOD** COM5/264/39 (B6/268/42) (R3/292/42)

**5.237** *Additional allocation:* in Congo (Rep. of the), Eritrea, Ethiopia, Gambia, Guinea, the Libyan Arab Jamahiriya, Malawi, Mali, Sierra Leone, Somalia and Chad, the band 174-223 MHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-07)

**MOD** COM4/332/21 (B13/347/21) (R7/411/25)

**5.256** The frequency 243 MHz is the frequency in this band for use by survival craft stations and equipment used for survival purposes. (WRC-07)

**MOD** COM5/264/40 (B6/268/43) (R3/292/43)

**5.259** *Additional allocation:* in Egypt, Israel and the Syrian Arab Republic, the band 328.6-335.4 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. **9.21**. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedure invoked under No. **9.21**. (WRC-07)

**MOD** COM5/265/4 (B6/268/44) (R3/292/44)

**335.4-410 MHz**

Allocation to services		
Region 1	Region 2	Region 3
...		
<b>387-390</b>	FIXED MOBILE Mobile-satellite (space-to-Earth) 5.208A 5.254 5.255 MOD 5.347A	
...		
<b>400.15-401</b>	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.209 MOD 5.347A SPACE RESEARCH (space-to-Earth) 5.263 Space operation (space-to-Earth) 5.262 5.264	

**MOD** COM5/264/41 (B6/268/45) (R3/292/45)

**5.262** *Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Botswana, Colombia, Costa Rica, Cuba, Egypt, the United Arab Emirates, Ecuador, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Liberia, Malaysia, Moldova, Uzbekistan, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, Kyrgyzstan, Romania, Singapore, Somalia, Tajikistan, Turkmenistan and Ukraine, the band 400.05-401 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-07)

**MOD** COM4/332/22 (B13/347/22) (R7/411/26)

**5.266** The use of the band 406-406.1 MHz by the mobile-satellite service is limited to low power satellite emergency position-indicating radiobeacons (see also Article **31**). (WRC-07)

**MOD** COM4/394/1 (B22/416/1)

**410-460 MHz**

Allocation to services								
Region 1			Region 2			Region 3		
<b>450-455</b>			FIXED MOBILE ADD 5.XXX 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E					
<b>455-456</b> FIXED MOBILE ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E			<b>455-456</b> FIXED MOBILE ADD 5.XXX MOBILE-SATELLITE (Earth-to-space) 5.286A 5.286B 5.286C 5.209			<b>455-456</b> FIXED MOBILE ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E		
<b>456-459</b>			FIXED MOBILE ADD 5.XXX 5.271 5.287 5.288					
<b>459-460</b> FIXED MOBILE ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E			<b>459-460</b> FIXED MOBILE ADD 5.XXX MOBILE-SATELLITE (Earth-to-space) 5.286A 5.286B 5.286C 5.209			<b>459-460</b> FIXED MOBILE ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E		

**MOD** COM4/332/23 (B13/347/23) (R7/411/27)

**410-460 MHz**

Allocation to services								
Region 1			Region 2			Region 3		
<b>456-459</b>			FIXED MOBILE ADD 5.xxx 5.271 MOD 5.287 5.288					

**MOD** COM5/264/42 (B6/268/46) (R3/292/46)

**5.271** *Additional allocation:* in Belarus, China, India, Kyrgyzstan and Turkmenistan, the band 420-460 MHz is also allocated to the aeronautical radionavigation service (radio altimeters) on a secondary basis. (WRC-07)

**MOD** COM5/264/43 (B6/268/47) (R3/292/47)

**5.275** *Additional allocation:* in Croatia, Estonia, Finland, Libyan Arab Jamahiriya, The Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Slovenia, the bands 430-432 MHz and 438-440 MHz are also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

**MOD** COM5/264/44 (B6/268/48) (R3/292/48)

**5.276** *Additional allocation:* in Afghanistan, Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Burkina Faso, Burundi, Egypt, the United Arab Emirates, Ecuador, Eritrea, Ethiopia, Greece, Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Libyan Arab Jamahiriya, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Malta, Nigeria, Oman, Pakistan, the

Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Switzerland, Tanzania, Thailand, Togo, Turkey and Yemen, the band 430-440 MHz is also allocated to the fixed service on a primary basis and the bands 430-435 MHz and 438-440 MHz are also allocated to the mobile, except aeronautical mobile, service on a primary basis. (WRC-07)

**MOD** COM5/264/45 (B6/268/49) (R3/292/49)

**5.277** *Additional allocation:* in Angola, Armenia, Azerbaijan, Belarus, Cameroon, Congo (Rep. of the), Djibouti, the Russian Federation, Georgia, Hungary, Israel, Kazakhstan, Mali, Moldova, Mongolia, Uzbekistan, Poland, Kyrgyzstan, Slovakia, Romania, Rwanda, Tajikistan, Chad, Turkmenistan and Ukraine, the band 430-440 MHz is also allocated to the fixed service on a primary basis. (WRC-07)

**MOD** COM5/264/46 (B6/268/50) (R3/292/50)

**5.280** In Germany, Austria, Bosnia and Herzegovina, Croatia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Montenegro, Portugal, Serbia, Slovenia and Switzerland, the band 433.05-434.79 MHz (centre frequency 433.92 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services of these countries operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. **15.13**. (WRC-07)

**MOD** COM5/264/47 (B6/268/51) (R3/292/51)

**5.286D** *Additional allocation:* in Canada, the United States and Panama, the band 454-455 MHz is also allocated to the mobile-satellite service (Earth-to-space) on a primary basis. (WRC-07)

**MOD** COM5/264/48 (B6/268/52) (R3/292/52)

**5.286E** *Additional allocation:* in Cape Verde, Nepal and Nigeria, the bands 454-456 MHz and 459-460 MHz are also allocated to the mobile-satellite (Earth-to-space) service on a primary basis. (WRC-07)

**MOD** COM4/394/1bis (B22/416/2)

**460-890 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>460-470</b>	FIXED MOBILE ADD 5.XXX Meteorological-satellite (space-to-Earth) MOD 5.287 5.288 5.289 5.290	

**ADD** COM4/394/2 (B22/416/3)

**5.XXX** The band 450-470 MHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). See Resolution **224 (Rev.WRC-07)**. This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations.

**MOD** COM4/332/25 (B13/347/24) (R7/411/28)

**5.287** In the maritime mobile service, the frequencies 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz and 467.575 MHz may be used by on-board communication stations. Where needed, equipment designed for 12.5 kHz channel spacing using also the additional frequencies 457.5375 MHz, 457.5625 MHz, 467.5375 MHz and 467.5625 MHz may be introduced for on-board communications. The use of these frequencies in territorial waters



**MOD** COM4/380/79 (B19/413/1)

**5.292** *Different category of service:* in Mexico, the allocation of the band 470-512 MHz to the fixed and mobile services, and in Argentina, Uruguay and Venezuela to the mobile service, is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. (WRC-07)

**MOD** (R9/425/2)

**5.293** *Different category of service:* in Canada, Chile, Colombia, Cuba, the United States, Guyana, Honduras, Jamaica, Mexico, Panama and Peru, the allocation of the bands 470-512 MHz and 614-806 MHz to the fixed service is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. In Canada, Chile, Colombia, Cuba, the United States, Guyana, Honduras, Jamaica, Mexico, Panama and Peru, the allocation of the bands 470-512 MHz and 614-698 MHz to the mobile service is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. In Argentina and Ecuador, the allocation of the band 470-512 MHz to the fixed and mobile services is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. (WRC-07)

**MOD** COM4/380/80 (B19/413/2)

**5.294** *Additional allocation:* in Saudi Arabia, Burundi, Cameroon, Côte d'Ivoire, Egypt, Ethiopia, Israel, the Libyan Arab Jamahiriya, Kenya, Malawi, the Syrian Arab Republic, Sudan, Chad and Yemen, the band 470-582 MHz is also allocated to the fixed service on a secondary basis. (WRC-07)

**MOD** COM4/380/81 (B19/413/3)

**5.296** *Additional allocation:* in Germany, Saudi Arabia, Austria, Belgium, Côte d'Ivoire, Denmark, Egypt, Spain, Finland, France, Ireland, Israel, Italy, the Libyan Arab Jamahiriya, Jordan, Lithuania, Malta, Morocco, Monaco, Norway, Oman, the Netherlands, Portugal, the Syrian Arab Republic, the United Kingdom, Sweden, Switzerland, Swaziland and Tunisia, the band 470-790 MHz is also allocated on a secondary basis to the land mobile service, intended for applications ancillary to broadcasting. Stations of the land mobile service in the countries listed in this footnote shall not cause harmful interference to existing or planned stations operating in accordance with the Table in countries other than those listed in this footnote. (WRC-07)

**MOD** COM4/380/82 (B19/413/4)

**5.297** *Additional allocation:* in Canada, Costa Rica, Cuba, El Salvador, the United States, Guatemala, Guyana, Honduras, Jamaica and Mexico, the band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-07)

**MOD** COM4/380/83 (B19/413/5)

**5.300** *Additional allocation:* in Saudi Arabia, Egypt, Israel, the Libyan Arab Jamahiriya, Jordan, Oman, the Syrian Arab Republic and Sudan, the band 582-790 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-07)

**SUP** COM4/211/2 (B3/224/2)

**5.311**

**ADD** COM4/211/3 (B3/224/3)

**5.311A** For the frequency band 620-790 MHz, see also Resolution [COM4/1] (WRC-07).

**ADD** (R9/425/3)

**5.311A** For the frequency band 620-790 MHz, see also Resolution [COM4/1] (WRC-07).

**MOD** COM4/380/84 (B19/413/6)

**5.314** *Additional allocation:* in Austria, Italy, Moldova, Uzbekistan, Kyrgyzstan, the United Kingdom and Swaziland, the band 790-862 MHz is also allocated to the land mobile service on a secondary basis. (WRC-07)

**MOD** (R9/425/4)

**5.316** *Additional allocation:* in Germany, Saudi Arabia, Bosnia and Herzegovina, Burkina Faso, Cameroon, Côte d'Ivoire, Croatia, Denmark, Egypt, Finland, Greece, Israel, the Libyan Arab Jamahiriya, Jordan, Kenya, The Former Yugoslav Republic of Macedonia, Liechtenstein, Mali, Monaco, Montenegro, Norway, the Netherlands, Portugal, the United Kingdom, the Syrian Arab Republic, Serbia, Sweden and Switzerland, the band 790-830 MHz, and in these same countries and in Spain, France, Gabon and Malta, the band 830-862 MHz, are also allocated to the mobile, except aeronautical mobile, service on a primary basis. However, stations of the mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to, or claim protection from, stations of services operating in accordance with the Table in countries other than those mentioned in connection with the band. This allocation is effective until 16 June 2015. (WRC-07)

**ADD** (R9/425/5)

**5.YYY** The band, or position of the band, in Bangladesh, China, Korea (Rep. of), India, Japan, New Zealand, Papua New Guinea, Philippines and Singapore is identified for use by these administrations wishing to implement IMT. This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-07)

**ADD** (R9/425/6)

**5.316A** *Additional allocation:* in Angola, Bahrain, Benin, Botswana, Cameroon, Congo (Rep. of the), French Overseas Departments and Communities, Gambia, Ghana, Guinea, Kuwait, Lesotho, Malawi, Morocco, Mauritania, Mozambique, Namibia, Niger, Oman, Uganda, Poland, Qatar, Rwanda, Senegal, Sudan, South Africa, Swaziland, Tanzania, Chad, Togo, Yemen, Zambia and Zimbabwe in the band 790-862 MHz in Spain, France, Gabon and Malta and in Lithuania in the band 830-862 MHz and in Georgia in the band 806-862 MHz are also allocated to the mobile service except the aeronautical mobile on a primary basis subject to the agreement by the administrations concerned obtained under No. **9.21** and under the Geneva-06 Agreement, as appropriate, including those administrations mentioned in No. **5.312** where appropriate. However, stations of the mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause unacceptable interference to, nor claim protection from, stations of services operating in accordance with the Table in countries other than those mentioned in connection with the band. This allocation is effective until 16 June 2015. Frequency assignment to the mobile service under this allocation in Lithuania and Poland shall not be used without the agreement of the Russian Federation. (WRC-07)

**MOD** (R9/425/7)

**5.317A** Those parts of the band 698-960 MHz in Region 2 and the band 790-960 MHz in Regions 1 and 3 which are allocated to the mobile service on a primary basis are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) See Resolution **224 (Rev.WRC-07)** and Resolution [**COM4/13**] (**WRC-07**). This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-07)

**ADD** (R9/425/8)

**5.XXX** In Region 1, the allocation to the mobile, except aeronautical mobile, service on a primary basis in the frequency band 790-862 MHz shall come into effect from 17 June 2015 and shall be subject to agreement obtained under No. **9.21** with respect to the aeronautical radionavigation service in countries mentioned in No. **5.312**. For countries party to the GE06 Agreement, the use of stations of the mobile service is also subject to the successful application of the procedures of that Agreement. Resolution **224 (Rev.WRC-07)** and Resolution [**COM4/13 (Rev.WRC-07)**] shall apply. (WRC-07)

**ADD** (R9/425/9)

**5.UUU** *Different category of service:* In Brazil, the allocation of the band 698-806 MHz to the mobile service is on a secondary basis (see No. **5.32**).

**SUP** COM6/382/3 (B20/414/3)

**5.321**

**MOD** COM5/264/50 (B6/268/54) (R3/292/54)

**5.323** *Additional allocation:* in Armenia, Azerbaijan, Belarus, Bulgaria, the Russian Federation, Hungary, Kazakhstan, Moldova, Uzbekistan, Poland, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the band 862-960 MHz is also allocated to the aeronautical radionavigation service on a primary basis. Such use is subject to agreement obtained under No. **9.21** with administrations concerned and limited to ground-based radiobeacons in operation on 27 October 1997 until the end of their lifetime. (WRC-07)

**MOD** COM4/318/8 (B11/329/5) (R6/410/6)

**890-1 300 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>960-1 164</b>	AERONAUTICAL RADIONAVIGATION 5.328 AERONAUTICAL MOBILE (R) ADD 5.4B06	

**MOD** COM6/341/5 (B14/365/5) (R7/411/30)

**5.328A** Stations in the radionavigation-satellite service in the band 1 164-1 215 MHz shall operate in accordance with the provisions of Resolution **609 (Rev.WRC-07)** and shall not claim protection from stations in the aeronautical radionavigation service in the band 960-1 215 MHz. No. **5.43A** does not apply. The provisions of No. **21.18** shall apply. (WRC-07)

**MOD** COM5/216/1 (B3/224/4)

**5.328B** The use of the bands 1 164-1 300 MHz, 1 559-1 610 MHz and 5 010-5 030 MHz by systems and networks in the radionavigation-satellite service for which complete coordination or notification information, as appropriate, is received by the Radiocommunication Bureau after 1 January 2005 is subject to the application of the provisions of Nos. **9.12**, **9.12A** and **9.13**. Resolution **610 (WRC-03)** shall also apply; however, in the case of radionavigation-satellite service (space-to-space) networks and systems, Resolution **610 (WRC-03)** shall only apply to transmitting space stations. In accordance with No. **5.329A**, for systems and networks in the radionavigation-satellite service (space-to-space) in the bands 1 215-1 300 MHz and 1 559-1 610 MHz, the provisions of Nos. **9.7**, **9.12**, **9.12A** and **9.13** shall only apply with respect to other systems and networks in the radionavigation-satellite service (space-to-space). (WRC-07)

**MOD** COM5/216/2 (B3/224/5)

**5.329A** Use of systems in the radionavigation-satellite service (space-to-space) operating in the bands 1 215-1 300 MHz and 1 559-1 610 MHz is not intended to provide safety service applications, and shall not impose any additional constraints on radionavigation-satellite service (space-to-Earth) systems or on other services operating in accordance with the Table of Frequency Allocations. (WRC-07)

**MOD** COM5/264/51 (B6/268/55) (R3/292/55)

**5.331** *Additional allocation:* in Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Belarus, Belgium, Benin, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cameroon, China, Korea (Rep. of), Croatia, Denmark, Egypt, the United Arab Emirates, Estonia, the Russian Federation, Finland, France, Ghana, Greece, Guinea, Equatorial Guinea, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Israel, Jordan, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lesotho, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Madagascar, Mali, Mauritania, Montenegro, Nigeria, Norway, Oman, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Thailand, Togo, Turkey, Venezuela and Viet Nam, the band 1 215-1 300 MHz is also allocated to the radionavigation service on a primary basis. In Canada and the United States, the band 1 240-1 300 MHz is also allocated to the radionavigation service, and use of the radionavigation service shall be limited to the aeronautical radionavigation service. (WRC-07)

**ADD** COM4/318/9 (B11/329/6) (R6/410/7)

**5.4B06** The use of the band 960-1 164 MHz by the aeronautical mobile (R) service is limited to systems that operate in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution [COM4/5] (WRC-07). (WRC-07)

**MOD** COM5/372/1 (B15/396/1)

**1 300-1 525 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>1 350-1 400</b> FIXED MOBILE RADIOLOCATION 5.149 5.338 5.339 ADD 5.BA03	<b>1 350-1 400</b> RADIOLOCATION ADD 5.BA03  5.149 5.334 5.339	
<b>1 400-1 427</b>	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341	
<b>1 427-1 429</b>	SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile 5.341 ADD 5.BA03	
<b>1 429-1 452</b> FIXED MOBILE except aeronautical mobile 5.341 5.342 ADD 5.BA03	<b>1 429-1 452</b> FIXED MOBILE 5.343  5.341 ADD 5.BA03	

**MOD** COM6/341/6 (B14/365/6) (R7/411/31)

**1 300-1 525 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>1 452-1 492</b> FIXED MOBILE except aeronautical mobile BROADCASTING 5.345 BROADCASTING-SATELLITE 5.345 5.347A 5.341 5.342	<b>1 452-1 492</b> FIXED MOBILE 5.343 BROADCASTING 5.345 BROADCASTING-SATELLITE 5.345 5.347A  5.341 5.344	

**MOD** COM4/332/75 (B13/347/26) (R7/411/32)

**1 300-1 525 MHz**

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

**MOD** COM5/264/52 (B6/268/56) (R3/292/56)

**5.338** In Mongolia, Kyrgyzstan, Slovakia, the Czech Rep. and Turkmenistan, existing installations of the radionavigation service may continue to operate in the band 1 350-1 400 MHz. (WRC-07)

**SUP** COM5/173/5 (B1/196/3) (R1/221/2)

**5.339A**

**SUP** COM6/341/7 (B14/365/7) (R7/411/33)

**5.347**

**MOD** COM5/265/6 (B6/268/57) (R3/292/57)

**5.347A**

- In the bands:
- 137-138 MHz,
  - 387-390 MHz,
  - 400.15-401 MHz,
  - 1 452-1 492 MHz,
  - 1 525-1 559 MHz,
  - 1 559-1 610 MHz,
  - 1 613.8-1 626.5 MHz,
  - 2 655-2 670 MHz,
  - 2 670-2 690 MHz,
  - 21.4-22 GHz,

Resolution **739 (Rev.WRC-07)** applies. (WRC-07)

**SUP** COM4/332/76 (B13/347/27) (R7/411/34)

**5.348C**

**MOD** COM5/265/5 (B6/268/58) (R3/292/58)

**1 525-1 610 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>1 559-1 610</b>	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329A MOD 5.347A 5.341 5.362B 5.362C 5.363	

**MOD** COM5/264/53 (B6/268/59) (R3/292/59)

**5.349** *Different category of service:* in Saudi Arabia, Azerbaijan, Bahrain, Cameroon, Egypt, France, Iran (Islamic Republic of), Iraq, Israel, Kazakhstan, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Morocco, Qatar, Syrian Arab Republic, Kyrgyzstan, Turkmenistan and Yemen, the allocation of the band 1 525-1 530 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. **5.33**). (WRC-07)

**MOD** COM4/332/77 (B13/347/28) (R7/411/35)

**5.351A** For the use of the bands 1 518-1 544 MHz, 1 545-1 559 MHz, 1 610-1 626.5 MHz, 1 626.5-1 645.5 MHz, 1 646.5-1 660.5 MHz, 1 668-1 675 MHz, 1 980-2 010 MHz, 2 170-2 200 MHz, 2 483.5-2 500 MHz, 2 500-2 520 MHz and 2 670-2 690 MHz by the mobile-satellite service, see Resolutions **212 (Rev.WRC-07)** and **225 (Rev.WRC-07)**. (WRC-07)

**MOD** COM5/264/54 (B6/268/60) (R3/292/60)

**5.359** *Additional allocation:* in Germany, Saudi Arabia, Armenia, Austria, Azerbaijan, Belarus, Benin, Bulgaria, Cameroon, Spain, the Russian Federation, France, Gabon, Georgia, Greece, Guinea, Guinea-Bissau, the Libyan Arab Jamahiriya, Jordan, Kazakhstan, Kuwait, Lebanon, Lithuania, Mauritania, Moldova, Uganda, Uzbekistan, Pakistan, Poland, the Syrian Arab Republic, Kyrgyzstan, the Dem. People's Rep. of Korea, Romania, Swaziland, Tajikistan, Tanzania, Tunisia, Turkmenistan and Ukraine, the bands 1 550-1 559 MHz, 1 610-1 645.5 MHz and 1 646.5-1 660 MHz are also allocated to the fixed service on a primary basis. Administrations are urged to make all practicable efforts to avoid the implementation of new fixed-service stations in these bands. (WRC-07)

**MOD** COM6/341/8 (B14/365/8) (R7/411/36)

**5.362B** *Additional allocation:* The band 1 559-1 610 MHz is also allocated to the fixed service on a primary basis until 1 January 2010 in Algeria, Saudi Arabia, Cameroon, Libyan Arab Jamahiriya, Jordan, Mali, Mauritania, Syrian Arab Republic and Tunisia. After this date, the fixed service may continue to operate on a secondary basis until 1 January 2015, at which time this allocation shall no longer be valid. The band 1 559-1 610 MHz is also allocated to the fixed service on a secondary basis in Algeria, Germany, Armenia, Azerbaijan, Belarus, Benin, Bulgaria, Spain, Russian Federation, France, Gabon, Georgia, Guinea, Guinea-Bissau, Kazakhstan, Lithuania, Moldova, Nigeria, Uganda, Uzbekistan, Pakistan, Poland, Kyrgyzstan, Dem. People's Rep. of Korea, Romania, Senegal, Swaziland, Tajikistan, Tanzania, Turkmenistan and Ukraine until 1 January 2015, at which time this allocation shall no longer be valid. Administrations are urged to take all practicable steps to protect the radionavigation-satellite service and the aeronautical radionavigation service and not authorize new frequency assignments to fixed-service systems in this band. (WRC-07)

**MOD** COM5/264/55 (B6/268/61) (R3/292/61)

**5.362C** *Additional allocation:* in Congo (Rep. of the), Egypt, Eritrea, Iraq, Israel, Jordan, Malta, Qatar, the Syrian Arab Republic, Somalia, Sudan, Chad, Togo and Yemen, the band 1 559-1 610 MHz is also allocated to the fixed service on a secondary basis until 1 January 2015, at which time this allocation shall no longer be valid. Administrations are urged to take all practicable steps to protect the radionavigation-satellite service and not authorize new frequency assignments to fixed-service systems in this band. (WRC-07)

**SUP** COM5/173/3 (B1/196/4) (R1/221/3)

**5.363**

**MOD** COM4/332/78 (B13/347/29) (R7/411/37)

**1 660-1 710 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>1 668-1 668.4</b>	MOBILE-SATELLITE (Earth-to-space) MOD 5.351A MOD 5.379B 5.379C RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A	
<b>1 668.4-1 670</b>	METEOROLOGICAL AIDS FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) MOD 5.351A MOD 5.379B 5.379C RADIO ASTRONOMY 5.149 5.341 MOD 5.379D 5.379E	
<b>1 670-1 675</b>	METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE 5.380 MOBILE-SATELLITE (Earth-to-space) MOD 5.351A MOD 5.379B 5.341 MOD 5.379D 5.379E 5.380A	

**MOD** COM5/230/3 (B4/234/3) (R3/292/63)

**5.379B** The use of the band 1 668-1 675 MHz by the mobile-satellite service is subject to coordination under No. **9.11A**. In the band 1 668-1 668.4 MHz, Resolution [**COM5/1**] (**WRC-07**) shall apply. (WRC-07)

**MOD** COM5/230/4 (B4/234/4) (R3/292/64)

**5.379D** For sharing of the band 1 668.4-1 675 MHz between the mobile-satellite service and the fixed and mobile services, Resolution **744 (Rev.WRC-07)** shall apply. (WRC-07)

**SUP** COM5/230/5 (B4/234/5) (R3/292/65)

**5.380**

**MOD** COM6/382/4 (B20/414/4)

**5.380A** In the band 1 670-1 675 MHz, stations in the mobile-satellite service shall not cause harmful interference to, nor constrain the development of, existing earth stations in the meteorological-satellite service notified before 1 January 2004. Any new assignment to these earth

stations in this band shall also be protected from harmful interference from stations in the mobile-satellite service. (WRC-07)

**MOD** COM5/264/56 (B6/268/62) (R3/292/66)

**5.382** *Different category of service:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Congo (Rep. of the), Egypt, the United Arab Emirates, Eritrea, Ethiopia, the Russian Federation, Guinea, Iraq, Israel, Jordan, Kazakhstan, Kuwait, the Former Yugoslav Republic of Macedonia, Lebanon, Mauritania, Moldova, Mongolia, Oman, Uzbekistan, Poland, Qatar, the Syrian Arab Republic, Kyrgyzstan, Serbia, Somalia, Tajikistan, Tanzania, Turkmenistan, Ukraine and Yemen, the allocation of the band 1 690-1 700 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. **5.33**), and in the Dem. People's Rep. of Korea, the allocation of the band 1 690-1 700 MHz to the fixed service is on a primary basis (see No. **5.33**) and to the mobile, except aeronautical mobile, service on a secondary basis. (WRC-07)

**MOD** COM5/230/2 (B4/234/2) (R3/292/67)

**1 710-2 170 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>1 710-1 930</b>	FIXED MOBILE 5.384A 5.388A 5.388B 5.149 5.341 5.385 5.386 5.387 5.388	

**MOD** COM4/332/81 (B13/347/30) (R7/411/39) (R8/424/1)

**5.384A** The bands, or portions of the bands, 1 710-1 885 MHz, 2 300-2 400 MHz and 2 500-2 690 MHz, are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution **223 (Rev.WRC-07)**. This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-07).

**MOD** COM5/264/57 (B6/268/63) (R3/292/68)

**5.387** *Additional allocation:* in Belarus, Georgia, Kazakhstan, Mongolia, Kyrgyzstan, Slovakia, Romania, Tajikistan and Turkmenistan, the band 1 770-1 790 MHz is also allocated to the meteorological-satellite service on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-07)

**MOD** COM6/382/5 (B20/414/5)

**1 710-2 170 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>2 010-2 025</b> FIXED MOBILE 5.388A 5.388B  5.388	<b>2 010-2 025</b> FIXED MOBILE MOBILE-SATELLITE (Earth-to-space)  5.388 5.389C 5.389E	<b>2 010-2 025</b> FIXED MOBILE 5.388A 5.388B  5.388
...		
<b>2 160-2 170</b> FIXED MOBILE 5.388A 5.388B  5.388 5.392A	<b>2 160-2 170</b> FIXED MOBILE MOBILE-SATELLITE (space-to-Earth)  5.388 5.389C 5.389E	<b>2 160-2 170</b> FIXED MOBILE 5.388A 5.388B  5.388

**MOD** COM6/382/6 (B20/414/6)

**5.389A** The use of the bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobile-satellite service is subject to coordination under No. **9.11A** and to the provisions of Resolution **716 (Rev.WRC-2000)**. (WRC-07)

**MOD** COM6/382/7 (B20/414/7)

**5.389C** The use of the bands 2 010-2 025 MHz and 2 160-2 170 MHz in Region 2 by the mobile-satellite service is subject to coordination under No. **9.11A** and to the provisions of Resolution **716 (Rev.WRC-2000)**. (WRC-07)

**SUP** COM6/382/8 (B20/414/8)

**5.390**

**SUP** COM6/341/10 (B14/365/10) (R7/411/40)

**5.392A**

**MOD** COM5/264/60 (B6/268/64) (R8/424/3)

**2 170-2 520 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>2 300-2 450</b> FIXED MOBILE Amateur Radiolocation 5.150 5.282 MOD 5.384A 5.395	<b>2 300-2 450</b> FIXED MOBILE RADIOLOCATION Amateur 5.150 5.282 MOD 5.393 MOD 5.394 5.396	
<b>2 450-2 483.5</b> FIXED MOBILE Radiolocation 5.150 5.397	<b>2 450-2 483.5</b> FIXED MOBILE RADIOLOCATION 5.150	

**MOD** COM4/392/1 (B19/413/7)

**2 170-2 520 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>2 500-2 520</b> FIXED MOD 5.410 MOBILE except aeronautical mobile 5.384A  5.405 5.412	<b>2 500-2 520</b> FIXED MOD 5.410 FIXED-SATELLITE (space-to- Earth) 5.415 MOBILE except aeronautical mobile 5.384A  5.404	<b>2 500-2 520</b> FIXED MOD 5.410 FIXED-SATELLITE (space-to- Earth) 5.415 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (space-to- Earth) 5.351A ADD 5.4A01 ADD 5.414 5.404 5.407 5.415A

**MOD** COM5/264/58 (B6/268/65) (R8/424/4)

**5.393** *Additional allocation:* in Canada, the United States, India and Mexico, the band 2 310-2 360 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial sound broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution **528 (Rev.WRC-03)**, with the exception

of *resolves* 3 in regard to the limitation on broadcasting-satellite systems in the upper 25 MHz. (WRC-07)

**MOD** COM5/264/59 (B6/268/66) (R8/424/5)

**5.394** In the United States, the use of the band 2 300-2 390 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services. In Canada, the use of the band 2 360-2 400 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services. (WRC-07)

**MOD** COM4/392/4 (B19/413/8)

**5.403** Subject to agreement obtained under No. **9.21**, the band 2 520-2 535 MHz may also be used for the mobile-satellite (space-to-Earth), except aeronautical mobile-satellite, service for operation limited to within national boundaries. The provisions of No. **9.11A** apply. (WRC-07)

**SUP** COM4/392/5 (B19/413/9)

**5.409**

**MOD** COM4/392/6 (B19/413/10)

**5.410** The band 2 500-2 690 MHz may be used for tropospheric scatter systems in Region 1, subject to agreement obtained under No. **9.21**. Administrations shall make all practicable efforts to avoid developing new tropospheric scatter systems in this band. When planning new tropospheric scatter radio-relay links in this band, all possible measures shall be taken to avoid directing the antennas of these links towards the geostationary-satellite orbit. (WRC-07)

**SUP** COM4/392/7 (B19/413/11)

**5.411**

**MOD** COM5/264/61 (B6/268/67) (R3/292/69)

**5.412** *Alternative allocation:* in Azerbaijan, Kyrgyzstan and Turkmenistan, the band 2 500-2 690 MHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-07)

**MOD** COM4/392/8 (B19/413/12)

**5.414** The allocation of the frequency band 2 500-2 520 MHz to the mobile-satellite service (space-to-Earth) is subject to coordination under No. **9.11A**. (WRC-07)

**MOD** COM4/392/9 (B19/413/13)

**5.415** The use of the bands 2 500-2 690 MHz in Region 2 and 2 500-2 535 MHz and 2 655-2 690 MHz in Region 3 by the fixed-satellite service is limited to national and regional systems, subject to agreement obtained under No. **9.21**, giving particular attention to the broadcasting-satellite service in Region 1. (WRC-07)

**ADD** COM4/392/3 (B19/413/14)

**5.4A01** In Japan and India, the use of the bands 2 500-2 520 MHz and 2 520-2 535 MHz, under No. **5.403**, by a satellite network in the mobile-satellite service (space-to-Earth) is limited to operation within national boundaries and subject to the application of No. **9.11A**. The following pfd values shall be used as a threshold for coordination under No. **9.11A**, for all conditions and for all methods of modulation, in an area of 1 000 km around the territory of the administration notifying the mobile-satellite service network:

-136 dB(W/(m <sup>2</sup> · MHz))	for	0° ≤ θ ≤ 5°
-136 + 0.55 (θ - 5) dB(W/(m <sup>2</sup> · MHz))	for	5° < θ ≤ 25°
-125 dB(W/(m <sup>2</sup> · MHz))	for	25° < θ ≤ 90°

where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees. Outside this area Table **21-4** of Article **21** shall apply. Furthermore, the coordination thresholds in Table 5-2

of Annex 1 to Appendix 5 of the Radio Regulations (edition of 2004), in conjunction with the applicable provisions of Articles 9 and 11 associated with No. 9.11A, shall apply to systems for which complete notification information has been received by the Radiocommunication Bureau by 14 November 2007 and that have been brought into use by that date. (WRC-07)

**MOD** COM4/392/2 (B19/413/15)

**2 520-2 700 MHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>2 520-2 655</b> FIXED MOD 5.410 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 MOD 5.416  5.339 5.405 5.412 5.417C 5.417D 5.418B 5.418C	<b>2 520-2 655</b> FIXED MOD 5.410 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 MOD 5.416  5.339 5.417C 5.417D 5.418B 5.418C	<b>2 520-2 535</b> FIXED MOD 5.410 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 MOD 5.416 5.403 5.415A ADD 5.4A01
		<b>2 535-2 655</b> FIXED MOD 5.410 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 MOD 5.416 5.339 5.417A 5.417B 5.417C 5.417D MOD 5.418 5.418A 5.418B 5.418C
<b>2 655-2 670</b> FIXED MOD 5.410 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.347A 5.413 MOD 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive)  5.149 5.412	<b>2 655-2 670</b> FIXED MOD 5.410 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.347A 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.347A 5.413 MOD 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive)  5.149	<b>2 655-2 670</b> FIXED MOD 5.410 FIXED-SATELLITE (Earth-to-space) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.347A 5.413 MOD 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive)  5.149 5.420

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>2 670-2 690</b> FIXED MOD 5.410 MOBILE except aeronautical mobile 5.384A Earth exploration-satellite (passive) Radio astronomy Space research (passive)  5.149 5.412	<b>2 670-2 690</b> FIXED MOD 5.410 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.347A 5.415 MOBILE except aeronautical mobile 5.384A Earth exploration-satellite (passive) Radio astronomy Space research (passive)  5.149	<b>2 670-2 690</b> FIXED MOD 5.410 FIXED-SATELLITE (Earth-to-space) 5.415 MOBILE except aeronautical mobile 5.384A MOBILE-SATELLITE (Earth-to-space) 5.351A ADD 5.419 Earth exploration-satellite (passive) Radio astronomy Space research (passive)  5.149

**MOD** COM4/392/10 (B19/413/16)

**5.416** The use of the band 2 520-2 670 MHz by the broadcasting-satellite service is limited to national and regional systems for community reception, subject to agreement obtained under No. **9.21**. The provisions of No. **9.19** shall be applied by administrations in this band in their bilateral and multilateral negotiations. (WRC-07)

**MOD** COM4/392/11 (B19/413/17)

**5.418** *Additional allocation:* in Korea (Rep. of), India, Japan, Pakistan and Thailand, the band 2 535-2 655 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution **528 (Rev.WRC-03)**. The provisions of No. **5.416** and Table **21-4** of Article **21**, do not apply to this additional allocation. Use of non-geostationary-satellite systems in the broadcasting-satellite service (sound) is subject to Resolution **539 (Rev.WRC-03)**. Geostationary broadcasting-satellite service (sound) systems for which complete Appendix **4** coordination information has been received after 1 June 2005 are limited to systems intended for national coverage. The power flux-density at the Earth's surface produced by emissions from a geostationary broadcasting-satellite service (sound) space station operating in the band 2 630-2 655 MHz, and for which complete Appendix **4** coordination information has been received after 1 June 2005, shall not exceed the following limits, for all conditions and for all methods of modulation:

-130 dB(W/(m <sup>2</sup> · MHz))	for 0° ≤ θ ≤ 5°
-130 + 0.4 (θ - 5) dB(W/(m <sup>2</sup> · MHz))	for 5° < θ ≤ 25°
-122 dB(W/(m <sup>2</sup> · MHz))	for 25° < θ ≤ 90°

where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees. These limits may be exceeded on the territory of any country whose administration has so agreed. As an exception to the limits above, the pfd value of -122 dB(W/(m<sup>2</sup> · MHz)) shall be used as a threshold for coordination under No. **9.11** in an area of 1 500 km around the territory of the administration notifying the broadcasting-satellite service (sound) system.

In addition, an administration listed in this provision shall not have simultaneously two overlapping frequency assignments, one under this provision and the other under No. **5.416** for systems for which complete Appendix **4** coordination information has been received after 1 June 2005. (WRC-07)

**MOD** COM4/392/12 (B19/413/18)

**5.419** When introducing systems of the mobile-satellite service in the band 2 670-2 690 MHz, administrations shall take all necessary steps to protect the satellite systems operating in this band prior to 3 March 1992. The coordination of mobile-satellite systems in the band shall be in accordance with No. **9.11A**. (WRC-07)

**MOD** COM4/392/13 (B19/413/19)

**5.420** The band 2 655-2 670 MHz may also be used for the mobile-satellite (Earth-to-space), except aeronautical mobile-satellite, service for operation limited to within national boundaries, subject to agreement obtained under No. **9.21**. The coordination under No. **9.11A** applies. (WRC-07)

**SUP** COM4/392/14 (B19/413/20)

**5.420A**

**MOD** COM5/264/62 (B6/268/68) (R3/292/70)

**5.422** *Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Brunei Darussalam, Congo (Rep. of the), Côte d’Ivoire, Cuba, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Gabon, Georgia, Guinea, Guinea-Bissau, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Mauritania, Moldova, Mongolia, Montenegro, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syrian Arab Republic, Kyrgyzstan, the Dem. Rep. of the Congo, Romania, Somalia, Tajikistan, Tunisia, Turkmenistan, Ukraine and Yemen, the band 2 690-2 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985. (WRC-07)

**MOD** (R9/424/10)

**2 700-4 800 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>3 400-3 600</b> FIXED FIXED-SATELLITE (space-to-Earth) Mobile ADD 5.AAA Radiolocation  5.431	<b>3 400-3 500</b> FIXED FIXED-SATELLITE (space-to-Earth) Amateur Mobile ADD 5.ZZZRadiolocation 5.433  5.282 5.432	<b>3 400-3 500</b> FIXED FIXED-SATELLITE (space-to-Earth) Amateur Mobile ADD 5.BBB ADD 5.AAA1 Radiolocation 5.433 5.282 .432
	<b>3 500-3 700</b> FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile Radiolocation 5.433  5.435	<b>3 500-3 600</b> FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile ADD 5.CCC Radiolocation 5.433 5.435
<b>3 600-4 200</b> FIXED FIXED-SATELLITE (space-to-Earth) Mobile		<b>3 600-3 700</b> FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile Radiolocation 3 5.435
	<b>3 700-4 200</b> FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile	<b>3 700-4 200</b> FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile

**MOD** COM4/296/1 (B9/305/5) (R4/335/5)

**2 700-4 800 MHz**

Allocation to services		
Region 1	Region 2	Region 3
4 400-4 500	FIXED MOBILE ADD 5.4B01	
4 500-4 800	FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE ADD 5.4B01	

**ADD** COM4/296/4 (B9/305/6) (R4/335/6)

**5.4B01** In Region 2 (except Brazil, Cuba, French Overseas Departments and Communities, Guatemala, Paraguay, Uruguay and Venezuela), and in Australia, the band 4 400-4 940 MHz may be used for aeronautical mobile telemetry for flight testing by aircraft stations (see No. **1.83**). Such use shall be in accordance with Resolution [**COM4/2**] (**WRC-07**) and shall not cause harmful interference to, nor claim protection from, the fixed-satellite and fixed services. Any such use does not preclude the use of these bands by other mobile service applications or by other services to which these bands are allocated on a co-primary basis and does not establish priority in the Radio Regulations. (WRC-07)

**MOD** COM5/264/63 (B6/268/69) (R3/292/71)

**5.428** *Additional allocation:* in Azerbaijan, Mongolia, Kyrgyzstan, Romania and Turkmenistan, the band 3 100-3 300 MHz is also allocated to the radionavigation service on a primary basis. (WRC-07)

**MOD** COM5/264/64 (B6/268/70) (R3/292/72)

**5.429** *Additional allocation:* in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, China, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, the Libyan Arab Jamahiriya, Japan, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea and Yemen, the band 3 300-3 400 MHz is also allocated to the fixed and mobile services on a primary basis. The countries bordering the Mediterranean shall not claim protection for their fixed and mobile services from the radiolocation service. (WRC-07)

**MOD** COM5/264/65 (B6/268/71) (R3/292/73)

**5.430** *Additional allocation:* in Azerbaijan, Mongolia, Kyrgyzstan, Romania and Turkmenistan, the band 3 300-3 400 MHz is also allocated to the radionavigation service on a primary basis. (WRC-07)

**ADD** (R9/424/12)

**5.AAA** *Different category of service:* in Albania, Algeria, Germany, Andorra, Saudi Arabia, Austria, Azerbaijan, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Cameroon, Cyprus, Vatican, Côte d'Ivoire, Croatia, Denmark, French Overseas Departments and Communities in Region 1, Egypt, Spain, Estonia, Finland, France, Gabon, Georgia, Greece, Guinea, Hungary, Ireland, Iceland, Israel, Italy, Jordan, Kuwait, Lesotho, Latvia, Macedonia, Liechtenstein, Lithuania, Malawi, Malta, Morocco, Mauritania, Moldova, Monaco, Mongolia, Montenegro, Mozambique, Namibia, Niger, Norway, Oman, Netherlands, Poland, Portugal, Qatar, Syria, Congo, Slovakia, Czech Rep., Romania, United Kingdom, San Marino, Senegal, Serbia, Sierra Leone, Slovenia, South Africa, Sweden, Switzerland, Swaziland, Togo, Chad, Tunisia, Turkey, Ukraine, Zambia and Zimbabwe, the band 3 400-3 600 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis subject to agreement obtained under No. **9.21** with other administrations and is identified for International Mobile

Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. **9.17** and **9.18** also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  for more than 20 per cent of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 400-3 600 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). This allocation is effective from 17 November 2010. (WRC-07)

**ADD** (R9/424/13)

**5.AAA1** In Korea (Rep. of), Japan and Pakistan, the band 3 400-3 500 MHz is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. **9.17** and **9.18** also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  for more than 20 per cent of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 400-3 500 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). (WRC-07)

**ADD** (R9/424/14)

**5.BBB** *Different category of service:* in Bangladesh, China, India, Iran (Islamic Republic of), New Zealand, Singapore and French Overseas Communities in Region 3, the band 3 400-3 500 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis, subject to agreement obtained under No. **9.21** with other administrations and is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. **9.17** and **9.18** also apply. Before an administration brings into use a station of the mobile service in this band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  for more than 20 per cent of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration

responsible for the terrestrial station and the administration responsible for the earth station) with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 400-3 500 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (2004 edition). (WRC-07)

**ADD** (R9/424/15)

**5.CCC** In Bangladesh, China, Korea (Rep. of), India, Iran (Islamic Republic of), Japan, New Zealand, Pakistan and French Overseas Communities in Region 3, the band 3 500-3 600 MHz is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. **9.17** and **9.18** also apply. Before an administration brings into use a station of the mobile service in this band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  for more than 20 per cent of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 500-3 600 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). (WRC-07)

**ADD** (R9/424/16)

**5.ZZZ** *Different category of service:* in Argentina, Brazil, Chile, Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Mexico, Paraguay, Suriname, Uruguay, Venezuela and French Overseas Departments and Communities in Region 2, the band 3 400-3 500 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis, subject to agreement obtained under No. **9.21**. Stations of the mobile service in the band 3 400-3 500 MHz shall not claim more protection from space stations than that provided in Table **21-4** of the Radio Regulations (Edition of 2004). (WRC-07)

**MOD** COM4/296/5 (B9/305/8) (R4/335/8)

**5.442** In the bands 4 825-4 835 MHz and 4 950-4 990 MHz, the allocation to the mobile service is restricted to the mobile, except aeronautical mobile, service. In Region 2 (except Brazil, Cuba, Guatemala, Paraguay, Uruguay and Venezuela), and in Australia, the band 4 825-4 835 MHz is also allocated to the aeronautical mobile service, limited to aeronautical mobile telemetry for flight testing by aircraft stations. Such use shall be in accordance with Resolution [COM4/2] (WRC-07) and shall not cause harmful interference to the fixed service. (WRC-07)

**MOD** COM4/380/4 (B17/404/11)

**5.444** The band 5 030-5 150 MHz is to be used for the operation of the international standard system (microwave landing system) for precision approach and landing. In the band 5 030-5 091 MHz, the requirements of this system shall take precedence over other uses of this band. For the use of the band 5 091-5 150 MHz, No. **5.444A** and Resolution **114 (Rev.WRC-03)** apply. (WRC-07)

**MOD** PLEN/420/1

**5.444** The band 5 030-5 150 MHz is to be used for the operation of the international standard system (microwave landing system) for precision approach and landing. The requirements of this system shall take precedence over other uses of this band. For the use of this band, No. **5.444A** and Resolution **114 (Rev.WRC-03)** apply. (WRC-03)

**MOD** PLEN/420/2

**5.444A** *Additional allocation:* the band 5 091-5 150 MHz is also allocated to the fixed-satellite service (Earth-to-space) on a primary basis. This allocation is limited to feeder links of non-geostationary mobile-satellite systems in the mobile-satellite service and is subject to coordination under No. **9.11A**.

In the band 5 091-5 150 MHz, the following conditions also apply:

- prior to 1 January 2018, the use of the band 5 091-5 150 MHz by feeder links of non-geostationary-satellite systems in the mobile-satellite service shall be made in accordance with Resolution **114 (Rev.WRC-03)**;
- prior to 1 January 2018, the requirements of existing and planned international standard systems for the aeronautical radionavigation service which cannot be met in the 5 000-5 091 MHz band, shall take precedence over other uses of this band;
- after 1 January 2016, no new assignments shall be made to earth stations providing feeder links of non-geostationary mobile-satellite systems;
- after 1 January 2018, the fixed-satellite service will become secondary to the aeronautical radionavigation service. (WRC-03)

**MOD** COM4/380/5 (B17/404/12)

**5.444A** *Additional allocation:* the band 5 091-5 150 MHz is also allocated to the fixed-satellite service (Earth-to-space) on a primary basis. This allocation is limited to feeder links of non-geostationary mobile-satellite systems in the mobile-satellite service and is subject to coordination under No. **9.11A**.

In the band 5 091-5 150 MHz, the following conditions also apply:

- prior to 1 January 2018, the use of the band 5 091-5 150 MHz by feeder links of non-geostationary-satellite systems in the mobile-satellite service shall be made in accordance with Resolution **114 (Rev.WRC-03)**;
- after 1 January 2012, no new assignments shall be made to earth stations providing feeder links of non-geostationary mobile-satellite systems;
- after 1 January 2018, the fixed-satellite service will become secondary to the aeronautical radionavigation service. (WRC-07)

**ADD** COM4/380/6 (B17/404/13)

**5.4B03** The use of the band 5 091-5 150 MHz by the aeronautical mobile service is limited to:

- systems operating in the aeronautical mobile (R) service and in accordance with international aeronautical standards, limited to surface applications at airports. Such use shall be in accordance with Resolution [**COM4/4**] (**WRC-07**);
- aeronautical telemetry transmissions from aircraft stations (see No. **1.83**) in accordance with Resolution [**COM4/7**] (**WRC-07**);

– aeronautical security transmissions. Such use shall be in accordance with Resolution [COM4/8] (WRC-07). (WRC-07)

**ADD** COM4/380/7 (B17/404/14)

**5.4B04** *Additional allocation:* in Region 1 (except in Algeria, Saudi Arabia, Bahrain, Egypt, United Arab Emirates, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Syrian Arab Republic, Sudan and Tunisia) and in Brazil, the band 5 150-5 250 MHz is also allocated to the aeronautical mobile service on a primary basis, limited to aeronautical telemetry transmissions from aircraft stations (see No. 1.83), in accordance with Resolution [COM4/7] (WRC-07). These stations shall not claim protection from other stations operating in accordance with Article 5. No. 5.43A does not apply. (WRC-07)

**MOD** COM4/380/8 (B17/404/15)

**5.446A** The use of the bands 5 150-5 350 MHz and 5 470-5 725 MHz by the stations in the mobile, except aeronautical mobile, service shall be in accordance with Resolution 229 (WRC-03). (WRC-07)

**MOD** COM5/264/66 (B6/268/72) (R3/292/74)

**5.447** *Additional allocation:* in Côte d’Ivoire, Israel, Lebanon, Pakistan, the Syrian Arab Republic and Tunisia, the band 5 150-5 250 MHz is also allocated to the mobile service, on a primary basis, subject to agreement obtained under No. 9.21. In this case, the provisions of Resolution 229 (WRC-03) do not apply. (WRC-07)

**MOD** COM5/264/67 (B6/268/73) (R3/292/75)

**5.447E** *Additional allocation:* The band 5 250-5 350 MHz is also allocated to the fixed service on a primary basis in the following countries in Region 3: Australia, Korea (Rep. of), India, Indonesia, Iran (Islamic Republic of), Japan, Malaysia, Papua New Guinea, the Philippines, Dem. People’s Rep. of Korea, Sri Lanka, Thailand and Viet Nam. The use of this band by the fixed service is intended for the implementation of fixed wireless access systems and shall comply with Recommendation ITU-R F.1613. In addition, the fixed service shall not claim protection from the radiodetermination, Earth exploration-satellite (active) and space research (active) services, but the provisions of No. 5.43A do not apply to the fixed service with respect to the Earth exploration-satellite (active) and space research (active) services. After implementation of fixed wireless access systems in the fixed service with protection for the existing radiodetermination systems, no more stringent constraints should be imposed on the fixed wireless access systems by future radiodetermination implementations. (WRC-07)

**MOD** COM4/296/2 (B9/305/7) (R4/335/7)

**4 800-5 570 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>4 800-4 990</b>	FIXED MOBILE MOD 5.442 ADD 5.4B01 Radio astronomy 5.149 5.339 5.443	

**MOD** COM4/380/1 (B17/404/8)

**4 800-5 570 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>5 030-5 091</b>	AERONAUTICAL RADIONAVIGATION 5.367 MOD 5.444	

**MOD** COM4/380/2 (B17/404/9)

**4 800-5 570 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>5 091-5 150</b>	AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE ADD 5.4B03 5.367 MOD 5.444 MOD 5.444A	

**MOD** COM4/380/3 (B17/404/10)

**4 800-5 570 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>5 150-5 250</b>	AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (Earth-to-space) 5.447A MOBILE except aeronautical mobile MOD 5.446A 5.446B 5.446 5.447 5.447B 5.447C ADD 5.4B04	

**MOD** COM5/264/68 (B6/268/74) (R3/292/76)

**5.454** *Different category of service:* in Azerbaijan, the Russian Federation, Georgia, Mongolia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 5 670-5 725 MHz to the space research service is on a primary basis (see No. **5.33**). (WRC-07)

**MOD** COM5/264/69 (B6/268/75) (R3/292/77)

**5.455** *Additional allocation:* in Armenia, Azerbaijan, Belarus, Cuba, the Russian Federation, Georgia, Hungary, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 5 670-5 850 MHz is also allocated to the fixed service on a primary basis. (WRC-07)

**MOD** COM4/296/3 (B9/305/9) (R4/335/9)

**5 570-7 250 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>5 925-6 700</b>	FIXED FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B MOBILE ADD 5.4B02 5.149 5.440 5.458	

**ADD** COM4/296/6 (B9/305/10) (R4/335/10)

**5.4B02** In Region 2 (except Brazil, Cuba, French Overseas Departments and Communities, Guatemala, Paraguay, Uruguay and Venezuela), the band 5 925-6 700 MHz may be used for aeronautical mobile telemetry for flight testing by aircraft stations (see No. **1.83**). Such use shall be in accordance with Resolution [COM4/2] (WRC-07) and shall not cause harmful interference to, nor claim protection from, the fixed-satellite and fixed services. Any such use does not preclude the use of these bands by other mobile service applications or by other services to which these bands are allocated on a co-primary basis and does not establish priority in the Radio Regulations. (WRC-07)

**MOD** (COM4/272/1) (B7/283/1) (R4/335/11)

**8 500-10 000 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>9 000-9 200</b>	AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION MOD 5.471 ADD 5.475A	
<b>9 200-9 300</b>	RADIOLOCATION MARITIME RADIONAVIGATION 5.472 5.473 5.474	

**MOD** COM4/332/83 (B13/347/32) (R7/411/43)

**8 500-10 000 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>9 300-9 500</b>	RADIONAVIGATION 5.476 EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.427 5.474 MOD 5.475 ADD 5.475B MOD 5.476A ADD 5.4B07	
<b>9 500-9 800</b>	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active) MOD 5.476A	

**MOD** (COM4/272/2) (B7/283/3) (R4/335/13)

**5.475** The use of the band 9 300-9 500 MHz by the aeronautical radionavigation service is limited to airborne weather radars and ground-based radars. In addition, ground-based radar beacons in the aeronautical radionavigation service are permitted in the band 9 300-9 320 MHz on condition that harmful interference is not caused to the maritime radionavigation service. (WRC-07)

**ADD** (COM4/272/3) (B7/283/4) (R4/335/14)

**5.475A** In the band 9 000-9 200 MHz, stations operating in the radiolocation service shall not cause harmful interference to, nor claim protection from, systems identified in No. **5.337** operating in the aeronautical radionavigation service, or radar systems in the maritime radionavigation service operating in this band on a primary basis in the countries listed in No. **5.471**. (WRC-07)

**MOD** COM4/417/1

**8 500-10 000 MHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>9 800-9 900</b>	RADIOLOCATION Earth exploration-satellite (active) Space research (active) Fixed 5.477 5.478 ADD 5.xyz ADD 5.yyy	

**MOD** COM4/417/2

<b>9 900-10 000</b>	RADIOLOCATION Fixed 5.477 5.478 5.479
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**MOD** (COM4/272/5) (B7/283/2) (R4/335/12)

**5.471** *Additional allocation:* in Algeria, Germany, Bahrain, Belgium, China, Egypt, the United Arab Emirates, France, Greece, Indonesia, Iran (Islamic Republic of), the Libyan Arab Jamahiriya, the Netherlands, Qatar and Sudan, the bands 8 825-8 850 MHz and 9 000-9 200 MHz are also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars only. (WRC-07)

**MOD** COM5/264/71 (B6/268/77) (R3/292/79)

**5.473** *Additional allocation:* in Armenia, Austria, Azerbaijan, Belarus, Cuba, the Russian Federation, Georgia, Hungary, Mongolia, Uzbekistan, Poland, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the bands 8 850-9 000 MHz and 9 200-9 300 MHz are also allocated to the radionavigation service on a primary basis. (WRC-07)

**ADD** (COM4/272/4) (B7/283/5) (R4/335/15)

**5.475B** In the band 9 300-9 500 MHz, stations operating in the radiolocation service shall not cause harmful interference to, nor claim protection from, radars operating in the radionavigation service in conformity with the Radio Regulations. Ground-based radars used for meteorological purposes have priority over other radiolocation uses. (WRC-07)

**SUP** COM6/341/12 (B14/365/12) (R7/411/44)

**5.476**

**MOD** COM4/332/84 (B13/347/33) (R7/411/45)

**5.476A** In the band 9 300-9 800 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, nor claim protection from, stations of the radionavigation and radiolocation services. (WRC-07)

**ADD** COM4/332/85 (B13/347/34) (R7/411/46)

**5.4B07** The use of the band 9 300-9 500 MHz by the Earth exploration-satellite service (active) and the space research service (active) is limited to systems requiring necessary bandwidth greater than 300 MHz that cannot be fully accommodated within the 9 500-9 800 MHz band. (WRC-07)

**MOD** COM5/264/72 (B6/268/78) (R3/292/80)

**5.477** *Different category of service:* in Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guyana, India, Indonesia, Iran (Islamic Republic of), Iraq, Jamaica, Japan, Jordan, Kuwait, Lebanon, Liberia, Malaysia, Nigeria, Oman, Pakistan, Qatar, Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, Trinidad and Tobago, and Yemen, the allocation of the band 9 800-10 000 MHz to the fixed service is on a primary basis (see No. **5.33**). (WRC-07)

**MOD** COM5/264/73 (B6/268/79) (R3/292/81)

**5.478** *Additional allocation:* in Azerbaijan, Mongolia, Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 9 800-10 000 MHz is also allocated to the radionavigation service on a primary basis. (WRC-07)

**ADD** COM4/417/3

**5.xyz** The use of the band 9 800-9 900 MHz by the Earth exploration-satellite service (active) and the space research service (active) is limited to systems requiring necessary bandwidth greater than 500 MHz that cannot be fully accommodated within the 9 300-9 800 MHz band.

**ADD** COM4/417/4

**5.xyy** In the band 9 800-9 900 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, nor claim protection from stations of the fixed service to which this band is allocated on a secondary basis.

**MOD** COM5/264/74 (B6/268/80) (R3/292/82)

**5.480** *Additional allocation:* in Argentina, Brazil, Chile, Costa Rica, Cuba, El Salvador, Ecuador, Guatemala, Honduras, Mexico, Paraguay, the Netherlands Antilles, Peru and Uruguay, the band 10-10.45 GHz is also allocated to the fixed and mobile services on a primary basis. In Venezuela, the band 10-10.45 GHz is also allocated to the fixed service on a primary basis. (WRC-07)

**MOD** COM5/264/75 (B6/268/81) (R3/292/83)

**5.481** *Additional allocation:* in Germany, Angola, Brazil, China, Costa Rica, Côte d'Ivoire, El Salvador, Ecuador, Spain, Guatemala, Hungary, Japan, Kenya, Morocco, Nigeria, Oman, Uzbekistan, Paraguay, Peru, the Dem. People's Rep. of Korea, Romania, Tanzania, Thailand and Uruguay, the band 10.45-10.5 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-07)

**MOD** COM5/373/1 (B15/396/2)

**10-11.7 GHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>10.6-10.68</b>	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation 5.149 MOD 5.482 ADD 5.BA01	

**MOD** COM5/373/2 (B15/396/3)

**5.482** In the band 10.6-10.68 GHz, the power delivered to the antenna of stations of the fixed and mobile, except aeronautical mobile, services shall not exceed -3 dBW. This limit may be exceeded, subject to agreement obtained under No. **9.21**. However, in Algeria, Saudi Arabia, Armenia, Azerbaijan, Bahrain, Bangladesh, Belarus, Egypt, United Arab Emirates, Georgia, India, Indonesia, Iran (Islamic Republic of), Iraq, Jordan, Libyan Arab Jamahiriya, Kazakhstan, Kuwait, Lebanon, Morocco, Mauritania, Moldova, Nigeria, Oman, Uzbekistan, Pakistan, Philippines, Qatar, Syrian Arab Republic, Kyrgyzstan, Singapore, Tajikistan, Tunisia, Turkmenistan and Viet Nam, this restriction on the fixed and mobile, except aeronautical mobile, service is not applicable. (WRC-07)

**ADD** COM5/373/3 (B15/396/4)

**5.BA01** For sharing of the band 10.6-10.68 GHz between the Earth exploration-satellite (passive) service and the fixed and mobile, except aeronautical mobile, services, Resolution [COM5/5] (WRC-07) applies. (WRC-07)

**MOD** COM5/264/76 (B6/268/82) (R3/292/84)

**5.483** *Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, China, Colombia, Korea (Rep. of), Costa Rica, Egypt, the United Arab Emirates, Georgia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Lebanon, Mongolia, Qatar, Kyrgyzstan, the Dem. People's Rep. of Korea, Romania, Tajikistan, Turkmenistan and Yemen, the band 10.68-10.7 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985. (WRC-07)

**MOD** COM5/264/77 (B6/268/83) (R3/292/85)

**5.495** *Additional allocation:* in Bosnia and Herzegovina, France, Greece, Liechtenstein, Monaco, Montenegro, Uganda, Romania, Serbia, Switzerland, Tanzania and Tunisia, the band 12.5-12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-07)

**MOD** COM5/264/78 (B6/268/84) (R3/292/86)

**5.501** *Additional allocation:* in Azerbaijan, Hungary, Japan, Mongolia, Kyrgyzstan, Romania and Turkmenistan, the band 13.4-14 GHz is also allocated to the radionavigation service on a primary basis. (WRC-07)

**MOD** COM5/264/79 (B6/268/85) (R3/292/87)

**5.505** *Additional allocation:* in Algeria, Angola, Saudi Arabia, Bahrain, Botswana, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Egypt, the United Arab Emirates, Gabon, Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Lesotho, Lebanon, Malaysia, Mali, Morocco, Mauritania, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, Swaziland, Tanzania, Chad, Viet Nam and Yemen, the band 14-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-07)

**MOD** COM5/264/80 (B6/268/86) (R3/292/88)

**5.508** *Additional allocation:* in Germany, Bosnia and Herzegovina, France, Italy, Libyan Arab Jamahiriya, The Former Yugoslav Rep. of Macedonia and the United Kingdom, the band 14.25-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-07)

**SUP** COM5/173/2 (B1/196/6) (R1/221/5)

**5.509**

**MOD** COM5/264/81 (B6/268/87) (R3/292/89)

**5.511** *Additional allocation:* in Saudi Arabia, Bahrain, Bosnia and Herzegovina, Cameroon, Egypt, the United Arab Emirates, Guinea, Iran (Islamic Republic of), Iraq, Israel, the Libyan Arab Jamahiriya, Kuwait, Lebanon, Pakistan, Qatar, the Syrian Arab Republic and Somalia, the band 15.35-15.4 GHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-07)

**MOD** COM5/264/82 (B6/268/88) (R3/292/90)

**5.512** *Additional allocation:* in Algeria, Angola, Saudi Arabia, Austria, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Congo (Rep. of the), Costa Rica, Egypt, El Salvador, the United Arab Emirates, Eritrea, Finland, Guatemala, India, Indonesia, Iran (Islamic Republic of), the Libyan Arab Jamahiriya, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Montenegro, Mozambique, Nepal, Nicaragua, Oman, Pakistan, Qatar, Syrian Arab Republic, Serbia, Singapore, Somalia, Sudan, Swaziland, Tanzania, Chad, Togo and Yemen, the band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-07)

**MOD** COM5/287/1 (B8/293/1) (R4/335/17)

**15.4-18.4 GHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>17.3-17.7</b> FIXED-SATELLITE (Earth-to-space) 5.516 (space-to-Earth) 5.516A 5.516B Radiolocation 5.514	<b>17.3-17.7</b> FIXED-SATELLITE (Earth-to-space) 5.516 BROADCASTING-SATELLITE Radiolocation 5.514 5.515	<b>17.3-17.7</b> FIXED-SATELLITE (Earth-to-space) 5.516 Radiolocation 5.514
<b>17.7-18.1</b> FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE	<b>17.7-17.8</b> FIXED FIXED-SATELLITE (space-to-Earth) MOD 5.517 (Earth-to-space) 5.516 BROADCASTING-SATELLITE Mobile 5.515 <hr/> <b>17.8-18.1</b> FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE MOD 5.519	<b>17.7-18.1</b> FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE
<b>18.1-18.4</b>	FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520 MOBILE MOD 5.519 5.521	

**MOD** COM5/264/83 (B6/268/89) (R3/292/91)

**5.514** *Additional allocation:* in Algeria, Angola, Saudi Arabia, Bahrain, Bangladesh, Cameroon, Costa Rica, El Salvador, the United Arab Emirates, Guatemala, India, Iran (Islamic Republic of), Iraq, Israel, Italy, the Libyan Arab Jamahiriya, Japan, Jordan, Kuwait, Lithuania, Nepal, Nicaragua, Nigeria, Oman, Uzbekistan, Pakistan, Qatar, Kyrgyzstan and Sudan, the band 17.3-17.7 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits given in Nos. **21.3** and **21.5** shall apply. (WRC-07)

**MOD** COM5/287/2 (B8/293/2) (R4/335/18)

**5.517** In Region 2, use of the fixed-satellite (space-to-Earth) service in the band 17.7-17.8 GHz shall not cause harmful interference to nor claim protection from assignments in the broadcasting-satellite service operating in conformity with the Radio Regulations. (WRC-07)

**SUP** COM5/287/3 (B8/293/3) (R4/335/19)

**5.518**

**MOD** COM5/287/4 (B8/293/4) (R4/335/20)

**5.519** *Additional allocation:* the bands 18.0-18.3 GHz in Region 2 and 18.1-18.4 GHz in Regions 1 and 3 are also allocated to the meteorological-satellite service (space-to-Earth) on a primary basis. Their use is limited to geostationary satellites. (WRC-07)

**MOD** COM5/264/84 (B6/268/90) (R3/292/92)

**5.524** *Additional allocation:* in Afghanistan, Algeria, Angola, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Costa Rica, Egypt, the United Arab Emirates, Gabon, Guatemala, Guinea, India, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, Tanzania, Chad, Togo and Tunisia, the band 19.7-21.2 GHz is also allocated to the fixed and mobile services on a primary basis. This additional use shall not impose any limitation on the power flux-density of space stations in the fixed-satellite service in the band 19.7-21.2 GHz and of space stations in the mobile-satellite service in the band 19.7-20.2 GHz where the allocation to the mobile-satellite service is on a primary basis in the latter band. (WRC-07)

**MOD** COM6/341/13 (B14/365/13) (R7/411/47)

**5.530** In Regions 1 and 3, the use of the band 21.4-22 GHz by the broadcasting-satellite service is subject to the provisions of Resolution **525 (Rev.WRC-07)**. (WRC-07)

**MOD** COM5/372/2 (B15/396/5)

**22-24.75 GHz**

Allocation to services		
Region 1	Region 2	Region 3
22.55-23.55	FIXED INTER-SATELLITE ADD 5.BA03 MOBILE 5.149	
23.55-23.6	FIXED MOBILE	
23.6-24	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	

**MOD** COM5/372/3 (B15/396/6)

**29.9-34.2 GHz**

Allocation to services		
Region 1	Region 2	Region 3
30-31	FIXED-SATELLITE (Earth-to-space) ADD 5.BA03 MOBILE-SATELLITE (Earth-to-space) Standard frequency and time signal-satellite (space-to-Earth) 5.542	
31-31.3	FIXED 5.543A ADD 5.BA03 MOBILE Standard frequency and time signal-satellite (space-to-Earth) Space research 5.544 5.545 5.149	
31.3-31.5	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	

**ADD** COM5/372/6 (B15/396/11)

**5.BA03** In the bands 1 350-1 400 MHz, 1 427-1 429 MHz, 1 429-1 452 MHz, 22.55-23.55 GHz, 30-31 GHz, 31-31.3 GHz, 49.7-50.2 GHz, 50.4-50.9 GHz and 51.4-52.6 GHz, Resolution [COM5/4] (WRC-07) applies. (WRC-07)

**MOD** COM5/373/6 (B15/396/7)

**34.2-40 GHz**

Allocation to services		
Region 1	Region 2	Region 3
36-37	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.149 ADD 5.BA02	

**ADD** COM5/373/7 (B15/396/8)

**5.BA02** For sharing of the band 36-37 GHz between the Earth exploration-satellite (passive) service and the fixed and mobile services, Resolution [COM5/6] (WRC-07) shall apply. (WRC-07)

**MOD** COM5/264/85 (B6/268/91) (R3/292/93)

**5.536B** In Germany, Saudi Arabia, Austria, Belgium, Brazil, Bulgaria, China, Korea (Rep. of), Denmark, Egypt, United Arab Emirates, Spain, Estonia, Finland, France, Hungary, India, Iran (Islamic Republic of), Ireland, Israel, Italy, the Libyan Arab Jamahiriya, Jordan, Kenya, Kuwait, Lebanon, Liechtenstein, Lithuania, Moldova, Norway, Oman, Uganda, Pakistan, the Philippines, Poland, Portugal, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the Czech Rep., Romania, the United Kingdom, Singapore, Sweden, Switzerland, Tanzania, Turkey, Viet Nam and Zimbabwe, earth stations operating in the Earth exploration-satellite service in the band 25.5-27 GHz shall not claim protection from, or constrain the use and deployment of, stations of the fixed and mobile services. (WRC-07)

**MOD** COM5/284/1 (B8/293/5) (R4/335/21)

**5.537A** In Bhutan, Cameroon, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Japan, Kazakhstan, Lesotho, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the band 27.9-28.2 GHz may also be used by high altitude platform stations (HAPS) within the territory of these countries. Such use of 300 MHz of the fixed-service allocation by HAPS in the above countries is further limited to operation in the HAPS-to-ground direction and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems or other co-primary services. Furthermore, the development of these other services shall not be constrained by HAPS. See Resolution **145 (Rev.WRC-07)**. (WRC-07)

**MOD** COM5/216/3 (B3/224/6)

**5.538** *Additional allocation:* the bands 27.500-27.501 GHz and 29.999-30.000 GHz are also allocated to the fixed-satellite service (space-to-Earth) on a primary basis for the beacon transmissions intended for up-link power control. Such space-to-Earth transmissions shall not exceed an equivalent isotropically radiated power (e.i.r.p.) of +10 dBW in the direction of adjacent satellites on the geostationary-satellite orbit. (WRC-07)

**MOD** COM5/264/86 (B6/268/92) (R3/292/94)

**5.542** *Additional allocation:* in Algeria, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guinea, India, Iran (Islamic Republic of), Iraq, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Pakistan, Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Somalia, Sudan, Sri Lanka and Chad, the band 29.5-31 GHz is also allocated to the fixed

and mobile services on a secondary basis. The power limits specified in Nos. **21.3** and **21.5** shall apply. (WRC-07)

**MOD** COM5/284/2 (B8/293/6) (R4/335/22)

**5.543A** In Bhutan, Cameroon, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Japan, Kazakhstan, Lesotho, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the band 31-31.3 GHz may also be used by systems using high altitude platform stations (HAPS) in the ground-to-HAPS direction. The use of the band 31-31.3 GHz by systems using HAPS is limited to the territory of the countries listed above and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems, systems in the mobile service and systems operated under No. **5.545**.

Furthermore, the development of these services shall not be constrained by HAPS. Systems using HAPS in the band 31-31.3 GHz shall not cause harmful interference to the radio astronomy service having a primary allocation in the band 31.3-31.8 GHz, taking into account the protection criterion as given in Recommendation ITU-R RA.769. In order to ensure the protection of satellite passive services, the level of unwanted power density into a HAPS ground station antenna in the band 31.3-31.8 GHz shall be limited to -106 dB(W/MHz) under clear-sky conditions, and may be increased up to -100 dB(W/MHz) under rainy conditions to mitigate fading due to rain, provided the effective impact on the passive satellite does not exceed the impact under clear-sky conditions. See Resolution **145 (Rev.WRC-07)**. (WRC-07)

**MOD** COM5/264/87 (B6/268/93) (R3/292/95)

**5.545** *Different category of service:* in Armenia, Georgia, Mongolia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 31-31.3 GHz to the space research service is on a primary basis (see No. **5.33**). (WRC-07)

**MOD** COM5/372/5 (B15/396/10)

**51.4-55.78 GHz**

Allocation to services		
Region 1	Region 2	Region 3
51.4-52.6	FIXED ADD 5.BA03 MOBILE 5.547 5.556	

**MOD** COM5/264/88 (B6/268/94) (R3/292/96)

**5.546** *Different category of service:* in Saudi Arabia, Armenia, Azerbaijan, Belarus, Egypt, the United Arab Emirates, Spain, Estonia, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Israel, Jordan, Lebanon, Moldova, Mongolia, Uzbekistan, Poland, the Syrian Arab Republic, Kyrgyzstan, Romania, the United Kingdom, South Africa, Tajikistan, Turkmenistan and Turkey, the allocation of the band 31.5-31.8 GHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. **5.33**). (WRC-07)

**MOD** COM6/382/9 (B20/414/9)

**5.547** The bands 31.8-33.4 GHz, 37-40 GHz, 40.5-43.5 GHz, 51.4-52.6 GHz, 55.78-59 GHz and 64-66 GHz are available for high-density applications in the fixed service (see Resolution **75 (WRC-2000)**). Administrations should take this into account when considering regulatory provisions in relation to these bands. Because of the potential deployment of high-density applications in the fixed-satellite service in the bands 39.5-40 GHz and 40.5-42 GHz (see

No. **5.516B**), administrations should further take into account potential constraints to high-density applications in the fixed service, as appropriate. (WRC-07)

**MOD** COM5/264/89 (B6/268/95) (R3/292/97)

**5.550** *Different category of service:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Mongolia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 34.7-35.2 GHz to the space research service is on a primary basis (see No. **5.33**). (WRC-07)

**MOD** COM6/341/14 (B14/365/14) (R7/411/48)

**5.551H** The equivalent power flux-density (epfd) produced in the band 42.5-43.5 GHz by all space stations in any non-geostationary-satellite system in the fixed-satellite service (space-to-Earth), or in the broadcasting-satellite service (space-to-Earth) operating in the 42-42.5 GHz band, shall not exceed the following values at the site of any radio astronomy station for more than 2% of the time:

- 230 dB(W/m<sup>2</sup>) in 1 GHz and -246 dB(W/m<sup>2</sup>) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a single-dish telescope; and
- 209 dB(W/m<sup>2</sup>) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a very long baseline interferometry station.

These epfd values shall be evaluated using the methodology given in Recommendation ITU-R S.1586-1 and the reference antenna pattern and the maximum gain of an antenna in the radio astronomy service given in Recommendation ITU-R RA.1631 and shall apply over the whole sky and for elevation angles higher than the minimum operating angle  $\theta_{min}$  of the radiotelescope (for which a default value of 5° should be adopted in the absence of notified information).

These values shall apply at any radio astronomy station that either:

- was in operation prior to 5 July 2003 and has been notified to the Bureau before 4 January 2004; or
- was notified before the date of receipt of the complete Appendix 4 information for coordination or notification, as appropriate, for the space station to which the limits apply.

Other radio astronomy stations notified after these dates may seek an agreement with administrations that have authorized the space stations. In Region 2, Resolution **743 (WRC-03)** shall apply. The limits in this footnote may be exceeded at the site of a radio astronomy station of any country whose administration so agreed. (WRC-07)

**MOD** COM5/372/4 (B15/396/9)

**47.5-51.4 GHz**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>47.5-47.9</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A MOBILE	<b>47.5-47.9</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE	
<b>47.9-48.2</b>	FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A	
<b>48.2-48.54</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A 5.555B MOBILE	<b>48.2-50.2</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.516B 5.552 ADD 5.BA03 MOBILE	
<b>48.54-49.44</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.149 5.340 5.555		
<b>49.44-50.2</b> FIXED FIXED-SATELLITE (Earth-to-space) 5.552 ADD 5.BA03 (space-to-Earth) 5.516B 5.554A 5.555B MOBILE		5.149 5.340 5.555
<b>50.2-50.4</b>	EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340	
<b>50.4-51.4</b>	FIXED FIXED-SATELLITE (Earth-to-space) ADD 5.BA03 MOBILE Mobile-satellite (Earth-to-space)	

**MOD** COM5/284/3 (B8/293/7) (R4/335/23)

**5.552A** The allocation to the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz is designated for use by high altitude platform stations. The use of the bands 47.2-47.5 GHz and 47.9-48.2 GHz is subject to the provisions of Resolution **122 (Rev.WRC-07)**. (WRC-07)

**MOD** COM6/341/15 (B14/365/15) (R7/411/49)

**66-81 GHz**

Allocation to services		
Region 1	Region 2	Region 3
<b>74-76</b>	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE BROADCASTING BROADCASTING-SATELLITE Space research (space-to-Earth) 5.561	

**SUP** COM6/341/16 (B14/365/16) (R7/411/50)

**5.559A**

## ARTICLE 9

### **Procedure for effecting coordination with or obtaining agreement of other administrations**<sup>1, 2, 3, 4, 5, 6, 7, 8</sup> (WRC-07)

#### **Section I – Advance publication of information on satellite networks or satellite systems**

##### **9.2B**

**MOD** COM5/308/1 (B10/326/1) (R6/410/8)

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<sup>10</sup> **9.2B.1** If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action, and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

#### **Section II – Procedure for effecting coordination**<sup>12, 13</sup>

##### **Sub-Section IIA – Requirement and request for coordination**

**MOD** COM5/216/5 (B3/224/8) (R2/266/1)

**9.14** *i)* for a transmitting space station of a satellite network for which the requirement to coordinate is included in a footnote to the Table of Frequency Allocations referring to this provision or to No. **9.11A** in respect of receiving stations of terrestrial services where the threshold value is exceeded; (WRC-07)

##### **9.38**

**MOD** COM5/308/2 (B10/326/2) (R6/410/9)

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<sup>22</sup> **9.38.1** If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

**MOD** COM5/287/5 (B8/293/8) (R4/335/24)

**9.41** Following receipt of the BR IFIC referring to requests for coordination under Nos. **9.7** to **9.7B**, an administration believing that it should have been included in the request or the initiating administration believing that an administration identified under No. **9.36** in accordance with the provisions of No. **9.7** (GSO/GSO) (items 1) to 8) of the frequency band column), No. **9.7A** (GSO earth station/non-GSO system) or No. **9.7B** (non-GSO system/GSO earth station) of Table 5-1 of Appendix 5 should not have been included in the request, shall, within four months of the date of publication of the relevant BR IFIC, inform the initiating administration or the identified administration, as appropriate, and the Bureau, giving its technical reasons for doing so, and shall request that its name be included or that the name of the identified administration be excluded, as appropriate. (WRC-07)

**MOD** COM5/308/3 (B10/326/3) (R6/410/10)

**ARTICLE 11**

**Notification and recording of frequency assignments**<sup>1, 2, 3, 4, 5, 6, ADD 6bis</sup> (WRC-07)

**ADD** COM5/308/4 (B10/326/4) (R6/410/11)

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<sup>6bis</sup> **A.11.6** If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication specified in Nos. **11.28** and **11.43** and the corresponding entries in the Master Register under Nos. **11.36, 11.37, 11.38, 11.39, 11.41, 11.43B** or **11.43C**, as appropriate, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the entries specified in the publication in question no longer have to be taken into consideration by the Bureau and other administrations and that any resubmitted notice shall be considered to be a new notice. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. See also Resolution **905 (WRC-07)**. (WRC-07)

**Section I – Notification**

**SUP** COM5/344/1 (B14/365/17) (R7/411/51)

**11.3A**

**MOD** COM5/379/1 (B16/401/1)

**11.9** Similar notification shall be made for a frequency assignment to a receiving earth station or space station, or to a receiving high altitude platform station in the fixed service using the bands mentioned in Nos. **5.543A** and **5.552A** or to a land station for reception from mobile stations, when: (WRC-07)

**MOD** COM5/307/1 (B11/329/7) (R6/410/12)

**11.15** When notifying a frequency assignment, the administration<sup>7</sup> shall provide the relevant characteristics listed in Appendix **4**. (WRC-07)

**MOD** COM5/284/4 (B8/293/9) (R4/335/25)

**11.26** Notices relating to assignments for high altitude platform stations in the fixed service in the bands identified in provisions **5.537A, 5.543A** and **5.552A** shall reach the Bureau not earlier than five years before the assignments are brought into use. (WRC-07)

**Section II – Examination of notices and recording of frequency assignments in the Master Register**

**MOD** COM5/379/2 (B16/401/2)

**11.43A** A notice of a change in the characteristics of an assignment already recorded, as specified in Appendix **4**, shall be examined by the Bureau under Nos. **11.31** to **11.34**, as appropriate. Any change to the characteristics of an assignment that has been recorded and confirmed as having been brought into use shall be brought into use within five years from the date of the notification of the modification. Any change to the characteristics of an assignment that has been recorded but not yet brought into use shall be brought into use within the period provided for in No. **11.44**. (WRC-07)

**MOD** COM5/379/3 (B16/401/3)

**11.46** In applying the provisions of this Article, any resubmitted notice which is received by the Bureau more than six months after the date on which the original notice was returned by the Bureau shall be considered to be a new notification with a new date of receipt. For frequency assignments to a space station, should the new date of receipt of such a notice not comply with the period specified in No. **11.44.1** or No. **11.43A**, as appropriate, the notice shall be returned to the notifying administration in the case of No. **11.44.1**, and the notice shall be examined as a new notice of a change in the characteristics of an assignment already recorded with a new date of receipt in the case of No. **11.43A**. (WRC-07)

**MOD** COM5/216/7 (B3/224/10) (R2/266/2)

**11.47** All frequency assignments notified in advance of their being brought into use shall be entered provisionally in the Master Register. Any frequency assignment to a space station provisionally recorded under this provision shall be brought into use no later than the end of the period provided under No. **11.44**. Any other frequency assignment provisionally recorded under this provision shall be brought into use by the date specified in the notice, or by the end of the extension period granted under No. **11.45**, as the case may be. Unless the Bureau has been informed by the notifying administration of the bringing into use of the assignment, it shall, no later than fifteen days before either the notified date of bringing into use, in the case of an earth station, or the end of the regulatory period established under No. **11.44** or No. **11.45**, as appropriate, send a reminder requesting confirmation that the assignment has been brought into use within that regulatory period. If the Bureau does not receive that confirmation within thirty days following the notified date of bringing into use, in the case of an earth station, or the period provided under No. **11.44** or No. **11.45**, as the case may be, it shall cancel the entry in the Master Register. The Bureau shall, however, inform the administration concerned before taking such action. (WRC-07)

## ARTICLE 15

### Interferences

#### Section I – Interference from Radio Stations

**MOD** COM4/211/10 (B3/224/11) (R2/266/3)

**15.8** § 4 Special consideration shall be given to avoiding interference on distress and safety frequencies, those related to distress and safety identified in Article **31** and those related to safety and regularity of flight identified in Appendix **27**. (WRC-07)

#### Section VI – Procedure in a case of harmful interference

**MOD** COM4/211/11 (B3/224/12) (R2/266/4)

**15.28** § 20 Recognizing that transmissions on distress and safety frequencies and frequencies used for the safety and regularity of flight (see Article **31** and Appendix **27**) require absolute international protection and that the elimination of harmful interference to such transmissions is imperative, administrations undertake to act immediately when their attention is drawn to any such harmful interference. (WRC-07)

## ARTICLE 16

### International monitoring

**MOD** COM6/341/17 (B14/365/18) (R7/411/52)

**16.2** The international monitoring system comprises only those monitoring stations which have been so nominated by administrations in the information sent to the Secretary-General in accordance with Resolution ITU-R 23-1 and Recommendation ITU-R SM.1139. These stations may be operated by an administration or, in accordance with an authorization granted by the appropriate administration, by a public or private enterprise, by a common monitoring service established by two or more countries, or by an international organization. (WRC-07)

## ARTICLE 19

### Identification of stations

#### Section II – Allocation of international series and assignment of call signs

**MOD** COM4/332/181 (B14/365/19) (R7/411/53)

**19.30** 2) As the need arises, ship stations and ship earth stations to which the provisions of Chapter **IX** apply, and coast stations, coast earth stations, or other non-shipborne stations capable of communicating with such ship stations, shall have assigned to them maritime mobile service identities in accordance with Section VI of this Article. (WRC-07)

**MOD** COM4/332/89 (B13/347/35) (R7/411/54)

<sup>2</sup> **19.36.1** In no circumstances may an administration claim more MIDs than the total number of its ship stations notified to ITU divided by 1 000, plus one. Administrations shall make every attempt to reuse the Maritime Mobile Service Identities (MMSI) assigned from earlier MID resources, which become redundant after ships leave their national ship registry. Such numbers should be considered for reassignment after being absent from at least two successive editions of List V of the ITU service publications. Administrations seeking additional MID resources must meet the criteria of having notified all previous assignments, in accordance with No. **20.16**. This criteria applies only to MMSIs in the basic category and to all MIDs assigned to the administration. (WRC-07)

**MOD** COM4/332/90 (B13/347/36) (R7/411/55)

**19.38** § 19 1) Each administration shall choose the call signs from the international series allocated or supplied to it; and shall notify this information to the Secretary-General together with the information which is to appear in Lists I, IV, V. These notifications do not include call signs assigned to amateur and experimental stations. (WRC-07)

#### Section III – Formation of call signs

**MOD** COM4/211/12 (B3/224/13) (R2/266/5)

**19.55** § 24 1)

- two characters and two letters, *or*
- two characters, two letters and one digit (other than the digits 0 or 1), *or*
- two characters (provided that the second is a letter) followed by four digits (other than the digits 0 or 1 in cases where they immediately follow a letter), *or*
- two characters and one letter followed by four digits (other than the digits 0 or 1 in cases where they immediately follow a letter). (WRC-07)

**SUP** COM4/211/13 (B3/224/14) (R2/266/6)

**19.56**

**ADD** COM4/211/14 (B3/224/15) (R2/266/7)

**19.68.1** In the case of half series (i.e. when the first two characters are allocated to more than one Member State), the first three characters are required for nationality identification. In such cases, the call sign shall consist of three characters followed by a single digit and a group of not more than three characters, the last of which shall be a letter. (WRC-07)

**Section IV – Identification of stations using radiotelephony**

**MOD** COM4/332/91 (B13/347/37) (R7/411/56)

**19.73** § 33 1) *Coast stations*

- a call sign (see No. **19.52**); *or*
- the geographical name of the place as it appears in the List of Coast Stations and Special Service Stations, followed preferably by the word RADIO or by any other appropriate indication. (WRC-07)

**MOD** COM4/211/15 (B3/224/16) (R2/266/8)

**19.76** 4) *Emergency position-indicating radiobeacon stations*

When speech transmission is used:

- the name and/or the call sign of the parent ship to which the radiobeacon belongs. (WRC-07)

**Section V – Selective call numbers in the maritime mobile service**

**MOD** COM4/332/92 (B13/347/38) (R7/411/57)

**19.83** § 36 When stations of the maritime mobile service use selective calling devices in accordance with Recommendations ITU-R M.476-5 and ITU-R M.625-3, their call numbers shall be assigned by the responsible administrations in accordance with the provisions below. (WRC-07)

**MOD** COM4/332/93 (B13/347/39) (R7/411/58)

**19.92** § 38 1) In cases where selective call numbers for ship stations and identification numbers for coast stations are required for use in the maritime mobile service, the selective call numbers and identification numbers shall be supplied by the Secretary-General on request. Upon notification by an administration of the introduction of selective calling for use in the maritime mobile service: (WRC-07)

**MOD** COM4/332/94 (B13/347/40) (R7/411/59)

**19.96A** 3) Five-digit ship station selective call numbers shall be assigned for narrow-band direct printing (NBDP) equipment (as described in Recommendation ITU-R M.476-5). (WRC-07)

**MOD** COM4/332/182 (B14/365/20) (R7/411/60)

**Section VI – Maritime mobile service identities** (WRC-07)

**MOD** COM4/332/183 (B14/365/21) (R7/411/61)

**19.99** § 39 When a station<sup>5</sup> operating in the maritime mobile service or the maritime mobile-satellite service is required to use maritime mobile service identities, the responsible admin-

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<sup>5</sup> **19.99.1** In this Section a reference to a ship station or a coast station may include the respective earth stations.

istration shall assign the identity to the station in accordance with the provisions described in Annexes 1 to 5 of Recommendation ITU-R M.585-4. In accordance with No. **20.16**, administrations shall notify the Radiocommunication Bureau immediately when assigning maritime mobile service identities. (WRC-07)

**MOD** COM4/332/184 (B14/365/22) (R7/411/62)

**19.100** § 40 1) Maritime mobile service identities are formed of a series of nine digits which are transmitted over the radio path in order to uniquely identify ship stations, ship earth stations, coast stations, coast earth stations, and other non-shipborne stations operating in the maritime mobile service or the maritime mobile satellite service, and group calls. (WRC-07)

**MOD** COM4/332/185 (B14/365/23) (R7/411/63)

**19.102** 3) The types of maritime mobile service identities shall be as described in Annexes 1 to 5 of Recommendation ITU-R M.585-4. (WRC-07)

**SUP** COM4/332/186 (B14/365/24) (R7/411/64)

**19.103 to 19.107**

**MOD** COM4/332/187 (B14/365/25) (R7/411/65)

**19.108A** § 41 The maritime identification digits  $M_1I_2D_3$  are an integral part of the maritime mobile service identity and denote the geographical area of the administration responsible for the station so identified. (WRC-07)

**MOD** COM4/332/188 (B14/365/26) (R7/411/66)

**19.110** *C – Maritime mobile service identities* (WRC-07)

**MOD** COM4/332/189 (B14/365/27) (R7/411/67)

**19.111** § 43 1) Administrations shall follow Annexes 1 to 5 of Recommendation ITU-R M.585-4 concerning the assignment and use of maritime mobile service identities. (WRC-07)

**MOD** COM4/332/190 (B14/365/28) (R7/411/68)

**19.112** 2) Administrations should: (WRC-07)

**MOD** COM4/332/191 (B14/365/29) (R7/411/69)

**19.113** a) make optimum use of the possibilities of forming identities from the single MID allocated to them; (WRC-07)

**MOD** COM4/332/192 (B14/365/30) (R7/411/70)

**19.114** b) take particular care in assigning ship station identities with six significant digits (i.e. having three-trailing-zero identities), which should be assigned only to ship stations which can reasonably be expected to require such an identity for automatic access on a worldwide basis to public switched networks, in particular for mobile-satellite systems accepted for use in the GMDSS on or before 1 February 2002, as long as those systems maintain the MMSI as part of their numbering scheme. (WRC-07)

**SUP** COM4/332/193 (B14/365/31) (R7/411/71)

**19.115 to 19.126**

## ARTICLE 20

### **Service publications and online information systems** (WRC-07)

#### **Section I – Titles and contents of service publications** (WRC-07)

**MOD** COM4/296/9 (B9/305/11) (R4/335/26)

**20.1** § 1 The following publications shall be issued by the Secretary-General. As circumstances warrant and in response to individual requests by administrations, the published information shall also be available in various formats and by appropriate means. (WRC-07)

**MOD** COM4/296/10 (B9/305/12) (R4/335/27)

**20.5** *b)* the frequencies prescribed by these Regulations for common use by certain services; (WRC-07)

**MOD** COM4/296/11 (B9/305/13) (R4/335/28)

**20.7** § 3 *List IV – List of Coast Stations and Special Service Stations.* (WRC-07)

**MOD** COM4/296/12 (B9/305/14) (R4/335/29)

**20.8** § 4 *List V – List of Ship Stations and Maritime Mobile Service Identity Assignments.* (WRC-07)

**SUP** COM4/296/13 (B9/305/15) (R4/335/30)

**20.9 and 20.10**

**ADD** COM4/296/14 (B9/305/16) (R4/335/31)

#### **Section II – Online information systems** (WRC-07)

**ADD** COM4/296/15 (B9/305/17) (R4/335/32)

**20.14A** The following online information system(s) are made available by the Radiocommunication Bureau:

the ITU Maritime mobile Access and Retrieval System (MARS). (WRC-07)

**MOD** COM4/296/16 (B9/305/18) (R4/335/33)

#### **Section III – Preparation and amendment of service publications and online information systems** (WRC-07)

**MOD** COM4/296/17 (B9/305/19) (R4/335/34)

**20.15** § 11 The form, the content and the periodicity of each publication shall be decided by the Radiocommunication Bureau in consultation with administrations and the international organizations concerned. Similar consultation shall be made with regard to the maritime online information systems. (WRC-07)

**MOD** COM4/296/18 (B9/305/20) (R4/335/35)

**20.16** § 12 Administrations shall take all appropriate measures to notify the Radiocommunication Bureau immediately of any changes in the operational information contained in Lists IV and V, in view of the importance of this information, particularly with regard to safety. In the case of the data published in List V, which is also made available online through MARS, administrations shall communicate those changes at least once a month. In the case of other publications, administrations shall communicate the changes in the information contained in them as soon as possible. (WRC-07)

**ADD** COM4/296/19 (B9/305/21) (R4/335/36)

**20.16A** The names of the administrations which have failed to notify the Radiocommunication Bureau of the changes in the operational information contained in Lists IV and V shall be published in these Lists.

The Radiocommunication Bureau will periodically request administrations to reconfirm the information published in Lists IV and V. If no information has been received by the Radiocommunication Bureau for two consecutive editions of Lists IV and V, unvalidated information shall be deleted. The Radiocommunication Bureau shall however inform the administration concerned before taking such action. (WRC-07)

## ARTICLE 21

### Terrestrial and space services sharing frequency bands above 1 GHz

#### Section II – Power limits for terrestrial stations

**MOD** COM5/307/2 (B11/329/8) (R6/410/13)

TABLE 21-2 (WRC-07)

Frequency band	Service	Limit as specified in Nos.
1 427-1 429 MHz	Fixed-satellite	<b>21.2, 21.3, 21.4 and 21.5</b>
1 610-1 645.5 MHz (No. <b>5.359</b> )	Meteorological-satellite	
1 646.5-1 660 MHz (No. <b>5.359</b> )	Space research	
1 980-2 010 MHz	Space operation	
2 010-2 025 MHz (Region 2)	Earth exploration-satellite	
2 025-2 110 MHz	Mobile-satellite	
2 200-2 290 MHz		
2 655-2 670 MHz <sup>5</sup> (Regions 2 and 3)		
2 670-2 690 MHz		
5 670-5 725 MHz (Nos. <b>5.453</b> and <b>5.455</b> )		
5 725-5 755 MHz <sup>5</sup> (Region 1 countries listed in Nos. <b>5.451, 5.453</b> and <b>5.455</b> )		
5 755-5 850 MHz <sup>5</sup> (Region 1 countries listed in Nos. <b>5.451, 5.453, 5.455</b> and <b>5.456</b> )		
5 850-7 075 MHz		
7 145-7 235 MHz*		
7 900-8 400 MHz		

\* For this frequency band only the limits of Nos. **21.3** and **21.5** apply.

TABLE 21-2 (end) (WRC-07)

Frequency band	Service	Limit as specified in Nos.
10.7-11.7 GHz <sup>5</sup> (Region 1) 12.5-12.75 GHz <sup>5</sup> (Nos. 5.494 and 5.496) 12.7-12.75 GHz <sup>5</sup> (Region 2) 12.75-13.25 GHz 13.75-14 GHz (Nos. 5.499 and 5.500) 14.0-14.25 GHz (No. 5.505) 14.25-14.3 GHz (Nos. 5.505, 5.508 and 5.509) 14.3-14.4 GHz <sup>5</sup> (Regions 1 and 3) 14.4-14.5 GHz 14.5-14.8 GHz	Fixed-satellite	21.2, 21.3 and 21.5
17.7-18.4 GHz 18.6-18.8 GHz 19.3-19.7 GHz 22.55-23.55 GHz 24.45-24.75 GHz (Regions 1 and 3) 24.75-25.25 GHz (Region 3) 25.25-29.5 GHz	Fixed-satellite Earth exploration-satellite Space research Inter-satellite	21.2, 21.3, 21.5 and 21.5A

**Section V – Limits of power flux-density from space stations**

**MOD** COM4/392/15 (B19/413/21)

TABLE 21-4 (WRC-07)

Frequency band	Service*	Limit in dB(W/m <sup>2</sup> ) for angles of arrival (δ) above the horizontal plane			Reference bandwidth
		0°-5°	5°-25°	25°-90°	
...					
2 500-2 690 MHz 2 520-2 670 MHz 2 500-2 516.5 MHz (No. 5.404) 2 500-2 520 MHz 2 520-2 535 MHz (No. 5.403)	Fixed-satellite Broadcasting-satellite Radiodetermination-satellite Mobile-satellite Mobile-satellite (except aeronautical mobile-satellite)	-136 <sup>21</sup>	-136 + 11/20(δ - 5) <sup>21</sup>	-125 <sup>21</sup>	1 MHz
...					

<sup>21</sup> 21.16.19 Resolution [COM4/12] (WRC-07) shall apply. (WRC-07)

<sup>5</sup> 21.6.1 The equality of right to operate when a band of frequencies is allocated in different Regions to different services of the same category is established in No. 4.8. Therefore any limits concerning inter-Regional interference which may appear in ITU-R Recommendations should, as far as practicable, be observed by administrations.

**MOD** COM5/344/2 (B14/365/32) (R7/411/72)

TABLE 21-4 (continued) (WRC-07)

Frequency band	Service*	Limit in dB(W/m <sup>2</sup> ) for angles of arrival (δ) above the horizontal plane			Reference bandwidth	
		0°-5°	5°-25°	25°-90°		
...						
17.7-19.3 GHz <sup>7,8</sup>	Fixed-satellite (space-to-Earth) or Meteorological-satellite (space-to-Earth)	-115 <sup>13,21</sup> or -115 - X <sup>12</sup>	-115 + 0.5(δ - 5) <sup>13,21</sup> or -115 - X + ((10 + X)/20)(δ - 5) <sup>12</sup>		-105 <sup>13,21</sup> or -105 <sup>12</sup>	1 MHz
17.7-19.3 GHz <sup>7,8</sup>	Fixed-satellite (space-to-Earth)	0°-3°	3°-12°	12°-25°	-105 <sup>22</sup>	1 MHz
		-120 <sup>22</sup>	-120 + (8/9)(δ - 3) <sup>22</sup>	-112 + (7/13)(δ - 12) <sup>22</sup>		
19.3-19.7 GHz	Fixed-satellite (space-to-Earth)	0°-3°	3°-12°	12°-25°	-105 <sup>22</sup>	1 MHz
		-120 <sup>22</sup>	-120 + (8/9)(δ - 3) <sup>22</sup>	-112 + (7/13)(δ - 12) <sup>22</sup>		
19.3-19.7 GHz 22.55-23.55 GHz 24.45-24.75 GHz 25.25-27.5 GHz 27.500-27.501 GHz	Fixed-satellite (space-to-Earth) Earth exploration-satellite (space-to-Earth) Inter-satellite Space research (space-to-Earth)	0°-5°	5°-25°		-105 <sup>21</sup>	1 MHz
		-115 <sup>21</sup>	-115 + 0.5(δ - 5) <sup>21</sup>			
...						

**ADD** COM5/344/3 (B14/365/33) (R7/411/73)

<sup>21</sup> **21.16.x** These limits also apply to fixed-satellite service space stations using highly-inclined orbits having an apogee altitude greater than 18 000 km and an orbital inclination between 35° and 145° in the band 17.7-19.7 GHz to which Resolution **147 (WRC-07)** applies. (WRC-07)

**ADD** COM5/344/4 (B14/365/34) (R7/411/74)

<sup>22</sup> **21.16.y** These limits apply to all space stations in the fixed-satellite service that use highly-inclined orbits having an apogee altitude greater than 18 000 km and an orbital inclination between 35° and 145° in the band 17.7-19.7 GHz that are not covered by Resolution **147 (WRC-07)**, and for which complete coordination or notification information, as appropriate, was received by the Radiocommunication Bureau after 16 November 2007. (WRC-07)

## ARTICLE 22

### Space services<sup>1</sup>

#### Section II – Control of interference to geostationary-satellite systems

**MOD** COM5/379/4 (B16/401/4)

**22.2** § 2 1) Non-geostationary-satellite systems shall not cause unacceptable interference to and, unless otherwise specified in these Regulations, shall not claim protection from,

geostationary-satellite networks in the fixed-satellite service and the broadcasting-satellite service operating in accordance with these Regulations. No. **5.43A** does not apply in this case. (WRC-07)

**MOD** COM6/341/18 (B14/365/35) (R7/411/75)

**TABLE 22-1D** (WRC-07)

**Limits to the  $epfd_{\downarrow}$  radiated by non-geostationary-satellite systems in the fixed-satellite service in certain frequency bands into 30 cm, 45 cm, 60 cm, 90 cm, 120 cm, 180 cm, 240 cm and 300 cm broadcasting-satellite service antennas<sup>6, 9, 10, 11</sup>**

Frequency band (GHz)	$epfd_{\downarrow}$ (dB(W/m <sup>2</sup> ))	Percentage of time during which $epfd_{\downarrow}$ may not be exceeded	Reference bandwidth (kHz)	Reference antenna diameter and reference radiation pattern <sup>MOD 12</sup>		
11.7-12.5 in Region 1; 11.7-12.2 and 12.5-12.75 in Region 3; 12.2-12.7 in Region 2	-165.841	0	40	30 cm Recommendation ITU-R BO.1443-2, Annex 1		
	-165.541	25				
	-164.041	96				
	-158.6	98.857				
	-158.6	99.429				
	-158.33	99.429				
	-158.33	100				
	-175.441	0			40	45 cm Recommendation ITU-R BO.1443-2, Annex 1
	-172.441	66				
-169.441	97.75					
-164	99.357					
-160.75	99.809					
-160	99.986					
11.7-12.5 in Region 1; 11.7-12.2 and 12.5-12.75 in Region 3; 12.2-12.7 in Region 2	-160	100	40	60 cm Recommendation ITU-R BO.1443-2, Annex 1		
	-176.441	0				
	-173.191	97.8				
	-167.75	99.371				
	-162	99.886				
	-161	99.943				
	-160.2	99.971				
	-160	99.997				
-160	100					

**MOD** COM6/341/19 (B14/365/36) (R7/411/76)

<sup>12</sup> **22.5C.11** For this Table, reference patterns of Annex 1 to Recommendation ITU-R BO.1443-2 shall be used only for the calculation of interference from non-geostationary-satellite systems in the fixed-satellite service into geostationary-satellite systems in the broadcasting-satellite service. (WRC-07)

**MOD** COM6/341/19bis (B14/365/37) (R7/411/77)

TABLE 22-1D (end) (WRC-07)

Frequency band (GHz)	epfd <sub>↓</sub> (dB(W/m <sup>2</sup> ))	Percentage of time during which epfd <sub>↓</sub> may not be exceeded	Reference bandwidth (kHz)	Reference antenna diameter and reference radiation pattern <sup>MOD 12</sup>
11.7-12.5 in Region 1; 11.7-12.2 and 12.5-12.75 in Region 3; 12.2-12.7 in Region 2	-178.94	0	40	90 cm Recommendation ITU-R BO.1443-2, Annex 1
	-178.44	33		
	-176.44	98		
	-171	99.429		
	-165.5	99.714		
	-163	99.857		
	-161	99.943		
	-160	99.991		
	-160	100		
	-182.44	0		
	-180.69	90		
	-179.19	98.9		
	-178.44	98.9		
	-174.94	99.5		
	-173.75	99.68		
	-173	99.68		
	-169.5	99.85		
	-167.8	99.915		
	-164	99.94		
	-161.9	99.97		
-161	99.99			
-160.4	99.998			
-160	100			
-184.941	0	40	180 cm Recommendation ITU-R BO.1443-2, Annex 1	
-184.101	33			
-181.691	98.5			
-176.25	99.571			
-163.25	99.946			
-161.5	99.974			
-160.35	99.993			
-160	99.999			
-160	100			
-187.441	0			40
-186.341	33			
-183.441	99.25			
-178	99.786			
-164.4	99.957			
-161.9	99.983			
-160.5	99.994			
-160	99.999			
-160	100			
-191.941	0	40	300 cm Recommendation ITU-R BO.1443-2, Annex 1	
-189.441	33			
-185.941	99.5			
-180.5	99.857			
-173	99.914			
-167	99.951			
-162	99.983			
-160	99.991			
-160	100			

**Section VI – Off-axis power limits on earth stations of a geostationary-satellite network in the fixed-satellite service**<sup>33, 34</sup> (WRC-2000)

**MOD** COM6/341/20 (B14/365/38) (R7/411/78)

**22.36** Earth stations operating in the frequency band 29.5-30 GHz should be designed in such a manner that 90% of their peak off-axis e.i.r.p. density levels do not exceed the values given in No. **22.32**. Further study is needed to determine the off-axis angular range over which these exceedences would be permitted, taking into account the interference level into adjacent satellites. The statistical processing of the off-axis e.i.r.p. density peaks should be carried out using the method given in the most recent version of Recommendation ITU-R S.732. (WRC-07)

**ARTICLE 28**

**Radiodetermination services**

**Section I – General provisions**

**MOD** COM4/332/95 (B13/347/41) (R7/411/79)

**28.3** § 3 Administrations shall notify to the Bureau the characteristics of each radiodetermination station providing an international service of value to the maritime mobile service and, if considered necessary, for each station or group of stations, the sectors in which the information furnished is normally reliable. This information is published in the List of Coast Stations and Special Service Stations (List IV), and the Bureau shall be notified of any change of a permanent nature. (WRC-07)

**ARTICLE 30**

**General provisions**

**Section I – Introduction**

**MOD** COM4/211/16 (B3/224/18) (R2/266/10)

**30.1** § 1 This Chapter contains the provisions for the operational use of the global maritime distress and safety system (GMDSS), whose functional requirements, system elements and equipment carriage requirements are set forth in the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended. This Chapter also contains provisions for initiating distress, urgency and safety communications by means of radiotelephony on the frequency 156.8 MHz (VHF channel 16). (WRC-07)

**Section II – Maritime provisions**

**MOD** COM4/211/17 (B3/224/19) (R2/266/11)

**30.4** § 4 The provisions specified in this Chapter are obligatory in the maritime mobile service and the maritime mobile-satellite service for all stations using the frequencies and techniques prescribed for the functions set out herein (see also No. **30.5**). (WRC-07)

**Section III – Aeronautical provisions**

**ADD** COM4/211/18 (B3/224/20) (R2/266/12)

**30.11bis** Aircraft, when conducting search and rescue operations, are also permitted to operate digital selective calling (DSC) equipment on the VHF DSC frequency 156.525 MHz, and automatic identification system (AIS) equipment on the AIS frequencies 161.975 MHz and 162.025 MHz. (WRC-07)

## ARTICLE 31

### Frequencies for the global maritime distress and safety system (GMDSS)

#### Section I – General

**MOD** COM4/296/20 (B9/305/22) (R4/335/37)

**31.1** § 1 The frequencies to be used for the transmission of distress and safety information under the GMDSS are contained in Appendix 15. In addition to the frequencies listed in Appendix 15, ship stations and coast stations should use other appropriate frequencies for the transmission of safety messages and general radiocommunications to and from shore-based radio systems or networks. (WRC-07)

**MOD** COM4/296/21 (B9/305/23) (R4/335/38)

**31.2** § 2 Any emission causing harmful interference to distress and safety communications on any of the discrete frequencies identified in Appendix 15 is prohibited. (WRC-07)

#### Section III – Watchkeeping

**MOD** COM4/332/96 (B13/347/42) (R7/411/80)

**31.13** § 6 Those coast stations assuming a watch-keeping responsibility in the GMDSS shall maintain an automatic digital selective calling watch on frequencies and for periods of time as indicated in the information published in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/296/22 (B9/305/24) (R4/335/39)

**31.17** § 8 1) Ship stations, where so equipped, shall, while at sea, maintain an automatic digital selective calling watch on the appropriate distress and safety calling frequencies in the frequency bands in which they are operating. Ship stations, where so equipped, shall also maintain watch on the appropriate frequencies for the automatic reception of transmissions of meteorological and navigational warnings and other urgent information to ships. (WRC-07)

**MOD** COM4/296/23 (B9/305/25) (R4/335/40)

**31.18** 2) Ship stations complying with the provisions of this Chapter should, where practicable, maintain a watch on the frequency 156.800 MHz (VHF channel 16). (WRC-07)

**MOD** COM4/332/97 (B13/347/43) (R7/411/81)

## ARTICLE 32

### Operational procedures for distress communications in the global maritime distress and safety system (GMDSS)

#### Section I – General

**MOD** COM4/332/98 (B13/347/44) (R7/411/82)

**32.1** § 1 Distress communications rely on the use of terrestrial MF, HF and VHF radiocommunications and communications using satellite techniques. Distress communications shall have absolute priority over all other transmissions. The following terms apply:

- a) The distress alert is a digital selective call (DSC) using a distress call format, in the bands used for terrestrial radiocommunication, or a distress message format, in which case it is relayed through space stations.

- b) The distress call is the initial voice or text procedure.
- c) The distress message is the subsequent voice or text procedure.
- d) The distress alert relay is a DSC transmission on behalf of another station.
- e) The distress call relay is the initial voice or text procedure for a station not itself in distress. (WRC-07)

**MOD** COM4/332/99 (B13/347/45) (R7/411/83)

**32.2** § 2 1) The distress alert shall be sent through a satellite either with absolute priority in general communication channels, on exclusive distress and safety frequencies reserved for satellite EPIRBs in the Earth-to-space direction or on the distress and safety frequencies designated in the MF, HF and VHF bands for digital selective calling (see Appendix 15). (WRC-07)

**ADD** COM4/332/100 (B13/347/46) (R7/411/84)

**32.2bis** The distress call shall be sent on the distress and safety frequencies designated in the MF, HF and VHF bands for radiotelephony. (WRC-07)

**MOD** COM4/332/101 (B13/347/47) (R7/411/85)

**32.3** 2) The distress alert or call and subsequent messages shall be sent only on the authority of the person responsible for the ship, aircraft or other vehicle carrying the mobile station or the mobile earth station. (WRC-07)

**MOD** COM4/332/102 (B13/347/48) (R7/411/86)

**32.4** § 3 All stations which receive a distress alert or call transmitted on the distress and safety frequencies in the MF, HF and VHF bands shall immediately cease any transmission capable of interfering with distress traffic and prepare for subsequent distress traffic. (WRC-07)

**MOD** COM4/332/103 (B13/347/49) (R7/411/87)

**32.5** § 4 Distress alerts or distress alert relays using DSC should use the technical structures and content set forth in the most recent version of Recommendations ITU-R M.493 and ITU-R M.541. (WRC-07)

**MOD** COM4/332/104 (B13/347/50) (R7/411/88)

**32.5A** § 4A Each administration shall ensure that suitable arrangements are made for assigning and registering identities used by ships participating in the GMDSS, and shall make registration information available to rescue coordination centres on a 24-hour day, 7-day week basis. Where appropriate, administrations shall notify responsible organizations immediately of additions, deletions and other changes in these assignments (see Nos. 19.39, 19.96 and 19.99). Registration information submitted shall be in accordance with Resolution 340 (WRC-97). (WRC-07)

**MOD** COM4/332/105 (B13/347/51) (R7/411/89)

**32.5B** § 4B Any GMDSS shipboard equipment which is capable of transmitting position coordinates as part of a distress alert and which does not have an integral electronic position-fixing system receiver shall be interconnected to a separate navigation receiver, if one is installed, to provide that information automatically. (WRC-07)

**MOD** COM4/332/106 (B13/347/52) (R7/411/90)

## **Section II – Distress alerting and distress calling** (WRC-07)

**32.8** A – General

**MOD** COM4/332/107 (B13/347/53) (R7/411/91)

**32.9** § 7 1) The transmission of a distress alert or a distress call indicates that a mobile unit<sup>2</sup> or person<sup>3</sup> is threatened by grave and imminent danger and requires immediate assistance. (WRC-07)

**MOD** COM4/332/108 (B13/347/54) (R7/411/92)

**32.10A** § 7A A distress alert is false if it was transmitted without any indication that a mobile unit or person was in distress and required immediate assistance (see No. **32.9**). Administrations receiving a false distress alert shall report this infringement in accordance with Section V of Article **15**, if that alert:

- a) was transmitted intentionally;
- b) was not cancelled in accordance with No. **32.53A** and Resolution **349 (Rev.WRC-07)**;
- c) could not be verified as a result of either the ship's failure to keep watch on appropriate frequencies in accordance with Nos. **31.16** to **31.20**, or its failure to respond to calls from an authorized rescue authority;
- d) was repeated; or
- e) was transmitted using a false identity.

Administrations receiving such a report shall take appropriate steps to ensure that the infringement does not recur. No action should normally be taken against any ship or mariner for reporting and cancelling a false distress alert. (WRC-07)

**ADD** COM4/332/109 (B13/347/55) (R7/411/93)

**32.10B** Administrations shall take practicable and necessary steps to ensure the avoidance of false distress alerts, including those transmitted inadvertently. (WRC-07)

**MOD** COM4/332/110 (B13/347/56) (R7/411/94)

**32.11** *B – Transmission of a distress alert or a distress call* (WRC-07)

B1 – Transmission of a distress alert or a distress call by a ship station or a ship earth station  
(WRC-07)

**MOD** COM4/332/111 (B13/347/57) (R7/411/95)

**32.12** § 8 Ship-to-shore distress alerts or calls are used to alert rescue coordination centres via coast stations or coast earth stations that a ship is in distress. These alerts are based on the use of transmissions via satellites (from a ship earth station or a satellite EPIRB) and terrestrial services (from ship stations and EPIRBs). (WRC-07)

**MOD** COM4/332/112 (B13/347/58) (R7/411/96)

**32.13** § 9 1) Ship-to-ship distress alerts are used to alert other ships in the vicinity of the ship in distress and are based on the use of digital selective calling in the VHF and MF bands. Additionally, the HF band may be used. (WRC-07)

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<sup>2</sup> **32.9.1** Mobile unit: a ship, aircraft or other vehicle.

<sup>3</sup> **32.9.2** In this Article, where the case is of a person in distress, the application of the procedures may require adaptation to meet the needs of the particular circumstances.

**ADD** COM4/332/113 (B13/347/59) (R7/411/97)

**32.13A** 2) Ship stations equipped for digital selective calling procedures may transmit a distress call and distress message immediately following the distress alert in order to attract attention from as many ship stations as possible. (WRC-07)

**ADD** COM4/332/114 (B13/347/60) (R7/411/98)

**32.13B** 3) Ship stations not equipped for digital selective calling procedures shall, where practical, initiate the distress communications by transmitting a radio telephony distress call and message on the frequency 156.8 MHz (VHF channel 16). (WRC-07)

**ADD** COM4/332/115 (B13/347/61) (R7/411/99)

**32.13Bbis** § 7B 1) The radiotelephone distress signal consists of the word MAYDAY pronounced as the French expression “m'aider”. (WRC-07)

**ADD** COM4/332/116 (B13/347/62) (R7/411/100)

**32.13C** § 9A 1) The distress call sent on the frequency 156.8 MHz (VHF channel 16) shall be given in the following form:

- the distress signal MAYDAY, spoken three times;
- the words THIS IS;
- the name of the vessel in distress, spoken three times;
- the call sign or other identification;
- the MMSI (if the initial alert has been sent by DSC). (WRC-07)

**ADD** COM4/332/117 (B13/347/63) (R7/411/101)

**32.13D** 2) The distress message which follows the distress call should be given in the following form:

- the distress signal MAYDAY;
- the name of the vessel in distress;
- the call sign or other identification;
- the MMSI (if the initial alert has been sent by DSC);
- the position, given as the latitude and longitude, or if the latitude and longitude are not known or if time is insufficient, in relation to a known geographical location;
- the nature of the distress;
- the kind of assistance required;
- any other useful information. (WRC-07)

**ADD** COM4/332/118 (B13/347/64) (R7/411/102)

**32.13E** § 9B DSC procedures use a combination of automated functions and manual intervention to generate the appropriate distress call format in the most recent version of Recommendation ITU-R M.541. A distress alert sent by DSC consists of one or more distress alert attempts in which a message format is transmitted identifying the station in distress, giving its last recorded position and, if entered, the nature of the distress. In MF and HF bands, distress alert attempts may be sent as a single-frequency attempt or a multi-frequency attempt on up to six frequencies within one minute. In VHF bands, only single-frequency call attempts are used. The

distress alert will repeat automatically at random intervals, a few minutes apart, until an acknowledgement sent by DSC is received. (WRC-07)

**MOD** COM4/332/119 (B13/347/65) (R7/411/103)

B2 – Transmission of a shore-to-ship distress alert relay or a distress call relay (WRC-07)

**MOD** COM4/332/120 (B13/347/66) (R7/411/104)

**32.14** § 10 1) A station or a rescue coordination centre which receives a distress alert or call and a distress message shall initiate the transmission of a shore-to-ship distress alert relay addressed, as appropriate, to all ships, to a selected group of ships, or to a specific ship, by satellite and/or terrestrial means. (WRC-07)

**MOD** COM4/332/121 (B13/347/67) (R7/411/105)

**32.15** 2) The distress alert relay and the distress call relay shall contain the identification of the mobile unit in distress, its position and all other information which might facilitate rescue. (WRC-07)

**MOD** COM4/332/122 (B13/347/68) (R7/411/106)

B3 – Transmission of a distress alert relay or a distress call relay by a station not itself in distress (WRC-07)

**MOD** COM4/332/123 (B13/347/69) (R7/411/107)

**32.16** § 11 A station in the mobile or mobile-satellite service which learns that a mobile unit is in distress (for example, by a radio call or by observation) shall initiate and transmit a distress alert relay or a distress call relay on behalf of the mobile unit in distress once it has ascertained that any of the following circumstances apply: (WRC-07)

**MOD** COM4/332/124 (B13/347/70) (R7/411/108)

**32.17** a) on receiving a distress alert or call which is not acknowledged by a coast station or another vessel within five minutes (see also Nos. **32.29A** and **32.31**); (WRC-07)

**MOD** COM4/332/125 (B13/347/71) (R7/411/109)

**32.18** b) on learning that the mobile unit in distress is otherwise unable or incapable of participating in distress communications, if the master or other person responsible for the mobile unit not in distress considers that further help is necessary. (WRC-07)

**MOD** COM4/332/126 (B13/347/72) (R7/411/110)

**32.19** § 12 1) The distress relay on behalf of a mobile unit in distress shall be sent in a form appropriate to the circumstances (see Nos. **32.19A** to **32.19D**) using either a distress call relay by radiotelephony (see Nos. **32.19D** and **32.19E**), an individually addressed distress alert relay by DSC (see No. **32.19B**), or a distress priority message through a ship earth station. (WRC-07)

**ADD** COM4/332/127 (B13/347/73) (R7/411/111)

**32.19A** 2) A station transmitting a distress alert relay or a distress call relay in accordance with Nos. **32.16** to **32.18** shall indicate that it is not itself in distress. (WRC-07)

**ADD** COM4/332/128 (B13/347/74) (R7/411/112)

**32.19B** 3) A distress alert relay sent by DSC should use the call format, as found in the most recent version of Recommendations ITU-R M.493 and ITU-R M.541, and should preferably be addressed to an individual coast station or rescue coordination centre<sup>new1</sup>. (WRC-07)

**ADD** COM4/332/129 (B13/347/75) (R7/411/113)

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<sup>new1</sup> **32.19B.1** Vessels making a distress alert relay or a distress call relay should ensure that a suitable coast station or rescue coordination centre is informed of any distress communications previously exchanged. (WRC-07)

**ADD** COM4/332/130 (B13/347/76) (R7/411/114)

**32.19C** 4) However, a ship shall not transmit a distress alert relay to all ships by digital selective calling on the VHF or MF distress frequencies following receipt of a distress alert sent by digital selective calling by the ship in distress. (WRC-07)

**ADD** COM4/332/131 (B13/347/77) (R7/411/115)

**32.19D** 5) When an aural watch is being maintained on shore and reliable ship-to-shore communications can be established by radiotelephony, a distress call relay is sent by radiotelephony and addressed to the relevant coast station or rescue coordination centre<sup>new2</sup> on the appropriate frequency. (WRC-07)

**ADD** COM4/332/132 (B13/347/78) (R7/411/116)

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<sup>new2</sup> **32.19D.1** Vessels making a distress call relay should ensure that a suitable coast station or rescue coordination centre is informed of any distress communications previously exchanged. (WRC-07)

**ADD** COM4/332/133 (B13/347/79) (R7/411/117)

**32.19E** 6) The distress call relay sent by radiotelephony should be given in the following form:

- the distress signal MAYDAY RELAY, spoken three times;
- ALL STATIONS or coast station name, as appropriate, spoken three times;
- the words THIS IS;
- the name of the relaying station, spoken three times;
- the call sign or other identification of the relaying station;
- the MMSI (if the initial alert has been sent by DSC) of the relaying station (the vessel not in distress). (WRC-07)

**ADD** COM4/332/134 (B13/347/80) (R7/411/118)

**32.19F** 7) This call shall be followed by a distress message which shall, as far as possible, repeat the information<sup>new3</sup> contained in the original distress alert or distress message. (WRC-07)

**ADD** COM4/332/135 (B13/347/81) (R7/411/119)

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<sup>new3</sup> **32.19F.1** If the station in distress cannot be identified, then it will be necessary to originate the distress message as well, using, for example, terms such as “Unidentified trawler” refer to the mobile unit in distress. (WRC-07)

**ADD** COM4/332/136 (B13/347/82) (R7/411/120)

**32.19G** 8) When no aural watch is being maintained on shore, or there are other difficulties in establishing reliable ship-to-shore communications by radiotelephony, an appropriate coast station or rescue coordination centre may be contacted by sending an individual distress alert relay by DSC, addressed solely to that station and using the appropriate call formats. (WRC-07)

**ADD** COM4/332/137 (B13/347/83) (R7/411/121)

**32.19H** 9) In the event of continued failure to contact a coast station or rescue coordination centre directly, it may be appropriate to send a distress call relay by radiotelephony addressed to all ships, or to all ships in a certain geographical area. See also No. **32.19C**. (WRC-07)

**MOD** COM4/332/138 (B13/347/84) (R7/411/122)

**32.20** C – *Receipt and acknowledgement of distress alerts and distress calls* (WRC-07)

C1 – Procedure for acknowledgement of receipt of distress alerts or a distress call (WRC-07)

**MOD** COM4/332/139 (B13/347/85) (R7/411/123)

**32.21** § 13 1) Acknowledgement of receipt of a distress alert, including a distress alert relay, shall be made in the manner appropriate to the method of transmission of the alert and within the time-scale appropriate to the role of the station in receipt of the alert. Acknowledgement by satellite shall be sent immediately. (WRC-07)

**ADD** COM4/332/140 (B13/347/86) (R7/411/124)

**32.21A** 2) When acknowledging receipt of a distress alert sent by DSC<sup>new4</sup>, the acknowledgement in the terrestrial services shall be made by DSC, radiotelephony or narrow-band direct-printing telegraphy as appropriate to the circumstances, on the associated distress and safety frequency in the same band in which the distress alert was received, taking due account of the directions given in the most recent versions of Recommendations ITU-R M.493 and ITU-R M.541. (WRC-07)

**ADD** COM4/332/141 (B13/347/87) (R7/411/125)

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<sup>new4</sup> **32.21A.1** In order to ensure that no unnecessary delay occurs before the shore-based authorities become aware of a distress incident, the acknowledgement by DSC to a distress alert sent by DSC shall normally only be made by a coast station or a rescue coordination centre. An acknowledgement by DSC will cancel any further automated repetition of the distress alert using DSC. (WRC-07)

**ADD** COM4/332/142 (B13/347/88) (R7/411/126)

**32.21B** Acknowledgement by DSC of a distress alert sent by DSC addressed to stations in the maritime mobile service shall be addressed to all stations<sup>new4</sup>. (WRC-07)

**SUP** COM4/332/143 (B13/347/89) (R7/411/127)

**32.22**

**MOD** COM4/332/144 (B13/347/90) (R7/411/128)

**32.23** § 15 1) When acknowledging by radiotelephony the receipt of a distress alert or a distress call from a ship station or a ship earth station, the acknowledgement should be given in the following form:

– the distress signal MAYDAY;

- the name followed by the call sign, or the MMSI or other identification of the station sending the distress message;
- the words THIS IS;
- the name and call sign or other identification of the station acknowledging receipt;
- the word RECEIVED;
- the distress signal MAYDAY. (WRC-07)

**MOD** COM4/332/145 (B13/347/91) (R7/411/129)

**32.24** 2) When acknowledging by narrow-band direct-printing telegraphy the receipt of a distress alert from a ship station, the acknowledgement should be given in the following form:

- the distress signal MAYDAY;
- the call sign or other identification of the station sending the distress alert;
- the word DE;
- the call sign or other identification of the station acknowledging receipt of the distress alert;
- the signal RRR;
- the distress signal MAYDAY. (WRC-07)

**SUP** COM4/332/146 (B13/347/92) (R7/411/130)

**32.25**

**MOD** COM4/332/147 (B13/347/93) (R7/411/131)

- C2 – Receipt and acknowledgement by a coast station, a coast earth station or a rescue coordination centre (WRC-07)

**MOD** COM4/332/148 (B13/347/94) (R7/411/132)

**32.26** § 17 Coast stations and the appropriate coast earth stations in receipt of distress alerts or distress calls shall ensure that they are routed as soon as possible to a rescue coordination centre. In addition, receipt of a distress alert or a distress call is to be acknowledged as soon as possible by a coast station, or by a rescue coordination centre via a coast station or an appropriate coast earth station. A shore-to-ship distress alert relay or a distress call relay (see Nos. **32.14** and **32.15**) shall also be made when the method of receipt warrants a broadcast alert to shipping or when the circumstances of the distress incident indicate that further help is necessary. (WRC-07)

**MOD** COM4/332/149 (B13/347/95) (R7/411/133)

**32.27** § 18 A coast station using DSC to acknowledge a distress alert shall transmit the acknowledgement on the distress calling frequency on which the distress alert was received and should address it to all ships. The acknowledgement shall include the identification of the ship whose distress alert is being acknowledged. (WRC-07)

**MOD** COM4/332/150 (B13/347/96) (R7/411/134)

- C3 – Receipt and acknowledgement by a ship station or ship earth station (WRC-07)

**MOD** COM4/332/151 (B13/347/97) (R7/411/135)

**32.28** § 19 1) Ship or ship earth stations in receipt of a distress alert or a distress call shall, as soon as possible, inform the master or person responsible for the ship of the contents of the distress alert. (WRC-07)

**MOD** COM4/332/152 (B13/347/98) (R7/411/136)

**32.29** 2) In areas where reliable communications with one or more coast stations are practicable, ship stations in receipt of a distress alert or a distress call from another vessel should defer acknowledgement for a short interval so that a coast station may acknowledge receipt in the first instance. (WRC-07)

**ADD** COM4/332/153 (B13/347/99) (R7/411/137)

**32.29A** 3) Ship stations in receipt of a distress call sent by radiotelephony on the frequency 156.8 MHz (VHF channel 16) shall, if the call is not acknowledged by a coast station or another vessel within five minutes, acknowledge receipt to the vessel in distress and use any means available to relay the distress call to an appropriate coast station or coast earth station (see also Nos. **32.16** to **32.19F**). (WRC-07)

**MOD** COM4/332/154 (B13/347/100) (R7/411/138)

**32.30** § 20 1) Ship stations operating in areas where reliable communications with a coast station are not practicable which receive a distress alert or call from a ship station which is, beyond doubt, in their vicinity, shall, as soon as possible and if appropriately equipped, acknowledge receipt to the vessel in distress and inform a rescue coordination centre through a coast station or coast earth station (see also Nos. **32.16** to **32.19H**). (WRC-07)

**MOD** COM4/332/155 (B13/347/101) (R7/411/139)

**32.31** 2) However in order to avoid making unnecessary or confusing transmissions in response, a ship station, which may be at a considerable distance from the incident, receiving an HF distress alert, shall not acknowledge it but shall observe the provisions of Nos. **32.36** to **32.38**, and shall, if the distress alert is not acknowledged by a coast station within five minutes, relay the distress alert, but only to an appropriate coast station or coast earth station (see also Nos. **32.16** to **32.19H**). (WRC-07)

**MOD** COM4/332/156 (B13/347/102) (R7/411/140)

**32.32** § 21 A ship station acknowledging receipt of a distress alert sent by DSC should, in accordance with No. **32.29** or No. **32.30**: (WRC-07)

**MOD** COM4/332/157 (B13/347/103) (R7/411/141)

**32.33** a) in the first instance, acknowledge receipt of the distress alert by using radiotelephony on the distress and safety traffic frequency in the band used for the alert, taking into account any instructions which may be issued by a responding coast station; (WRC-07)

**ADD** COM4/332/158 (B13/347/104) (R7/411/142)

**32.34A** § 21A However, unless instructed to do so by a coast station or a rescue coordination centre, a ship station may only send an acknowledgement by DSC in the event that:

- a) no acknowledgement by DSC from a coast station has been observed; and
- b) no other communication by radiotelephony or narrow-band direct-printing telegraphy to or from the vessel in distress has been observed; and

- c) at least five minutes have elapsed and the distress alert by DSC has been repeated (see No. **32.21A.1**). (WRC-07)

**MOD** COM4/332/159 (B13/347/105) (R7/411/143)

**32.35** § 22 A ship station in receipt of a shore-to-ship distress alert relay or distress call relay (see No. **32.14**) should establish communication as directed and render such assistance as required and appropriate. (WRC-07)

**MOD** COM4/332/160 (B13/347/106) (R7/411/144)

**32.37** § 23 On receipt of a distress alert or a distress call, ship stations and coast stations shall set watch on the radiotelephone distress and safety traffic frequency associated with the distress and safety calling frequency on which the distress alert was received. (WRC-07)

**MOD** COM4/332/161 (B13/347/107) (R7/411/145)

**32.38** § 24 Coast stations and ship stations with narrow-band direct-printing equipment shall set watch on the narrow-band direct-printing frequency associated with the distress alert if it indicates that narrow-band direct-printing is to be used for subsequent distress communications. If practicable, they should additionally set watch on the radiotelephone frequency associated with the distress alert frequency. (WRC-07)

### Section III – Distress traffic

**SUP** COM4/332/162 (B13/347/108) (R7/411/146)

#### **32.41**

**MOD** COM4/332/163 (B13/347/109) (R7/411/147)

**32.45** § 28 1) The rescue coordination centre responsible for controlling a search and rescue operation shall also coordinate the distress traffic relating to the incident or may appoint another station to do so. (WRC-07)

**MOD** COM4/332/164 (B13/347/110) (R7/411/148)

**32.51** § 31 When distress traffic has ceased on frequencies which have been used for distress traffic, the station controlling the search and rescue operation shall initiate a message for transmission on these frequencies indicating that distress traffic has finished. (WRC-07)

**MOD** COM4/332/165 (B13/347/111) (R7/411/149)

**32.52** § 32 1) In radiotelephony, the message referred to in No. **32.51** should consist of:

- the distress signal MAYDAY;
- the call “ALL STATIONS”, spoken three times;
- the words THIS IS;
- the name of the station sending that message, spoken three times;
- the call sign or other identification of the station sending the message;
- the time of handing in of the message;
- the MMSI (if the initial alert has been sent by DSC), the name and the call sign of the mobile station which was in distress;
- the words SEELONCE FEENEE pronounced as the French words “silence fini”. (WRC-07)

**ADD** COM4/332/166 (B13/347/112) (R7/411/150)

**32.53A** *Cancellation of an inadvertent distress alert* (WRC-07)

**ADD** COM4/332/167 (B13/347/113) (R7/411/151)

**32.53B** A station transmitting an inadvertent distress alert or call shall cancel the transmission. (WRC-07)

**ADD** COM4/332/168 (B13/347/114) (R7/411/152)

**32.53C** An inadvertent DSC alert shall be cancelled by DSC, if the DSC equipment is so capable. The cancellation should be in accordance with the most recent version of Recommendation ITU-R M.493. In all cases, cancellations shall also be transmitted by radiotelephone in accordance with **32.53E**. (WRC-07)

**ADD** COM4/332/169 (B13/347/115) (R7/411/153)

**32.53D** An inadvertent distress call shall be cancelled by radiotelephone in accordance with the procedure in **32.53E**. (WRC-07)

**ADD** COM4/332/170 (B13/347/116) (R7/411/154)

**32.53E** Inadvertent distress transmissions shall be cancelled orally on the associated distress and safety frequency in the same band on which the distress transmission was sent, using the following procedure:

- the call “ALL STATIONS” , spoken three times;
- the words THIS IS;
- the name of the vessel, spoken three times;
- the call sign or other identification;
- the MMSI (if the initial alert has been sent by DSC);
- PLEASE CANCEL MY DISTRESS ALERT OF time in UTC.

Monitor the same band on which the inadvertent distress transmission was sent and respond to any communications concerning that distress transmission as appropriate. (WRC-07)

**MOD** COM4/332/171 (B13/347/117) (R7/411/155)

**32.63** 3) Locating signals may be transmitted in the following frequency bands:

117.975-137 MHz;

156-174 MHz;

406-406.1 MHz; and

9 200-9 500 MHz. (WRC-07)

**SUP** COM4/332/172 (B13/347/118) (R7/411/156)

**32.64**

## ARTICLE 33

### Operational procedures for urgency and safety communications in the global maritime distress and safety system (GMDSS)

#### Section I – General

**MOD** COM4/332/26 (B13/347/119) (R7/411/157)

**33.1** § 1 1) Urgency and safety communications include: (WRC-07)

**ADD** COM4/332/27 (B13/347/120) (R7/411/158)

**33.7A** 2) Urgency communications shall have priority over all other communications, except distress. (WRC-07)

**ADD** COM4/332/28 (B13/347/121) (R7/411/159)

**33.7B** 3) Safety communications shall have priority over all other communications, except distress and urgency. (WRC-07)

#### Section II – Urgency communications

**ADD** COM4/332/29 (B13/347/122) (R7/411/160)

**33.XX** The following terms apply:

*a)* The urgency announcement is a digital selective call using an urgency call format<sup>1</sup>, in the bands used for terrestrial radiocommunication, or an urgency message format, in which case it is relayed through space stations.

*b)* The urgency call is the initial voice or text procedure.

*c)* The urgency message is the subsequent voice or text procedure. (WRC-07)

**ADD** COM4/332/31 (B13/347/123) (R7/411/161)

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<sup>1</sup> **33.XX.1** The format of urgency calls and urgency messages should be in accordance with the relevant ITU-R Recommendations. (WRC-07)

**MOD** COM4/332/30 (B13/347/124) (R7/411/162)

**33.8** § 2 In a terrestrial system, urgency communications consist of an announcement, transmitted using digital selective calling, followed by the urgency call and message transmitted using radiotelephony, narrow-band direct-printing, or data. The announcement of the urgency message shall be made on one or more of the distress and safety calling frequencies specified in Section I of Article **31** using either digital selective calling and the urgency call format, or if not available, radio telephony procedures and the urgency signal. Announcements using digital selective calling should use the technical structure and content set forth in the most recent version of Recommendations ITU-R M.493 and ITU-R M.541. A separate announcement need not be made if the urgency message is to be transmitted through the maritime mobile-satellite service. (WRC-07)

**ADD** COM4/332/32 (B13/347/125) (R7/411/163)

**33.8A** 2) Ship stations not equipped for digital selective calling procedures may announce an urgency call and message by transmitting the urgency signal by radiotelephony on the frequency 156.8 MHz (channel 16), while taking into account that other stations outside VHF range may not receive the announcement. (WRC-07)

**ADD** COM4/332/33 (B13/347/126) (R7/411/164)

**33.8B** 3) In the maritime mobile service, urgency communications may be addressed either to all stations or to a particular station. When using digital selective calling techniques, the urgency announcement shall indicate which frequency is to be used to send the subsequent message and, in the case of a message to all stations, shall use the “All Ships” format setting. (WRC-07)

**ADD** COM4/332/34 (B13/347/127) (R7/411/165)

**33.8C** 4) Urgency announcements from a coast station may also be directed to a group of vessels or to vessels in a defined geographical area. (WRC-07)

**MOD** COM4/332/35 (B13/347/128) (R7/411/166)

**33.9** § 3 1) The urgency call and message shall be transmitted on one or more of the distress and safety traffic frequencies specified in Section I of Article 31. (WRC-07)

**ADD** COM4/332/36 (B13/347/129) (R7/411/167)

**33.9A** 2) However, in the maritime mobile service, the urgency message shall be transmitted on a working frequency:

- a) in the case of a long message or a medical call; *or*
- b) in areas of heavy traffic when the message is being repeated.

An indication to this effect shall be included in the urgency announcement or call. (WRC-07)

**ADD** COM4/332/37 (B13/347/130) (R7/411/168)

**33.9B** 3) In the maritime mobile-satellite service, a separate urgency announcement or call does not need to be made before sending the urgency message. However, if available, the appropriate network priority access settings should be used for sending the message. (WRC-07)

**MOD** COM4/332/38 (B13/347/131) (R7/411/169)

**33.11** § 5 1) The urgency call format and the urgency signal indicate that the calling station has a very urgent message to transmit concerning the safety of a mobile unit or a person. (WRC-07)

**ADD** COM4/332/39 (B13/347/132) (R7/411/170)

**33.11A** 2) Communications concerning medical advice may be preceded by the urgency signal. Mobile stations requiring medical advice may obtain it through any of the land stations shown in the List of Coast Stations and Special Service Stations. (WRC-07)

**ADD** COM4/332/40 (B13/347/133) (R7/411/171)

**33.11B** 3) Urgency communications to support search and rescue operations need not be preceded by the urgency signal. (WRC-07)

**MOD** COM4/332/41 (B13/347/134) (R7/411/172)

**33.12** § 6 1) The urgency call should consist of:

- the urgency signal PAN PAN, spoken three times;
- the name of the called station or “all stations”, spoken three times;
- the words THIS IS;
- the name of the station transmitting the urgency message, spoken three times;
- the call sign or any other identification;

- the MMSI (if the initial announcement has been sent by DSC),

followed by the urgency message or followed by the details of the channel to be used for the message in the case where a working channel is to be used.

In radiotelephony, on the selected working frequency, the urgency call and message consists of:

- the urgency signal PAN PAN, spoken three times;
- the name of the called station or “all stations”, spoken three times;
- the words THIS IS;
- the name of the station transmitting the urgency message, spoken three times;
- the call sign or any other identification;
- the MMSI (if the initial announcement has been sent by DSC);
- the text of the urgency message. (WRC-07)

**MOD** COM4/332/42 (B13/347/135) (R7/411/173)

**33.14** § 7 1) The urgency call format or urgency signal shall be sent only on the authority of the person responsible for the ship, aircraft or other vehicle carrying the mobile station or mobile earth station. (WRC-07)

**ADD** COM4/332/43 (B13/347/136) (R7/411/174)

**33.15A** § 7A 1) Ship stations in receipt of an urgency announcement or call addressed to all stations shall not acknowledge. (WRC-07)

**ADD** COM4/332/44 (B13/347/137) (R7/411/175)

**33.15B** 2) Ship stations in receipt of an urgency announcement or call of an urgency message shall monitor the frequency or channel indicated for the message for at least five minutes. If, at the end of the five-minute monitoring period, no urgency message has been received, a coast station should, if possible, be notified of the missing message. Thereafter, normal working may be resumed. (WRC-07)

**ADD** COM4/332/45 (B13/347/138) (R7/411/176)

**33.15C** 3) Coast and ship stations which are in communication on frequencies other than those used for the transmission of the urgency signal or the subsequent message may continue their normal work without interruption, provided that the urgency message is not addressed to them nor broadcast to all stations. (WRC-07)

**MOD** COM4/332/46 (B13/347/139) (R7/411/177)

**33.16** § 8 When an urgency announcement or call and message was transmitted to more than one station and action is no longer required, an urgency cancellation should be sent by the station responsible for its transmission.

The urgency cancellation should consist of:

- the urgency signal PAN PAN, spoken three times;
- “all stations”, spoken three times;
- the words THIS IS;
- the name of the station transmitting the urgency message, spoken three times;
- the call sign or any other identification;

- the MMSI (if the initial announcement has been sent by DSC);
- PLEASE CANCEL URGENCY MESSAGE OF time in UTC. (WRC-07)

### Section III – Medical transports

**MOD** COM4/332/47 (B13/347/140) (R7/411/178)

**33.20** § 11 1) For the purpose of announcing and identifying medical transports which are protected under the above-mentioned Conventions, the procedure of Section II of this Article is used. The urgency call shall be followed by the addition of the single word MEDICAL in narrow-band direct-printing and by the addition of the single word MAY-DEE-CAL pronounced as in French “médical”, in radiotelephony. (WRC-07)

**ADD** COM4/332/48 (B13/347/141) (R7/411/179)

**33.20A** 2) When using digital selective calling techniques, the urgency announcement on the appropriate Digital Selective Calling distress and safety frequencies shall always be addressed to all stations on VHF and to a specified geographical area on MF and HF and shall indicate “Medical transport” in accordance with the most recent version of Recommendations ITU-R M.493 and ITU-R M.541. (WRC-07)

**ADD** COM4/332/49 (B13/347/142) (R7/411/180)

**33.20B** 3) Medical transports may use one or more of the distress and safety traffic frequencies specified in Section I of Article 31 for the purpose of self-identification and to establish communications. As soon as practicable, communications shall be transferred to an appropriate working frequency. (WRC-07)

**MOD** COM4/332/50 (B13/347/143) (R7/411/181)

**33.21** § 12 The use of the signals described in Nos. 33.20 and 33.20A indicates that the message which follows concerns a protected medical transport. The message shall convey the following data: (WRC-07)

**SUP** COM4/332/51 (B13/347/144) (R7/411/182)

**33.28**

**SUP** COM4/332/52 (B13/347/145) (R7/411/183)

**33.29**

### Section IV – Safety communications

**ADD** COM4/332/53 (B13/347/146) (R7/411/184)

**33.YY** § 1 The following terms apply:

- a) the safety announcement is a digital selective call using a safety call format in the bands used for terrestrial radiocommunication or a safety message format, in which case it is relayed through space stations;
- b) the safety call is the initial voice or text procedure;
- c) the safety message is the subsequent voice or text procedure. (WRC-07)

**MOD** COM4/332/54 (B13/347/147) (R7/411/185)

**33.31** § 15 1) In a terrestrial system, safety communications consist of a safety announcement, transmitted using digital selective calling, followed by the safety call and message transmitted using radiotelephony, narrow-band direct-printing or data. The announcement of the safety message shall be made on one or more of the distress and safety calling frequencies specified

in Section I of Article **31** using either digital selective calling techniques and the safety call format, or radiotelephony procedures and the safety signal. (WRC-07)

**MOD** COM4/332/55 (B13/347/148) (R7/411/186)

**33.31A** 2) However, in order to avoid unnecessary loading of the distress and safety calling frequencies specified for use with digital selective calling techniques:

- a) safety messages transmitted by coast stations in accordance with a predefined timetable should not be announced by digital selective calling techniques;
- b) safety messages which only concern vessels sailing in the vicinity should be announced using radiotelephony procedures. (WRC-07)

**ADD** COM4/332/56 (B13/347/149) (R7/411/187)

**33.31B** 3) In addition, ship stations not equipped for digital selective calling procedures may announce a safety message by transmitting the safety call by radiotelephony. In such cases the announcement shall be made using the frequency 156.8 MHz (VHF channel 16), while taking into account that other stations outside VHF range may not receive the announcement. (WRC-07)

**ADD** COM4/332/57 (B13/347/150) (R7/411/188)

**33.31C** 4) In the maritime mobile service, safety messages shall generally be addressed to all stations. In some cases, however, they may be addressed to a particular station. When using digital selective calling techniques, the safety announcement shall indicate which frequency is to be used to send the subsequent message and, in the case of a message to all stations, shall use the “All Ships” format setting. (WRC-07)

**MOD** COM4/332/58 (B13/347/151) (R7/411/189)

**33.32** § 16 1) In the maritime mobile service, the safety message shall, where practicable, be transmitted on a working frequency in the same band(s) as those used for the safety announcement or call. A suitable indication to this effect shall be made at the end of the safety call. In the case that no other option is practicable, the safety message may be sent by radiotelephony on the frequency 156.8 MHz (VHF channel 16). (WRC-07)

**ADD** COM4/332/59 (B13/347/152) (R7/411/190)

**33.32A** 2) In the maritime mobile-satellite service, a separate safety announcement or call does not need to be made before sending the safety message. However, if available, the appropriate network priority access settings should be used for sending the message. (WRC-07)

**MOD** COM4/332/60 (B13/347/153) (R7/411/191)

**33.34** § 18 1) The safety call format or the safety signal indicates that the calling station has an important navigational or meteorological warning to transmit. (WRC-07)

**ADD** COM4/332/61 (B13/347/154) (R7/411/192)

**33.34A** 2) Messages from ship stations containing information concerning the presence of cyclones shall be transmitted, with the least possible delay, to other mobile stations in the vicinity and to the appropriate authorities through a coast station, or through a rescue coordination centre via a coast station or an appropriate coast earth station. These transmissions shall be preceded by the safety announcement or call. (WRC-07)

**ADD** COM4/332/62 (B13/347/155) (R7/411/193)

**33.34B** 3) Messages from ship stations, containing information on the presence of dangerous ice, dangerous wrecks, or any other imminent danger to marine navigation, shall be transmitted as soon as possible to other ships in the vicinity, and to the appropriate authorities through a coast station, or through a rescue coordination centre via a coast station or an appropriate coast earth station. These transmissions shall be preceded by the safety announcement or call. (WRC-07)

**MOD** COM4/332/63 (B13/347/156) (R7/411/194)

**33.35** § 19 1) The complete safety call should consist of:

- the safety signal SÉCURITÉ, spoken three times;
- the name of the called station or “all stations”, spoken three times;
- the words THIS IS;
- the name of the station transmitting the safety message, spoken three times;
- the call sign or any other identification;
- the MMSI (if the initial announcement has been sent by DSC),

followed by the safety message or followed by the details of the channel to be used for the message in the case where a working channel is to be used.

In radiotelephony, on the selected working frequency, the safety call and message should consist of:

- the safety signal SÉCURITÉ, spoken three times;
- the name of the called station or “all stations”, spoken three times;
- the words THIS IS;
- the name of the station transmitting the safety message, spoken three times;
- the call sign or any other identification;
- the MMSI (if the initial alert has been sent by DSC);
- the text of the safety message. (WRC-07)

**ADD** COM4/332/64 (B13/347/157) (R7/411/195)

**33.38A** § 20*bis* 1) Ship stations in receipt of a safety announcement using digital selective calling techniques and the “All Ships” format setting, or otherwise addressed to all stations, shall not acknowledge. (WRC-07)

**ADD** COM4/332/65 (B13/347/158) (R7/411/196)

**33.38B** 2) Ship stations in receipt of a safety announcement or safety call and message shall monitor the frequency or channel indicated for the message and shall listen until they are satisfied that the message is of no concern to them. They shall not make any transmission likely to interfere with the message. (WRC-07)

**MOD** COM4/332/66 (B13/347/159) (R7/411/197)

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<sup>1</sup> **33.V.1** Maritime safety information includes navigation and meteorological warnings, meteorological forecasts and other urgent messages pertaining to safety transmitted from coast stations or coast earth stations. (WRC-07)

**SUP** COM4/332/67 (B13/347/160) (R7/411/198)

**33.39A**

**SUP** COM4/332/68 (B13/347/161) (R7/411/199)

**33.39B**

**SUP** COM4/332/69 (B13/347/162) (R7/411/200)

**33.40**

**MOD** COM4/332/70 (B13/347/163) (R7/411/201)

**Section VII – Use of other frequencies for safety** (WRC-07)

**MOD** COM4/332/71 (B13/347/164) (R7/411/202)

**33.53** § 28 Radiocommunications for safety purposes concerning ship reporting communications, communications relating to the navigation, movements and needs of ships and weather observation messages may be conducted on any appropriate communications frequency, including those used for public correspondence. In terrestrial systems, the bands 415-535 kHz (see Article 52), 1 606.5-4 000 kHz (see Article 52), 4 000-27 500 kHz (see Appendix 17), and 156-174 MHz (see Appendix 18) are used for this function. In the maritime mobile-satellite service, frequencies in the bands 1 530-1 544 MHz and 1 626.5-1 645.5 MHz are used for this function as well as for distress alerting purposes (see No. 32.2). (WRC-07)

**SUP** COM4/332/72 (B13/347/165) (R7/411/203)

**33.54**

**SUP** COM4/332/73 (B13/347/166) (R7/411/204)

**33.55**

**ARTICLE 34**

**Alerting signals in the global maritime distress and safety system (GMDSS)**

**Section I – Emergency position-indicating radiobeacon (EPIRB) and satellite EPIRB signals**

**MOD** COM4/296/24 (B9/305/26) (R4/335/41)

**34.1** § 1 The emergency position-indicating radiobeacon signal in the band 406-406.1 MHz shall be in accordance with Recommendation ITU-R M.633-3. (WRC-07)

**ARTICLE 41**

**Communications with stations in the maritime services**

**MOD** COM4/296/25 (B9/305/27) (R4/335/42)

**41.1** Stations on board aircraft may communicate, for purposes of distress, and for public correspondence<sup>1</sup>, with stations of the maritime mobile or maritime mobile-satellite services. For these purposes, they shall conform to the relevant provisions of Chapter VII and Chapter IX, Articles 51 (Section III), 53, 54, 55, 57 and 58 (see also Nos. 4.19, 4.20 and 43.4). (WRC-07)

## ARTICLE 47

### Operator's certificates

#### Section I – General provisions

**MOD** COM4/380/13 (B17/404/16)

**47.2** § 1 1) The service of every ship radiotelephone station, ship earth station and ship station using the frequencies and techniques for GMDSS, as prescribed in Chapter **VII**, shall be controlled by an operator holding a certificate issued or recognized by the government to which the station is subject. Provided the station is so controlled, other persons besides the holder of the certificate may use the equipment. (WRC-07)

**SUP** COM4/380/14 (B17/404/17)

**47.6 to 47.8**

**MOD** COM4/380/15 (B17/404/18)

**47.18** § 5 1) Each administration may determine the conditions under which personnel holding certificates specified in Section II may be granted certificates specified in Nos. **47.20** to **47.23B**. (WRC-07)

**ADD** COM4/380/16 (B17/404/19)

**47.18A** 2) Each administration may determine the conditions under which personnel holding certificates for equipment that operate with non-GMDSS frequencies and techniques may be granted certificates specified in Nos. **47.26** and **47.27**. (WRC-07)

#### Section II – Categories of operator's certificates

**ADD** COM4/380/17 (B17/404/20)

##### *A – GMDSS certificates*

**MOD** COM4/380/18 (B17/404/21)

**47.19** § 6 1) There are six categories of certificates, shown in descending order of requirements, for personnel of ship stations and ship earth stations using the frequencies and techniques prescribed in Chapter **VII**. An operator meeting the requirements of a certificate automatically meets all of the requirements of lower order certificates. (WRC-07)

**ADD** COM4/380/19 (B17/404/22)

**47.23A** *e)* Long range certificate (for non-SOLAS vessels). (WRC-07)

**ADD** COM4/380/20 (B17/404/23)

**47.23B** *f)* Short range certificate (for non-SOLAS vessels). (WRC-07)

**ADD** COM4/380/21 (B17/404/24)

##### *B – Non-GMDSS certificates*

#### Section III – Conditions for the issue of certificates

**MOD** COM4/380/22 (B17/404/25)

**47.25** § 7 1) There are six categories of certificates. Existing certificates of the categories listed in No. **47.26** may continue to be used for the purposes they were issued for. (WRC-07)

**SUP** COM4/380/26 (B17/404/27)

**Section IV – Qualifying service<sup>1</sup>** (WRC-03)

**MOD** COM4/380/23 (B17/404/28)

**47.26** § 8 The following maritime radio operator's certificates are still valid:

- 1 Radiocommunication operator's general certificate.
- 2 First-class radio telegraph operator's certificate.
- 3 Second-class radio telegraph operator's certificate.
- 4 Radiotelegraph operator's special certificate.
- 5 Radiotelephone operator's general certificate.
- 6 Restricted radiotelephone operator's certificate. (WRC-07)

**MOD** COM4/380/24 (B17/404/29)

**47.27** § 9 The requirements for the certificates of this section, for which candidates must show proof of technical and professional knowledge and qualification, are shown in Table **47-1**.  
(WRC-07)

TABLE 47-1

**Requirements for radio electronic and operator's certificates**

**ADD** COM4/380/25 (B17/404/26)

NOTE 2 – The conditions for the issuing of the long-range and short-range Certificates are contained in Resolution **343 (WRC-97)**. (WRC-07)

**SUP** COM4/380/27 (B17/404/30)

**47.28 to 47.29**

ARTICLE 50

**Working hours of stations**

**MOD** COM4/380/70 (B17/404/31)

**50.4** 2) These hours of service shall be notified to the Radiocommunication Bureau, who shall publish them in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/380/71 (B17/404/32)

**50.5** § 4 Coast stations whose service is not continuous shall not close before finishing all operations resulting from a distress call or from an urgency or safety signal. (WRC-07)

**SUP** COM4/380/72 (B17/404/33)

**50.6 to 50.9**

## ARTICLE 51

### Conditions to be observed in the maritime services

#### Section I – Maritime mobile service

**SUP** COM4/296/26 (B9/305/28) (R4/335/43)

#### 51.8 to 51.23

**MOD** COM4/380/28 (B17/404/34)

**51.35** *b)* send and receive class F1B or J2B emissions on an international calling channel (specified in Recommendation ITU-R M.541-9) in each of the HF maritime mobile bands necessary for their service; (WRC-07)

**MOD** COM4/296/27 (B9/305/29) (R4/335/44)

**51.53** *a)* send class J3E emissions on a carrier frequency of 2 182 kHz and receive class J3E emissions on a carrier frequency of 2 182 kHz, except for such apparatus as is referred to in No. **51.56**; (WRC-07)

**MOD** COM4/296/28 (B9/305/30) (R4/335/45)

**51.58** § 23 All ship stations equipped with radiotelephony to work in the authorized bands between 4 000 kHz and 27 500 kHz and which do not comply with the provisions of Chapter **VII** should be able to send and receive on the carrier frequencies 4 125 kHz and 6 215 kHz. However, all ship stations which comply with the provisions of Chapter **VII** shall be able to send and receive on the carrier frequencies designated in Article **31** for distress and safety traffic by radiotelephony for the frequency bands in which they are operating. (WRC-07)

#### Section III – Stations on board aircraft communicating with stations of the maritime mobile service and the maritime mobile-satellite service

**MOD** COM6/341/21 (B14/365/39) (R7/411/206)

**51.71** § 28 In the case of communication between stations on board aircraft and stations of the maritime mobile service, radiotelephone calling may be renewed as specified in the most recent version of Recommendation ITU-R M.1171 and radiotelegraph calling may be renewed after an interval of five minutes, notwithstanding the procedure contained in the most recent version of Recommendation ITU-R M.1170. (WRC-07)

**MOD** COM4/296/29 (B9/305/31) (R4/335/46)

**51.79** 2) The frequency 156.3 MHz may be used by stations on board aircraft for safety purposes. It may also be used for communication between ship stations and stations on board aircraft engaged in coordinated search and rescue operations (see Appendix **15**). (WRC-07)

**MOD** COM4/296/30 (B9/305/32) (R4/335/47)

**51.80** 3) The frequency 156.8 MHz may be used by stations on board aircraft for safety purposes only (see Appendix **15**). (WRC-07)

## ARTICLE 52

### Special rules relating to the use of frequencies

**SUP** COM4/296/31 (B9/305/33) (R4/335/48)

#### Section II

**SUP** COM4/296/32 (B9/305/34) (R4/335/49)

#### 52.16 to 52.93

#### Section III – Use of frequencies for narrow-band direct-printing telegraphy

**MOD** COM4/380/29 (B17/404/35)

**52.95** § 44 Frequencies assigned to coast stations for narrow-band direct-printing telegraphy shall be indicated in the List of Coast Stations and Special Service Stations (List IV). This List shall also indicate any other useful information concerning the service performed by each coast station. (WRC-07)

**MOD** COM4/296/33 (B9/305/35) (R4/335/50)

**52.101** 2) Narrow-band direct-printing telegraphy is forbidden in the band 2 170-2 194 kHz except, as provided for in Appendix **15** and Resolution [**COM4/3**] (**WRC-07**). (WRC-07)

#### Section IV – Use of frequencies for digital selective-calling

**MOD** COM4/380/30 (B17/404/36)

**52.112** § 51 The characteristics of the digital selective-calling equipment shall be in accordance with Recommendation ITU-R M.541-9 and should be in accordance with the most recent version of Recommendation ITU-R M. 493. (WRC-07)

**MOD** COM4/380/31 (B17/404/37)

**52.113** § 52 The frequencies on which coast stations provide services using digital selective-calling techniques shall be indicated in the List of Coast Stations and Special Service Stations (List IV), which shall also supply any other useful information concerning such services. (WRC-07)

**MOD** COM4/380/32 (B17/404/38)

**52.122** § 59 1) A coast station providing international public correspondence service using digital selective-calling techniques within the bands between 415 kHz and 526.5 kHz should, during its hours of service, maintain automatic digital selective-calling watch on appropriate national or international calling frequencies. The hours and frequencies shall be indicated in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/380/33 (B17/404/39)

**52.137** § 63 The frequency to be used for transmission of an acknowledgement shall normally be the frequency paired with the frequency used for the call received, as indicated in the List of Coast Stations and Special Service Stations (List IV) (see also No. **52.113**). (WRC-07)

**MOD** COM4/380/34 (B17/404/40)

**52.139** 2) A coast station providing international public correspondence service using digital selective-calling techniques within the bands between 1 606.5 kHz and 4 000 kHz should, during its hours of service, maintain automatic digital selective-calling watch on appropriate national or international calling frequencies. The hours and frequencies shall be indicated in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/380/35 (B17/404/41)

**52.148** b) subject to the provisions of No. **52.149**, one of the international digital selective-calling frequencies. (WRC-07)

**MOD** COM4/380/36 (B17/404/42)

**52.149** 2) The international digital selective-calling frequencies shall be as indicated in Recommendation ITU-R M.541-9 and may be used by any ship station. In order to reduce interference on these frequencies, they shall only be used when calling cannot be made on nationally assigned frequencies. (WRC-07)

**MOD** COM4/380/37 (B17/404/43)

**52.152** b) subject to the provisions of No. **52.153**, one of the international digital selective-calling frequencies. (WRC-07)

**MOD** COM4/380/38 (B17/404/44)

**52.153** 2) The international digital selective-calling frequencies shall be as indicated in Recommendation ITU-R M.541-9 and may be assigned to any coast station. In order to reduce interference on these frequencies, they may be used as a general rule by coast stations to call ships of another nationality, or in cases where it is not known on which digital selective-calling frequencies within the bands concerned the ship station is maintaining watch. (WRC-07)

**MOD** COM4/380/39 (B17/404/45)

**52.155** 2) A coast station providing international public correspondence service using digital selective-calling techniques within the bands between 4 000 kHz and 27 500 kHz should, during its hours of service, maintain automatic digital selective-calling watch on the appropriate digital selective-calling frequencies as indicated in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/380/40 (B17/404/46)

**52.159** § 71 1) The frequency 156.525 MHz is an international frequency in the maritime mobile service used for distress, urgency, safety and calling by digital selective-calling techniques (see Nos. **33.8** and **33.31** and Appendix **15**). (WRC-07)

**MOD** COM4/380/41 (B17/404/47)

**52.161** § 72 Information concerning watch-keeping by automatic digital selective-calling on the frequency 156.525 MHz by coast stations shall be given in the List of Coast Stations and Special Service Stations (List IV) (see also No. **31.13**). (WRC-07) Section VI – Use of frequencies for radiotelephony

**MOD** COM4/380/42 (B17/404/48)

**52.180** § 84 The frequencies of transmission (and reception when these frequencies are in pairs as in the case of duplex radiotelephony) assigned to each coast station shall be indicated in the List of Coast Stations and Special Service Stations (List IV). This List shall also indicate any other useful information concerning the service performed by each coast station. (WRC-07)

**MOD** COM4/296/34 (B9/305/36) (R4/335/51)

**52.183** § 86 1) Unless otherwise specified in the Radio Regulations (see Nos. **51.53**, **52.188**, **52.189** and **52.199**), the class of emission to be used in the bands between 1 606.5 kHz and 4 000 kHz shall be J3E. (WRC-07)

**MOD** COM4/380/43 (B17/404/49)

**52.187** 3) The normal mode of operation for each coast station shall be indicated in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/380/44 (B17/404/50)

**52.188** 4) Transmissions in the bands 2 170-2 173.5 kHz and 2 190.5-2 194 kHz with the carrier frequency 2 170.5 kHz and the carrier frequency 2 191 kHz, respectively, are limited to class J3E emissions and are limited to a peak envelope power of 400 W. (WRC-07)

**MOD** COM4/296/35 (B9/305/37) (R4/335/52)

**52.189** § 87 1) The frequency 2 182 kHz<sup>2</sup> is an international distress frequency for radiotelephony (see Appendix 15 and Resolution [COM4/3] (WRC-07)). (WRC-07)

**MOD** COM4/380/45 (B17/404/51)

**52.200** 4) One of the frequencies which coast stations are required to be able to use (see No. 52.197) is printed in heavy type in the List of Coast Stations and Special Service Stations (List IV) to indicate that it is the normal working frequency of the stations. Supplementary frequencies, if assigned, are shown in ordinary type. (WRC-07)

**SUP** COM4/296/36 (B9/305/38) (R4/335/53)

**52.209**

**MOD** COM4/380/46 (B17/404/52)

**52.212** – where the facility is open to ships of all nationalities by virtue of a note against each of the frequencies concerned in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/380/47 (B17/404/53)

**52.218** 2) The normal mode of operation of each coast station is indicated in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/296/37 (B9/305/39) (R4/335/54)

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<sup>4</sup> **52.221.2** The carrier frequencies 4 125 kHz and 6 215 kHz are also authorized for common use by coast and ship stations for single-sideband radiotelephony on a simplex basis for call and reply purposes, provided that the peak envelope power of such stations does not exceed 1 kW. The use of these frequencies for working purposes is not permitted (see also No. 52.221.1). (WRC-07)

**SUP** COM4/380/48 (B17/404/54)

<sup>6</sup> **52.222.1**

**MOD** COM4/380/49 (B17/404/55)

**52.223** § 98 The hours of service of coast stations open to public correspondence and the frequency or frequencies on which watch is maintained shall be indicated in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/296/38 (B9/305/40) (R4/335/55)

**52.231** § 101 1) The frequency 156.8 MHz is the international frequency for distress traffic and for calling by radiotelephony when using frequencies in the authorized bands between 156 MHz and 174 MHz. The class of emission to be used for radiotelephony on the frequency 156.8 MHz shall be G3E (as specified in Recommendation ITU-R M.489-2). (WRC-07)

**SUP** COM4/380/50 (B17/404/56)

**52.235**

**MOD** COM4/380/51 (B17/404/57)

**52.236** 3) Any one of the channels designated in Appendix 18 for public correspondence may be used as a calling channel if an administration so desires. Such use shall be indicated in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**ADD** COM4/296/39 (B9/305/41) (R4/335/56)

**52.241A** 10) The frequency 156.525 MHz is the international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service using digital selective calling (DSC) when using frequencies in the authorized bands between 156 MHz and 174 MHz. (WRC-07)

**ADD** COM4/296/40 (B9/305/42) (R4/335/57)

**52.241B** 11) All emissions in the band 156.4875-156.5625 MHz capable of causing harmful interference to the authorized transmissions of stations of the maritime mobile service on 156.525 MHz are forbidden. (WRC-07)

**ADD** COM4/296/41 (B9/305/43) (R4/335/58)

**52.241C** 12) To facilitate the reception of distress calls and distress traffic, all transmissions on 156.525 MHz shall be kept to a minimum. (WRC-07)

**MOD** COM4/296/42 (B9/305/44) (R4/335/59)

**52.242** § 102 1) A coast station open to the international public correspondence service should, during its hours of service, maintain watch on its receiving frequency or frequencies indicated in the List of Coast Stations and Special Service Stations. (WRC-07)

**MOD** COM4/380/52 (B17/404/58)

**52.247** § 103 A coast station in the port operations service in an area where 156.8 MHz is being used for distress, urgency or safety shall, during its working hours, keep an additional watch on 156.6 MHz or another port operations frequency indicated in heavy type in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

**MOD** COM4/380/53 (B17/404/59)

**52.248** § 104 A coast station in the ship movement service in an area where 156.8 MHz is being used for distress, urgency and safety shall, during its working hours, keep an additional watch on the ship movement frequencies indicated in heavy type in the List of Coast Stations and Special Service Stations (List IV). (WRC-07)

## ARTICLE 54

### Selective calling

**MOD** COM4/332/174 (B13/347/168) (R7/411/207)

**54.2** 2) Selective calling is carried out using a digital selective calling system which shall be in accordance with Recommendation ITU-R M.541-9, and may be in accordance with the most recent version of Recommendation ITU-R M.493. (WRC-07)

## ARTICLE 55

### **Morse radiotelegraphy**

**MOD** COM4/332/175 (B13/347/169) (R7/411/208)

**55.1** The recommended procedure for conducting Morse radiotelegraph communications is detailed in the most recent version of Recommendation ITU-R M.1170. (WRC-07)

## ARTICLE 56

### **Narrow-band direct-printing telegraphy**

**MOD** COM4/380/54 (B17/404/60)

**56.2** § 2 The procedures specified in Recommendation ITU-R M.492-6 shall be employed except in cases of distress, urgency, or safety, in which case alternate or non-standard procedures may be used. (WRC-07)

**MOD** COM4/332/176 (B13/347/170) (R7/411/209)

**56.6** § 5 The services provided by each station open to public correspondence shall be indicated in the List of Coast Stations and Special Service Stations (List IV) and in the List of Ship Stations and Maritime Mobile Service Identity Assignments (List V), together with information on charging. (WRC-07)

## ARTICLE 57

### **Radiotelephony**

**MOD** COM4/296/43 (B9/305/45) (R4/335/60)

**57.1** § 1 The procedure detailed in Recommendation ITU-R M.1171 shall be applicable to radiotelephone stations, except in cases of distress, urgency or safety. (WRC-07)

**MOD** COM4/296/44 (B9/305/46) (R4/335/61)

**57.8** § 4 Calling, and signals preparatory to traffic, shall not exceed one minute when made on the carrier frequency 2 182 kHz or on 156.8 MHz, except in cases of distress, urgency or safety. (WRC-07)

**MOD** PLEN/423/1

## ARTICLE 59

### **Entry into force and provisional application of the Radio Regulations** (WRC-2000)

**59.1** These Regulations, which complement the provisions of the Constitution and Convention of the International Telecommunication Union, and as revised and contained in the Final Acts of WRC-95, WRC-97, WRC-2000, WRC-03, and WRC-07, shall be applied, pursuant to Article 54 of the Constitution, on the following basis. (WRC-07)

**59.2** The provisions of these Regulations, as revised by WRC-95, concerning new or modified frequency allocations (including any new or modified conditions applying to existing

allocations) and the related provisions of Articles **S21\*** and **S22\***, and Appendix **S4\***, apply provisionally as of 1 January 1997.

**59.3** The other provisions of these Regulations, as revised by WRC-95 and WRC-97, apply provisionally as of 1 January 1999, with the following exceptions: (WRC-2000)

**59.4** – the revised provisions for which other effective dates of application are stipulated in Resolutions:

**49 (WRC-97), 51 (WRC-97), 52 (WRC-97)\*\*, 54 (WRC-97)\*\*,  
130 (WRC-97)\*\*, 533 (WRC-97), 534 (WRC-97)\*\* and 538 (WRC-97)\*\*.**

**59.5** The other provisions of these Regulations, as revised by WRC-2000, shall enter into force on 1 January 2002, with the following exceptions: (WRC-2000)

**59.6** – the revised provisions for which other effective dates of application are stipulated in Resolutions:

**49 (Rev.WRC-2000), 51 (Rev.WRC-2000), 53 (Rev.WRC-2000)\*\*\*,  
55 (WRC-2000), 56 (WRC-2000), 58 (WRC-2000), 59 (WRC-2000)\*\*\*,  
77 (WRC-2000)\*\*\*, 84 (WRC-2000)\*\*\*, 122 (Rev.WRC-2000),  
128 (Rev.WRC-2000)\*\*\*, 533 (Rev.WRC-2000), 539 (WRC-2000),  
540 (WRC-2000)\*\*\*, 541 (WRC-2000)\*\*\*, 542 (WRC-2000)\*\*\*,  
604 (WRC-2000)\*\*\* and 605 (WRC-2000)\*\*\*.** (WRC-2000)

**59.7** The other provisions of these Regulations, as revised by WRC-03, shall enter into force on 1 January 2005, with the following exceptions: (WRC-03)

**59.8** – the revised provisions for which other effective dates of application are stipulated in Resolutions:

**56 (Rev.WRC-03)\*\*\*\*, 85 (WRC-03), 87 (WRC-03)\*\*\*\*, 96 (WRC-03)\*\*\*\*,  
122 (Rev.WRC-03), 142 (WRC-03), 145 (WRC-03), 146 (WRC-03)\*\*\*\*,  
221 (Rev.WRC-03), 413 (WRC-03), 539 (Rev.WRC-03), 546 (WRC-03),  
743 (WRC-03) and 902 (WRC-03).** (WRC-07)

**ADD**

**59.9** The other provisions of these Regulations, as revised by WRC-07, shall enter into force on 1 January 2009, with the following exceptions: (WRC-07)

**ADD**

**59.10** – the revised provisions for which other effective dates of application are stipulated in Resolutions:

**55 (Rev.WRC-07), 97 (WRC-07), 149 (WRC-07), 355 (WRC-07) and 905  
(WRC-07),.** (WRC-07)

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\* *Note by the Secretariat:* In view of the changes in the numbering scheme, these references correspond now to Articles **21** and **22**, and to Appendix **4**, as appropriate.

\*\* *Note by the Secretariat:* This Resolution was abrogated by WRC-2000.

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

\*\*\*\* *Note by the Secretariat:* This Resolution was abrogated by WRC-07.

## **APPENDICES**

**MOD** COM6/382/10 (B20/414/10)

**APPENDIX 1**

**Classification of emissions and necessary bandwidths**

(See Article 2)

§ 1 1) ...

2) Formulae and examples of emissions designated in accordance with this Appendix are given in Recommendation ITU-R SM.1138-1. Further examples may be provided in other ITU-R Recommendations. These examples may also be published in the Preface to the International Frequency List.

**Section I – Necessary bandwidth**

§ 2 1) ...

2) ...

3) ...

3.1) use of the formulae and examples of necessary bandwidths and designation of corresponding emissions given in Recommendation ITU-R SM.1138-1;

**MOD**      COM6/398/1      (B21/415/1)

APPENDIX 4 (Rev.WRC-07)

**Consolidated list and tables of characteristics for use in the  
application of the procedures of Chapter III**

1            The substance of this Appendix is separated into two parts: one concerning data and their use for terrestrial radiocommunication services and another concerning data and their use for space radiocommunication services.

2            Both parts contain a list of characteristics and a table indicating the use of each of the characteristics in specific circumstances.

*Annex 1:*      Characteristics of stations in the terrestrial services

*Annex 2:*      Characteristics of satellite networks, earth stations or radio astronomy stations.

SUP COM6/398/2 (B21/415/2)

ANNEX 1A

**List of characteristics of stations in the terrestrial services<sup>1</sup>**

SUP COM6/398/3 (B21/415/3)

ANNEX 1B

**Table of characteristics to be submitted for stations  
in the terrestrial services (WRC-2000)**

**ADD** COM6/398/4 (B21/415/4)

**ANNEX 1**

**Characteristics of stations in the terrestrial services<sup>1</sup>**

In application of Appendix 4 there are many cases when the data requirements involve the use of standard symbols in submissions to the Radiocommunication Bureau. These standard symbols may be found in the “Preface to the BR International Frequency Information Circular” (BR IFIC) (Terrestrial Services). In the Tables, this is referred to simply as “the Preface”. Also additional information may be found in the guidelines published on the Bureau’s website.

**Key to the symbols used in Annex 1**

X	Mandatory information
+	Mandatory under the conditions specified in column 3
O	Optional information
C	Mandatory if used as a basis to effect coordination with another administration
	The data item is not applicable to the corresponding notice

**Reading Appendix 4 Tables 1 and 2**

The rules used to link the sign with the text are based on the Table column headings covering specific procedures, services and frequency bands.

1 If any data item has the indication “+”, it shows that the data item is subject to a mandatory requirement under specific conditions. If these conditions are not met, the corresponding item is not applicable unless otherwise specified. These conditions are listed after the data item name and are normally presented as shown below.

2 “Required” without any reference to a column heading is used in the case that the associated condition is valid for every applicable column.

1.5.2	1B	the reference frequency, as defined in Article 1 Required if the modulation envelope is asymmetric	+	+	1B
-------	----	---	---	---	----

“In the case of”, followed by a reference to the column heading is used, as shown below, when the associated conditions are different for individual columns, or if the indication is not the same across all applicable columns.

6.1	6A	the nature of service, using the symbols from the Preface In the case of a transmitting station, required for all services, except the broadcasting service	+	X	6A
-----	----	---	---	---	----

<sup>1</sup> The Radiocommunication Bureau shall develop and keep up-to-date forms of notice to meet fully the statutory provisions of this Appendix and related decisions of future conferences. Additional information on the items listed in this Annex together with an explanation of the symbols is to be found in the Preface to the International Frequency List.

3 A subheading limits the range of procedures, services or frequency bands applicable under a Table column heading. Unless further specific conditions apply, the data items grouped under that subheading have an “X” as the conditional nature is shown in the subheading title.

1.4.4		<b>For assignments in the bands and services governed by the Geneva 06 Regional Agreement only</b>				
1.4.4.4		the digital broadcasting assignment code	<b>X</b>			

**Footnotes to Tables 1 and 2**

1 The most recent version of Recommendation ITU-R SF.675 should be used to the extent applicable in calculating the maximum power density per Hz.

TABLE 1

Characteristics for terrestrial services

Column No.	Item identifier	Description of data item and requirements  Notice related to	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
1		<b>GENERAL INFORMATION AND FREQUENCY CHARACTERISTICS</b>								
1.1	B	the symbol of the notifying administration (see the Preface)	X	X	X	X	X	X	X	B
1.2	[D]	the provision code of the Radio Regulations under which the notice has been submitted	X	X	X	X	X	X	X	[D]
1.3		the resubmission indicator  In the case of a VHF/UHF broadcasting station, or a typical transmitting station, required for an assignment subject to the GE06 Regional Agreement if the notice is resubmitted in the application of Article 11  In the case of a transmitting station, or a receiving land station, required for an assignment subject to the GE06 Regional Agreement or Nos. 9.16, 9.18 or 9.19 if the notice is resubmitted in the application of Article 11	+		+	+	+			

Column No.	Item identifier	Description of data item and requirements  Notice related to	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
1.4		<b>Assignment and allotment identification information</b>								
1.4.1	SYNC	the identification symbols for the synchronized, or single-frequency, network In the case of a VHF/UHF broadcasting station, required for a digital broadcasting assignment in a synchronized or single frequency network subject to the GE06 Regional Agreement In the case of an LF/MF broadcasting station, required for an assignment in a synchronized or single frequency network	+	+						SYNC
1.4.2		the unique identification code given by the administration to the assignment or allotment Required for assignments subject to the GE06 Regional Agreement, and optional for assignments not subject to this Agreement	+	O	+	+	+	O		
1.4.3		<b>For assignments in the bands and services governed by the Geneva 06 Regional Agreement only</b>								
1.4.3.1		the unique identification code given by the administration for the associated allotment Required for a digital broadcasting assignment linked to an allotment, or converted from an allotment, within the GE06 Plan	+							
1.4.3.2		the unique identification code given by the administration to the digital broadcasting Plan entry for which § 5.1.3 of the GE06 Agreement is to be applied Required if the notified assignment is to be operated under the mask of a digital broadcasting Plan entry in accordance with § 5.1.3 of the GE06 Regional Agreement	+		+	+				
1.4.3.3		the digital broadcasting plan entry code that identifies the category of Plan entry to which the assignment belongs	X							

Column No.	Item identifier	<p style="text-align: center;">Description of data item and requirements</p> <p style="text-align: center;">Notice related to</p>	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
1.4.3.4		the digital broadcasting assignment code	X							
1.5		<b>Frequency information</b>								
1.5.1	1A	the assigned frequency, as defined in Article 1 In the case of a transmitting station, required for all services, except adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution 729 (Rev.WRC-07)) In the case of an HF broadcasting station under Article 12, required if neither the preferred band nor reference frequency is provided	X	X	+	X	X		+	1A
1.5.2	1B	the reference frequency, as defined in Article 1 Required if the modulation envelope is asymmetric			+	+	+		+	1B
1.5.3	1G	the alternative frequency							O	1G
1.5.4	1X	the channel number of the proposed or allotted channel Required for submissions in accordance with Nos. 25/1.1.1, 25/1.1.2 or 25/1.25 of Appendix 25 if the assistance of the Bureau is not requested under No. 25/1.3.1 of Appendix 25						+		1X
1.5.5	1Y	the channel number of the alternative proposed channel						O		1Y
1.5.6	1Z	the channel number of the channel to be replaced Required if the administration needs to replace its existing allotted channel						+		1Z

Column No.	Item identifier	<p style="text-align: center;">Description of data item and requirements</p> <p style="text-align: center;">Notice related to</p>	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
1.5.7	1AA	the lower limit of the usable frequency range within which the carrier and the bandwidth of the emission will be located  Required for adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution 729 (Rev.WRC-07))			+					1AA
1.5.7bis	[1a]	the upper limit of the usable frequency range within which the carrier and the bandwidth of the emission will be located  Required for adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution 729 (Rev.WRC-07))			+					
1.5.8	1C	the preferred band, in MHz  In the case of maritime mobile frequency allotment, required if the assistance of the Bureau is requested under No. 25/1.3.1 of Appendix 25  In the case of an HF broadcasting station under Article 12, required for notices if assistance is requested in accordance with No. 7.6					+	+		1C
1.5.9		<b>For digital broadcasting (except assignments subject to § 5.1.3 of the GE06 Regional Agreement)</b>								
1.5.9.1	1E1[β]	the frequency offset, in kHz  Required for an assignment subject to the GE06 Regional Agreement if the centre frequency of the emission is offset from the assigned frequency, and optional for assignments not subject to this Agreement	+							1E1[β]

Column No.	Item identifier	<p style="text-align: center;">Description of data item and requirements</p> <p style="text-align: center;">Notice related to</p>	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
1.5.10	1E	<b>For analogue television broadcasting</b>								
1.5.10.1	1E	the vision carrier frequency offset, in multiples of 1/12 of the line frequency of the television system concerned, expressed by a number (positive or negative) Required if the vision carrier frequency offset, in kHz, (1E1) is not provided for assignments subject to the ST61, GE89 or GE06 Regional Agreements	+							1E
1.5.10.2	1E1	the vision carrier frequency offset, in kHz, expressed by a number (positive or negative) Required if the vision carrier frequency offset, in multiples of 1/12 of the line frequency (1E) is not provided for assignments subject to the ST61, GE89 or GE06 Regional Agreements	+							1E1
1.5.10.3		<b>For the case where the sound carrier frequency offset is different from the vision carrier frequency offset</b>								
1.5.10.3.1	1E[α]	the sound carrier frequency offset, in multiples of 1/12 of the line frequency of the television system concerned, expressed by a number (positive or negative) Required if the sound carrier frequency offset, in kHz, (1E1[α]) is not provided for assignments subject to the ST61, GE89 or GE06 Regional Agreements	+							1E[α]
1.5.10.3.2	1E1[α]	the sound carrier frequency offset, in kHz, expressed by a number (positive or negative) Required if the sound carrier frequency offset, in multiples of 1/12 of the line frequency (1E[α]) is not provided for assignments subject to the ST61, GE89 or GE06 Regional Agreements	+							1E1[α]
2		<b>DATE OF OPERATION</b>								
2.1	2C	the date (actual or foreseen, as appropriate) of bringing the frequency assignment (new or modified) into use	X	X	X	X	X	X		2C

Column No.	Item identifier	<p style="text-align: center;">Notice related to</p> <p style="text-align: center;">Description of data item and requirements</p>	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
2.2		<p>the date for the end of operation of a frequency assignment</p> <p>In the case of a VHF/UHF broadcasting station, required, in the application of Article 11, when the operation of an assignment is limited to a specific period of time under § 4.1.5.4 of the GE06 Regional Agreement</p> <p>In the case of a transmitting station, a receiving land station, or a typical transmitting station, required, in the application of Article 11, when the operation of an assignment is limited to a specific period of time under § 4.2.5.5 of the GE06 Regional Agreement</p>	+		+	+	+			
2.3		the season of operation code							X	
2.4	10CA	the start date for the transmission							X	10CA
2.5	10CB	the stop date for the transmission							X	10CB
2.6	10CC	the days of operation for the transmission during the HFBC schedule							X	10CC
3		<b>CALL SIGN AND STATION IDENTIFICATION</b>								
3.1	3A[1]	<p>the call sign used in accordance with Article 19</p> <p>In the case of a transmitting station, for the fixed service below 28 MHz, mobile service, meteorological aids service, or standard frequency and time signal service, in the application of Article 11, required if the station identification (3A[2]) is not provided</p>	O	O	+				O	3A[1]
3.2	3A[2]	<p>the station identification used in accordance with Article 19</p> <p>In the case of a transmitting station, for the fixed service below 28 MHz, mobile service, meteorological aids service, or standard frequency and time signal service, in the application of Article 11, required if the call sign (3A[1]) is not provided</p>	O	O	+				O	3A[2]

Column No.	Item identifier	<p style="text-align: center;">Description of data item and requirements</p> <p style="text-align: center;">Notice related to</p>	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
4		<b>LOCATION OF THE TRANSMITTING ANTENNA(S)</b>								
4.1	4A	the name of the locality by which the transmitting station is known or in which it is situated	X	X	X					4A
4.2	4AA	the name of the location of the intended coast station Required for submissions in accordance with No. 25/1.1.1 of Appendix 25					+			
4.3	4B	the code of the geographical area in which the transmitting station is located (see the Preface)	X	X	X					4B
4.4	4C	the geographical coordinates of the transmitter site Latitude and longitude are provided in degrees, minutes and seconds	X	X	X					4C
4.5	4CA	the geographical coordinates of the intended coast station Latitude and longitude are provided in degrees, minutes and seconds Required for submissions in accordance with No. 25/1.1.1 of Appendix 25					+			
4.6		HFBC site code NOTE – The code is assigned by the Bureau prior to commencement of the Article 12 procedure and represents the location of the station, its geographical area and geographical coordinates							X	

Column No.	Item identifier	<p style="text-align: center;">Description of data item and requirements</p> <p style="text-align: center;">Notice related to</p>	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
4.7		<b>For an area in which transmitting stations operate</b>								
4.7.1	4C[α]	<p>the geographical coordinates of the centre of the circular zone, in which mobile transmitting stations associated with a receiving land station, or a typical transmitting station are operating</p> <p>Latitude and longitude are provided in degrees, minutes and seconds</p> <p>In the case of a receiving land station, required:</p> <ul style="list-style-type: none"> <li>- for the maritime radionavigation service; and</li> <li>- for other services if the code of a geographical area or standard defined area (4E) is not provided</li> </ul> <p>In the case of a typical transmitting station, required if a geographical area or standard defined area (4E) is not provided</p>				+	+			4C[α]
4.7.2	4D	<p>the nominal radius, in km, of the circular zone, in which mobile transmitting stations associated with a receiving land station, or a typical transmitting station are operating</p> <p>In the case of a receiving land station, required:</p> <ul style="list-style-type: none"> <li>- for the maritime radionavigation service; and</li> <li>- for other services if the code of a geographical area or standard defined area (4E) is not provided</li> </ul> <p>In the case of a typical transmitting station, required if a geographical area or standard defined area (4E) is not provided</p>				+	+			4D

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4.7.3	4E	<p>the code of the geographical area or standard defined area (see the Preface)</p> <p>NOTE – The standard defined area for a receiving land station in the maritime mobile service may be a maritime zone. The standard defined area for a maritime mobile frequency allotment is the allotment area</p> <p>In the case of a receiving land station, for all services, except the maritime radionavigation service, required if a circular zone (4C[α] and 4D) is not provided</p> <p>In the case of a typical transmitting station, required if a circular zone (4C[α] and 4D) is not provided</p>				+	+	X		4E
4.8	4G	<p>the ground conductivity</p> <p>Required for an assignment subject to the GE75 Regional Agreement</p>		+						4G
5		<b>LOCATION OF THE RECEIVING ANTENNA(S)</b>								
5.1	5A	<p>the name of the locality by which the receiving station is known or in which it is situated</p> <p>In the case of a transmitting station, required for an associated receiving station in the fixed service if the geographical coordinates of a given reception zone (5C[α]) are not provided</p>			+	X				5A
5.2	5B	<p>the code of the geographical area in which the receiving station(s) is located (see the Preface)</p> <p>In the case of a transmitting station, required for an associated receiving station in the fixed service if the geographical coordinates of a given reception zone (5C[α]) are not provided</p>			+	X				5B
5.3	5C	<p>the geographical coordinates of the site of the receiving station</p> <p>Latitude and longitude are provided in degrees, minutes and seconds</p> <p>In the case of a transmitting station, required for an associated receiving station in the fixed service if the geographical coordinates of a given reception zone (5C[α]) are not provided</p>			+	X				5C

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5.4		<b>For an area in which receiving stations operate</b>								
5.4.1	5C[α]	<p>the geographical coordinates of a given reception zone</p> <p>A minimum of 3 geographical coordinates are to be provided. All geographical coordinates (latitude and longitude) are provided in degrees, minutes and seconds</p> <p>For an associated receiving station in the fixed service, required if the name of the locality (5A), geographical area (5B) and geographical coordinates (5C) are not provided</p> <p>For all other services, except where the assignment is subject to the GE06 Agreement, required if neither a circular area (5E and 5F) nor a geographical area or standard defined area of reception (5D) is provided</p>			+					5C[α]
5.4.2	5D	<p>the code of the geographical area or standard defined area of reception (see the Preface)</p> <p>NOTE – The standard defined area of a transmitting station may be represented by a maritime zone or aeronautical zone. The standard defined area of a maritime mobile frequency allotment is a maritime zone. The standard defined area of an HF broadcasting station subject to Article 12 is represented by a CIRAF zone</p> <p>In the case of a transmitting station, except transmitting stations in the fixed service, maritime radionavigation service, aeronautical radionavigation service subject to the GE85-MM-R1 Regional Agreement or the maritime mobile service subject to the GE85-MM-R1 Regional Agreement, required if neither a circular receiving area (5E and 5F) nor geographical coordinates of a given reception zone (5C[α]) is provided</p>			+			X	X	5D

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5.4.3	5E	the geographical coordinates of the centre of the circular receiving area Latitude and longitude are provided in degrees, minutes and seconds Required: <ul style="list-style-type: none"> <li>– for the maritime radionavigation service, aeronautical radionavigation service subject to the GE85-MM-R1 Regional Agreement or the maritime mobile service subject to the GE85-MM-R1 Regional Agreement; and</li> <li>– for all other services, except the fixed service, if neither a geographical area or standard defined area of reception (5D) nor the geographical coordinates of a given reception zone (5C[α]) is provided</li> </ul>			+					5E
5.4.4	5F	the radius, in km, of the circular receiving area Required: <ul style="list-style-type: none"> <li>– for the maritime radionavigation service, aeronautical radionavigation service subject to the GE85-MM-R1 Regional Agreement or the maritime mobile service subject to the GE85-MM-R1 Regional Agreement; and</li> <li>– for all other services, except the fixed service, if neither the geographical area or standard defined area of reception (5D) nor the geographical coordinates of a given reception zone (5C[α]) is provided</li> </ul>			+					5F
5.5	5G	the maximum length of the circuit, in km, for non-circular receiving areas Stations in the HF bands only			0			0		5G

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6		<b>CLASS OF STATION AND NATURE OF SERVICE</b>								
6.1	6A	the class of station, using the symbols from the Preface	X	X	X	X	X	X	X	6A
6.2	6B	the nature of service, using the symbols from the Preface In the case of a transmitting station, required for all services, except the broadcasting service			+	X	X	X		6B
7		<b>CLASS OF EMISSION AND NECESSARY BANDWIDTH</b> (in accordance with Article 2 and Appendix 1)								
7.1	7A	the class of emission In the case of a VHF/UHF broadcasting station, required for assignments subject to § 5.1.3 of the GE06 Regional Agreement	+	X	X	X	X	X		7A
7.2	7A[α]	the necessary bandwidth In the case of a VHF/UHF broadcasting station, required for analogue sound broadcasting assignments and for assignments subject to § 5.1.3 of the GE06 Regional Agreement	+	X	X	X	X	X	X	7A[α]
7.3		<b>System characteristics</b>								
7.3.1	7A1	the code describing the frequency stability (RELAXED, NORMAL or PRECISION) Required for analogue television broadcasting	+							7A1
7.3.2	7AA	the code for the type of modulation The type of modulation denotes the use of DSB, SSB or any new modulation techniques recommended by ITU-R							X	7AA

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7.3.3	7B[α]	the "RJ 81 class" (A, B or C) Required for the RJ 81 Regional Agreement		+						7B[α]
7.3.4	7B1	the adjacent channel protection ratio, in dB Required for the GE75 Regional Agreement		+						7B1
7.3.5		the system code NOTE – The code identifies the category of system to which the station belongs and hence its protection requirements In the VHF band two codes are required for protection from T-DAB and DVB-T In the UHF band only one code is required for protection from DVB-T Required for an assignment subject to the GE06 Regional Agreement			+	+	+			
7.3.6	7C1	the code identifying the television system (see the Preface) Required for television broadcasting assignments, except assignments subject to § 5.1.3 of the GE06 Regional Agreement	+							7C1
7.3.7	7C2	the code corresponding to the colour system (see the Preface) Required for analogue television broadcasting	+							7C2

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7.3.8	7D	<p>the code corresponding to the sound broadcasting transmission system (see the Preface)</p> <p>NOTE – For LF/MF systems, the signal may consist of analogue or digital modulation or data or some combination of them: the latter case is referred to as hybrid modulation</p> <p>In the case of a VHF/UHF broadcasting station, required for sound broadcasting assignments, except assignments subject to the GE06 Regional Agreement</p> <p>In the case of an LF/MF broadcasting station, required for an assignment with digital or hybrid modulation</p>	+	+						7D
7.3.9		<b>For the GE06 Regional Agreement (except notices subject to § 5.1.3 of the GE06 Regional Agreement)</b>								
7.3.9.1		<p>the reference planning configuration (see the Preface)</p> <p>Required for digital sound broadcasting</p>	+							
7.3.9.2		the type of spectrum mask	X							
7.3.9.3		<p>the reception mode (see the Preface)</p> <p>Required for digital television broadcasting</p>	+							
7.3.10		<b>For the fixed service in the bands shared with space services and any type of modulation as applicable</b>								
7.3.10.1	7E	the peak to peak frequency deviation, in MHz			C					7E
7.3.10.2	7F	the sweep frequency, in kHz, of the energy dispersal waveform			C					7F

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8		<b>POWER CHARACTERISTICS</b>								
8.1	8	the symbol (X, Y or Z, as appropriate) describing the type of power (see Article 1) corresponding to the class of emission	X	X	X	X	X	X	X	8
8.2	8A	the power delivered to the antenna transmission line, in kW		X					X	8A
8.3	8A[α]	the power delivered to the antenna, in dBW In the case of a transmitting station, required for an assignment: – in the bands below 28 MHz, in all services except the radionavigation service; or – in the bands above 28 MHz shared with space services; or – in the bands above 28 MHz not shared with space services: – in the aeronautical mobile service, meteorological aids service; or – in all other services, if the radiated power is not supplied In the case of a receiving land station, required if the associated transmitting station's radiated power is not supplied In the case of a typical transmitting station, required if the radiated power is not supplied			+	+	+	X		8A[α]
8.4	8AB	the maximum power density <sup>1</sup> (dB(W/Hz)) for each carrier type averaged over the worst 4 kHz band for carriers below 15 GHz, or averaged over the worst 1 MHz band for carriers above 15 GHz, supplied to the antenna transmission line For the fixed service in the bands shared with space services			C					8AB

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8.5		<p>the maximum power density (dB(W/Hz)) averaged over the worst 4 kHz band, calculated for the maximum effective radiated power</p> <p>NOTE – For a receiving land station, the maximum power density refers to the associated transmitting station</p> <p>In the case of a VHF/UHF broadcasting station, required for assignments subject to § 5.1.3 of the GE06 Regional Agreement</p> <p>In the case of a transmitting station, a receiving land station, or a typical transmitting station, required for assignments subject to the GE06 Regional Agreement</p>	+		+	+	+			
8.6	8B	<p>the radiated power, in dBW, in one of the forms described in Nos. <b>1.161 to 1.163</b></p> <p>NOTE – Where adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution 729 (Rev. WRC-07)) use automatic power control, the radiated power includes the level of power control listed under 8BA</p> <p>For assignments in all services and frequency bands, except assignments subject to the GE06 Regional Agreement, required if the power delivered to the antenna (8A[α]), or the maximum antenna gain (9G), is not provided</p> <p>For an assignment subject to the GE06 Regional Agreement, required if the power delivered to the antenna (8A[α]) is not provided</p>			+	+	+			8B
8.7	8BA	<p>the range of power control, in dB</p> <p>Required for adaptive systems in the fixed or mobile service operating in the bands between 300 kHz and 28 MHz (see also Resolution 729 (Rev. WRC-07)), if automatic power control is used</p>			+					8BA
8.8	8BH	<p>the maximum effective radiated power, in dBW, of the horizontally polarized component</p> <p>Required for horizontal or mixed polarization</p>	+							8BH

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8.9	8BV	the maximum effective radiated power, in dBW, of the vertically polarized component Required for vertical or mixed polarization	+							8BV
8.10		the maximum effective radiated power, in dBW, in the plane defined by the beam tilt angle For a digital broadcasting assignment in the UHF band subject to the GE06 Regional Agreement only	O							
8.11	8D	the vision/sound carrier power ratio, in dB Required for analogue television broadcasting	+							8D
8.12	9L	the maximum effective monopole radiated power, in dB(kW) Required for the GE75 Regional Agreement		+						9L
8.13		<b>For the RJ81 and RJ88 Regional Agreements</b>								
8.13.1	9I	the r.m.s. value of radiation The product of the r.m.s. characteristic field strength in the horizontal plane and the square root of the power		X						9I
8.13.2	9IA	the value of the radiation at the central azimuth of the augmentation, in mV/m at 1 km Required for antenna radiation pattern type "M" (see 9O)		+						9IA
8.13.3	9P	the value of the special quadrature factor, in mV/m at 1 km NOTE – A special quadrature factor may be used with antenna pattern type "M" or "E" to replace the normal expanded quadrature factor when special precautions are taken to ensure pattern stability		O						9P

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9		<b>ANTENNA CHARACTERISTICS</b>								
9.1		<b>For a transmitting or receiving antenna</b>								
9.1.1	9	the indicator showing whether the antenna is directional (D) or non-directional (ND) In the case of a receiving land station, required for an assignment subject to the GE06 Regional Agreement	X		X	+		X	X	9
9.1.2	9D	the code indicating the type of polarization (see the Preface) In the case of a transmitting station, required for an assignment: <ul style="list-style-type: none"> <li>- in the fixed service in the bands shared with space services; or</li> <li>- subject to the GE06 Regional Agreement</li> </ul> In the case of a receiving land station, required for an assignment subject to the GE06 Regional Agreement	X		+	+				9D
9.1.3	9E	the height of the antenna above ground level, in metres In the case of a VHF/UHF broadcasting station, required for the ST61, GE84, GE89, or GE06 Regional Agreements, and optional for assignments not subject to these Agreements In the case of a transmitting station, required for an assignment: <ul style="list-style-type: none"> <li>- in the bands shared with space services; or</li> <li>- subject to the GE06 Regional Agreement</li> </ul> In the case of a receiving land station, required for an assignment subject to the GE06 Regional Agreement	+		+	+				9E

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9.2		<b>For a directional transmitting or receiving antenna</b>								
9.2.1	9C	<p>the total angular width of the radiation main lobe (beamwidth) measured horizontally in a plane containing the direction of maximum radiation, in degrees, within which the power radiated in any direction does not fall more than 3 dB below the power radiated in the direction of maximum radiation</p> <p>In the case of a transmitting station, required for all assignments, except assignments subject to GE06 Regional Agreement where it is optional</p> <p>In the case of a receiving land station, for an assignment subject to the GE06 Regional Agreement only</p>			+	O		X		9C
9.2.2		<p>the antenna gain towards the local horizon</p> <p>For an assignment subject to the GE06 Regional Agreement only</p>			O	O				
9.2.3	9K	<p>the lowest total receiving system noise temperature, in kelvins</p> <p>For an associated receiving antenna in the fixed service operating in the bands shared with space services only</p>			C					9K
9.3		<b>For a transmitting antenna</b>								
9.3.1	9EA	<p>the altitude of the site above mean sea level, in metres</p> <p>In the case of a VHF/UHF broadcasting station, required for assignments subject to the ST61, GE84, GE89, or GE06 Regional Agreements, and optional for assignments not subject to these Agreements</p> <p>In the case of a transmitting station, required for an assignment:</p> <ul style="list-style-type: none"> <li>- in the fixed or mobile service in the bands shared with space services; or</li> <li>- subject to the GE06 Regional Agreement</li> </ul>	+		+					9EA

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9.3.2	9EB	<p>the maximum effective height of the antenna, in metres, above the mean level of the ground between 3 and 15 km from the transmitting antenna</p> <p>In the case of a transmitting station, required for an assignment subject to the GE06 Regional Agreement</p>	X		+					9EB
9.3.3	9EC	<p>the effective height of the antenna, in metres, above the mean level of the ground between 3 and 15 km from the transmitting antenna, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction</p> <p>In the case of a VHF/UHF broadcasting station, required for an assignment subject to the ST61, GE84, GE89 or GE06 Regional Agreements</p> <p>In the case of a transmitting station, required for an assignment subject to the GE06 Regional Agreement</p>	+		+					9EC

Column No.	Item identifier	<p style="text-align: center;"><b>Notice related to</b></p> <hr/> <p style="text-align: center;"><b>Description of data item and requirements</b></p>	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
9.3.4	9G	<p>the maximum antenna gain (isotropic, relative to a short vertical antenna or relative to a half-wave dipole, as appropriate) of the transmitting antenna (see No. <b>1.160</b>)</p> <p>For a directional antenna, the gain is in the direction of maximum radiation</p> <p>In the case of a transmitting station, or a typical transmitting station:</p> <ul style="list-style-type: none"> <li>– for all frequency bands and services, except assignments subject to the GE06 Regional Agreement, required if the antenna is: <ul style="list-style-type: none"> <li>– directional, including where the antenna beam is rotating or swept; or</li> <li>– non-directional, and the power to the antenna (8A[α]) or the radiated power (8B) is not provided</li> </ul> </li> <li>– for an assignment subject to the GE06 Regional Agreement required if the radiated power (8B) is not provided</li> </ul> <p>In the case of a maritime mobile frequency allotment, required if the antenna is directional, including where the antenna beam is rotating or swept</p>			+		+	+		9G
9.3.5		the transmitting antenna design frequency							X	
9.3.6		<p>the beam tilt angle, in degrees</p> <p>The beam tilt angle is measured from the horizontal plane towards ground and the sign of the angle is negative</p> <p>NOTE – In some broadcasting definitions, the angle may have the opposite sign</p> <p>For a digital broadcasting assignment in the UHF band subject to the GE06 Regional Agreement only</p>	O							
9.3.7	9J	the measured radiation pattern of the antenna, the reference radiation pattern or the symbols in standard references to be used for coordination			O				X	9J

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9.4	9AB	<b>For a directional transmitting antenna where the antenna beam is rotating or swept</b>								9AB
9.4.1	9AB[α]	the start azimuth for the range of operational angles for the antenna's main beam axis, measured in the horizontal plane from True North in a clockwise direction			X			X		9AB[α]
9.4.2	9AB[β]	the end azimuth for the range of operational angles for the antenna's main beam axis, measured in the horizontal plane from True North in a clockwise direction			X			X		9AB[β]
9.5		<b>For a directional transmitting antenna where the antenna beam is not rotating or swept</b>								
9.5.1	9A	the azimuth of maximum radiation of the transmitting antenna, measured in the horizontal plane from True North in a clockwise direction			X			X	X	9A
9.5.2	9B	the elevation angle of maximum directivity, in degrees Required for an assignment in the bands shared with space services			+					9B
9.5.3	9R	the slew angle measured between the azimuth of maximum radiation and the direction of unslewed radiation							X	9R
9.5.4	9NH	the value of attenuation of the horizontally polarized component, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction, with respect to the maximum effective radiated power of this component, in dB  For all assignments, except digital broadcasting assignments subject to the GE06 Regional Agreement and broadcasting assignments subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is horizontal or mixed	+							9NH

Column No.	Item identifier	<p style="text-align: center;"><b>Notice related to</b></p> <hr/> <p style="text-align: center;"><b>Description of data item and requirements</b></p>	Broadcasting (sound and television) stations in the VHF/UHF bands up to 960 MHz, for the application of No. 11.2 and No. 9.21	Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2	Transmitting stations (except broadcasting stations in the planned LF/MF bands, in the HF bands governed by Article 12, and in the VHF/UHF bands up to 960 MHz), for the application of No. 11.2 and No. 9.21	Receiving land stations, for the application of No. 11.9 and No. 9.21	Typical transmitting stations, for the application of No. 11.17	Maritime mobile frequency allotment, for the application of plan modification under Appendix 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Broadcasting stations in the HF bands, for the application of No. 12.16	Item identifier
9.5.5	9NV	<p>the value of attenuation of the vertically polarized component, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction, with respect to the maximum effective radiated power of this component, in dB</p> <p>For all assignments, except digital broadcasting assignments subject to the GE06 Regional Agreement and broadcasting assignments subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is vertical or mixed</p>	+							9NV
9.5.6		<p>the value of attenuation of the horizontally polarized component in the horizontal plane, normalized to 0 dB, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction, with respect to the maximum radiated power of this component, in dB</p> <p>In the case of a VHF/UHF broadcasting station, for a digital broadcasting assignment subject to the GE06 Regional Agreement and an assignment subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is horizontal or mixed</p> <p>In the case of a transmitting station, for an assignment subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is horizontal or mixed</p>	+		+					
9.5.7		<p>the value of attenuation of the vertically polarized component in the horizontal plane, normalized to 0 dB, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction, with respect to the maximum radiated power of this component, in dB</p> <p>In the case of a VHF/UHF broadcasting station, for a digital broadcasting assignment subject to the GE06 Regional Agreement and an assignment subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is vertical or mixed</p> <p>In the case of a transmitting station, for an assignment subject to § 5.1.3 of the GE06 Regional Agreement, required if the polarization is vertical or mixed</p>	+		+					

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9.6	9Q	the symbol identifying the type of antenna Type A – a simple vertical antenna Type B – a directional or omnidirectional antenna of complex construction		X						9Q
9.7		<b>For a type A antenna (simple vertical antenna)</b>								
9.7.1	9E[α]	the transmitting antenna's physical length in metres Required for the GE75 Regional Agreement		+						9E[α]
9.7.2	9F	the electrical height of the antenna, in degrees Required for the RJ81 or RJ88 Regional Agreements		+						9F
9.8		<b>For a station subject to the GE75 Regional Agreement with a type B antenna (a directional antenna, or omnidirectional antenna of complex construction)</b>								
9.8.1	9GH	the antenna gain, in dB, in the horizontal plane, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°), measured in the horizontal plane from True North in a clockwise direction		X						9GH
9.8.2	9GV	the antenna gain, in dB, in the vertical plane, at 36 different azimuths in 10° intervals (i.e. 0°, 10°, ..., 350°) measured in the horizontal plane from True North in a clockwise direction, and at ten different elevations in 10° intervals (i.e. 0°, 10°, ..., 90°) measured in the vertical plane  NOTE – If administrations have difficulty in providing this information, they can provide a reference to any other information that may be of assistance (e.g. ITU-R Recommendation, antenna pattern)  Required for an assignment to be used for night-time operation		+						9GV

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9.9		<b>For a station subject to the RJ81 or RJ88 Regional Agreements with a type B antenna (a directional antenna, or omnidirectional antenna of complex construction)</b>								
9.9.1	9O	the symbol identifying the type of antenna radiation pattern (T, M, or E)		X						9O
9.9.2		<b>For antenna radiation pattern type M</b>								
9.9.2.1	9NA	the serial number of the augmentation as described by items 9IA, 9AA and 9CA		X						9NA
9.9.2.2	9AA	the central azimuth of the augmentation (centre of the span) in degrees		X						9AA
9.9.2.3	9CA	the total span of the augmentation, in degrees		X						9CA
9.9.3		<b>For each tower of a type B antenna in the RJ81 or RJ88 Regional Agreements</b>								
9.9.3.1	9T1	the serial number of each of the towers whose characteristics are described in items 9T2 to 9T8		X						9T1
9.9.3.2	9T8	the symbol corresponding to the tower structure		X						9T8
9.9.3.3	9T7	the electrical height, in degrees, of the tower under consideration Required if the tower is not top-loaded nor sectionalized (see 9.9.4)		+						9T7
9.9.3.4	9T2	the ratio of the tower field to the field of the reference tower Required if the antenna consists of two or more towers		+						9T2
9.9.3.5	9T3	the positive or negative phase difference in the tower field with respect to the field of the reference tower, in degrees Required if the antenna consists of two or more towers		+						9T3

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9.9.3.6	9T4	the electrical spacing of the tower from the reference point, in degrees Required if the antenna consists of two or more towers		+						9T4
9.9.3.7	9T5	the angular orientation of the tower from the reference point, in degrees (clockwise) from True North Required if the antenna consists of two or more towers		+						9T5
9.9.4		<b>For each tower of a type B antenna that is top-loaded or sectionalized in accordance with the Regional Administrative MF Broadcasting Conference (Region 2) Rio de Janeiro, 1981 or 1988 Agreements</b>								
9.9.4.1	9T9A	the description of a top-loaded or sectionalized tower		X						9T9A
9.9.4.2	9T9B	the description of a top-loaded or sectionalized tower Required if tower structure symbol (9T8) is 1, 2, 5, 6, 7, 8 or 9		+						9T9B
9.9.4.3	9T9C	the description of a top-loaded or sectionalized tower Required if the tower structure symbol (9T8) is 2, 5, 7 or 8		+						9T9C
9.9.4.4	9T9D	the description of a top-loaded or sectionalized tower Required if tower structures symbol (9T8) is 2, 5 or 8		+						9T9D
10		<b>HOURS OF OPERATION</b>								
10.1	10B	the regular hours of operation (in hours and minutes from ... to ...) of the frequency assignment, in UTC	X	O	X	X	X	X	X	10B
10.2	10B[α]	the local operation period code (see the Preface)		X						10B[α]
10.3	10D	the estimated peak hours of traffic					X			10D

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10.4	10E	the estimated daily volume of traffic						X		10E
11		<b>COORDINATION AND AGREEMENT</b>								
11.1	11	the symbol of each administration with which coordination has been successfully effected Required if coordination is necessary and has been obtained pursuant to the relevant provisions of the Radio Regulations	+	O	+	+	O	+		11
11.2		a declaration by the notifying administration that all conditions associated with the remark are fully met for recording the submitted assignment in the Master International Frequency Register Required for a digital broadcasting assignment subject to § 5.1.2 of the GE06 Regional Agreement	+							
11.3		a signed commitment from the notifying administration that the submitted assignment for recording in the Master International Frequency Register shall not cause unacceptable interference and shall not claim protection Required for an assignment subject to § 5.1.8 of the GE06 Regional Agreement	+							
11.4		a signed commitment from the notifying administration that the submitted assignment for recording in the Master International Frequency Register shall not cause unacceptable interference and shall not claim protection Required for an assignment subject to § 5.2.6 of the GE06 Regional Agreement			+	+	+			
12		<b>OPERATING ADMINISTRATION OR AGENCY</b>								
12.1	12A	the symbol for the operating agency	O	O	O	O	O		O	12A

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12.2	12B	<p>the symbol for the address of the administration responsible for the station and to which communication should be sent on urgent matters regarding interference, quality of emissions and questions referring to the technical operation of the circuit (see Article 15, also the Preface)</p> <p>In the case of a VHF/UHF broadcasting station, transmitting station, or a receiving land station, required for application of Article 11</p>	+	X	+	+	X		X	12B
13		<b>REMARKS</b>								
13.1	13C	Remarks for assisting the Bureau in processing the notice	O	O	O	O	O	O	O	13C

ADD COM6/398/5 (B21/415/5)

TABLE 2

Characteristics for high altitude platform stations (HAPS) frequency assignments in the terrestrial services

Items in Appendix	<i>1 - GENERAL CHARACTERISTICS OF THE HAPS</i>	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552A for the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9
	<b>GENERAL INFORMATION</b>				
1.B	the symbol of the notifying administration (see the Preface)	X	X	X	X
1.[D]	the provision code of the Radio Regulations under which the notice has been submitted	X	X	X	X
1.[α]	the unique identifier given by the administration to the station	X	X	X	X
	<b>LOCATION OF THE STATION</b>				
1.4.a	the name by which the station is known	X	X	X	X
1.4.b	the code of the geographical area, above which the station is located (see the Preface)	X	X	X	X
1.4.c	the nominal geographical coordinates of the station Latitude and longitude are provided in degrees, minutes and seconds	X	X	X	X
1.4.[α]	the nominal altitude of the station above mean sea level, in metres	X	X	X	X
1.4.[β]	<b>Station location tolerances</b>				
1.4.[β].1.a	the planned latitudinal tolerance northerly limit, using d.m.s units	X	X	X	X
1.4.[β].1.b	the planned latitudinal tolerance southerly limit, using d.m.s units	X	X	X	X
1.4.[β].2.a	the planned longitudinal tolerance easterly limit, using d.m.s units	X	X	X	X
1.4.[β].2.b	the planned longitudinal tolerance westerly limit, using d.m.s units	X	X	X	X
1.4.[β].3	the planned altitudinal tolerance, in metres	X	X	X	X
1.[7]	<b>COMPLIANCE WITH TECHNICAL OR OPERATIONAL LIMITS</b>				
1.[7].b	a commitment that the HAPS does not exceed an out-of-band pfd of $-165 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ at the Earth's surface in the bands 2 160-2 200 MHz in Region 2 and 2 170-2 200 MHz in Regions 1 and 3 (see Resolution <b>221 (Rev.WRC-07)</b> )	X			
1.[7].c	a commitment that the HAPS does not exceed the out-of-band pfd limits $-165 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ for angles of arrival ( $\theta$ ) less than $5^\circ$ above the horizontal plane, $-165 + 1.75 (\theta - 5) \text{ dB(W/(m}^2 \cdot \text{MHz))}$ for angles of arrival between $5^\circ$ and $25^\circ$ and $-130 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ for angles of arrival between $25^\circ$ and $90^\circ$ (see Resolution <b>221 (Rev.WRC-07)</b> )	X			

Items in Appendix	<b>1 - GENERAL CHARACTERISTICS OF THE HAPS</b>	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552A for the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9
1.[7].d	a commitment that the unwanted power density into the HAPS ground station antenna in the band 31.3-31.8 GHz shall not exceed -106 dB(W/MHz) under clear-sky conditions and -100 dB(W/MHz) under rainy conditions (see Resolution <b>145 (Rev.WRC-07)</b> ) Required in the band 31-31.3 GHz				+
1.[7].e	a commitment that the maximum power density into an ubiquitous HAPS ground station antenna in the Urban Area Coverage (UAC) shall not exceed 6.4 dB(W/MHz) for elevation angles of ground station antenna greater than 30° and less than or equal to 90° (see Resolution <b>122 (Rev.WRC-07)</b> ) Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz				+
1.[7].f	a commitment that the maximum power density into an ubiquitous HAPS ground station antenna in the Suburban Area Coverage (SAC) shall not exceed 22.57 dB(W/MHz) for elevation angles of ground station antenna greater than 15° and less than or equal to 30° (see Resolution <b>122 (Rev.WRC-07)</b> ) Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz				+
1.[7].g	a commitment that the maximum power density into an ubiquitous HAPS ground station antenna in the Rural Area Coverage (RAC) shall not exceed 28 dB(W/MHz) for elevation angles of ground station antenna greater than 5° and less than or equal to 15° (see Resolution <b>122 (Rev.WRC-07)</b> ) Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz				+
1.[7].h	a commitment that the separation distance between the nadir of the HAPS and a radio astronomy station operating in the band 48.94-49.04 GHz within the territory of another administration shall exceed 50 km (see Resolution <b>122 (Rev.WRC-07)</b> ) Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz			+	
1.11	<b>COORDINATION AND AGREEMENT</b>				
1.11.a	the symbol of each administration with which coordination has been successfully effected, including where the agreement is to exceed the limits prescribed in the Radio Regulations Required if coordination is necessary and has been obtained pursuant to the relevant provisions of the Radio Regulations	+	+	+	+
	<b>OPERATING ADMINISTRATION OR AGENCY</b>				
1.12.a	the symbol for the operating agency	O	O	O	O
1.12.b	the symbol for the address of the administration responsible for the station and to which communication should be sent on urgent matters regarding interference, quality of emissions and questions referring to the technical operation of the circuit (see Article 15)	X	X	X	X
	<b>REMARKS</b>				
1.13.c	Remarks for assisting the Bureau in processing the notice	O	O	O	O

Items in Appendix	<p align="center"><b>2 – CHARACTERISTICS TO BE PROVIDED FOR EACH INDIVIDUAL OR COMPOSITE HAPS ANTENNA BEAM</b></p>	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552A for the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9
	<b>IDENTIFICATION AND DIRECTION OF THE HAPS ANTENNA BEAM</b>				
2.1.a	the designation of the HAPS antenna beam	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
2.1.b	an indicator showing whether the antenna beam, under 2.1.a, is fixed or whether it is steerable and/or reconfigurable	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
2.1.c	an indicator showing whether the HAPS antenna tracks the service area	<b>X</b>		<b>X</b>	
2.1.d	an indicator showing whether the antenna beam is individual or composite beam	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
	<b>ANTENNA CHARACTERISTICS</b>				
2.9.g	the maximum co-polar isotropic gain	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
2.9.j	the measured radiation pattern of the antenna, the reference radiation pattern or the symbols in standard references to be used for coordination	<b>X</b>	<b>X</b>		
2.9.[α]	<p>the co-polar antenna gain contours plotted on a map of the Earth’s surface, preferably in a radial projection from the HAPS onto a plane perpendicular to the axis from the centre of the Earth to the HAPS</p> <p>The HAPS antenna gain contours shall be drawn as isolines of the isotropic gain, relative to the maximum antenna gain, when any of these contours is located either totally or partially outside the territory of the notifying administration</p> <p>The antenna gain contours shall include the effects of the planned longitudinal and latitudinal tolerance, planned altitudinal tolerance and the pointing accuracy of the antenna, taking into consideration the movement of the HAPS antenna boresight around the effective boresight area.</p>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>

Items in Appendix	<p align="center"><b>3 - CHARACTERISTICS TO BE PROVIDED FOR EACH FREQUENCY ASSIGNMENT FOR EACH INDIVIDUAL OR COMPOSITE HAPS ANTENNA BEAM</b></p>	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552A for the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9
	<b>ASSIGNED FREQUENCY</b>				
3.1.a	the assigned frequency, as defined in No. <b>1.148</b>	X	X	X	X
3.1.b	the reference frequency, as defined in Article 1 Required if the modulation envelope is asymmetric	+	+	+	+
	<b>DATE OF OPERATION</b>				
3.2.c	the date (actual or foreseen, as appropriate) of bringing the frequency assignment (new or modified) into use	X	X	X	X
	<b>LOCATION OF THE ASSOCIATED ANTENNA(S)</b>				
	<b>For an area in which associated transmitting/receiving ground station(s) operate</b>				
3.5.c.[α]	the geographical coordinates of a given zone A minimum of six geographical coordinates are required, in degrees, minutes and seconds NOTE – For the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz the geographical coordinates are provided for each of the UAC, SAC and if applicable RAC (see the most recent version of Recommendation ITU-R F.1500) Required if neither a circular area (3.5.e and 3.5.f) nor a geographical area (3.5.d) are provided	+	+	+	+
3.5.d	the code of the geographical area (see the Preface) NOTE – For the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz separate geographical areas are provided for each of the UAC, SAC and if applicable RAC (see the most recent version of Recommendation ITU-R F.1500) Required if neither a circular area (3.5.e and 3.5.f) nor the geographical coordinates of a given zone (3.5.c.[α]) are provided	+	+	+	+
3.5.e	the geographical coordinates of the centre of the circular area in which the associated ground station(s) are operating The latitude and longitude are provided in degrees, minutes and seconds NOTE – For the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz different centres of the circular area may be provided for the UAC, SAC and if applicable RAC (see the most recent version of Recommendation ITU-R F.1500) Required if neither a geographical area (3.5.d) or geographical coordinates of a given zone (3.5.c.[α]) are provided	+	+	+	+
3.5.f	the radius, in km, of the circular area NOTE – For the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz a separate radius is provided for each of the UAC, SAC and if applicable RAC (see the most recent version of Recommendation ITU-R F.1500) Required if neither a geographical area (3.5.d) nor geographical coordinates of a given zone (3.5.c.[α]) are provided	+	+	+	+
	<b>CLASS OF STATION AND NATURE OF SERVICE</b>				
3.6.a	the class of station, using the symbols from the Preface	X	X	X	X
3.6.b	the nature of service, using the symbols from the Preface	X	X	X	X

Items in Appendix	<p align="center"><b>3 - CHARACTERISTICS TO BE PROVIDED FOR EACH FREQUENCY ASSIGNMENT FOR EACH INDIVIDUAL OR COMPOSITE HAPS ANTENNA BEAM</b></p>	Transmitting station in the bands listed in No. 5.388A for the application of No. 11.2	Receiving station in the bands listed in No. 5.388A for the application of No. 11.9	Transmitting station in the bands listed in Nos. 5.537A and 5.552A for the application of No. 11.2	Receiving station in the bands listed in Nos. 5.543A and 5.552A for the application of No. 11.9
	<b>CLASS OF EMISSION AND NECESSARY BANDWIDTH</b> (in accordance with Article 2 and Appendix 1)				
3.7.a	the class of emission	X	X	X	X
3.7.b	the necessary bandwidth	X	X	X	X
	<b>POWER CHARACTERISTICS OF THE TRANSMISSION</b>				
3.8.[a]	the symbol (X, Y or Z, as appropriate) describing the type of power (see Article 1) corresponding to the class of emission	X	X	X	X
3.8.a.[a]	the power delivered to the antenna, in dBW, including the level of power control in 3.8.B.A  NOTE – For a receiving HAPS, the power delivered to the antenna refers to the associated transmitting ground station(s)	X		X	X
3.8AB[a]	the maximum power density <sup>1</sup> averaged over the worst 1 MHz band delivered to the antenna	X		X	
3.8.B.A	the range of power control, in dB  NOTE – For a receiving HAPS, the power control refers to its use by the associated transmitting ground station(s)  In the case of a receiving HAPS, required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz	X			+
	<b>POLARIZATION AND RECEIVING SYSTEM NOISE TEMPERATURE</b>				
3.9.a	the code indicating the type of polarization (see the Preface)	X	X	X	X
3.9.j	the reference radiation pattern of the associated ground station(s)  Required in the bands 47.2-47.5 GHz and 47.9-48.2 GHz			+	+
3.9.k	the lowest total receiving system noise temperature, in kelvins, referred to the output of the receiving antenna		X		X
	<b>HOURS OF OPERATION</b>				
3.10.b	the regular hours of operation (in hours and minutes from ... to ...) of the frequency assignment, in UTC	X	X	X	X

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ANNEX 2

**Characteristics of satellite networks, earth stations  
or radio astronomy stations<sup>2</sup>** (Rev.WRC-07)

**Information relating to the data listed in the following Tables**

In many cases the data requirements involve the use of standard symbols in submissions to the Radiocommunication Bureau. These standard symbols may be found in the “Preface to the BR International Frequency Information Circular”, (BR IFIC) (Space Services), the ITU-R webpage and the Space Radiocommunication Stations on DVD-ROM. (In the Table, this is referred to simply as “the Preface”.) Information relating to the provision of data may also be found in ITU-R Recommendations, for example, information on the mask data can be found in the most recent version of Recommendation ITU-R S.1503, and the most recent version of Recommendation ITU-R SM.1413 provides general information related to submission of data.

**Key to the symbols used in Tables A, B, C and D**

X	Mandatory information
+	Mandatory under the conditions specified in column 2
O	Optional information
C	Mandatory if used as a basis to effect coordination with another administration
	The data item is not applicable to the corresponding notice

**Reading the Appendix 4 Tables**

The rules used to link the sign with the text are based on the Table column headings covering specific procedures and specific services.

- 1 If any data item has a condition attached to it, then it has a “+”.

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A.6.c	if agreement has been reached, the related provision code (see the Preface)	+	A.6.c
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C.8.f.1	the space station’s nominal equivalent isotropically radiated power(s) (e.i.r.p.) on the beam axis  Required only for a space-to-space link	+	C.8.f.1
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2 Data items grouped under a common subheading that limits the range of procedures, services or frequency bands have a “X” as the conditional nature is shown in the subheading title.

A.4.b.5	<b>For space stations operating in a frequency band subject to the provisions of Nos. 9.11A, 9.12 or 9.12A, the data elements to characterize properly the orbital statistics of the non-geostationary-satellite system:</b>		A.4.b.5
A.4.b.5.a	the right ascension of the ascending node ( $\Omega_j$ ) for the $j$ -th orbital plane, measured counter-clockwise in the equatorial plane from the direction of the vernal equinox to the point where the satellite makes its South-to-North crossing of the equatorial plane ( $0^\circ \leq \Omega_j < 360^\circ$ )	X	A.4.b.5.a


3 “In the case of”, followed by a reference to the column heading, is used as shown below when the associated conditions are different for individual columns, or if the indication is not the same across all applicable columns.

A.3.a	<p>the symbol for the operating administration or agency (see the Preface) that is in operational control of the space station, earth station or radio astronomy station</p> <p>In the case of Appendix <b>30B</b>, required only for notification under Article 8</p>	X	+	A.3.a
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**Footnotes to Tables A, B, C and D**

- 1 Not required for coordination under No. **9.7A**.
- 2 The most recent version of Recommendation ITU-R SF.675 should be used to the extent applicable in calculating the maximum power density per Hz. For carriers below 15 GHz, the power density is averaged over the worst 4 kHz band. For carriers at or above 15 GHz, the power density is averaged over the worst 1 MHz band. In the case of assignments with a bandwidth less than the stated averaging bandwidth, the maximum density is calculated as if the assignment occupied the averaging bandwidth.

Table of characteristics to be submitted for space and radio astronomy services (Rev.WRC-07)

Items in Appendix	A - GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK, EARTH STATION OR RADIO ASTRONOMY STATION	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
A.1	<b>IDENTITY OF THE SATELLITE NETWORK, EARTH STATION OR RADIOASTRONOMY STATION</b>										A.1	
A.1.a	the identity of the satellite network	X	X	X	X	X		X	X	X	A.1.a	
A.1.b	the beam identification In the case of Appendix 30 or 30A, required for modification, suppression or notification of Plan assignments In the case of Appendix 30B, required for a network derived from the Allotment Plan							+	+	+	A.1.b	
A.1.e	<b>Identity of the earth station or radio astronomy station:</b>										A.1.e	
A.1.e.1	the type of earth station (specific or typical)						X				A.1.e.1	
A.1.e.2	the name of the station						X				A.1.e.2	X
A.1.e.3	<b>For a specific earth station or radio astronomy station:</b>										A.1.e.3	
A.1.e.3.a	the country or geographical area in which the station is located, using the symbols from the Preface						X				A.1.e.3.a	X

Items in Appendix	<p style="text-align: center;"><i>A - GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK, EARTH STATION OR RADIO ASTRONOMY STATION</i></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
A.1.e.3.b	the geographical coordinates of each transmitting or receiving antenna site constituting the station (latitude and longitude in degrees and minutes)  For a specific earth station, seconds are to be provided if the coordination area of the earth station overlaps the territory of another administration						X				A.1.e.3.b	X
A.1.f	<b>Administration and intergovernmental organization symbol:</b>										A.1.f	
A.1.f.1	the symbol of the notifying administration (see the Preface)	X	X	X	X	X	X	X	X	X	A.1.f.1	X
A.1.f.2	if the notice is submitted on behalf of a group of administrations, the symbols of each of the administrations in the group, submitting the information on the satellite network (see the Preface)	+	+	+	+	+		+	+	+	A.1.f.2	
A.1.f.3	if the notice is submitted on behalf of an intergovernmental satellite organization, the symbol of that organization (see the Preface)	+	+	+	+	+		+	+	+	A.1.f.3	
A.1.g	Not used										A.1.g]	
A.1.g.1	Not used										A.1.g.1	
A.1.g.2	Not used								+		A.1.g.2	
A.2	<b>DATE OF BRINGING INTO USE</b>										A.2	

Items in Appendix	<p align="center"><i>A - GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK, EARTH STATION OR RADIO ASTRONOMY STATION</i></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
A.2.a	<p>the date (actual or foreseen, as appropriate) of bringing the frequency assignment (new or modified) into use</p> <p>The date of bringing into use denotes the date at which the frequency assignment is brought into regular operation* to provide the published radiocommunication service with the technical parameters within the technical characteristics notified to the Bureau</p>	X	X	X	X	X	X	X	X	X	A.2.a	
	<p>Whenever the assignment is changed in any of its basic characteristics (except in the case of a change under A.1.a, the date to be given shall be that of the latest change (actual or foreseen, as appropriate)</p> <p>* Pending further studies by ITU-R on the applicability of the term “regular operation” to non-geostationary satellite networks, the condition of regular operation shall be limited to geostationary satellite networks</p>											
A.2.b	for a space station, the period of validity of the frequency assignments (see Resolution 4 (Rev.WRC-03))	X	X	X	X	X					A.2.b	
A.2.c	the date (actual or foreseen, as appropriate) on which reception of the frequency band begins or on which any of the basic characteristics are modified										A.2.c	X
A.3	<b>OPERATING ADMINISTRATION OR AGENCY</b>										A.3	

Items in Appendix	<p align="center"><i>A - GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK, EARTH STATION OR RADIO ASTRONOMY STATION</i></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
A.3.a	the symbol for the operating administration or agency (see the Preface) that is in operational control of the space station, earth station or radio astronomy station In the case of Appendix <b>30B</b> , required only for notification under Article 8			X	X	X	X	X	X	+	A.3.a	X
A.3.b	the symbol for the address of the administration (see the Preface) to which communication should be sent on urgent matters regarding interference, quality of emissions and questions referring to the technical operation of the network or station (see Article 15) In the case of Appendix <b>30B</b> , required only for notification under Article 8			X	X	X	X	X	X	+	A.3.b	X
<b>A.4</b>	<b>ORBITAL INFORMATION</b>										<b>A.4</b>	
A.4.a	<b>For a space station onboard a geostationary-satellite:</b>										A.4.a	
A.4.a.1	the nominal geographical longitude on the geostationary-satellite orbit (GSO)	X			X			X	X	X	A.4.a.1	
A.4.a.2	<b>Orbital tolerances</b>											
A.4.a.2.a	the planned longitudinal tolerance easterly limit				X			X	X	X	A.4.a.2.a	
A.4.a.2.b	the planned longitudinal tolerance westerly limit				X			X	X	X	A.4.a.2.b	
A.4.a.2.c	the planned inclination excursion				X					X	A.4.a.2.c	

Items in Appendix	A - GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK, EARTH STATION OR RADIO ASTRONOMY STATION	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
A.4.a.4	Not used										A.4.a.4	
A.4.a.4.a	Not used										A.4.a.4.a	
A.4.a.4.b	Not used										A.4.a.4.b	
A.4.b	<b>For space station(s) onboard non-geostationary satellite(s):</b>										A.4.b	
A.4.b.1	the number of orbital planes			X		X					A.4.b.1	
A.4.b.2	the reference body code		X	X		X					A.4.b.2	
A.4.b.3	<b>For space stations of a non-geostationary fixed-satellite service system operating in the band 3 400-4 200 MHz:</b>										A.4.b.3	
A.4.b.3.a	the maximum number of space stations ( $N_N$ ) in a non-geostationary-satellite system simultaneously transmitting on a co-frequency basis in the fixed-satellite service in the Northern Hemisphere			X		X					A.4.b.3.a	
A.4.b.3.b	the maximum number of space stations ( $N_S$ ) in a non-geostationary-satellite system simultaneously transmitting on a co-frequency basis in the fixed-satellite service in the Southern Hemisphere			X		X					A.4.b.3.b	

Items in Appendix	<p style="text-align: center;"><i>A - GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK, EARTH STATION OR RADIO ASTRONOMY STATION</i></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
A.4.b.4	<p style="text-align: center;"><b>For each orbital plane, where the Earth is the reference body:</b></p>										A.4.b.4	
A.4.b.4.a	the angle of inclination ( $i_j$ ) of the orbital plane with respect to the Earth's equatorial plane ( $0^\circ \leq i_j < 180^\circ$ )			X		X					A.4.b.4.a	
A.4.b.4.b	the number of satellites in the orbital plane			X		X					A.4.b.4.b	
A.4.b.4.c	the period			X		X					A.4.b.4.c	
A.4.b.4.d	the altitude, in kilometres, of the apogee of the space station			X		X					A.4.b.4.d	
A.4.b.4.e	the altitude, in kilometres, of the perigee of the space station			X		X					A.4.b.4.e	
A.4.b.5	<p style="text-align: center;"><b>For space stations operating in a frequency band subject to the provisions of Nos. 9.11A, 9.12 or 9.12A, the data elements to characterize properly the orbital statistics of the non-geostationary-satellite system:</b></p>										A.4.b.5	
A.4.b.5.a	the right ascension of the ascending node ( $\Omega_j$ ) for the $j$ -th orbital plane, measured counter-clockwise in the equatorial plane from the direction of the vernal equinox to the point where the satellite makes its South-to-North crossing of the equatorial plane ( $0^\circ \leq \Omega_j < 360^\circ$ )					X					A.4.b.5.a	

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A.4.b.5.b	the initial phase angle ( $\omega_i$ ) of the $i$ -th satellite in its orbital plane at reference time $t = 0$ , measured from the point of the ascending node ( $0^\circ \leq \omega_i < 360^\circ$ )					X					A.4.b.5.b	
A.4.b.5.c	the argument of perigee ( $\omega_p$ ), measured in the orbital plane, in the direction of motion, from the ascending node to the perigee ( $0^\circ \leq \omega_p < 360^\circ$ )					X					A.4.b.5.c	
A.4.b.6	<b>For space stations operating in a frequency band subject to Nos. 22.5C, 22.5D or 22.5F, the data elements to characterize properly the orbital operation of the non-geostationary-satellite system:</b>										A.4.b.6	
A.4.b.6.a	<b>For each range of latitudes:</b>										A.4.b.6.a	
A.4.b.6.a.1	the maximum number of non-geostationary satellites transmitting with overlapping frequencies to a given location					X					A.4.b.6.a.1	
A.4.b.6.a.2	the associated start of the latitude range					X					A.4.b.6.a.2	
A.4.b.6.a.3	the associated end of the latitude range					X					A.4.b.6.a.3	
A.4.b.6.b	the minimum altitude of the space station above the surface of the Earth at which any satellite transmits					X					A.4.b.6.b	
A.4.b.6.c	an indicator showing whether the space station uses station-keeping to maintain a repeating ground track					X					A.4.b.6.c	

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A.4.b.6.d	if the space station uses station-keeping to maintain a repeating ground track, the time in seconds that it takes for the constellation to return to its starting position, i.e. such that all satellites are in the same location with respect to the Earth and each other					+					A.4.b.6.d	
A.4.b.6.e	an indicator showing whether the space station should be modelled with a specific precession rate of the ascending node of the orbit instead of the $J_2$ term					X					A.4.b.6.e	
A.4.b.6.f	if the space station is to be modelled with a specific precession rate of the ascending node of the orbit instead of the $J_2$ term, the precession rate in degrees/day, measured counter-clockwise in the equatorial plane					+					A.4.b.6.f	
A.4.b.6.g	<p>the longitude of the ascending node (<math>\theta_j</math>) for the <math>j</math>-th orbital plane, measured counter-clockwise in the equatorial plane from the Greenwich meridian to the point where the satellite orbit makes its South-to-North crossing of the equatorial plane (<math>0^\circ \leq \theta_j &lt; 360^\circ</math>)</p> <p><i>Note</i> – For the evaluation of epfd a reference to a point on the Earth is used and hence the “longitude of the ascending node” is required. All satellites in the constellation must use the same reference time</p>					X					A.4.b.6.g	

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A.4.b.6.h	the date (day:month:year) at which the satellite is at the location defined by the longitude of the ascending node ( $\theta$ ), (see Note under A.4.b.6.g)					X					A.4.b.6.h	
A.4.b.6.i	the time (hours:minutes) at which the satellite is at the location defined by the longitude of the ascending node ( $\theta$ ), (see Note under A.4.b.6.g)					X					A.4.b.6.i	
A.4.b.6.j	the longitudinal tolerance of the longitude of the ascending node					X					A.4.b.6.j	
A.4.b.7	<b>For space stations operating in a frequency band subject to Nos. 22.5C, 22.5D or 22.5F, the data elements to characterize properly the performance of the non-geostationary-satellite system:</b>										A.4.b.7	
A.4.b.7.a	the maximum number of non-geostationary satellites receiving simultaneously with overlapping frequencies from the associated earth stations within a given cell					X					A.4.b.7.a	
A.4.b.7.b	the average number of associated earth stations with overlapping frequencies per square kilometre within a cell					X					A.4.b.7.b	
A.4.b.7.c	the average distance, in kilometres, between co-frequency cells					X					A.4.b.7.c	
A.4.b.7.d	<b>For the exclusion zone about the geostationary-satellite orbit:</b>										A.4.b.7.d	

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A.4.b.7.d.1	the type of zone (based on topocentric angle, satellite-based angle or other method for establishing the exclusion zone)					X					A.4.b.7.d.1	
A.4.b.7.d.2	if the zone is based on a topocentric angle or a satellite-based angle, the width of the zone, in degrees					+					A.4.b.7.d.2	
A.4.b.7.d.3	if an alternative method is used for establishing the exclusion zone, a detailed description of the avoidance mechanism					+					A.4.b.7.d.3	
A.4.c A.4.c.1	<p align="center"><b>For an earth station:</b></p> the identity of the associated space station(s) with which communication is to be established						X				A.4.c A.4.c.1	
A.4.c.2	if communication is to be established with a geostationary space station, its orbital position						+				A.4.c.2	
A.5	<p align="center"><b>COORDINATIONS</b></p>										A.5	
A.5.a.1	the symbol of any administration (see the Preface) with which coordination has been successfully effected Required only in the case of notification				+	+	+ <sup>1</sup>				A.5.a.1	
A.5.a.2	the symbol of any intergovernmental organization (see the Preface) with which coordination has been successfully effected Required only in the case of notification				+	+	+ <sup>1</sup>				A.5.a.2	

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A.5.b.1	the symbol of any administration (see the Preface) with which coordination has been sought but not completed				O	O	O				A.5.b.1	
A.5.b.2	the symbol of any intergovernmental organization (see the Preface) with which coordination has been sought but not completed				O	O					A.5.b.2	
A.5.c	the related provision code (see the Preface) under which coordination has been sought or completed if either A.5.a.1 (and A.5.a.2) or A.5.b.1 (and A.5.b.2) has been supplied				+	+	+ <sup>1</sup>				A.5.c	
<b>A.6</b>	<b>AGREEMENTS</b>										<b>A.6</b>	
A.6.a	if appropriate, the symbol of any administration or administration representing a group of administrations (see the Preface) with which agreement has been reached, including where the agreement is to exceed the limits prescribed in these Regulations				+	+	+ <sup>1</sup>	+	+	+	A.6.a	
A.6.b	if appropriate, the symbol of any intergovernmental organization (see the Preface) with which agreement has been reached, including where the agreement is to exceed the limits prescribed in these Regulations				+	+	+ <sup>1</sup>	+	+	+	A.6.b	
A.6.c	if agreement has been reached, the related provision code (see the Preface)				+	+	+ <sup>1</sup>	+	+	+	A.6.c	
<b>A.7</b>	<b>SPECIFIC EARTH STATION OR RADIO ASTRONOMY STATION SITE</b>										<b>A.7</b>	

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	<b>CHARACTERISTICS</b>											
A.7.a.1	the horizon elevation angle, in degrees, for each azimuth around the earth station						+ <sup>1</sup>				A.7.a.1	
A.7.a.2	the distance, in kilometres, from the earth station to the horizon for each azimuth around the earth station						0				A.7.a.2	
A.7.b.1	<p>the planned minimum angle of elevation of the antenna's main beam axis, in degrees, from the horizontal plane</p> <p>For determining the minimum elevation angle of an earth station, due regard should be given to possible inclined-orbit operation of the associated geostationary space station</p> <p>In the case of an earth station, required for operation to geostationary satellites</p>						+ <sup>1</sup>				A.7.b.1	<b>X</b>
A.7.b.2	the planned maximum angle of elevation of the antenna's main beam axis, in degrees, from the horizontal plane										A.7.b.2	<b>X</b>
A.7.c.1	<p>the start azimuth for the planned range of operating azimuthal angles for the antenna's main beam axis, in degrees, clockwise from True North</p> <p>For determining the start azimuth of an earth station, due regard should be given to possible inclined-orbit</p>						+ <sup>1</sup>				A.7.c.1	<b>X</b>

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	<p align="center">operation of the associated geostationary space station</p> <p align="center">In the case of an earth station, required for operation to geostationary satellites</p>											
A.7.c.2	<p align="center">the end azimuth for the planned range of operating azimuthal angles for the antenna's main beam axis, in degrees, clockwise from True North</p> <p align="center">For determining the end azimuth of an earth station, due regard should be given to possible inclined-orbit operation of the associated geostationary space station</p> <p align="center">In the case of an earth station, required for operation to geostationary satellites</p>						+				A.7.c.2	X
A.7.d	<p align="center">the altitude, in metres, of the antenna above mean sea level</p>						+				A.7.d	
A.7.e	<p align="center">the minimum angle of elevation of the antenna's main beam axis, in degrees, from the horizontal plane for each azimuth around the earth station</p> <p align="center">Required for earth stations operating with non-geostationary space stations</p>						+				A.7.e	
A.7.f	<p align="center">the antenna diameter, in metres</p> <p align="center">Required only for fixed-satellite service earth stations operating in the frequency band 13.75-</p>						+				A.7.f	

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A.8	14 GHz Not used										A.8	
A.9	Not used										A.9	
A.10	<b>EARTH STATION COORDINATION AREA DIAGRAMS</b>										A.10	
A.10.a	the diagrams shall be drawn to an appropriate scale, indicating, for both transmission and reception, the location of the earth station and its associated coordination areas, or the coordination area related to the service area in which it is intended to operate the mobile earth station Required only for notification						+				A.10.a	
A.11	<b>REGULAR HOURS OF OPERATION</b>										A.11	
A.11.a	the start time UTC							X	X		A.11.a	
A.11.b	the stop time UTC							X	X		A.11.b	
A.12	<b>RANGE OF AUTOMATIC GAIN CONTROL, in dB</b>								X		A.12	
A.13	<b>REFERENCES TO THE PUBLISHED SPECIAL SECTIONS OF THE BUREAU'S INTERNATIONAL FREQUENCY INFORMATION CIRCULAR (see the Preface)</b>										A.13	

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A.13.a	the reference and number of the advance publication information in accordance with No. <b>9.1</b>				<b>X</b>	<b>X</b>	<b>X</b>				A.13.a	
A.13.b	the reference and number of the coordination request in accordance with No. <b>9.6</b>  In the case of notification of an earth station, the reference to the Special Section of the associated satellite network has to be provided  In the case of notification of an earth station coordinated under No. <b>9.7A</b> , the coordination Special Section number of this earth station has to be provided				<b>X</b>	<b>X</b>	<b>X</b>				A.13.b	
A.13.c	the reference and number of the information in accordance with Article 4 of Appendix <b>30</b>							<b>X</b>			A.13.c	
A.13.d	the reference and number of the information in accordance with Article 4 of Appendix <b>30A</b>								<b>X</b>		A.13.d	
A.13.e	the reference and number of the information in accordance with Article 6 of Appendix <b>30B</b>						<b>X</b>			<b>X</b>	A.13.e	
<b>A.14</b>	<b>FOR STATIONS OPERATING IN A FREQUENCY BAND SUBJECT TO Nos. 22.5C, 22.5D OR 22.5F: SPECTRUM MASKS</b>										<b>A.14</b>	
A.14.a	<b>For each e.i.r.p. mask used by the non-geostationary space station:</b>										A.14.a	
A.14.a.1	the mask identification code					<b>X</b>					A.14.a.1	

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A.14.a.2	the lowest frequency for which the mask is valid					X					A.14.a.2	
A.14.a.3	the highest frequency for which the mask is valid					X					A.14.a.3	
A.14.a.4	the mask pattern defined in terms of the power in the reference bandwidth for a series of off-axis angles with respect to a specified reference point					X					A.14.a.4	
A.14.b	<b>For each associated earth station e.i.r.p. mask:</b>										A.14.b	
A.14.b.1	the mask identification code					X					A.14.b.1	
A.14.b.2	the lowest frequency for which the mask is valid					X					A.14.b.2	
A.14.b.3	the highest frequency for which the mask is valid					X					A.14.b.3	
A.14.b.4	the minimum elevation angle at which any associated earth station can transmit to a non-geostationary satellite					X					A.14.b.4	
A.14.b.5	the minimum separation angle between the geostationary-satellite orbit arc and the associated earth station main beam-axis at which the associated earth station can transmit towards a non-geostationary satellite					X					A.14.b.5	
A.14.b.6	the mask pattern defined in terms of the power in the reference bandwidth for a series of off-axis angles with respect to a specified reference point					X					A.14.b.6	
A.14.c	<b>For each pfd mask used by the non-geostationary space station:</b>										A.14.c	

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	<p><i>Note</i> – The space station pfd mask is defined by the maximum power flux-density generated by any space station in the interfering non-geostationary-satellite system as seen from any point on the surface of the Earth</p>											
A.14.c.1	the mask identification code					X					A.14.c.1	
A.14.c.2	the lowest frequency for which the mask is valid					X					A.14.c.2	
A.14.c.3	the highest frequency for which the mask is valid					X					A.14.c.3	
A.14.c.4	the type of mask					X					A.14.c.4	
A.14.c.5	the mask pattern of the power flux-density defined in three dimensions					X					A.14.c.5	
A.15	<p align="center"><b>COMMITMENT REGARDING COMPLIANCE WITH ADDITIONAL OPERATIONAL EQUIVALENT POWER FLUX DENSITY, <math>epfd_{\downarrow}</math>, LIMITS</b></p>										A.15	
A.15.a	a commitment that the filed for system will meet the additional operational $epfd_{\downarrow}$ limits that are specified in Table 22-4A1 under No. 22.5I					+					A.15.a	

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	Required only for non-geostationary-satellite systems operating in the fixed-satellite service in the bands 10.7-11.7 GHz (in all Regions), 11.7-12.2 GHz (Region 2), 12.2-12.5 GHz (Region 3), and 12.5-12.75 GHz (Regions 1 and 3)											
A.16	<b>COMMITMENT REGARDING COMPLIANCE WITH OFF-AXIS POWER LIMITATIONS OR POWER FLUX-DENSITY, pfd, LIMITS</b>										A.16	
A.16.a	a commitment that the associated earth stations operating with a geostationary-satellite network in the fixed-satellite service meet the off-axis power limitations given in Nos. 22.26 to 22.28 or 22.32 (as appropriate) under the conditions specified in Nos. 22.30, 22.31 and 22.34 to 22.39  Required only where the earth stations are subject to those power limitations				+						A.16.a	
A.16.b	a commitment by administrations that the filed system will meet the single entry power flux-density limits that are specified in No. 5.502  Required only for specific earth station antennas less than 4.5 m in diameter operating with geostationary space stations in the fixed-satellite service in the band 13.75-14 GHz						+				A.16.b	

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A.17	<b>COMPLIANCE WITH POWER FLUX-DENSITY, pfd, LIMITS</b>										A.17	
A.17.a	a commitment of compliance with per-satellite power-flux density level produced at the Earth's surface of $-129 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ in any 1 MHz band under free space propagation conditions Required only for satellite systems operating in the radionavigation-satellite service in the band 1 164-1 215 MHz				+	+					A.17.a	
A.17.b.1	the calculated aggregate power flux-density produced at the Earth's surface by any geostationary radionavigation-satellite system in the band 4 990-5 000 MHz in a 10 MHz bandwidth, as defined in <i>resolves 1</i> of Resolution <b>741 (WRC-03)</b> Required only for geostationary satellite systems operating in the radionavigation-satellite service in the band 5 010-5 030 MHz				+						A.17.b.1	
A.17.b.2	the calculated aggregate power flux-density produced at the Earth's surface by all space stations within any radionavigation-satellite service system in the band 5 030-5 150 MHz in a 150 kHz bandwidth, as defined in No. <b>5.443B</b>				+	+					A.17.b.2	

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A.17.b.3	<p>Required only for satellite systems operating in the radionavigation-satellite service in the band 5 010-5 030 MHz</p> <p>the equivalent power flux-density produced at the Earth's surface by all space stations within any non-geostationary radionavigation-satellite service system in the band 4 990-5 000 MHz in a 10 MHz bandwidth, as defined in <i>resolves 2</i> of Resolution <b>741 (WRC-03)</b></p> <p>Required only for non-geostationary satellite systems operating in the radionavigation-satellite service in the band 5 010-5 030 MHz</p>					+					A.17.b.3	
A.17.c	<p>the aggregate power flux-density produced at the Earth's surface in the band 15.35-15.4 GHz, as defined in No. <b>5.511A</b></p> <p>Required only for non-geostationary-satellite systems operating in the fixed-satellite service (feeder links) in the band 15.43-15.63 GHz (space-to-Earth)</p>					+					A.17.c	
A.17.d	<p>the mean power flux-density produced at the Earth's surface by any spaceborne sensor, as defined in No. <b>5.549A</b></p> <p>Required only for satellite systems operating in the Earth exploration-satellite service (active) or space research service (active) in the band 35.5-36 GHz</p>				+	+					A.17.d	

Items in Appendix	<p align="center"><i>A - GENERAL CHARACTERISTICS OF THE SATELLITE NETWORK, EARTH STATION OR RADIO ASTRONOMY STATION</i></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
A.17.e.1	the calculated equivalent power flux-density produced at the site of a radio astronomy station in the band 42.5-43.5 GHz, as defined in No. <b>5.551H</b> Required only for non-geostationary-satellite systems operating in the fixed-satellite service and broadcasting-satellite service in the band 42-42.5 GHz					+					A.17.e.1	
A.17.e.2	the calculated power flux-density produced at the site of a radio astronomy station in the band 42.5-43.5 GHz, as defined in No. <b>5.551I</b> Required only for geostationary-satellite systems operating in the fixed-satellite service and broadcasting-satellite service in the band 42-42.5 GHz				+						A.17.e.2	
<b>A.18</b>	<b>COMPLIANCE WITH NOTIFICATION OF AIRCRAFT EARTH STATION(S)</b>										<b>A.18</b>	
A.18.a	a commitment that the characteristics of the aircraft earth station (AES) in the aeronautical mobile-satellite service are within the characteristics of the specific and/or typical earth station published by the Bureau for the space station to which the AES is associated				+	+					A.18.a	

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	Required only for the band 14-14.5 GHz, when an aircraft earth station in the aeronautical mobile-satellite service communicates with a space station in the fixed-satellite service										A.19	
<b>A.19</b>	<b>COMPLIANCE WITH § 6.26 OF ARTICLE 6 OF APPENDIX 30B</b>										<b>A.19</b>	
<b>A.19.a</b>	<p>a commitment that the use of the assignment shall not cause unacceptable interference to, nor claim protection from, those assignments for which agreement still needs to be obtained</p> <p>Required if the notice is submitted under § 6.25 of Article 6 of Appendix <b>30B</b></p>								+		<b>A.19.a</b>	

Items in Appendix	<b>B - CHARACTERISTICS TO BE PROVIDED FOR EACH SATELLITE ANTENNA BEAM OR EACH EARTH STATION OR RADIO ASTRONOMY ANTENNA</b>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
<b>B.1</b>	<b>IDENTIFICATION AND DIRECTION OF THE SATELLITE ANTENNA BEAM</b>										<b>B.1</b>	
B.1.a	the designation of the satellite antenna beam For an earth station, the designation of the satellite antenna beam of the associated space station			X	X	X	X	X	X	X	B.1.a	
B.1.b	an indicator showing whether the antenna beam, under B.1.a, is fixed or whether it is steerable and / or reconfigurable			X	X	X		X	X	X	B.1.b	
<b>B.2</b>	<b>TRANSMISSION / RECEPTION INDICATOR FOR THE BEAM OF THE SPACE STATION OR THE ASSOCIATED SPACE STATION</b>	X	X	X	X	X	+ <sup>1</sup>			X	<b>B.2</b>	
<b>B.3</b>	<b>SPACE STATION ANTENNA CHARACTERISTICS</b>										<b>B.3</b>	
B.3.a	<b>For each space station antenna:</b>										B.3.a	
B.3.a.1	the maximum co-polar isotropic gain, in dBi Where a steerable beam (see No. 1.191) is used, if the effective boresight area (see No. 1.175) is identical with the global service area, the maximum antenna gain, in dBi, is applicable to all points on the Earth's visible surface			X	X	X		X	X	X	B.3.a.1	
B.3.a.2	if a non-elliptical beam, the maximum cross-polar isotropic antenna gain, in dBi							+	+		B.3.a.2	
B.3.b	<b>Antenna gain contours:</b>										B.3.b	

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B.3.b.1	<p>the co-polar antenna gain contours plotted on a map of the Earth's surface, preferably in a radial projection from the satellite onto a plane perpendicular to the axis from the centre of the Earth to the satellite</p> <p>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 anywhere within the limit of visibility of the Earth from the given geostationary satellite</p> <p>Whenever possible, the gain contours of the space station antenna should also be provided in a numerical format (e.g. equation or table)</p> <p>Where a steerable beam (see No. <b>1.191</b>) is used, if the effective boresight area (see No. <b>1.175</b>) is less than the global service area, the contours are the result of moving the boresight of the steerable beam around the limit defined by the effective boresight area and are to be provided as described above but shall also include the 0 dB relative gain isoline</p>				X			+	+	+	B.3.b.1	

Items in Appendix	<p><i><b>B - CHARACTERISTICS TO BE PROVIDED FOR EACH SATELLITE ANTENNA BEAM OR EACH EARTH STATION OR RADIO ASTRONOMY ANTENNA</b></i></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
	<p>The antenna gain contours shall include the effects of the planned inclination excursion, longitudinal tolerance and the planned pointing accuracy of the antenna</p> <p>In the case of Appendix 30, 30A or 30B, required only for non-elliptical beams</p>											
B.3.b.2	<p>if a non-elliptical beam, the cross-polar gain contours shall be provided as defined under B.3.b.1</p>							+	+		B.3.b.2	
B.3.c	<p><b>Antenna radiation patterns:</b></p>										B.3.c	
B.3.c.1	<p>the co-polar antenna radiation pattern</p> <p>In the case of geostationary space stations, required only where the antenna radiation beam is directed towards another satellite</p> <p>In the case of Appendix 30, 30A or 30B, required only for elliptical antenna beams</p>			X	+	X		+	+	+	B.3.c.1	
B.3.c.2	<p>if an elliptical beam, the cross-polar antenna radiation pattern</p>							+	+		B.3.c.2	
B.3.d	<p>the pointing accuracy of the antenna</p> <p>In the case of Appendix 30, 30A or 30B, required only for elliptical beams</p>				X			+	+	+	B.3.d	

Items in Appendix	<i>B - CHARACTERISTICS TO BE PROVIDED FOR EACH SATELLITE ANTENNA BEAM OR EACH EARTH STATION OR RADIO ASTRONOMY ANTENNA</i>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
B.3.e	if the space station is operating in a band allocated in the Earth-to-space direction and in the space-to-Earth direction, the gain of the antenna in the direction of those parts of the geostationary-satellite orbit which are not obstructed by the Earth				+				+		B.3.e	
B.3.f	<b>For a space station submitted in accordance with Appendix 30, 30A or 30B:</b>										B.3.f	
B.3.f.1	the boresight or aim point of the antenna beam (longitude and latitude)								X	X	X	B.3.f.1
B.3.f.2	<b>For each elliptical beam:</b>											B.3.f.2
B.3.f.2.a	the rotational accuracy, in degrees								X	X	X	B.3.f.2.a
B.3.f.2.b	the major axis orientation, in degrees, anticlockwise from the Equator								X	X	X	B.3.f.2.b
B.3.f.2.c	the major axis, in degrees, at the half-power beamwidth								X	X	X	B.3.f.2.c
B.3.f.2.d	the minor axis, in degrees, at the half-power beamwidth								X	X	X	B.3.f.2.d
B.4	<b>ADDITIONAL CHARACTERISTICS FOR NON-GEOSTATIONARY SPACE STATION ANTENNA</b>										<b>B.4</b>	
B.4.a.1	the reference number of each orbital plane in which the space station antenna characteristics are used			X		X					B.4.a.1	

Items in Appendix	<b>B - CHARACTERISTICS TO BE PROVIDED FOR EACH SATELLITE ANTENNA BEAM OR EACH EARTH STATION OR RADIO ASTRONOMY ANTENNA</b>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
B.4.a.2	if the antenna characteristics of a space station are not common to every satellite in the specified orbital plane, the reference number of each satellite in the specified orbital plane, on which the space station antenna characteristics are used			+		+					B.4.a.2	
B.4.a.3	<b>For a space station submitted in accordance with Nos. 9.11A, 9.12, 9.12A or for active or passive sensors on board a non-geostationary-satellite network not subject to coordination under Section II of Article 9:</b>										B.4.a.3	
B.4.a.3.a	<b>For the orientation angles of the satellite transmitting and receiving antenna beams:</b>										B.4.a.3.a	
B.4.a.3.a.1	the orientation angle alpha, in degrees (see the most recent version of Recommendation ITU-R SM.1413)			X		X					B.4.a.3.a.1	
B.4.a.3.a.2	the orientation angle beta, in degrees (see the most recent version of Recommendation ITU-R SM.1413)			X		X					B.4.a.3.a.2	
B.4.b	<b>For a space station submitted in accordance with Nos. 9.11A, 9.12 or 9.12A:</b>										B.4.b	
B.4.b.1	<b>Not used</b>										B.4.b.1	
	Not used											
B.4.b.2	the satellite antenna gain $G(\theta_e)$ as a function of elevation angle ( $\theta_e$ ) at a fixed point on the Earth					X					B.4.b.2	

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B.4.b.3	the spreading loss as a function of elevation angle (to be determined by equations or provided in graphical format)					X					B.4.b.3	
B.4.b.4	<b>For each beam:</b>										B.4.b.4	
B.4.b.4.a	the maximum beam peak e.i.r.p./4 kHz					X					B.4.b.4.a	
B.4.b.4.b	the average beam peak e.i.r.p./4 kHz					X					B.4.b.4.b	
B.4.b.4.c	the maximum beam peak e.i.r.p./1 MHz					X					B.4.b.4.c	
B.4.b.4.d	the average beam peak e.i.r.p./1 MHz					X					B.4.b.4.d	
B.4.b.5	the calculated peak value of power flux-density produced within $\pm 5^\circ$ inclination of the geostationary-satellite orbit  Required only for the fixed-satellite service (space-to-Earth) in the band 6 700-7 075 MHz					+					B.4.b.5	
<b>B.5</b>	<b>EARTH STATION ANTENNA CHARACTERISTICS</b>										<b>B.5</b>	
B.5.a	the isotropic gain, in dBi, of the antenna in the direction of maximum radiation (see No. <b>1.160</b> )						X				B.5.a	
B.5.b	the half-power beamwidth, in degrees						+ <sup>1</sup>				B.5.b	
B.5.c	either the measured radiation pattern of the antenna or the reference radiation pattern to be used for coordination						X				B.5.c	

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	For coordination under No. 9.7A, the reference radiation pattern is to be provided											
<b>B.6</b>	<b>RADIO ASTRONOMY STATION ANTENNA CHARACTERISTICS</b>										<b>B.6</b>	
B.6.a	the antenna type (see the Preface)										B.6.a	<b>X</b>
B.6.b	the antenna dimensions (see the Preface)										B.6.b	<b>X</b>
B.6.c	the effective area of the antenna (see the Preface)										B.6.c	<b>X</b>

Items in Appendix	<p align="center"><b>C - CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR A SATELLITE ANTENNA BEAM OR AN EARTH STATION OR RADIO ASTRONOMY ANTENNA</b></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
<b>C.1</b>	<b>FREQUENCY RANGE</b>											<b>C.1</b>
C.1.a	the lower limit of the frequency range within which the carriers and the bandwidth of the emission will be located for each Earth-to-space or space-to-Earth service area, or for each space-to-space relay	X	X	X						X	C.1.a	
C.1.b	the upper limit of the frequency range within which the carriers and the bandwidth of the emission will be located for each Earth-to-space or space-to-Earth service area, or for each space-to-space relay	X	X	X						X	C.1.b	
<b>C.2</b>	<b>ASSIGNED FREQUENCY (FREQUENCIES)</b>											<b>C.2</b>
C.2.a.1	the assigned frequency (frequencies), as defined in No. <b>1.148</b> <ul style="list-style-type: none"> <li>- in kHz up to 28 000 kHz inclusive</li> <li>- in MHz above 28 000 kHz to 10 500 MHz inclusive</li> <li>- in GHz above 10 500 MHz</li> </ul>			+	+	+	X	X	X	+	C.2.a.1	

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	<p>If the basic characteristics are identical, with the exception of the assigned frequency, a list of frequency assignments may be provided</p> <p>In the case of advance publication, required only for active sensors</p> <p>In the case of geostationary and non-geostationary satellite networks, required for all space applications except passive sensors</p> <p>In the case of Appendix <b>30B</b>, required only for notification under Article 8</p>										Items in Appendix	Radio astronomy
C.2.a.2 C.2.b	<p>the channel number</p> <p>the centre of the frequency band observed</p> <ul style="list-style-type: none"> <li>- in kHz up to 28 000 kHz inclusive</li> <li>- in MHz above 28 000 kHz to 10 500 MHz inclusive</li> <li>- in GHz above 10 500 MHz</li> </ul> <p>In the case of satellite networks, required only for passive sensors</p>		+	+	+		X	X			C.2.a.2 C.2.b	X
C.2.c	<p>if the frequency assignment is to be filed under No. <b>4.4</b>, an indication to that effect</p>		+	+	+	+					C.2.c	+
<b>C.3</b>	<b>ASSIGNED FREQUENCY BAND</b>										<b>C.3</b>	

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C.3.a	the bandwidth of the assigned frequency band, in kHz (see No. <b>1.147</b> )  In the case of advance publication, required only for active sensors  In the case of geostationary and non-geostationary satellite networks, required for all space applications except passive sensors  In the case of Appendix <b>30B</b> , required only for notification under Article 8		+	+	+	X	X	X	+	C.3.a		
C.3.b	the bandwidth of the frequency band, in kHz, observed by the station  In the case of satellite networks, required only for passive sensors		+	+	+					C.3.b	X	
<b>C.4</b>	<b>CLASS OF STATION AND NATURE OF SERVICE</b>		<b>C.4</b>									
C.4.a	the class of station, using the symbols from the Preface	X	X	X	X	X	X	X	X	X	C.4.a	X
C.4.b	the nature of service performed, using the symbols from the Preface	X	X	X	X	X	X				C.4.b	X
<b>C.5</b>	<b>RECEIVING SYSTEM NOISE TEMPERATURE</b>		<b>C.5</b>									

Items in Appendix	<p align="center"><b>C - CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR A SATELLITE ANTENNA BEAM OR AN EARTH STATION OR RADIO ASTRONOMY ANTENNA</b></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
C.5.a	the lowest total receiving system noise temperature, in kelvins, referred to the output of the receiving antenna of the space station  In the case of satellite networks, required for all space applications except for active or passive sensors			+	+	+			X	X	C.5.a	
C.5.b	the lowest total receiving system noise temperature, in kelvins, referred to the output of the receiving antenna of the earth station under clear-sky conditions  This value shall be indicated for the nominal value of the angle of elevation when the associated transmitting station is onboard a geostationary satellite and, in other cases, for the minimum value of the angle of elevation						X				C.5.b	
C.5.c	the overall receiving system noise temperature, in kelvins, referred to the output of the receiving antenna										C.5.c	X
C.5.d	<b>For active sensors:</b>										C.5.d	
C.5.d.1	the system noise temperature at the output of the signal processor			X	X	X					C.5.d.1	
C.5.d.2	the receiver noise bandwidth			X	X	X					C.5.d.2	
C.6	<b>POLARIZATION</b>										<b>C.6</b>	
C.6.a	the type of polarization (see the Preface)			X	X	X	+ <sup>1</sup>	X	X		C.6.a	

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	<p>In the case of circular polarization, this includes the sense of polarization (see Nos. 1.154 and 1.155)</p> <p>In the case of a space station submitted in accordance with Appendix 30 or 30A, see § 3.2 of Annex 5 to Appendix 30</p>											
C.6.b	<p>if linear polarization is used, the angle, in degrees, measured counter-clockwise in a plane normal to the beam axis from the equatorial plane to the electric vector of the waves as seen from the satellite</p> <p>In the case of a space station submitted in accordance with Appendix 30 or 30A, see § 3.2 of Annex 5 to Appendix 30</p>		+	+	+	+ <sup>1</sup>	+	+			C.6.b	
C.7	<p><b>NECESSARY BANDWIDTH AND CLASS OF EMISSION</b></p> <p>(in accordance with Article 2 and Appendix 1)</p> <p>For advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9, changes to this information within the limits specified under C.1 shall not affect consideration of notification under Article 11</p> <p>Not required for active or passive sensors</p>										C.7	
C.7.a	the necessary bandwidth and the class of emission: for each carrier		X	X	X	X	X	X	X	+	C.7.a	

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	In the case of Appendix 30B, required only for notification under Article 8											
C.7.b C.8	the carrier frequency or frequencies of the emission(s) <b>POWER CHARACTERISTICS OF THE TRANSMISSION</b> Not required for passive sensors			X	C	C	C				C.7.b C.8	
C.8.a	<b>For the case where individual carriers can be identified:</b>										C.8.a	
C.8.a.1	the maximum value of the peak envelope power, in dBW, supplied to the input of the antenna for each carrier type Required if neither C.8.b.1 nor C.8.b.3.a is provided			+	+	+	C				C.8.a.1	
C.8.a.2	the maximum power density, in dB(W/Hz), supplied to the input of the antenna for each carrier type <sup>2</sup> Required if neither C.8.b.2 nor C.8.b.3.b is provided			+	+	+	O				C.8.a.2	
C.8.b	<b>For the case where it is not appropriate to identify individual carriers:</b>										C.8.b	
C.8.b.1	the total peak envelope power, in dBW, supplied to the input of the antenna			+	+	+	+ <sup>1</sup>	X	X		C.8.b.1	

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	For coordination or notification of an Appendix 30A earth station the values shall include the maximum range of power control Required if neither C.8.a.1 nor C.8.b.3.a is provided											
C.8.b.2	the maximum power density, in dB(W/Hz), supplied to the input of the antenna <sup>2</sup>  For coordination or notification of an Appendix 30A earth station the values shall include the maximum range of power control Required if neither C.8.a.2 nor C.8.b.3.b is provided		+	+	+	+	+ <sup>1</sup>	X	X	X	C.8.b.2	
C.8.b.3	<b>For the case of active sensors:</b>										C.8.b.3	
C.8.b.3.a	the mean peak envelope power, in dBW, supplied to the input of the antenna  Required if neither C.8.a.1 nor C.8.b.1 is provided		+	+	+						C.8.b.3.a	
C.8.b.3.b	the mean power density, in dB(W/Hz), supplied to the input of the antenna  Required if neither C.8.a.2 nor C.8.b.2 is provided		+	+	+						C.8.b.3.b	
C.8.c	<b>Minimum power values:</b>  For all space applications except active or passive sensors										C.8.c	

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C.8.c.1	the minimum value of the peak envelope power, in dBW, supplied to the input of the antenna for each carrier type If not provided, the reason for absence under C.8.c.2			+	+	+	+ <sup>1</sup>				C.8.c.1	
C.8.c.2	if C.8.c.1 is not provided, the reason for absence of the minimum value of the peak envelope power			+	+	+	+ <sup>1</sup>				C.8.c.2	
C.8.c.3	the minimum power density, in dB(W/Hz), supplied to the input of the antenna for each carrier type <sup>2</sup> If not provided, the reason for absence under C.8.c.4			+	+	+	+ <sup>1</sup>				C.8.c.3	
C.8.c.4	if C.8.c.3 is not provided, the reason for absence of the minimum power density			+	+	+	+ <sup>1</sup>				C.8.c.4	
C.8.d.1	the maximum total peak envelope power, in dBW, supplied to the input of the antenna for each contiguous satellite bandwidth For a satellite transponder, this corresponds to the maximum saturated peak envelope power Required only for a space-to-Earth or space-to-space link			0	+	+					C.8.d.1	
C.8.d.2	each contiguous satellite bandwidth For the maximum saturated peak envelope power of the satellite transponder, this corresponds to the bandwidth of each transponder			0	+	+					C.8.d.2	

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	Required only for a space-to-Earth or space-to-space link, if different from item C.3.a											
C.8.e.1	for space-to-Earth, Earth-to-space or space-to-space links. for each carrier type, the greater of either the carrier-to-noise ratio, in dB, required to meet the performance of the link under clear-sky conditions or the carrier-to-noise ratio, in dB, required to meet the short-time objectives of the link inclusive of necessary margins  If not provided, the reason for absence under C.8.e.2		+	+	+	+ <sup>1</sup>					C.8.e.1	
C.8.e.2	if C.8.e.1 is not provided, the reason for absence of the carrier-to-noise ratio		+	+	+	+ <sup>1</sup>					C.8.e.2	
C.8.f.1	the space station's nominal equivalent isotropically radiated power(s) (e.i.r.p.) on the beam axis  Required only for a space-to-space link		+								C.8.f.1	
C.8.f.2	the associated space station's nominal equivalent isotropically radiated power(s) (e.i.r.p.) on the beam axis  Required only for a space-to-space link		+								C.8.f.2	
C.8.g.1	the maximum aggregate power, in dBW, of all carriers (per transponder, if applicable) supplied to the input of the transmitting antenna of the earth station or the associated earth station				C	C	C				C.8.g.1	

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	Not required for coordination of a specific earth station under Nos. <b>9.15, 9.17</b> or <b>9.17A</b>											
C.8.g.2	<p>the aggregate bandwidth of all carriers (per transponder, if applicable) supplied to the input of the transmitting antenna of the earth station or the associated earth station</p> <p>Not required for coordination of a specific earth station under Nos. <b>9.15, 9.17</b> or <b>9.17A</b></p>				C	C	C				C.8.g.2	
C.8.g.3	<p>an indicator showing whether the bandwidth of the transponder corresponds to the aggregate bandwidth of all carriers (per transponder, if applicable) supplied to the input of the transmitting antenna of the earth station or the associated earth station</p> <p>Not required for coordination of a specific earth station under Nos. <b>9.15, 9.17</b> or <b>9.17A</b></p>				C	C	C				C.8.g.3	
C.8.h	<p>the maximum power density per Hz supplied to the input of the antenna, in dB(W/Hz), averaged over the necessary bandwidth</p> <p>In the case of Appendix <b>30A</b>, required only in the band 17.3-18.1 GHz</p>							X	+	X	C.8.h	
C.8.i	If power control is used, the maximum range of power control, in dB								+		C.8.i	

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C.8.j	Not used										C.8.j	
<b>C.9</b>	<p align="center"><b>INFORMATION ON MODULATION CHARACTERISTICS</b></p> <p>For all space applications, except active or passive sensors</p>										<b>C.9</b>	
C.9.a	<b>For each carrier, according to the nature of the signal modulating the carrier:</b>										C.9.a	
C.9.a.1	the type of modulation In the case of a non-geostationary space station required only for Nos. <b>9.11A</b> , <b>9.12</b> or <b>9.12A</b>		<b>O</b>	<b>C</b>	<b>+</b>		<b>X</b>	<b>X</b>			C.9.a.1	
C.9.a.2	<b>For a carrier frequency modulated by a frequency-division multichannel telephony baseband (FDM/FM) or by a signal that can be represented by a multichannel telephony baseband:</b>										C.9.a.2	
C.9.a.2.a	the lowest frequency of the baseband		<b>O</b>	<b>C</b>	<b>C</b>						C.9.a.2.a	
C.9.a.2.b	the highest frequency of the baseband		<b>O</b>	<b>C</b>	<b>C</b>						C.9.a.2.b	
C.9.a.2.c	the r.m.s. frequency deviation of the pre-emphasized signal for a test tone as a function of baseband frequency		<b>O</b>	<b>C</b>	<b>C</b>						C.9.a.2.c	
C.9.a.3	<b>For a carrier frequency modulated by a television signal:</b>										C.9.a.3	

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C.9.a.3.a	the peak-to-peak frequency deviation of the pre-emphasized signal			O	C	C		X	X		C.9.a.3.a	
C.9.a.3.b C.9.a.3.c	the pre-emphasis characteristic if applicable, the characteristics of the multiplexing of the video signal with the sound signal(s) or other signals			O	C	C		X	X		C.9.a.3.b C.9.a.3.c	
C.9.a.4	<b>For a carrier phase-shift modulated by a digital signal:</b>										C.9.a.4	
C.9.a.4.a	the bit rate			O	C	C					C.9.a.4.a	
C.9.a.4.b	the number of phases			O	C	C					C.9.a.4.b	
C.9.a.5	<b>For an amplitude modulated carrier (including single sideband):</b>										C.9.a.5	
C.9.a.5.a	the nature of the modulating signal, as precisely as possible			O	C	C					C.9.a.5.a	
C.9.a.5.b	the kind of amplitude modulation used			O	C	C					C.9.a.5.b	
C.9.a.6	<b>For a frequency modulated carrier:</b>										C.9.a.6	
C.9.a.6.a	the peak-to-peak frequency deviation, in MHz, of the energy dispersal waveform			O	C	C		X	X		C.9.a.6.a	
C.9.a.6.b	the sweep frequency, in kHz, of the energy dispersal waveform			O	C	C		X	X		C.9.a.6.b	
C.9.a.6.c	the energy dispersal waveform			O	C	C		X	X		C.9.a.6.c	

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C.9.a.7	if other forms of modulation than frequency modulation, are being used, the type of energy dispersal			O	C	C		+	+		C.9.a.7	
C.9.a.8	for all other types of modulation, such particulars as may be useful for an interference study			O	C	C					C.9.a.8	
C.9.a.9	the TV standard			O	C	C		X	X		C.9.a.9	
C.9.b	<b>For analogue carriers:</b>										C.9.b	
C.9.b.1	the sound-broadcasting characteristics							X	X		C.9.b.1	
C.9.b.2	the composition of the baseband							X	X		C.9.b.2	
C.9.c	<b>For a non-geostationary space station submitted in accordance with Nos. 9.11A, 9.12 or 9.12A:</b>										C.9.c	
C.9.c.1	the type of multiple access					X					C.9.c.1	
C.9.c.2	the spectrum mask					X					C.9.c.2	
C.9.d	<b>For stations operating in a frequency band subject to Nos. 22.5C, 22.5D or 22.5F:</b>										C.9.d	
C.9.d.1	the type of mask					X					C.9.d.1	
C.9.d.2	the pfd mask identification code					X					C.9.d.2	
C.9.d.3	the space station's e.i.r.p. mask identification code					X					C.9.d.3	
C.9.d.4	the associated earth station's e.i.r.p. mask identification code					X					C.9.d.4	
C.10	<b>TYPE AND IDENTITY OF THE ASSOCIATED STATION(S)</b>										C.10	

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	<p>(the associated station may be another space station, a typical earth station of the network or a specific earth station)</p> <p>For all space applications except active or passive sensors</p>											
C.10.a	<b>For an associated space station:</b>										C.10.a	
C.10.a.1	the identity of the station		X	X	X						C.10.a.1	
C.10.a.2	if the associated space station is in the geostationary orbit, its nominal longitude		+	+	+						C.10.a.2	
C.10.b	<b>For an associated earth station:</b>										C.10.b	
C.10.b.1	the name of the station		X	X	X			X			C.10.b.1	
C.10.b.2	the type of station (specific or typical)		X	X	X						C.10.b.2	
C.10.c	<b>For a specific associated earth station:</b>										C.10.c	
C.10.c.1	the geographical coordinates of the antenna site		X	X	X			X			C.10.c.1	
C.10.c.2	the country or geographical area in which the earth station is located, using the symbols from the Preface		X	X	X			X			C.10.c.2	
C.10.d	<b>For an associated earth station (whether specific or typical):</b>										C.10.d	
C.10.d.1	the class of station, using the symbols from the Preface		X	X	X						C.10.d.1	
C.10.d.2	the nature of service performed, using the symbols from the Preface		X	X	X						C.10.d.2	

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C.10.d.3	the isotropic gain, in dBi, of the antenna in the direction of maximum radiation (see No. <b>1.160</b> )			<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	C.10.d.3	
C.10.d.4	the beamwidth, in degrees, between the half-power points (described in detail if not symmetrical)			<b>O</b>	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	C.10.d.4	
C.10.d.5.a	either the measured co-polar radiation pattern of the antenna or the co-polar reference radiation pattern			<b>X</b>	<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	<b>X</b>	C.10.d.5.a	
C.10.d.5.b	either the measured cross-polar radiation pattern of the antenna or the cross-polar reference radiation pattern							<b>X</b>	<b>X</b>		C.10.d.5.b	
C.10.d.6	if the associated station is a receiving earth station, the lowest total receiving system noise temperature, in kelvins, referred to the output of the receiving antenna of the earth station under clear-sky conditions			<b>+</b>	<b>+</b>	<b>+</b>				<b>+</b>	C.10.d.6	
C.10.d.7	the antenna diameter, in metres  In cases other than Appendix <b>30A</b> , required for fixed-satellite service networks operating in the frequency band 13.75-14 GHz and for maritime mobile-satellite service networks operating in the frequency band 14-14.5 GHz				<b>+</b>	<b>+</b>			<b>X</b>		C.10.d.7	
C.10.d.8	the equivalent antenna diameter (i.e. the diameter, in metres, of a parabolic antenna with the same off-axis performance as the receiving associated earth station antenna)							<b>X</b>			C.10.d.8	

Items in Appendix	<p align="center"><b>C - CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR A SATELLITE ANTENNA BEAM OR AN EARTH STATION OR RADIO ASTRONOMY ANTENNA</b></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
C.11	<p><b>SERVICE AREA(S)</b></p> <p>For all space applications except active or passive sensors</p>											C.11
C.11.a	<p>the service area or areas of the satellite beam on the Earth, when the associated transmitting or receiving stations are earth stations</p> <p>For a space station submitted in accordance with Appendix 30, 30A or 30B, the service area identified by a set of a maximum of twenty test points and by a service area contour on the surface of the Earth or defined by a minimum elevation angle</p> <p>For advance publication of satellite networks subject to coordination, only a list of countries and geographical areas, using the symbols from the Preface, or a narrative description of the service area shall be supplied</p>	X	X	X	X	X		X	X	X	C.11.a	
C.11.b	<p>the appropriate information required to calculate the affected region (as defined in Recommendation ITU-R M.1187-1)</p> <p>Required only for a non-geostationary space station in the mobile-satellite service submitted in accordance with No. 9.11A</p>					+					C.11.b	
C.12	<p><b>REQUIRED PROTECTION RATIO</b></p>											C.12

Items in Appendix	<p align="center"><b>C – CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR A SATELLITE ANTENNA BEAM OR AN EARTH STATION OR RADIO ASTRONOMY ANTENNA</b></p>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
C.12.a	<p>the minimum acceptable aggregate carrier-to-interference ratio, if less than 21 dB</p> <p>The carrier-to-interference ratio is to be expressed in terms of the power averaged over the necessary bandwidth of the modulated wanted and interfering signals, assuming both the desired carrier and interfering signals have equivalent bandwidths and modulation types</p>									+	C.12.a	
<b>C.13</b>	<b>CHARACTERISTICS OF OBSERVATIONS FOR RADIO ASTRONOMY STATIONS</b>										<b>C.13</b>	
C.13.a	<p>the class of observations to be taken on the frequency band shown under C.3.b</p> <ul style="list-style-type: none"> <li>– Class A observations are those in which the sensitivity of the equipment is not a primary factor</li> <li>– Class B observations are those of such a nature that they can be made only with advanced low-noise receivers using the best techniques</li> </ul>										C.13.a	<b>X</b>
C.13.b	<p>the type of radio astronomy station in the frequency band shown under C.3.b</p> <ul style="list-style-type: none"> <li>– Single-dish, "S", telescope used for spectral-line or continuum observations using single-dishes or closely connected arrays</li> </ul>										C.13.b	<b>X</b>

Items in Appendix	C - CHARACTERISTICS TO BE PROVIDED FOR EACH GROUP OF FREQUENCY ASSIGNMENTS FOR A SATELLITE ANTENNA BEAM OR AN EARTH STATION OR RADIO ASTRONOMY ANTENNA	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
	-Very long baseline interferometry (VLBI), "V", station used only for VLBI observations											
C.13.c	the minimum elevation angle $\theta_{min}$ at which the radio astronomy station conducts single-dish or VLBI observations in the frequency band										C.13.c	X
C.14	Not used										C.14	
C.15	<b>DESCRIPTION OF THE GROUP(S) REQUIRED IN THE CASE OF NON-SIMULTANEOUS EMISSIONS</b>										C.15	
C.15.a	if part of an exclusive operation group, the group identification code							+	+	+	C.15.a	
C.16	<b>DESCRIPTION OF ACTIVE AND PASSIVE SENSOR SYSTEMS</b>										C.16	
C.16.a	<b>For active sensors:</b>										C.16.a	
C.16.a.1	the pulse length, in $\mu$ s			X	X	X					C.16.a.1	
C.16.a.2	the pulse repetition frequency, in kHz			X	X	X					C.16.a.2	
C.16.b	<b>For passive sensors:</b>										C.16.b	
C.16.b.1	the sensitivity threshold, in kelvins			X	X	X					C.16.b.1	

Items in Appendix	<i>D - OVERALL LINK CHARACTERISTICS</i>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
	For non-plan services, this data may be provided by administrations that so desire but only when simple frequency-changing transponders are used on the space station onboard a geostationary satellite											
<b>D.1</b>	<b>CONNECTION BETWEEN EARTH-TO-SPACE AND SPACE-TO-EARTH FREQUENCIES IN THE NETWORK</b>										<b>D.1</b>	
D.1.a	the connection between uplink and downlink frequency assignments for each intended combination of receiving and transmitting beams  In the case of Appendix 30 or 30A, required only in Region 2  In the case of Appendix 30B, required except for submission of one link only			<b>O</b>			+	+	+		D.1.a	
<b>D.2</b>	<b>TRANSMISSION GAINS AND ASSOCIATED EQUIVALENT SATELLITE LINK NOISE TEMPERATURES</b>										<b>D.2</b>	
D.2.a	<b>For each entry under D.1.a:</b>										D.2.a	
D.2.a.1	the lowest equivalent satellite link noise temperature  These values shall be indicated for the nominal value of the angle of elevation			<b>O</b>							D.2.a.1	

Items in Appendix	<i>D - OVERALL LINK CHARACTERISTICS</i>	Advance publication of a geostationary-satellite network	Advance publication of a non-geostationary-satellite network subject to coordination under Section II of Article 9	Advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article 9	Notification or coordination of a geostationary-satellite network (including space operation functions under Article 2A of Appendices 30 or 30A)	Notification or coordination of a non-geostationary-satellite network	Notification or coordination of an earth station (including notification under Appendices 30A or 30B)	Notice for a satellite network in the broadcasting-satellite service under Appendix 30 (Articles 4 and 5)	Notice for a satellite network (feeder-link) under Appendix 30A (Articles 4 and 5)	Notice for a satellite network in the fixed-satellite service under Appendix 30B (Articles 6 and 8)	Items in Appendix	Radio astronomy
D.2.a.2	<p>the associated transmission gain of the lowest equivalent satellite link noise temperature</p> <p>These values shall be indicated for the nominal value of the angle of elevation</p> <p>The transmission gain is evaluated from the output of the receiving antenna of the space station to the output of the receiving antenna of the earth station</p>			O						D.2.a.2		
D.2.b.1	the values of associated equivalent satellite link noise temperature that correspond to the highest ratio of transmission gain to equivalent satellite link noise temperature			O						D.2.b.1		
D.2.b.2	the values of transmission gain that correspond to the highest ratio of transmission gain to equivalent satellite link noise temperature			O						D.2.b.2		

APPENDIX 5 (Rev.WRC-07)

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

TABLE 5-1 (Rev.WRC-07)

**Technical conditions for coordination**  
(see Article 9)

MOD COM5/287/6 (B8/293/10) (R4/335/62)

Reference of Article 9	Case	Frequency bands (and Region) of the service for which coordination is sought	Threshold/condition	Calculation method	Remarks
No. 9.7 GSO/GSO	A station in a satellite network using the geostationary-satellite orbit (GSO), in any space radiocommunication service, in a frequency band and in a Region where this service is not subject to a Plan, in respect of any other satellite network using that orbit, in any space radio-communication service in a frequency band and in a Region where this service is not subject to a Plan, with the exception of the coordination between earth stations operating in the opposite direction of transmission	1) 3 400-4 200 MHz 5 725-5 850 MHz (Region 1) and 5 850-6 725 MHz 7 025-7 075 MHz  2) 10.95-11.2 GHz 11.45-11.7 GHz 11.7-12.2 GHz (Region 2) 12.2-12.5 GHz (Region 3) 12.5-12.75 GHz (Regions 1 and 3) 12.7-12.75 GHz (Region 2) and 13.75-14.5 GHz	i) Bandwidth overlap, and ii) any network in the fixed-satellite service (FSS) and any associated space operation functions (see No. 1.23) with a space station within an orbital arc of $\pm 10^\circ$ of the nominal orbital position of a proposed network in the FSS  i) Bandwidth overlap, and ii) any network in the FSS or broadcasting-satellite service (BSS), not subject to a Plan, and any associated space operation functions (see No. 1.23) with a space station within an orbital arc of $\pm 9^\circ$ of the nominal orbital position of a proposed network in the FSS or BSS, not subject to a Plan		With respect to the space services listed in the threshold/condition column in the bands in 1), 2), 3), 4), 5), 6), 7) and 8), an administration may request, pursuant to No. 9.41, to be included in requests for coordination, indicating the networks for which the value of $\Delta T/T$ calculated by the method in § 2.2.1.2 and 3.2 of Appendix 8 exceeds 6%. When the Bureau, on request by an affected administration, studies this information pursuant to No. 9.42, the calculation method given in § 2.2.1.2 and 3.2 of Appendix 8 shall be used

TABLE 5-1 (continued) (Rev.WRC-07)

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

TABLE 5-1 (continued) (Rev.WRC-07)

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

TABLE 5-1 (continued) (Rev.WRC-07)

Reference of Article 9	Case	Frequency bands (and Region) of the service for which coordination is sought	Threshold/condition	Calculation method	Remarks
No. 9.7 GSO/GSO (cont.)		7) Bands above 17.3 GHz, except those defined in § 3) and 6)  8) Bands above 17.3 GHz except those defined in § 4) and 5)	i) Bandwidth overlap, and ii) any network in the FSS and any associated space operation functions (see No. 1.23) with a space station within an orbital arc of $\pm 8^\circ$ of the nominal orbital position of a proposed network in the FSS (see also Resolution 901 (Rev.WRC-07))  i) Bandwidth overlap, and ii) any network in the FSS or BSS, not subject to a Plan, and any associated space operation functions (see No. 1.23) with a space station within an orbital arc of $\pm 16^\circ$ of the nominal orbital position of a proposed network in the FSS or BSS, not subject to a Plan, except in the case of a network in the FSS with respect to a network in the FSS (see also Resolution 901 (Rev.WRC-07))		

TABLE 5-1 (continued) (Rev.WRC-07)

Reference of Article 9	Case	Frequency bands (and Region) of the service for which coordination is sought	Threshold/condition	Calculation method	Remarks
No. 9.7 GSO/GSO (cont.)		9) All frequency bands, other than those in 1), 2), 3), 4), 5), 6), 7) and 8), allocated to a space service, and the bands in 1), 2), 3), 4), 5), 6), 7) and 8) where the radio service of the proposed network or affected networks is other than the space services listed in the threshold/condition column, or in the case of coordination of space stations operating in the opposite direction of transmission	i) Bandwidth overlap, and  ii) Value of $\Delta T/T$ exceeds 6%	Appendix 8	In application of Article 2A of Appendix 30 for the space operation functions using the guardbands defined in § 3.9 of Annex 5 of Appendix 30, the threshold/condition specified for the FSS in the bands in 2) applies.  In application of Article 2A of Appendix 30A for the space operation functions using the guardbands defined in § 3.1 and 4.1 of Annex 3 of Appendix 30A, the threshold/condition specified for the FSS in the bands in 7) applies

MOD COM4/211/7 (B3/224/21) (R2/266/13)

TABLE 5-1 (continued) (Rev.WRC-07)

Reference of Article 9	Case	Frequency bands (and Region) of the service for which coordination is sought	Threshold/condition	Calculation method	Remarks
No. 9.11 GSO, non-GSO/ terrestrial	A space station in the BSS in any band shared on an equal primary basis with terrestrial services and where the BSS is not subject to a Plan, in respect of terrestrial services	620-790 MHz 1 452-1 492 MHz 2 310-2 360 MHz 2 535-2 655 MHz (Nos. 5.417A and 5.418) 12.5-12.75 GHz (Region 3) 17.3-17.8 GHz (Region 2) 21.4-22 GHz (Regions 1 and 3) 74-76 GHz	Bandwidths overlap: The detailed conditions for the application of No. 9.11 in the bands 2 630-2 655 MHz and 2 605-2 630 MHz are provided in Resolution 539 (Rev.WRC-03) for non-GSO BSS (sound) systems pursuant to Nos. 5.417A and 5.418, and in Nos. 5.417A and 5.418 for GSO BSS (sound) networks pursuant to those provisions. Resolution [COM4/1] (WRC-07) applies in the 620-790 MHz band	Check by using the assigned frequencies and bandwidths	

MOD COM5/230/7 (B4/234/6) (R3/292/98)

TABLE 5-1 (continued) (Rev.WRC-07)

Reference of Article 9	Case	Frequency bands (and Region) of the service for which coordination is sought	Threshold/condition	Calculation method	Remarks
...					
No. <b>9.13</b> GSO/non-GSO	A station in a GSO satellite network in the frequency bands for which a footnote refers to No. <b>9.11A</b> or No. <b>9.13</b> , in respect of any other non-GSO satellite network, with the exception of coordination between earth stations operating in the opposite direction of transmission	Frequency bands for which a footnote refers to No. <b>9.11A</b> or No. <b>9.13</b>	1) Bandwidths overlap 2) For the band 1 668-1 668.4 MHz with respect to MSS network coordination with <b>SRS</b> (passive) networks, in addition to bandwidth overlap, the e.i.r.p. spectral density of mobile earth stations in a GSO network of the mobile-satellite service operating in this band exceeds $-2.5 \text{ dB(W/4 kHz)}$ or the power spectral density delivered to the mobile earth station antenna exceeds $-10 \text{ dB(W/4 kHz)}$	1) Check by using the assigned frequencies and bandwidths 2) Check by using MSS network Appendix 4 data	
...					

MOD COM4/392/17 (B19/413/22)

TABLE 5-1 (continued) (Rev.WRC-07)

Reference of Article 9	Case	Frequency bands (and Region) of the service for which coordination is sought	Threshold/condition	Calculation method	Remarks
...					
No. <b>9.19</b> Terrestrial, GSO, non-GSO/ GSO, non-GSO	Any transmitting station of a terrestrial service or a transmitting earth station in the FSS (Earth-to-space) in a frequency band shared on an equal primary basis with the BSS, with respect to typical earth stations included in the service area of a space station in the BSS	Bands listed in No. <b>9.11</b> , the band 2 520-2 670 MHz and the band 11.7-12.7 GHz	i) Necessary bandwidths overlap; and ii) the power flux-density (pfd) of the interfering station at the edge of the BSS service area exceeds the permissible level	Check by using the assigned frequencies and bandwidths	See also Article 6 of Appendix <b>30</b>
...					

MOD COM4/392/17bis (B19/413/23)

TABLE 5-1 (continued) (Rev.WRC-07)

Reference of Article 9	Case	Frequency bands (and Region) of the service for which coordination is sought	Threshold/condition	Calculation method	Remarks
...					
No. <b>9.14</b> Non-GSO/ terrestrial, GSO/ terrestrial	A space station in a satellite network in the frequency bands for which a footnote refers to No. <b>9.11A</b> or to No. <b>9.14</b> , in respect of stations of terrestrial services where threshold(s) is (are) exceeded	1) Frequency bands for which a footnote refers to No. <b>9.11A</b> ; or  2) 11.7-12.2 GHz (Region 2 GSO FSS)	1) See § 1 of Annex 1 to this Appendix; In the bands specified in No. <b>5.4A01</b> , the detailed conditions for the application of No. <b>9.14</b> are provided in No. <b>5.4A01</b> for MSS networks or  2) In the band 11.7-12.2 GHz (Region 2 GSO FSS): $-124 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ for $0^\circ \leq \theta \leq 5^\circ$ $-124 + 0.5 (\theta - 5) \text{ dB(W/(m}^2 \cdot \text{MHz))}$ for $5^\circ < \theta \leq 25^\circ$ $-114 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ for $\theta > 25^\circ$ where $\theta$ is the angle of arrival of the incident wave above the horizontal plane (degrees)	1) See § 1 of Annex 1 to this Appendix	

MOD COM4/392/18 (B19/413/24)

TABLE 5-2 (continued) (WRC-07)

Frequency band (MHz)	Terrestrial service to be protected	Coordination threshold values				
		GSO space stations		Non-GSO space stations		
		pfd (per space station) calculation factors (NOTE 2)		pfd (per space station) calculation factors (NOTE 2)		% FDP (in 1 MHz) (NOTE 1)
		<i>P</i>	<i>r</i> dB/degrees	<i>P</i>	<i>r</i> dB/degrees	
...						
SUP 2 500-2 520						
SUP 2 520-2 535						
...						

**MOD** COM5/287/7 (B8/293/11) (R4/335/63)

APPENDIX 7 (Rev.WRC-07)

**Methods for the determination of the coordination area around an earth station in frequency bands between 100 MHz and 105 GHz**

ANNEX 7

**System parameters and predetermined coordination distances for determination of the coordination area around an earth station**

MOD COM4/318/12 (B11/329/9) (R6/410/14)

TABLE 7b (WRC-07)

Parameters required for the determination of coordination distance for a transmitting earth station

Transmitting space radiocommunication service designation	Fixed-satellite, mobile-satellite	Fixed-satellite	Fixed-satellite	Fixed-satellite	Fixed-satellite	Space operation, space research		Fixed-satellite, mobile-satellite, meteorological-satellite	Fixed-satellite		Fixed-satellite		Fixed-satellite <sup>3</sup>	Fixed-satellite	Fixed-satellite <sup>3</sup>			
Frequency bands (GHz)	2.655-2.690	5.091-5.150	5.091-5.150	5.725-5.850	5.725-7.075	7.100-7.235 <sup>5</sup>		7.900-8.400	10.7-11.7		12.5-14.8		13.75-14.3	15.43-15.65	17.7-18.4	19.3-19.7		
Receiving terrestrial service designations	Fixed, mobile	Aeronautical radio-navigation	Aeronautical mobile (R)	Radio-location	Fixed, mobile		Fixed, mobile		Fixed, mobile		Fixed, mobile		Radiolocation radionavigation (land only)	Aeronautical radionavigation	Fixed, mobile	Fixed, mobile		
Method to be used	§ 2.1			§ 2.1	§ 2.1		§ 2.1, § 2.2		§ 2.1		§ 2.1, § 2.2		§ 2.1		§ 2.1, § 2.2	§ 2.2		
Modulation at terrestrial station <sup>1</sup>	A				A	N	A	N	A	N	A	N	A	N		N	N	
Terrestrial station interference parameters and criteria	$p_0$ (%)	0.01			0.01	0.005	0.01	0.005	0.01	0.005	0.01	0.005	0.01	0.005	0.01		0.005	0.005
	$n$	2			2	2	2	2	2	2	2	2	2	2	1		2	2
	$p$ (%)	0.005			0.005	0.0025	0.005	0.0025	0.005	0.0025	0.005	0.0025	0.005	0.0025	0.01		0.0025	0.0025
	$N_f$ (dB)	0			0	0	0	0	0	0	0	0	0	0	0		0	0
	$M_x$ (dB)	26 <sup>2</sup>			33	37	33	37	33	37	33	40	33	40	1		25	25
	$W$ (dB)	0			0	0	0	0	0	0	0	0	0	0	0		0	0
Terrestrial station parameters	$G_x$ (dBi) <sup>4</sup>	49 <sup>2</sup>	6	6	46	46	46	46	46	46	50	50	52	52	36		48	48
	$T_e$ (K)	500 <sup>2</sup>			750	750	750	750	750	750	1 500	1 100	1 500	1 100	2 636		1 100	1 100
Reference bandwidth	$B$ (Hz)	$4 \times 10^3$	$150 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$10^7$		$10^6$	$10^6$
Permissible interference power	$P_r(p)$ (dBW) in $B$	-140	-160	-143	-131	-103	-131	-103	-131	-103	-128	-98	-128	-98	-131		-113	-113

<sup>1</sup> A: analogue modulation; N: digital modulation.

<sup>2</sup> The parameters for the terrestrial station associated with transhorizon systems have been used. Line-of-sight radio-relay parameters associated with the frequency band 5 725-7 075 MHz may also be used to determine a supplementary contour with the exception that  $G_x = 37$  dBi.

<sup>3</sup> Feeder links of non-geostationary-satellite systems in the mobile-satellite service.

<sup>4</sup> Feeder losses are not included.

<sup>5</sup> Actual frequency bands are 7 100-7 155 MHz and 7 190-7 235 MHz for space operation service and 7 145-7 235 MHz for the space research service.

MOD COM5/287/8 (B8/293/12) (R4/335/64)

TABLE 8d (Rev.WRC-07)

Parameters required for the determination of coordination distance for a receiving earth station

Receiving space radiocommunication service designation	Meteoro-logical-satellite	Fixed-satellite	Fixed-satellite <sup>3</sup>	Broad-casting-satellite	Earth exploration-satellite <sup>4</sup>	Earth exploration-satellite <sup>5</sup>	Space research (deep space)	Space research		Fixed-satellite <sup>6</sup>	Fixed-satellite <sup>5</sup>	Mobile-satellite	Broadcasting-satellite, fixed-satellite	Mobile-satellite	Radio-navigation	Broadcasting-satellite
								Unman-ned	Manned							
Frequency bands (GHz)	18.0-18.4	18.8-19.3	19.3-19.7	21.4-22.0	25.5-27.0	25.5-27.0	31.8-32.3	37.0-38.0		37.5-40.5	37.5-40.5	39.5-40.5	40.5-42.5	43.5-47.0	43.5-47.0	84-86
Transmitting terrestrial service designations	Fixed, mobile	Fixed, mobile	Fixed, mobile	Fixed, mobile	Fixed, mobile	Fixed, mobile	Fixed, radio-navigation	Fixed, mobile		Fixed, mobile	Fixed, mobile	Fixed, mobile	Broadcasting, fixed	Mobile	Mobile	Fixed, mobile, broadcasting
Method to be used	§ 2.1	§ 2.1, § 2.2	§ 2.2	§ 1.4.5	§ 2.2	§ 2.1	§ 2.1, § 2.2	§ 2.1, § 2.2		§ 2.2	§ 2.1	§ 1.4.6	§ 1.4.5, § 2.1	§ 1.4.6	-	§ 1.4.5
Modulation at earth station <sup>1</sup>	N	N	N		N	N	N	N		N	N	N	-	N		
Earth station interference parameters and criteria	$p_0$ (%)	0.05	0.003	0.01		0.25	0.25	0.001	0.1	0.001	0.02	0.003				
	$n$	2	2	1		2	2	1	1	1		2				
	$p$ (%)	0.025	0.0015	0.01		0.125	0.125	0.001	0.1	0.001		0.0015				
	$N_L$ (dB)	0	0	0		0	0	0	0	0	1	1				
	$M_s$ (dB)	18.8	5	5		11.4	14	1	1	1	6.8	6				
$W$ (dB)	0	0	0		0	0	0	0	0	0	0					
Terrestrial station parameters	$E$ (dBW) in $B$ <sup>2</sup>	A	-	-		-	-	-	-	-	-	-	-	-	-	-
		N	40	40	40	40	42	42	-28	-28	35	35	35	44	40	40
	$P_t$ (dBW) in $B$	A	-	-		-	-	-	-	-	-	-	-	-	-	-
		N	-7	-7	-7	-7	-3	-3	-81	-73	-10	-10	-10	-1	-7	-7
$G_x$ (dBi)	47	47	47	47	45	45	53	45	45	45	45	45	45	47	47	
Reference bandwidth <sup>6</sup>	$B$ (Hz)	$10^7$	$10^6$	$10^6$		$10^7$	$10^7$	1	1	$10^6$	$10^6$	$10^6$	$10^6$			
Permissible interference power	$P_f(p)$ (dBW) in $B$	-115	-140	-137		-120	-116	-216	-217	-140						

<sup>1</sup> A: analogue modulation; N: digital modulation.

<sup>2</sup>  $E$  is defined as the equivalent isotropically radiated power of the interfering terrestrial station in the reference bandwidth.

<sup>3</sup> Non-geostationary mobile-satellite service feeder links.

<sup>4</sup> Non-geostationary-satellite systems.

<sup>5</sup> Geostationary-satellite systems.

<sup>6</sup> Non-geostationary fixed-satellite service systems.

**MOD** COM5/216/9 (B3/224/22) (R2/266/14)

TABLE 10 (WRC-07)

**Predetermined coordination distances**

Frequency sharing situation		Coordination distance (in sharing situations involving services allocated with equal rights) (km)
Type of earth station	Type of terrestrial station	
...	...	...
Ground-based in the bands in which the frequency sharing situation is not covered in the rows above	Mobile (aircraft)	500

**SUP** COM4/211/8 (B3/224/23)

**APPENDIX 13 (Rev.WRC-03)\***

**Distress and safety communications (non-GMDSS)**

**MOD** COM4/296/45 (B9/305/47) (R4/335/65)

**APPENDIX 14 (Rev.WRC-07)**

**Phonetic alphabet and figure code**

(See Articles **30** and **57**) (WRC-07)

**MOD** COM4/296/46 (B9/305/48) (R4/335/66)

**APPENDIX 15 (Rev.WRC-07)**

**Frequencies for distress and safety communications for the Global Maritime Distress and Safety System (GMDSS)**

(See Article **31**)

The frequencies for distress and safety communications for the GMDSS are given in Tables 15-1 and 15-2 for frequencies below and above 30 MHz, respectively.

TABLE 15-1 (WRC-07)

**Frequencies below 30 MHz**

<b>Frequency (kHz)</b>	<b>Description of usage</b>	<b>Notes</b>
490	MSI	The frequency 490 kHz is used exclusively for maritime safety information (MSI). (WRC-03)
518	MSI	The frequency 518 kHz is used exclusively by the international NAVTEX system.
*2 174.5	NBDP-COM	
*2 182	RTP-COM	The frequency 2 182 kHz uses class of emission J3E. See also No. <b>52.190</b> .
*2 187.5	DSC	
3 023	AERO-SAR	The aeronautical carrier (reference) frequencies 3 023 kHz and 5 680 kHz may be used for intercommunication between mobile stations engaged in coordinated search and rescue operations, and for communication between these stations and participating land stations, in accordance with the provisions of Appendix 27 (see Nos. <b>5.111</b> and <b>5.115</b> ).
*4 125	RTP-COM	See also No. <b>52.221</b> . The carrier frequency 4 125 kHz may be used by aircraft stations to communicate with stations of the maritime mobile service for distress and safety purposes, including search and rescue (see No. <b>30.11</b> ).
*4 177.5	NBDP-COM	
*4 207.5	DSC	
4 209.5	MSI	The frequency 4 209.5 kHz is exclusively used for NAVTEX-type transmissions (see Resolution <b>339 (Rev.WRC-03)</b> ).
4 210	MSI-HF	
5 680	AERO-SAR	See note under 3 023 kHz above.
*6 215	RTP-COM	See also No. <b>52.221</b> .
*6 268	NBDP-COM	
*6 312	DSC	
6 314	MSI-HF	
*8 291	RTP-COM	
*8 376.5	NBDP-COM	
*8 414.5	DSC	
8 416.5	MSI-HF	

TABLE 15-1 (end) (WRC-07)

Frequency (kHz)	Description of usage	Notes
*12 290	RTP-COM	
*12 520	NBDP-COM	
*12 577	DSC	
12 579	MSI-HF	
*16 420	RTP-COM	
*16 695	NBDP-COM	
*16 804.5	DSC	
16 806.5	MSI-HF	
19 680.5	MSI-HF	
22 376	MSI-HF	
26 100.5	MSI-HF	

**Legend:**

**AERO-SAR** These aeronautical carrier (reference) frequencies may be used for distress and safety purposes by mobile stations engaged in coordinated search and rescue operations.

**DSC** These frequencies are used exclusively for distress and safety calls using digital selective calling in accordance with No. 32.5 (see Nos. 33.8 and 33.32). (WRC-07)

**MSI** In the maritime mobile service, these frequencies are used exclusively for the transmission of maritime safety information (MSI) (including meteorological and navigational warnings and urgent information) by coast stations to ships, by means of narrow-band direct-printing telegraphy.

**MSI-HF** In the maritime mobile service, these frequencies are used exclusively for the transmission of high seas MSI by coast stations to ships, by means of narrow-band direct-printing telegraphy.

**NBDP-COM** These frequencies are used exclusively for distress and safety communications (traffic) using narrow-band direct-printing telegraphy.

**RTP-COM** These carrier frequencies are used for distress and safety communications (traffic) by radio-telephony.

\* Except as provided in these Regulations, any emission capable of causing harmful interference to distress, alarm, urgency or safety communications on the frequencies denoted by an asterisk (\*) is prohibited. Any emission causing harmful interference to distress and safety communications on any of the discrete frequencies identified in this Appendix is prohibited. (WRC-07)

TABLE 15-2 (WRC-07)

**Frequencies above 30 MHz (VHF/UHF)**

Frequency (MHz)	Description of usage	Notes
*121.5	AERO-SAR	<p>The aeronautical emergency frequency 121.5 MHz is used for the purposes of distress and urgency for radiotelephony by stations of the aeronautical mobile service using frequencies in the band between 117.975 MHz and 137 MHz. This frequency may also be used for these purposes by survival craft stations. Emergency position-indicating radio beacons use the frequency 121.5 MHz as indicated in Recommendation ITU-R M.690-1.</p> <p>Mobile stations of the maritime mobile service may communicate with stations of the aeronautical mobile service on the aeronautical emergency frequency 121.5 MHz for the purposes of distress and urgency only, and on the aeronautical auxiliary frequency 123.1 MHz for coordinated search and rescue operations, using class A3E emissions for both frequencies (see also Nos. <b>5.111</b> and <b>5.200</b>). They shall then comply with any special arrangement between governments concerned by which the aeronautical mobile service is regulated.</p>
123.1	AERO-SAR	<p>The aeronautical auxiliary frequency 123.1 MHz, which is auxiliary to the aeronautical emergency frequency 121.5 MHz, is for use by stations of the aeronautical mobile service and by other mobile and land stations engaged in coordinated search and rescue operations (see also No. <b>5.200</b>).</p> <p>Mobile stations of the maritime mobile service may communicate with stations of the aeronautical mobile service on the aeronautical emergency frequency 121.5 MHz for the purposes of distress and urgency only, and on the aeronautical auxiliary frequency 123.1 MHz for coordinated search and rescue operations, using class A3E emissions for both frequencies (see also Nos. <b>5.111</b> and <b>5.200</b>). They shall then comply with any special arrangement between governments concerned by which the aeronautical mobile service is regulated.</p>
156.3	VHF-CH06	<p>The frequency 156.3 MHz may be used for communication between ship stations and aircraft stations engaged in coordinated search and rescue operations. It may also be used by aircraft stations to communicate with ship stations for other safety purposes (see also Note <i>f</i>) in Appendix <b>18</b>).</p>
*156.525	VHF-CH70	<p>The frequency 156.525 MHz is used in the maritime mobile service for distress and safety calls using digital selective calling (see also Nos. <b>4.9</b>, <b>5.227</b>, <b>30.2</b> and <b>30.3</b>).</p>

TABLE 15-2 (end) (WRC-07)

Frequency (MHz)	Description of usage	Notes
156.650	VHF-CH13	The frequency 156.650 MHz is used for ship-to-ship communications relating to the safety of navigation in accordance with Note <i>k</i> ) in Appendix 18.
*156.8	VHF-CH16	The frequency 156.8 MHz is used for distress and safety communications by radiotelephony. Additionally, the frequency 156.8 MHz may be used by aircraft stations for safety purposes only.
*161.975	AIS-SART VHF CH AIS 1	AIS 1 is used for AIS search and rescue transmitters (AIS-SART) for use in search and rescue operations.
*162.025	AIS-SART VHF CH AIS 2	AIS 2 is used for AIS search and rescue transmitters (AIS-SART) for use in search and rescue operations.
*406-406.1	406-EPIRB	This frequency band is used exclusively by satellite emergency position-indicating radio beacons in the Earth-to-space direction (see No. 5.266).
1 530-1 544	SAT-COM	In addition to its availability for routine non-safety purposes, the band 1 530-1 544 MHz is used for distress and safety purposes in the space-to-Earth direction in the maritime mobile-satellite service. GMDSS distress, urgency and safety communications have priority in this band (see No. 5.353A).
*1 544-1 545	D&S-OPS	Use of the band 1 544-1 545 MHz (space-to-Earth) is limited to distress and safety operations (see No. 5.356), including feeder links of satellites needed to relay the emissions of satellite emergency position-indicating radio beacons to earth stations and narrow-band (space-to-Earth) links from space stations to mobile stations.
1 626.5-1 645.5	SAT-COM	In addition to its availability for routine non-safety purposes, the band 1 626.5-1 645.5 MHz is used for distress and safety purposes in the Earth-to-space direction in the maritime mobile-satellite service. GMDSS distress, urgency and safety communications have priority in this band (see No. 5.353A).
*1 645.5-1 646.5	D&S-OPS	Use of the band 1 645.5-1 646.5 MHz (Earth-to-space) is limited to distress and safety operations (see No. 5.375).
9 200-9 500	SARTS	This frequency band is used by radar transponders to facilitate search and rescue.

**Legend:**

**AERO-SAR** These aeronautical carrier (reference) frequencies may be used for distress and safety purposes by mobile stations engaged in coordinated search and rescue operations.

**D&S-OPS** The use of these bands is limited to distress and safety operations of satellite emergency position-indicating radio beacons (EPIRBs).

**SAT-COM** These frequency bands are available for distress and safety purposes in the maritime mobile-satellite service (see Notes).

**VHF-CH#** These VHF frequencies are used for distress and safety purposes. The channel number (CH#) refers to the VHF channel as listed in Appendix 18, which should also be consulted.

**AIS** These frequencies are used by automatic identification systems (AIS), which should operate in accordance with the most recent version of Recommendation ITU-R M.1371. (WRC-07)

\* Except as provided in these Regulations, any emission capable of causing harmful interference to distress, alarm, urgency or safety communications on the frequencies denoted by an asterisk (\*) is prohibited. Any emission causing harmful interference to distress and safety communications on any of the discrete frequencies identified in this Appendix is prohibited. (WRC-07)

**MOD** COM4/332/177 (B14/365/40) (R7/411/210)

**APPENDIX 16 (Rev.WRC-07)**

(See Articles **42** and **51**)

**Section I – Ship stations for which a Global Maritime Distress and Safety System installation is required by international agreement**

These stations shall be provided with:

- 1 the licence prescribed by Article **18**;
- 2 certificates of the operator or operators;
- 3 a log in which the following are recorded as they occur, together with the time of the occurrence, unless administrations have adopted other arrangements for recording all information which the log should contain:
  - a) a summary of communications relating to distress, urgency and safety traffic;
  - b) a reference to important service incidents;
- 4 the *List of Ship Stations and Maritime Mobile Service Identity Assignments* (see Article **20**) in either printed or electronic format;
- 5 the *List of Coast Stations and Special Service Stations* (see Article **20**) in either printed or electronic format;
- 6 the *Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services* (see Article **20**) in either printed or electronic format.

NOTE – An administration may exempt a ship from the carriage of the documents mentioned in items 5 and 6 above under various circumstances (for example, when that ship carries equivalent information for the ship's specified trading area).

**Section II – Other ship stations for which a radio installation is required by regional or international agreement**

These stations shall be provided with:

- 1 the licence prescribed by Article **18**;
- 2 certificates of the operator or operators;
- 3 a log or other arrangements which the administration may have adopted for that purpose, in which a summary of communications related to distress, urgency and safety traffic shall be recorded together with the time of their occurrence;
- 4 the *List of Coast Stations and Special Service Stations* (see Article **20**) in either printed or electronic format;
- 5 the relevant rules and procedures of radiocommunications, e.g. *Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services* (paper or electronic format) (see Article **20**).

NOTE – An administration may exempt a ship from the carriage of the documents mentioned in items 4 and 5 above under various circumstances (for example, when that ship carries equivalent information for the ship's specified trading area).

### **Section III – Other ship stations**

These stations shall be provided with:

- 1 the documents mentioned in items 1 and 2 of Section II;
- 2 the documents mentioned in items 4 and 5 of Section II, in accordance with the requirements of the administrations concerned.

NOTE – An administration may exempt a ship from the carriage of the documents mentioned in item 2 above under various circumstances (for example, when that ship carries equivalent information for the ship's specified trading area). Administrations may also, by mutual agreement, exempt ships travelling only between their national jurisdictions from the licensing prescribed by Article 18 and the carriage of the documents mentioned in item 1 above, provided those vessels are otherwise licensed or authorized by regulation.

### **Section IV – Stations on board aircraft**

These stations shall be provided with:

- 1 the documents mentioned in items 1 and 2 of Section I;
- 2 a log, unless administrations have adopted other arrangements for recording all information which the log should contain;
- 3 those published documents, in either printed or electronic formats, containing official information relating to stations which the aircraft station may use for the execution of its service.

## **APPENDIX 17 (Rev.WRC-07)**

### **Frequencies and channelling arrangements in the high-frequency bands for the maritime mobile service**

(See Article 52)

**MOD** COM4/380/58 (B17/404/62)

#### **PART A – Table of subdivided bands** (WRC-07)

**SUP** COM4/380/59 (B17/404/63)

*h)*

**MOD** COM4/380/60 (B17/404/64)

- i)* For the use of the carrier frequencies 4 125 kHz, 6 215 kHz, 8 291 kHz, 12 290 kHz and 16 420 kHz in these sub-bands by ship and coast stations for distress and safety purposes, by single-sideband radiotelephony, see Article 31.

#### **PART B – Channelling arrangements** (WRC-07)

##### **Section I – Radiotelephony**

**MOD** COM4/380/61 (B17/404/65)

5A For the use of the carrier frequencies:

- 4 125 kHz (Channel No. 421);
- 6 215 kHz (Channel No. 606);
- 8 291 kHz (Channel No. 833);
- 12 290 kHz (Channel No. 1221);
- 16 420 kHz (Channel No. 1621);

in Sub-Section A, by coast and ship stations for distress and safety purposes, see Article **31**. (WRC-07)

**MOD** COM4/380/62 (B17/404/66)

<sup>5</sup> For the conditions of use of the carrier frequency 6 215 kHz, see Appendix **15**.

**MOD** COM4/296/47 (B9/305/49) (R4/335/67)

#### APPENDIX 18 (Rev.WRC-07)

### **Table of transmitting frequencies in the VHF maritime mobile band**

(See Article **52**)

NOTE A – For assistance in understanding the Table, see Notes *a*) to *q*) below. (WRC-07)

**ADD** COM4/296/48 (B9/305/50) (R4/335/68)

NOTE B – The Table below defines the channel numbering for maritime VHF communications based on 25 kHz channel spacing and use of several duplex channels, but also allows the use of 12.5 kHz channel spacing. The channel numbering for 12.5 kHz channels and the conversion of two-frequency channels for single-frequency operation shall be in accordance with Recommendation ITU-R M.1084-4 Annex 4, Tables 1 and 3. (WRC-07)

**MOD** COM4/296/49 (B9/305/51) (R4/335/69)

Channel designator	Notes	Transmitting frequencies (MHz)		Inter-ship	Port operations and ship movement		Public correspondence
		From ship stations	From coast stations		Single frequency	Two frequency	
60	<i>m), o)</i>	156.025	160.625			x	x
01	<i>m), o)</i>	156.050	160.650			x	x
61	<i>m), o)</i>	156.075	160.675		x	x	x
02	<i>m), o)</i>	156.100	160.700		x	x	x
62	<i>m), o)</i>	156.125	160.725		x	x	x
03	<i>m), o)</i>	156.150	160.750		x	x	x
63	<i>m), o)</i>	156.175	160.775		x	x	x
04	<i>m), o)</i>	156.200	160.800		x	x	x
64	<i>m), o)</i>	156.225	160.825		x	x	x
05	<i>m), o)</i>	156.250	160.850		x	x	x
65	<i>m), o)</i>	156.275	160.875		x	x	x
06	<i>f)</i>	156.300		x			
66	<i>m), o)</i>	156.325	160.925			x	x
07	<i>m), o)</i>	156.350	160.950			x	x
67	<i>h)</i>	156.375	156.375	x	x		
08		156.400		x			
68		156.425	156.425		x		
09	<i>i)</i>	156.450	156.450	x	x		
69		156.475	156.475	x	x		
10	<i>h), q)</i>	156.500	156.500	x	x		
70	<i>f), j)</i>	156.525	156.525	Digital selective calling for distress, safety and calling			
11	<i>q)</i>	156.550	156.550		x		
71		156.575	156.575		x		
12		156.600	156.600		x		
72	<i>i)</i>	156.625		x			
13	<i>k)</i>	156.650	156.650	x	x		
73	<i>h), i)</i>	156.675	156.675	x	x		
14		156.700	156.700		x		
74		156.725	156.725		x		
15	<i>g)</i>	156.750	156.750	x	x		
75	<i>n)</i>	156.775	156.775		x		

Channel designator	Notes	Transmitting frequencies (MHz)		Inter-ship	Port operations and ship movement		Public correspondence
		From ship stations	From coast stations		Single frequency	Two frequency	
16	<i>f)</i>	156.800	156.800	DISTRESS, SAFETY AND CALLING			
76	<i>n)</i>	156.825	156.825		x		
17	<i>g)</i>	156.850	156.850	x	x		
77		156.875		x			
18	<i>m)</i>	156.900	161.500		x	x	x
78	<i>m)</i>	156.925	161.525			x	x
19	<i>m)</i>	156.950	161.550			x	x
79	<i>m)</i>	156.975	161.575			x	x
20	<i>m)</i>	157.000	161.600			x	x
80	<i>m)</i>	157.025	161.625			x	x
21	<i>m)</i>	157.050	161.650			x	x
81	<i>m)</i>	157.075	161.675			x	x
22	<i>m)</i>	157.100	161.700		x	x	x
82	<i>m), o)</i>	157.125	161.725		x	x	x
23	<i>m), o)</i>	157.150	161.750		x	x	x
83	<i>m), o)</i>	157.175	161.775		x	x	x
24	<i>m), o)</i>	157.200	161.800		x	x	x
84	<i>m), o)</i>	157.225	161.825		x	x	x
25	<i>m), o)</i>	157.250	161.850		x	x	x
85	<i>m), o)</i>	157.275	161.875		x	x	x
26	<i>m), o)</i>	157.300	161.900		x	x	x
86	<i>m), o)</i>	157.325	161.925		x	x	x
27		157.350	161.950			x	x
87		157.375	157.375		x		
28		157.400	162.000			x	x
88		157.425	157.425		x		
AIS 1	<i>f), l), p)</i>	161.975	161.975				
AIS 2	<i>f), l), p)</i>	162.025	162.025				

### Notes referring to the Table

#### General notes

**MOD** COM4/296/50 (B9/305/52) (R4/335/70)

- e) Administrations may apply 12.5 kHz channel interleaving on a non-interference basis to 25 kHz channels, in accordance with the most recent version of Recommendation ITU-R M.1084, provided:
- it shall not affect the 25 kHz channels of the present Appendix maritime mobile distress and safety frequencies, especially the channels 06, 13, 15, 16, 17, and 70, nor the technical characteristics set forth in Recommendation ITU-R M.489-2 for those channels;
  - implementation of 12.5 kHz channel interleaving and consequential national requirements shall be subject to coordination with affected administrations. (WRC-07)

**MOD** COM4/296/51 (B9/305/53) (R4/335/71)

#### Specific notes

- f) The frequencies 156.300 MHz (channel 06), 156.525 MHz (channel 70), 156.800 MHz (channel 16), 161.975 MHz (AIS 1) and 162.025 MHz (AIS 2) may also be used by aircraft stations for the purpose of search and rescue operations and other safety-related communication. (WRC-07)

**MOD** COM4/296/52 (B9/305/54) (R4/335/72)

- l) These channels (AIS 1 and AIS 2) are used for an automatic identification system (AIS) capable of providing worldwide operation, unless other frequencies are designated on a regional basis for this purpose. Such use should be in accordance with the most recent version of Recommendation ITU-R M.1371. (WRC-07)
- m) These channels may be operated as single frequency channels, subject to coordination with affected administrations. (WRC-07)
- o) These channels may be used to provide bands for new technologies, subject to coordination with affected administrations. Stations using these channels or bands for new technologies shall not cause harmful interference to, and shall not claim protection from, other stations operating in accordance with Article 5. The design of such systems shall be such as to preclude the possibility of interference to the detection of AIS signals on 161.975 or 162.025 MHz. (WRC-07)

**ADD** COM4/296/53 (B16/401/5)

- p) Additionally, AIS 1 and AIS 2 may be used by the mobile-satellite service (Earth-to-space) for the reception of AIS transmissions from ships. (WRC-07)

**ADD** COM4/296/54 (B9/305/56) (R4/335/73)

- q) When using these channels (10 and 11), all precautions should be taken to avoid harmful interference to channel 70. (WRC-07)

SUP COM4/211/9 (B3/224/24) (R2/266/15)

APPENDIX 19

**Technical characteristics of emergency position-indicating radiobeacons  
operating on the carrier frequency 2182 kHz**

APPENDIX 30 (Rev.WRC-07)\*

**Provisions for all services and associated Plans and List<sup>1</sup> for  
the broadcasting-satellite service in the frequency bands  
11.7-12.2 GHz (in Region 3), 11.7-12.5 GHz (in Region 1)  
and 12.2-12.7 GHz (in Region 2) (WRC-03)**

(See Articles 9 and 11) (WRC-03)

ARTICLE 2A (Rev.WRC-07)

**Use of the guardbands**

MOD COM5/307/3 (B11/329/10) (R6/410/15)

2A.1 The use of the guardbands defined in § 3.9 of Annex 5 to provide space operation functions in accordance with No. **1.23** in support of the operation of geostationary-satellite networks in the broadcasting-satellite service (BSS) is not subject to the application of Section I of Article 9.

2A.1.1 Coordination between assignments intended to provide the space operation functions and assignments of the BSS subject to a Plan shall be effected using the provisions of Article 7.

2A.1.2 Coordination among assignments intended to provide the space operation functions and services not subject to a Plan shall be effected using the provisions of Nos. **9.7, 9.17, 9.18** and the associated provisions of Section II of Article 9, or § 4.1.1 *d*) or 4.2.3 *d*) of Article 4, as appropriate.

2A.1.3 Coordination of modifications to the Region 2 Plan or assignments to be included in the Regions 1 and 3 List with assignments intended to provide these functions shall be effected using § 4.1.1 *e*) or 4.2.3 *e*), as appropriate, of Article 4.

2A.1.4 Requests for the above-mentioned coordination shall be sent by the requesting administration to the Bureau, together with the appropriate information listed in Appendix 4.

2A.2 Any assignment intended to provide these functions in support of a geostationary-satellite network in the BSS shall be notified under Article 11 and brought into use within the following time-limits:

2A.2.1 *a*) for the case where the associated BSS assignments are contained in one of the initial Plans (Region 2 Plans incorporated in the Radio Regulations at WARC Orb-85 and the Regions 1 and 3 Plan adopted at WRC-2000), within the regulatory time-limit referred to in § 4.1.3 or § 4.2.6 of Article 4 from the date of receipt by the Bureau of the complete Appendix 4 data for those assignments intended to provide the space operation functions;

2A.2.2 *b*) for the case where the associated BSS assignments have been submitted under § 4.1.3 or § 4.2.6 of Article 4 for entry in the Regions 1 and 3 List or a modification to the Region 2 Plan, within the regulatory time-limit referred to in § 4.1.3 or § 4.2.6 of Article 4 for those associated BSS assignments;

2A.2.3 c) for the case where the associated BSS assignments have already been brought into use in accordance with the Radio Regulations, within the regulatory time-limit referred to in § 4.1.3 and § 4.2.6 of Article 4 from the date of receipt by the Bureau of the complete Appendix 4 data for those assignments intended to provide the space operation functions.

2A.3 Section II of Article 23 does not apply to assignments in the guardbands intended to provide the above-mentioned functions.

#### ARTICLE 4 (Rev.WRC-03)

### Procedures for modifications to the Region 2 Plan or for additional uses in Regions 1 and 3<sup>3</sup>

**MOD** COM5/307/4 (B11/329/11) (R6/410/16)

4.1.3 An administration, or one<sup>4</sup> acting on behalf of a group of named administrations, intending to include a new or modified assignment in the List shall send to the Bureau, not earlier than eight years but preferably not later than two years before the date on which the assignment is to be brought into use, the relevant information listed in Appendix 4. An assignment in the List shall lapse if it is not brought into use within eight years after the date of receipt by the Bureau of the relevant complete information<sup>5</sup>. A proposed new or modified assignment not included in the List within eight years after the date of receipt by the Bureau of the relevant complete information shall also lapse<sup>5</sup>. (WRC-07)

**MOD** COM5/307/5 (B11/329/12) (R6/410/17)

4.1.5 The Bureau shall determine, on the basis of Annex 1, the administrations whose frequency assignments are considered to be affected. The Bureau shall publish<sup>7</sup>, in a Special Section of its International Frequency Information Circular (BR IFIC), the complete information received under § 4.1.3, together with the names of the affected administrations, the corresponding fixed-satellite service networks, the corresponding broadcasting-satellite service assignments and terrestrial stations, as appropriate. The Bureau shall immediately send a telegram/fax to the administration proposing the assignment, drawing its attention to the information contained in the relevant BR IFIC. (WRC-07)

#### 4.1.5

**MOD** COM5/308/5 (B10/326/5) (R6/410/18)

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<sup>7</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

**MOD** COM5/307/6 (B11/329/13) (R6/410/19)

4.1.6 The Bureau shall send a telegram/fax to the administrations listed in the Special Section of the BR IFIC, drawing their attention to the information it contains. (WRC-07)

**MOD** COM5/379/5 (B16/401/6)

4.1.11 If, in seeking agreement, an administration modifies its initial proposal, it shall again apply the provisions of § 4.1 and the subsequent procedure in cases where:

- the assignments of any other administration received by the Bureau in accordance with § 4.1.3 or § 4.2.6, or § 7.1 of Article 7, or No. 9.7 before this modified proposal is received under § 4.1.12;
- the assignments of any other administration contained in the Plans or the Lists; *or*
- the terrestrial services of any other administration,

are considered as being affected and receive more interference as a result of the modifications than that produced by the initial proposal. (WRC-07)

#### 4.1.1.5

**MOD** COM5/308/6 (B10/326/6) (R6/410/20)

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<sup>8</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

**MOD** COM5/307/7 (B11/329/14) (R6/410/21)

4.2.6 An administration, or one<sup>13</sup> acting on behalf of a group of named administrations, intending to make a modification to the Region 2 Plan shall send to the Bureau, not earlier than eight years but preferably not later than two years before the date on which the assignment is to be brought into use, the relevant information listed in Appendix 4. Modifications to that Plan shall lapse if the assignment is not brought into use within eight years after the date of receipt by the Bureau of the relevant complete information<sup>14</sup>. A request for a modification that has not been included in that Plan within eight years after the date of receipt by the Bureau of the relevant complete information shall also lapse<sup>14</sup>. (WRC-07)

**MOD** COM5/307/8 (B11/329/15) (R6/410/22)

4.2.8 The Bureau shall determine, on the basis of Annex 1, the administrations whose frequency assignments are considered to be affected within the meaning of § 4.2.3. The Bureau shall publish<sup>16</sup>, in a Special Section of its BR IFIC, the complete information received under § 4.2.6, together with the names of the affected administrations, the corresponding fixed-satellite service networks, the corresponding broadcasting-satellite service assignments and terrestrial stations, as appropriate. The Bureau shall immediately send a telegram/fax to the administration proposing the modification to the Region 2 Plan, drawing its attention to the information contained in the relevant BR IFIC. (WRC-07)

#### 4.2.8

**MOD** COM5/308/7 (B10/326/7) (R6/410/23)

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<sup>16</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for

the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

**MOD** COM5/307/9 (B11/329/16) (R6/410/24)

4.2.9 The Bureau shall send a telegram/fax to the administrations listed in the Special Section of its BR IFIC, drawing their attention to the information it contains. (WRC-07)

**MOD** COM5/307/10 (B11/329/17) (R6/410/25)

4.2.10 An administration which considers that it should have been included in the publication referred to under § 4.2.8 above shall, within four months of the date of publication in the relevant BR IFIC, and giving the technical reasons for so doing, request the Bureau to include its name in the publication. The Bureau shall study this information on the basis of Annex 1 and shall inform both administrations of its conclusions. Should the Bureau agree to the administration's request, it shall publish an addendum to the publication under § 4.2.8. (WRC-07)

#### **4.2.19**

**MOD** COM5/308/8 (B10/326/8) (R6/410/26)

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<sup>17</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

**MOD** COM5/308/9 (B10/326/9) (R6/410/27)

### **ARTICLE 5** (WRC-03)

#### **Notification, examination and recording in the Master International Frequency Register of frequency assignments to space stations in the broadcasting-satellite service**<sup>ADD 17A</sup> (WRC-07)

**ADD** COM5/308/10 (B10/326/10) (R6/410/28)

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<sup>17A</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication specified in § 5.1.6 and the corresponding entries in the Master Register under § 5.2.2, 5.2.2.1, 5.2.2.2 or 5.2.6, as appropriate, and the corresponding entries included in the Plan on and after 3 June 2000 or in the List, as appropriate, after informing the administration concerned. The Bureau shall inform all administrations of such action. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. See also Resolution **905 (WRC-07)**. (WRC-07)

**MOD** COM5/307/11 (B11/329/18) (R6/410/29)

5.2.2 Where the Bureau reaches a favourable finding with respect to § 5.2.1 *a*), 5.2.1 *b*) and 5.2.1 *c*), the frequency assignment of an administration shall be recorded in the Master Register. The date of receipt of the notice by the Bureau shall be entered in the Master Register. In relations

between administrations, all frequency assignments brought into use in conformity with the appropriate Regional Plan and recorded in the Master Register shall be considered to have the same status irrespective of the dates of receipt entered in the Master Register for such frequency assignments. (WRC-07)

**MOD** COM5/307/12 (B11/329/19) (R6/410/30)

5.2.2.1 Where the Bureau reaches a favourable finding with respect to § 5.2.1 *a*), 5.2.1 *c*) and 5.2.1 *d*), the frequency assignment shall be recorded in the Master Register. The date of receipt of the notice by the Bureau shall be entered in the Master Register. In relations between administrations, all frequency assignments brought into use in conformity with the appropriate Regional Plan and recorded in the Master Register shall be considered to have the same status irrespective of the dates of receipt entered in the Master Register for such frequency assignments. When recording these assignments, the Bureau shall indicate by an appropriate symbol the characteristics having a value different from that appearing in the appropriate regional Plan. (WRC-07)

**MOD** COM5/307/13 (B11/329/20) (R6/410/31)

5.2.2.2 In the case of Region 2, where the Bureau reaches a favourable finding with respect to § 5.2.1 *a*) and 5.2.1 *c*), but an unfavourable finding with respect to § 5.2.1 *b*) and 5.2.1 *d*), it shall examine the notice with respect to the successful application of the provisions of Resolution **42 (Rev.WRC-03)**. A frequency assignment for which the provisions of Resolution **42 (Rev.WRC-03)** have been successfully applied shall be recorded in the Master Register with an appropriate symbol to indicate its interim status. The date of receipt of the notice by the Bureau shall be entered in the Master Register. In relations between administrations all frequency assignments brought into use following the successful application of the provisions of Resolution **42 (Rev.WRC-03)** and recorded in the Master Register shall be considered to have the same status irrespective of the dates of receipt entered in the Master Register for such frequency assignments. (WRC-07)

**MOD** COM5/307/14 (B11/329/21) (R6/410/32)

5.2.3 Whenever a frequency assignment is recorded in the Master Register, the finding reached by the Bureau shall be indicated. (WRC-07)

**MOD** COM5/307/15 (B11/329/22) (R6/410/33)

5.2.9 The date of bringing into use notified by the administration concerned shall be recorded in the Master Register. (WRC-07)

**MOD** COM5/307/16 (B11/329/23) (R6/410/34)

5.3.1 Any notified frequency assignment to which the Article 4 procedures have been applied and which has been provisionally recorded under § 5.2.7 shall be brought into use no later than the end of the period provided under § 4.1.3 or 4.2.6 of Article 4. Any other frequency assignment provisionally recorded under § 5.2.7 shall be brought into use by the date specified in the notice. Unless the Bureau has been informed by the notifying administration of the bringing into use of the assignment under § 5.2.8, it shall, no later than fifteen days before the notified date of bringing into use or the end of the regulatory period established under § 4.1.3 or 4.2.6 of Article 4, as appropriate, send a reminder requesting confirmation that the assignment has been brought into use within the regulatory period. If the Bureau does not receive that confirmation within thirty days following the notified date of bringing into use or the period provided under § 4.1.3 or 4.2.6 of Article 4, as the case may be, it shall cancel the entry in the Master Register. (WRC-07)

ARTICLE 10

**The Plan for the broadcasting-satellite service in  
the frequency band 12.2-12.7 GHz in Region 2**

**MOD** COM5/216/10 (B3/224/25) (R2/266/16)

*(Note after Table 3)*

Note – The administrations listed in Table 3 were identified on the basis of the criteria adopted at the Regional Administrative Conference for the Planning of the Broadcasting-satellite Service in Region 2 (Geneva, 1983) (RARC Sat-R2), as shown in Table 2. WRC-2000 and WRC-03 revised the criteria applicable to determine affected administrations. Therefore, the Bureau, when receiving a notification for an assignment in the Region 2 Plan, shall determine which countries are affected on the basis of the revised criteria adopted by WRC-03, which may lead to a different set of affected administration(s) from that currently contained in Table 3. (WRC-07)

ARTICLE 11 (Rev.WRC-03)

**Plan for the broadcasting-satellite service in the frequency bands  
11.7-12.2 GHz in Region 3 and 11.7-12.5 GHz in Region 1**

11.2 TEXT FOR NOTES IN THE REMARKS COLUMN  
OF THE PLAN (WRC-03)

SUP COM5/328/1 (B12/346/1) (R6/410/35)

TABLE 2

ADD COM5/328/5 (B12/346/2) (R6/410/36)

TABLE 2 (WRC-07)

**Affected administrations and corresponding networks/beams identified based on Note 5 in § 11.2 of Article 11**

Beam name	Channels	Ref. Table 1	Affected administrations*	Affected networks/beams/terrestrial stations*
ARS34000	40	c	BLR/IK, CHN, F/EUT, G, HOL, INS, J, KOR, MLA, PAK, THA, TON, UAE, USA	AM-SAT A4, APSTAR-4, ASIASESAT-AKX, ASIASESAT-CKX, ASIASESAT-EK1, ASIASESAT-EKX, EMARSAT-1F, EMARSAT-1G, EUTELSAT 3-36E, EUTELSAT 3-48E, EUTELSAT 3-70.5E, INTELSAT7 66E, INTERSPUTNIK-27E-Q, JCSAT-3A, JCSAT-3B, KOREASAT-1, MEASAT-1, MEASAT-91.5E, MEASAT-95E, N-SAT-110, N-SAT-110E, N-SAT-128, NSS-8, NSS-9, PAKSAT-1, SJC-1, THAICOM-A2B, THAICOM-C1, THAICOM-G1K, TONGASAT C/KU-1
AUSA_100	1, 5, 9	c	BLR/IK	INTERSPUTNIK-153.5EQ
AZE06400	25, 27, 29, 31, 33, 35, 37, 39	c	BLR/IK	INTERSPUTNIK-27E-Q
BEL01800	26, 28, 30, 32, 34, 36, 38, 40	c	PAK	PAKSAT-1
BFA10700	22, 24	c	E	HISPASAT-1, HISPASAT-2C3 KU
BHR25500	25	c	BLR/IK, F/EUT, PAK	EUTELSAT 3-36E, INTERSPUTNIK-27E-Q, PAKSAT-1
BHR25500	29, 33, 37	c	BLR/IK, F/EUT	EUTELSAT 3-36E, INTERSPUTNIK-27E-Q
CAF25800	22, 26	c	F/EUT	EUTELSAT 3-12.5W
CME30000	22, 24, 26	c	F/EUT	EUTELSAT 3-12.5W
COG23500	1, 3, 5, 7, 9, 11, 13, 15, 17, 19	c	F/EUT	EUTELSAT 3-12.5W
CPV30100	2, 4, 6, 8, 10, 12	c	USA	INTELSAT7 325.5E
CVA08300	1, 3, 5, 7, 9, 11	c	USA	INTELSAT7 359E, INTELSAT8 359E, INTELSAT10 359E
CYP08600	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT7 359E, INTELSAT8 359E
CZE14401	1, 9, 17, 25	c	F/EUT	EUTELSAT 3-12.5W
CZE14402	14	c	F/EUT	EUTELSAT 3-12.5W
CZE14403	2, 22, 24	c	F/EUT	EUTELSAT 3-12.5W
FSM00000	1, 3, 5, 7, 9, 11, 13	c	J, USA	INTELSAT7 157E, SUPERBIRD-A2
FSM00000	15, 17, 19, 21, 23	c	J	SUPERBIRD-A2
GAB26000	1, 5, 9, 13, 17	c	F/EUT	EUTELSAT 3-12.5W
GMB30200	1, 5, 9, 13, 17	c	USA	USASAT-26A
GNB30400	22, 24	c	E	HISPASAT-1, HISPASAT-2C3 KU
GRC10500	2, 4, 6, 8, 10, 12	c	USA	INTELSAT7 359E, INTELSAT8 359E, INTELSAT10 359E

Beam name	Channels	Ref. Table 1	Affected administrations*	Affected networks/beams/terrestrial stations*
GUII9200	2, 4, 6, 8, 10, 12, 14, 16, 18, 20	c	USA	USASAT-26A
HNG10601	3, 11, 19	c	F/EUT	EUTELSAT 3-12.5W
HNG10602	6	c	F/EUT	EUTELSAT 3-12.5W
HNG10603	2, 22, 24	c	F/EUT	EUTELSAT 3-12.5W
HRV14801	5, 13, 21	c	F/EUT	EUTELSAT 3-12.5W
HRV14802	10	c	F/EUT	EUTELSAT 3-12.5W
HRV14803	2, 22, 24	c	F/EUT	EUTELSAT 3-12.5W
I 08200	22	c	F/EUT	EUTELSAT 3-7E
I 08200	26	c	F/EUT	EUTELSAT 3-7E
IRL21100	1, 3, 5, 7, 9, 11, 13, 15, 17, 19	c	USA	USASAT-26A
ISL04900	27	a	GUY	GUY00302
ISL04900	29, 39	a	JMC	JMC00005
ISL04900	31, 33, 35, 37	a	GUY, JMC	GUY00302, JMC00005
ISL04900	23	c	B, F, F/EUT, HOL, USA	B-SAT I, EUTELSAT 3-12.5W, EUTELSAT 3-7E, F-SAT-KU-E-5W, INTELSAT8 304.5E, INTELSAT8 310E, NSS-18, USASAT-14L, USASAT-26G
ISL05000	22, 24, 26	c	HOL	NSS-18
KIR__100	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT7 174E, INTELSAT7 176E, INTELSAT7 177E, INTELSAT7 178E, INTELSAT7 180E, INTELSAT8 174E, INTELSAT8 176E, INTELSAT8 178E, USASAT-14K
KIR__100	17, 21	c	USA	USASAT-14K
LBR24400	1, 5, 9, 13	c	USA	INTELSAT7 325.5E
MAU__100	26, 28, 30, 32, 34, 36, 38, 40	c	BLR/IK, F/EUT	EUTELSAT 3-36E, INTERSPUTNIK-27E-Q
MDA06300	28, 30, 32, 34, 36, 38, 40	c	THA	THAICOM-C1
MLI__100	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT IBS 342E, INTELSAT7 342E, INTELSAT7 340E, INTELSAT8 342E, INTELSAT8 340E
MNG24800	27	c	BLR/IK, F/EUT, IND	EUTELSAT 3-70.5E, INSAT-EK74, INTERSPUTNIK-75E-Q
MNG24800	31, 35	c	BLR/IK, CHN, F/EUT, IND, THA	APSTAR-4, EUTELSAT 3-70.5E, INSAT-EK74, INTERSPUTNIK-75E-Q, THAICOM-A2B, THAICOM-G1K
MOZ30700	2, 6, 10	c	USA	INTELSAT7 359E, INTELSAT8 359E, INTELSAT10 359E
NGR11500	2, 4, 6, 8, 10, 12, 14, 16, 18, 20	c	USA	USASAT-26A
NOR12000	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT7 359E, INTELSAT8 359E, INTELSAT10 359E
NZL__100	2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	c	J	SUPERBIRD-A2

Beam name	Channels	Ref. Table 1	Affected administrations*	Affected networks/beams/terrestrial stations*
POL13200	28, 30, 32, 34, 36, 38, 40	c	THA	THAICOM-C1
POR__100	1, 3, 5, 7, 9, 11, 13, 15, 17, 19	c	USA	USASAT-26A
RUS-4	26	c	J	N-SAT-110, N-SAT-110E
RUS-4	28	c	G, J, KOR	AM-SAT A4, KOREASAT-1, KOREASAT-2, N-SAT-110, N-SAT-110E
RUS-4	29	c	G, J, KOR	AM-SAT A4, KOREASAT-1, KOREASAT-2, N-SAT-110, N-SAT-110E
RUS-4	31, 35, 39	c	G	AM-SAT A4
RUS-4	33, 37	c	G, J, KOR	AM-SAT A4, KOREASAT-1, KOREASAT-2, N-SAT-110, N-SAT-110E
SEN22200	23	c	USA	USASAT-26A
S 13800	21, 23, 25	c	F/EUT	EUTELSAT 3-7E
SEY00000	26, 28, 30, 32, 34, 36, 38, 40	c	F/EUT, PAK, UAE	EMARSAT-1F, EUTELSAT 3-36E, EUTELSAT 3-48E, PAKSAT-2
SOM31200	26	c	F/EUT, PAK	EUTELSAT 3-36E, PAKSAT-1, PAKSAT-2
SOM31200	28, 30, 32, 34, 36, 38, 40	c	F/EUT, PAK	EUTELSAT 3-36E, PAKSAT-1, PAKSAT-2
SVK14401	7, 15, 23	c	F/EUT	EUTELSAT 3-12.5W
SVK14402	18, 26	c	F/EUT	EUTELSAT 3-12.5W
SVK14403	2, 22, 24	c	F/EUT	EUTELSAT 3-12.5W
TGO22600	1, 3, 5, 7, 9, 11	c	USA	INTELSAT7 330.5E, INTELSAT8 330.5E
TGO22600	13	c	E, USA	HISPASAT-1, INTELSAT7 330.5E, HISPASAT-2C3 KU, INTELSAT8 330.5E
TGO22600	15, 17, 19	c	E	HISPASAT-1, HISPASAT-2C3 KU
TJK06900	26	c	F/EUT, PAK, UAE	EMARSAT-1F, EUTELSAT 3-36E, EUTELSAT 3-48E, PAKSAT-1, PAKSAT-2
TJK06900	28, 30, 32, 34, 36, 38, 40	c	F/EUT, PAK, UAE	EMARSAT-1F, EUTELSAT 3-36E, EUTELSAT 3-48E, PAKSAT-1, PAKSAT-2
TKM06800	26	c	F/EUT, HOL, IND, UAE	EMARSAT-1F, EMARSAT-1G, EUTELSAT 3-48E, INSAT-EK48, NSS-8, PAKSAT-1, PAKSAT-2
TKM06800	28	c	F/EUT, HOL, IND, J, PAK, THA, UAE	EMARSAT-1F, EMARSAT-1G, EUTELSAT 3-48E, INSAT-EK48, JCSAT-3B, NSS-8, PAKSAT-1, PAKSAT-2, THAICOM-C1
TKM06800	30, 32, 34, 36, 38, 40	c	F/EUT, HOL, IND, J, KOR, THA, UAE	EMARSAT-1F, EMARSAT-1G, EUTELSAT 3-48E, INSAT-EK48, JCSAT-3B, KOREASAT-1, NSS-8, PAKSAT-1, PAKSAT-2, SJC-1, THAICOM-C1
TON21500	2, 6, 10, 14, 18, 20, 22, 24	c	USA	USASAT-14K
TUV00000	4, 8, 12	c	USA	INTELSAT7 176E, INTELSAT8 176E
UAE27400	27	c	F/EUT, HOL	EUTELSAT 3-48E, NSS-8
UAE27400	31, 35, 39	c	F/EUT, HOL, THA	EUTELSAT 3-48E, NSS-8, THAICOM-C1
ZWE13500	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT7 359E, INTELSAT8 359E

\* Administrations and corresponding networks/beams/terrestrial stations whose assignment(s) may receive interference from the beam shown in the left-hand column.

**SUP** COM5/328/2 (B12/346/3) (R6/410/37)

TABLE 3

**ADD** COM5/328/6 (B12/346/4) (R6/410/38)

TABLE 3 (WRC-07)

**Affecting administrations and corresponding networks/beams identified based on Notes 6 and 7 in § 11.2 of Article 11**

Beam name	Channels	Note	Affecting administrations*	Affecting networks/beams*
AGL29500	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
AND34100	2, 6, 10, 12	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A INTELSAT8 328.5E
AND34100	14, 16, 18, 20	7	USA	USASAT-26A
ARM06400	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3B
ARS34000	40	7	J	JCSAT-3A, JCSAT-3B
ARS__100	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
AUSB_100	4, 8, 12	7	USA	INTELSAT7 174E
AZE06400	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3A, JCSAT-3B
BEN23300	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
BFA10700	22, 24	7	E	HISPASAT-1, HISPASAT-2C3 KU
BHR25500	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3A, JCSAT-3B
COD__100	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
COG23500	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 342E
COM20700	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3B
CPV30100	2, 4, 6, 8, 10, 12	7	USA	INTELSAT8 328.5E
CTI23700	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
CVA08300	1, 3, 5, 7, 9, 11	7	USA	INTELSAT7 359E
CYP08600	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E
CZE14401	1, 9	7	USA	INTELSAT7 342E
CZE14403	2	7	USA	INTELSAT7 342E
D 08700	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
DNK090XR	29	6	JMC	JMC00005
DNK090XR	33	6	GUY, JMC	GUY00302, JMC00005
DNK091XR	31, 35	6	GUY, JMC	GUY00302, JMC00005
DNK__100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
EGY02600	2, 6, 8, 10, 12	7	USA	INTELSAT7 359E

Beam name	Channels	Note	Affecting administrations*	Affecting networks/beams*
ERI09200	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3B
FJI19300	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT7 183E, INTELSAT IBS 183E
F___100	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3A, JCSAT-3B
G 02700	2, 4, 6, 8, 10, 12	7	USA	INTELSAT8 328.5E
GAB26000	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 342E
GMB30200	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
GMB30200	15, 17, 19	7	USA	USASAT-26A
GNB30400	22, 24	7	E	HISPASAT-1, HISPASAT-2C3 KU
GRC10500	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 359E
GUI19200	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
GUI19200	14, 16, 18, 20	7	USA	USASAT-26A
HNG10601	3, 11	7	USA	INTELSAT7 342E
HNG10602	6	7	USA	INTELSAT7 342E
HNG10603	2	7	USA	INTELSAT7 342E
HRV14801	5, 13	7	USA	INTELSAT7 342E
HRV14802	10	7	USA	INTELSAT7 342E
HRV14803	2	7	USA	INTELSAT7 342E
IRL21100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A
IRL21100	15, 17, 19	7	USA	USASAT-26A
ISL04900	27	6	GUY	GUY00302
ISL04900	29, 39	6	JMC	JMC00005
ISL04900	31, 33, 35, 37	6	GUY, JMC	GUY00302, JMC00005
KIR__100	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT8 174E
KWT11300	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
LBR24400	1, 5, 7, 9, 11, 13	7	USA	INTELSAT8 328.5E
LBY__100	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
LSO30500	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E
MAU__100	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
MLI__100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
MNG24800	27	7	J	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C
MNG24800	29, 31, 33, 35, 37, 39	7	CHN, J, THA	JCSAT-3A, JCSAT-3B, APSTAR-4, JCSAT-1R, THAICOM-A2B, SUPERBIRD-C
MOZ30700	2, 6, 10, 12	7	USA	INTELSAT7 359E
MRC20900	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
MTN__100	22, 24, 26	7	USA	USASAT-26A
MWB0800	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 359E

Beam name	Channels	Note	Affecting administrations*	Affecting networks/beams*
NGR11500	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
NGR11500	14, 16, 18, 20	7	USA	USASAT-26A
NOR12000	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E
OMA12300	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
POR__100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
POR__100	15, 17, 19	7	USA	USASAT-26A
RUS-4	25	7	J	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C
RUS-4	26, 27	7	J	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C
RUS-4	28, 29	7	J, KOR	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C, KOREASAT-1, KOREASAT-2
RUS-4	31, 33, 35, 37, 39	7	J, KOR	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C, KOREASAT-1, KOREASAT-2
SEN22200	23, 25	7	USA	USASAT-26A
SEY00000	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
SMO05700	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT7 183E, INTELSAT IBS 183E
SMR31100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
SMR31100	15, 17, 19	7	USA	USASAT-26A
SOM31200	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
SRL25900	27	6	GUY	GUY00302
SRL25900	29, 39	6	JMC	JMC00005
SRL25900	31, 33, 35, 37	6	GUY, JMC	GUY00302, JMC00005
STP24100	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 359E
SUI14000	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
SVK14401	7	7	USA	INTELSAT7 342E
SVK14403	2	7	USA	INTELSAT7 342E
SWZ31300	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E
TGO22600	1, 3, 5, 7, 9, 11	7	USA	INTELSAT8 328.5E
TGO22600	13	7	E, USA	INTELSAT8 328.5E, HISPASAT-2C3 KU
TGO22600	15, 17, 19	7	E	HISPASAT-1, HISPASAT-2C3 KU
TJK06900	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B, JCSAT-1R
TKM06800	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
TON21500	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT8 174E
TUV00000	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT8 174E
UAE27400	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3A, JCSAT-3B
ZWE13500	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E

\* Administrations and corresponding networks/beams whose assignment(s) may cause interference to the beam shown in the left-hand column.

**SUP** COM5/328/3 (B12/346/5) (R6/410/39)

TABLE 4

**ADD** COM5/328/7 (B12/346/6) (R6/410/40)

TABLE 4 (WRC-07)

**Affecting administrations and corresponding terrestrial stations identified based on Note 8 in § 11.2 of Article 11**

Beam name	Channels	Affecting administrations*	Affecting terrestrial stations*
EGY02600	2	ISR	HERZILIYA
F 09300	24, 26	SUI	GENEVE STUDIO C VOGT
I 08200	38, 40	AUT	EHRWALD
JOR22400	2	ISR	HERZILIYA, JERUSALEM
RUS-4	25, 26, 27, 28, 29, 31, 33, 35, 37, 39	J <sup>1</sup>	

\* Administrations and corresponding terrestrial stations whose assignment(s) may cause interference to the beam shown in the left-hand column.

<sup>1</sup> The identification of this administration is based on its typical terrestrial station assignments as recorded in the Master Register.

**SUP** COM5/328/4 (B12/346/7) (R6/410/41)

TABLE 6A

**ADD** COM5/328/8 (B12/346/8) (R6/410/42)

TABLE 6A (WRC-07)

**Basic characteristics of the Regions 1 and 3 Plan (sorted by administration)**

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16
			Long.	Lat.	Major axis	Minor axis	Orientation			Space station antenna code	Shaped beam	Co-polar	Cross-polar	Code	Gain						
AFG	AFG_100	50.00	65.88	33.86				CB_TSS_AFGA		42.71		MODRES	35.50	CL		58.4	27M0G7W			P	
AFS	AFS02100	4.80	24.50	-28.00	3.13	1.68	27.00	R13TSS		37.24		MODRES	35.50	CL		59.1	27M0G7W			P	
AGL	AGL29500	-24.80	16.06	-12.45	2.42	1.88	77.88	R13TSS		37.87		MODRES	35.50	CL		59.1	27M0G7W			P	7
ALB	ALB29600	62.00	20.04	41.23	0.60	0.60	61.32	R13TSS		48.88		MODRES	35.50	CL		58.9	27M0G7W			P	
ALG	ALG_100	-24.80	1.86	27.60				CB_TSS_ALGA		39.59		MODRES	35.50	CL		54.5	27M0G7W			P	
AND	AND34100	-37.00	1.60	42.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CL		56.5	27M0G7W			P	7
ARM	ARM06400	22.80	44.99	39.95	0.73	0.60	148.17	R13TSS		48.02		MODRES	35.50	CR		58.9	27M0G7W			P	7
ARS	ARS_100	17.00	44.72	23.76				CB_TSS_ARSA		37.81		MODRES	35.50	CL		57.7	27M0G7W		54	P	7
ARS	ARS34000	17.00	52.30	24.80	2.68	0.70	143.00	R13TSS		41.71		MODRES	35.50	CL		59.2	27M0G7W		54	P	5, 7
AUS	AUS00400	152.00	123.00	-24.20	3.06	2.17	102.00	R13TSS		36.22		MODRES	35.50	CR		58.2	27M0G7W		30	P	
AUS	AUS0040A	152.00	96.83	-12.19	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		30	P	
AUS	AUS0040B	152.00	105.69	-10.45	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		30	P	
AUS	AUS0040C	152.00	110.52	-66.28	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		30	P	

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna								Polarization	
			Long.	Lat.	Major axis	Minor axis	Orientation					Co-polar	Cross-polar	Code	Gain							Type	Angle
AUS	AUS00500	152.00	133.90	-18.40	2.82	1.74	105.00	R13TSS		37.53		MODRES	35.50	CL		59.4	27M0G7W			P			
AUS	AUS00600	152.00	136.60	-30.90	2.41	1.52	161.00	R13TSS		38.80		MODRES	35.50	CL		58.4	27M0G7W			P			
AUS	AUS00700	164.00	145.20	-38.10	2.12	1.02	147.00	R13TSS		41.09		MODRES	35.50	CR		58.5	27M0G7W		31	P			
AUS	AUS0070A	164.00	158.94	-54.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		31	P			
AUS	AUS00800	164.00	145.90	-21.70	3.62	1.63	136.00	R13TSS		36.73		MODRES	35.50	CL		58.8	27M0G7W			P			
AUS	AUS00900	164.00	147.50	-32.10	2.31	1.43	187.00	R13TSS		39.25		MODRES	35.50	CR		59.3	27M0G7W		32	P			
AUS	AUS0090A	164.00	159.06	-31.52	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		32	P			
AUS	AUS0090B	164.00	167.93	-29.02	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		32	P			
AUS	AUSA_100	152.00	132.38	-38.37				CB_TSS_AUSA		48.88		MODRES	35.50	CR		58.9	27M0G7W			P	5		
AUS	AUSB_100	164.00	132.38	-38.37				CB_TSS_AUSB		48.88		MODRES	35.50	CL		58.9	27M0G7W			P	7		
AUT	AUT01600	-18.80	10.31	49.47	1.82	0.92	151.78	MOD13FRTSS		42.19		MODRES	35.50	CR		59.1	27M0G7W			P			
AZE	AZE06400	23.20	47.47	40.14	0.93	0.60	158.14	R13TSS		46.98		MODRES	35.50	CL		58.9	27M0G7W			P	5, 7		
BDI	BDI27000	11.00	29.90	-3.10	0.71	0.60	80.00	R13TSS		48.15		MODRES	35.50	CL		58.4	27M0G7W			P			
BEL	BEL01800	38.20	5.12	51.96	1.00	1.00	24.53	MOD13FRTSS		44.45		MODRES	35.50	CL		55.5	27M0G7W			P	5		
BEN	BEN23300	-19.20	2.20	9.50	1.44	0.68	97.00	R13TSS		44.54		MODRES	35.50	CL		58.3	27M0G7W			P	7		
BFA	BFA10700	-30.00	-1.50	12.20	1.45	1.14	29.00	R13TSS		42.26		MODRES	35.50	CL		57.0	27M0G7W			P	5, 7		
BGD	BGD22000	74.00	90.30	23.60	1.46	0.84	135.00	R13TSS		43.56		MODRES	35.50	CR		58.7	27M0G7W			P			
BHR	BHR25500	34.00	50.50	26.10	0.60	0.60	0.00	MOD13FRTSS		48.88		MODRES	35.50	CR		54.5	27M0G7W			P	5, 7		
BIH	BIH14800	56.00	18.22	43.97	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		58.9	27M0G7W			P			
BLR	BLR06200	37.80	27.91	53.06	1.21	0.60	11.47	R13TSS		45.83		MODRES	35.50	CL		58.9	27M0G7W			P			
BOT	BOT29700	-0.80	23.30	-22.20	2.13	1.50	36.00	R13TSS		39.40		MODRES	35.50	CL		58.7	27M0G7W			P			
BRM	BRM29800	104.00	96.97	18.67	3.33	1.66	91.58	R13TSS		37.04		MODRES	35.50	CL		58.9	27M0G7W			P			
BRU	BRU33000	74.00	114.70	4.40	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		57.5	27M0G7W			P			
BTN	BTN03100	86.00	90.44	27.05	0.72	0.60	175.47	R13TSS		48.11		MODRES	35.50	CR		58.9	27M0G7W			P			
BUL	BUL02000	-1.20	25.00	43.00	1.04	0.60	165.00	R13TSS		46.50		MODRES	35.50	CL		58.6	27M0G7W			P			
CAF	CAF25800	-13.20	21.00	6.30	2.25	1.68	31.00	R13TSS		38.67		MODRES	35.50	CL		59.3	27M0G7W			P	5		
CBG	CBG29900	86.00	104.82	12.34	1.04	0.86	9.45	R13TSS		44.91		MODRES	35.50	CR		59.3	27M0G7W			P			
CHN	CHN15500	62.00	88.18	31.20	3.03	1.24	163.23	R13TSS		38.69		MODRES	35.50	CL		57.9	27M0G7W			P			
CHN	CHN15800	134.00	113.29	39.70	2.80	1.55	35.44	R13TSS		38.07		MODRES	35.50	CR		57.0	27M0G7W			P			
CHN	CHN19000	122.00	114.17	23.32	0.91	0.60	2.88	MOD13FRTSS		47.08		MODRES	35.50	CR		58.9	27M0G7W			P			
CHN	CHN20000	122.00	113.55	22.20	0.60	0.60	0.00	MOD13FRTSS		48.88		MODRES	35.50	CL		57.0	27M0G7W			P			
CHN	CHNA_100	62.00	90.56	39.22				CB_TSS_CHNA		40.01		MODRES	35.50	CR		58.5	27M0G7W			P			
CHN	CHNC_100	134.00	105.77	27.56				CB_TSS_CHNC		39.51		MODRES	35.50	CL		57.1	27M0G7W			P			
CHN	CHNE_100	92.20	114.96	20.16				CB_TSS_CHNE		44.74		MODRES	35.50	CL		59.4	27M0G7W			P			
CHN	CHNF_100	92.20	123.54	45.78				CB_TSS_CHNF		43.71		MODRES	35.50	CR		60.4	27M0G7W			P			

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16
			Long.	Lat.	Major axis	Minor axis	Orientation			Code	Gain	Type	Angle	e.i.r.p.	Designation of emission						
CLN	CLN21900	50.00	80.60	7.70	1.18	0.60	106.00	R13TSS		45.95		MODRES	35.50	CL		56.7	27M0G7W			P	
CME	CME30000	-13.00	12.70	6.20	2.54	1.68	87.00	R13TSS		38.15		MODRES	35.50	CR		58.5	27M0G7W			P	5
COD	COD_100	-19.20	21.85	-3.40				CB_TSS_CODA		38.36		MODRES	35.50	CR		59.7	27M0G7W			P	7
COG	COG23500	-13.20	14.60	-0.70	2.02	1.18	59.00	R13TSS		40.67		MODRES	35.50	CL		58.8	27M0G7W			P	5, 7
COM	COM20700	29.00	44.10	-12.10	0.76	0.60	149.00	R13TSS		47.86		MODRES	35.50	CR		58.1	27M0G7W			P	7
CPV	CPV30100	-33.50	-24.12	16.09	0.77	0.63	94.46	R13TSS		47.56		MODRES	35.50	CL		57.2	27M0G7W			P	5, 7
CTI	CTI23700	-24.80	-5.78	7.19	1.50	1.26	111.74	R13TSS		41.67		MODRES	35.50	CL		58.8	27M0G7W			P	7
CVA	CVA08300	-1.20	13.02	42.09	0.75	0.66	20.53	R13TSS		47.50		MODRES	35.50	CR		60.2	27M0G7W			P	5, 7
CVA	CVA08500	-1.20	12.59	41.09	1.72	1.31	144.13	MOD13FRTSS		40.92		MODRES	35.50	CR		56.5	27M0G7W			P	
CYP	CYP08600	-1.20	33.45	35.12	0.60	0.60	0.00	MOD13FRTSS		48.88		MODRES	35.50	CR		56.1	27M0G7W			P	5, 7
CZE	CZE14401	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CL		58.8	27M0G7W			P	5, 7
CZE	CZE14402	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		58.8	27M0G7W			P	5
CZE	CZE14403	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		58.8	27M0G7W		37	P	5, 7
D	D 08700	-18.80	10.31	49.47	1.82	0.92	151.78	MOD13FRTSS		42.19		MODRES	35.50	CR		59.1	27M0G7W			P	7
DJI	DJI09900	16.80	42.68	11.68	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		57.5	27M0G7W			P	
DNK	DNK_100	-25.20	2.92	59.62				CB_TSS_DNKA		48.88		MODRES	35.50	CL		58.3	27M0G7W			P	7
DNK	DNK090XR	-33.50	13.27	60.86	1.99	0.63	151.38	MOD13FRTSS		43.48		MODRES	35.50	CR		54.5	27M0G7W			P	6
DNK	DNK091XR	-33.50	-15.16	63.67	1.56	0.60	170.63	MOD13FRTSS		44.73		MODRES	35.50	CR		58.6	27M0G7W			P	6
E	E_100	-30.00	-9.40	34.15				CB_TSS_E_A		44.79		MODRES	35.50	CL		58.9	27M0G7W			P	
E	HISP33D1	-30.00	-4.00	39.00					COP	39.80	5.50	MODRES	35.50	CL		57.6	33M0G7W--	HISPASAT-1	01	PE	
E	HISP33D2	-30.00	-4.00	39.00					COP	39.80	5.50	MODRES	32.50	CL		57.6	33M0G7W--	HISPASAT-1	01	PE	
E	HISPA27D	-30.00	-4.00	39.00					COP	39.80	5.50	MODRES	38.43	CL		57.6	27M0G7W--	HISPASAT-1	01	PE	
E	HISPASA4	-30.00	-4.00	39.00					COP	39.80	5.50	MODRES	38.43	CL		57.6	27M0F8W	HISPASAT-1	01	PE	
EGY	EGY02600	-7.00	29.70	26.80	2.33	1.72	136.00	R13TSS		38.42		MODRES	35.50	CL		58.1	27M0G7W			P	7, 8
ERI	ERI09200	22.80	39.41	14.98	1.67	0.95	145.48	R13TSS		42.44		MODRES	35.50	CR		58.9	27M0G7W			P	7
EST	EST06100	44.50	25.06	58.60	0.77	0.60	12.27	R13TSS		47.81		MODRES	35.50	CR		58.7	27M0G7W			P	
ETH	ETH09200	36.00	40.29	8.95	2.87	2.16	174.06	R13TSS		36.52		MODRES	35.50	CL		58.7	27M0G7W			P	
F	F 09300	-7.00	3.52	45.41	2.22	1.15	159.34	R13TSS		40.39		MODRES	35.50	CL		58.8	27M0G7W			P	8
F	F_100	-7.00	50.00	-15.65				CB_TSS_F_A		48.88		MODRES	35.50	CR		58.9	27M0G7W			P	7
F	NCL10000	140.00	166.00	-21.00	1.14	0.72	146.00	R13TSS		45.30		MODRES	35.50	CR		58.7	27M0G7W			P	
F	OCE10100	-160.00	-145.00	-16.30	4.34	3.54	4.00	R13TSS		32.58		MODRES	35.50	CL		58.5	27M0G7W			P	
F	WAL10200	140.00	-176.80	-14.00	0.74	0.60	29.00	R13TSS		47.97		MODRES	35.50	CR		59.4	27M0G7W			P	
FIN	FIN10300	22.80	22.50	64.50	1.38	0.76	171.00	MOD13FRTSS		44.24		MODRES	35.50	CL		54.5	27M0G7W		52	P	
FIN	FIN10400	22.80	15.87	61.15	2.24	0.91	16.70	MOD13FRTSS		41.37		MODRES	35.50	CL		54.5	27M0G7W		52	P	
FJI	FJI19300	-178.00	179.62	-17.87	1.16	0.92	155.22	R13TSS		44.16		MODRES	35.50	CR		58.7	27M0G7W			P	7

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna								Polarization	
			Long.	Lat.	Major axis	Minor axis	Orientation					Co-polar	Cross-polar	Code	Gain							Type	Angle
FSM	FSM00000	158.00	151.90	5.48	5.15	1.57	167.00	R13TSS		35.38		MODRES	35.50	CR		58.9	27M0G7W			P	5		
G	G 02700	-33.50	-3.50	53.80	1.84	0.72	142.00	R13TSS		43.23		MODRES	35.50	CR		58.0	27M0G7W			P	7		
GAB	GAB26000	-13.20	11.80	-0.60	1.43	1.12	64.00	R13TSS		42.40		MODRES	35.50	CR		58.3	27M0G7W			P	5, 7		
GEO	GEO06400	23.20	43.35	42.27	1.11	0.60	161.21	R13TSS		46.23		MODRES	35.50	CR		58.9	27M0G7W			P			
GHA	GHA10800	-25.00	-1.20	7.90	1.48	1.06	102.00	R13TSS		42.49		MODRES	35.50	CR		58.6	27M0G7W			P			
GMB	GMB30200	-37.20	-15.10	13.40	0.79	0.60	4.00	R13TSS		47.69		MODRES	35.50	CL		58.3	27M0G7W			P	5, 7		
GNB	GNB30400	-30.00	-15.00	12.00	0.90	0.60	172.00	R13TSS		47.12		MODRES	35.50	CL		58.1	27M0G7W			P	5, 7		
GNE	GNE30300	-18.80	10.30	1.50	0.68	0.60	10.00	R13TSS		48.34		MODRES	35.50	CL		58.8	27M0G7W			P			
GRC	GRC10500	-1.20	24.51	38.08	1.70	0.95	152.97	MOD13FRTSS		42.40		MODRES	35.50	CL		56.3	27M0G7W			P	5, 7		
GUI	GUI19200	-37.00	-11.00	10.20	1.58	1.04	147.00	R13TSS		42.29		MODRES	35.50	CR		58.4	27M0G7W			P	5, 7		
HNG	HNG10601	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CL		59.3	27M0G7W			P	5, 7		
HNG	HNG10602	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		59.3	27M0G7W			P	5, 7		
HNG	HNG10603	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		59.3	27M0G7W		37	P	5, 7		
HOL	HOL21300	38.20	5.12	51.96	1.00	1.00	24.53	MOD13FRTSS		44.45		MODRES	35.50	CL		58.5	27M0G7W			P			
HRV	HRV14801	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CL		58.8	27M0G7W			P	5, 7		
HRV	HRV14802	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		58.8	27M0G7W			P	5, 7		
HRV	HRV14803	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		58.8	27M0G7W		37	P	5, 7		
I	I 08200	9.00	12.67	40.74	1.99	1.35	144.20	R13TSS		40.14		MODRES	35.50	CR		54.5	27M0G7W			P	5, 8		
IND	IND03700	68.00	93.00	25.50	1.46	1.13	40.00	R13TSS		42.27		MODRES	35.50	CL		58.9	27M0G7W			P			
IND	IND04700	68.00	93.30	11.10	1.92	0.60	96.00	R13TSS		43.83		MODRES	35.50	CR		58.4	27M0G7W			P			
IND	INDA_100	55.80	76.16	14.72				CB_TSS_INDA		45.66		MODRES	35.50	CR		58.8	27M0G7W			P			
IND	INDB_100	55.80	83.43	24.22				CB_TSS_INDB		43.15		MODRES	35.50	CL		58.9	27M0G7W			P			
IND	INDD_100	68.00	74.37	29.16				CB_TSS_INDD		41.80		MODRES	35.50	CR		59.3	27M0G7W			P			
INS	INSA_100	80.20	108.82	-0.73				CB_TSS_INSA		38.88		MODRES	35.50	CR		59.2	27M0G7W			P			
INS	INSB_100	104.00	129.75	-3.50				CB_TSS_INSB		37.53		MODRES	35.50	CL		58.8	27M0G7W			P			
IRL	IRL21100	-37.20	-8.25	53.22	0.72	0.60	157.56	R13TSS		48.08		MODRES	35.50	CL		59.2	27M0G7W			P	5, 7		
IRN	IRN10900	34.00	54.20	32.40	3.82	1.82	149.00	R13TSS		36.03		MODRES	35.50	CL		57.8	27M0G7W			P			
IRQ	IRQ25600	50.00	43.78	33.28	1.74	1.23	156.76	R13TSS		41.14		MODRES	35.50	CL		58.3	27M0G7W			P			
ISL	ISL04900	-33.50	-19.00	64.90	1.00	0.60	177.00	R13TSS		46.67		MODRES	35.50	CL		60.8	27M0G7W			P	5, 6		
ISL	ISL05000	-33.50	-15.35	63.25	1.58	0.60	169.00	R13TSS		44.67		MODRES	35.50	CR		57.3	27M0G7W			P	5		
ISR	ISR11000	-4.00	34.95	31.32	0.73	0.60	110.02	R13TSS		48.01		MODRES	35.50	CR		58.8	27M0G7W			P			
J	000BS-3N	109.85	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		MODRES	35.50	CR		*	27M0F8W	BS-3N	02	PE			

\* Channel 1: 58.2 dBW, channels 3, 5, 7: 59.2 dBW, channels 9, 11, 13: 59.3 dBW, other channels: 59.4 dBW.

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna								Polarization	
			Long.	Lat.	Major axis	Minor axis	Orientation					Co-polar	Cross-polar	Code	Gain							Type	Angle
J	J 10985	109.85	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		MODRES	35.50	CR		*	34M5G7W		02	P			
J	J 11100	110.00	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		MODRES	35.50	CR		*	34M5G7W		02	P			
J	J 1110E	110.00	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		MODRES	35.50	CR		*	27M0F8W	BS-3M	02	PE			
JOR	JOR22400	11.00	37.55	34.02	1.47	0.91	73.16	MOD13FRTSS		43.19		MODRES	35.50	CL		55.5	27M0G7W			P	8		
KAZ	KAZ06600	56.40	65.73	46.40	4.58	1.76	177.45	R13TSS		35.38		MODRES	35.50	CR		58.9	27M0G7W			P			
KEN	KEN24900	-0.80	37.95	0.92	2.13	1.34	98.35	R13TSS		39.90		MODRES	35.50	CL		58.7	27M0G7W			P			
KGZ	KGZ07000	50.00	73.91	41.32	1.47	0.64	5.05	R13TSS		44.75		MODRES	35.50	CR		59.0	27M0G7W			P			
KIR	KIR_100	176.00	-170.31	-0.56				CB_TSS_KIRA		42.58		MODRES	35.50	CL		58.9	27M0G7W			P	5, 7		
KOR	KO11201D	116.00	127.50	36.00	1.24	1.02	168.00	R13TSS		43.40		MODRES	38.43	CL		**	27M0G7W	KOREASAT-1	03	PE			
KOR	KOR11200	116.00	127.50	36.00	1.24	1.02	168.00	R13TSS		43.80		MODRES	35.50	CL		***	27M0G7W		03	P			
KOR	KOR11201	116.00	127.50	36.00	1.24	1.02	168.00	R13TSS		43.40		MODRES	38.43	CL		**	27M0F8W	KOREASAT-1	03	PE			
KRE	KRE28600	140.00	128.45	40.32	1.63	0.68	18.89	R13TSS		44.00		MODRES	35.50	CL		59.0	27M0G7W			P			
KWT	KWT11300	11.00	47.48	29.12	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.2	27M0G7W			P	7		
LAO	LAO28400	122.20	103.71	18.17	1.87	1.03	123.99	MOD13FRTSS		41.60		MODRES	35.50	CR		58.8	33M0G7W			P			
LBN	LBN27900	11.00	37.55	34.02	1.47	0.91	73.16	MOD13FRTSS		43.19		MODRES	35.50	CR		55.5	27M0G7W			P			
LBR	LBR24400	-33.50	-9.30	6.60	1.22	0.70	133.00	R13TSS		45.13		MODRES	35.50	CR		58.2	27M0G7W			P	5, 7		
LBY	LBY_100	-24.80	17.62	26.55				CB_TSS_LBYA		40.30		MODRES	35.50	CL		58.0	27M0G7W			P	7		
LIE	LIE25300	-18.80	10.31	49.47	1.82	0.92	151.78	MOD13FRTSS		42.19		MODRES	35.50	CL		59.1	27M0G7W			P			
LSO	LSO30500	4.80	27.80	-29.80	0.66	0.60	36.00	R13TSS		48.47		MODRES	35.50	CR		59.2	27M0G7W			P	7		
LTU	LTU06100	23.20	24.51	56.09				CB_TSS_LTUA		48.21		MODRES	35.50	CL		56.9	27M0G7W			P			
LUX	LUX11400	28.20	5.21	49.20	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		57.9	27M0G7W		09	P			
LVA	LVA06100	23.20	24.51	56.09				CB_TSS_LVAA		48.21		MODRES	35.50	CR		56.9	27M0G7W			P			
MAU	MAU_100	29.00	58.61	-15.88				CB_TSS_MAUA		41.42		MODRES	35.50	CL		59.0	27M0G7W			P	5, 7		
MCO	MCO11600	34.20	7.93	43.59	1.28	0.60	21.73	MOD13FRTSS		45.58		MODRES	35.50	CL		58.6	27M0G7W			P			
MDA	MDA06300	50.00	28.45	46.99	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W			P	5		
MDG	MDG23600	29.00	46.60	-18.80	2.72	1.14	65.00	R13TSS		39.53		MODRES	35.50	CL		58.3	27M0G7W			P			
MHL	MHL00000	146.00	167.64	9.83	2.07	0.90	157.42	R13TSS		41.75		MODRES	35.50	CR		59.0	27M0G7W			P			
MKD	MKD14800	22.80	21.61	41.56	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W			P			
MLA	MLA_100	91.50	108.05	4.00				CB_TSS_MLAA		43.00		MODRES	35.50	CR		58.4	27M0G7W			P			
MLD	MLD30600	50.00	72.95	5.78	1.19	0.91	104.53	R13TSS		44.09		MODRES	35.50	CR		58.7	27M0G7W			P			
MLI	MLI_100	-19.20	-5.35	17.11				CB_TSS_MLIB		41.21		MODRES	35.50	CR		58.7	27M0G7W			P	5, 7		

\*\* Channels 2, 4, 6: 63.6 dBW, channels 8, 10, 12: 63.7 dBW.

\*\*\* Channels 2, 4, 6: 59.0 dBW, other channels: 59.1 dBW.

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna								Polarization	
			Long.	Lat.	Major axis	Minor axis	Orientation					Co-polar	Cross-polar	Code	Gain							Type	Angle
MLT	MLT14700	22.80	14.40	35.90	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		56.0	27M0G7W			P			
MNG	MNG24800	74.00	102.20	46.60	3.60	1.13	169.00	R13TSS		38.35		MODRES	35.50	CR		59.0	27M0G7W			P	5, 7		
MOZ	MOZ30700	-1.00	34.00	-18.00	3.57	1.38	55.00	R13TSS		37.52		MODRES	35.50	CL		59.2	27M0G7W			P	5, 7		
MRC	MRC20900	-25.20	-8.95	28.98	3.56	1.23	49.23	R13TSS		38.02		MODRES	35.50	CR		54.9	27M0G7W			P	7		
MTN	MTN_100	-36.80	-10.52	19.66				CB_TSS_MTNA		41.91		MODRES	35.50	CR		55.5	27M0G7W			P	7		
MWI	MWI30800	4.80	33.79	-13.25	1.56	0.70	92.69	R13TSS		44.10		MODRES	35.50	CR		59.2	27M0G7W			P	7		
NGR	NGR11500	-37.20	7.63	17.01	2.20	1.80	102.40	R13TSS		38.48		MODRES	35.50	CL		59.5	27M0G7W			P	5, 7		
NIG	NIG11900	-19.20	7.80	9.40	2.16	2.02	45.00	R13TSS		38.05		MODRES	35.50	CR		58.9	27M0G7W			P			
NMB	NMB02500	-18.80	17.50	-21.60	2.66	1.90	48.00	R13TSS		37.41		MODRES	35.50	CL		59.7	27M0G7W			P			
NOR	NOR12000	-0.80	13.42	62.76	1.43	0.60	19.61	MOD13FRTSS		45.10		MODRES	35.50	CL		56.2	27M0G7W			P	5, 7		
NOR	NOR12100	-0.80	18.00	60.23	1.67	0.83	23.85	R13TSS		43.02		MODRES	35.50	CL		57.8	27M0G7W		06	P			
NPL	NPL12200	50.00	83.70	28.30	1.72	0.60	163.00	R13TSS		44.31		MODRES	35.50	CR		59.6	27M0G7W			P			
NRU	NRU30900	134.00	167.00	-0.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CL		57.5	27M0G7W			P			
NZL	NZL_100	158.00	-170.68	-19.72				CB_TSS_NZLA		48.88		MODRES	35.50	CL		59.6	27M0G7W			P	5		
OMA	OMA12300	17.20	55.60	21.00	1.88	1.02	100.00	R13TSS		41.62		MODRES	35.50	CR		58.3	27M0G7W			P	7		
PAK	PAK12700	38.20	69.60	29.50	2.30	2.16	14.00	R13TSS		37.49		MODRES	35.50	CR		58.9	27M0G7W			P			
PHL	PHL28500	98.00	121.30	11.10	3.46	1.76	99.00	R13TSS		36.60		MODRES	35.50	CL		58.7	27M0G7W			P			
PLW	PLW00000	140.00	132.98	5.51	1.30	0.60	55.41	R13TSS		45.53		MODRES	35.50	CR		58.8	27M0G7W			P			
PNG	PNG13100	134.00	148.07	-6.65	3.13	2.30	168.32	MOD13FRTSS		35.87		MODRES	35.50	CR		54.5	27M0G7W			P			
POL	POL13200	50.00	20.07	51.86	1.20	0.69	17.76	R13TSS		45.26		MODRES	35.50	CL		59.2	27M0G7W			P	5		
POR	POR_100	-37.00	-15.92	37.65				CB_TSS_PORA		47.17		MODRES	35.50	CR		58.4	27M0G7W			P	5, 7		
PSE	YYY00000	-13.20	34.99	31.86	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		58.9	27M0G7W			P	3		
QAT	QAT24700	20.00	51.38	25.26	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		54.5	27M0G7W			P			
ROU	ROU13600	50.00	25.12	45.75	1.17	0.73	9.52	R13TSS		45.15		MODRES	35.50	CR		58.9	27M0G7W			P			
RRW	RRW31000	11.00	30.00	-2.10	0.66	0.60	42.00	R13TSS		48.47		MODRES	35.50	CL		59.8	27M0G7W			P			
RUS	RSTREA11	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		53.0	27M0F8W	RST-1	05	PE			
RUS	RSTREA12	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		53.0	27M0F8W	RST-1	05	PE			
RUS	RSTRED11	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		53.0	27M0G7W	RST-1	05	PE			
RUS	RSTRED12	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		53.0	27M0G7W	RST-1	05	PE			
RUS	RSTRSD11	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		53.0	27M0G7W	RST-1	05	P			
RUS	RSTRSD12	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		53.0	27M0G7W	RST-1	05	P			
RUS	RSTRSD13	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	39.02	CL		53.0	27M0G7W	RST-1	05	P			
RUS	RSTRSD14	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	39.02	CR		53.0	27M0G7W	RST-1	05	P			
RUS	RSTRSD21	56.00	65.00	63.00	2.20	2.20	0.00	R123FR		37.70		MODRES	35.50	CL		55.0	27M0G7W	RST-2	14	P			
RUS	RSTRSD22	56.00	65.00	63.00	2.20	2.20	0.00	R123FR		37.70		MODRES	35.50	CR		55.0	27M0G7W	RST-2	14	P			

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16		
																						Boresight	
			Long.	Lat.	Major axis	Minor axis	Orientation			Code	Gain	Type	Angle	e.i.r.p.	Designation of emission							Identity of the space station	Group code
RUS	RSTRSD31	86.00	97.00	62.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		55.0	27M0G7W	RST-3	33	P			
RUS	RSTRSD32	86.00	97.00	62.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		55.0	27M0G7W	RST-3	33	P			
RUS	RSTRSD51	140.00	158.00	56.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		55.0	27M0G7W	RST-5	35	P			
RUS	RSTRSD52	140.00	158.00	56.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		55.0	27M0G7W	RST-5	35	P			
RUS	RUS00401	110.00	128.73	54.30	4.25	2.02	156.81	R13TSS		35.11		MODRES	35.50	CL		58.9	27M0G7W	RUS-4	34	P	5, 7, 8		
RUS	RUS00402	110.00	128.73	54.30	4.25	2.02	156.81	R13TSS		35.11		MODRES	35.50	CR		58.9	27M0G7W	RUS-4	34	P	5, 7, 8		
S	S 13800	5.00	16.20	61.00	1.04	0.98	14.00	R13TSS		44.36		MODRES	35.50	CL		55.6	27M0G7W		04	P	5		
S	S 13900	5.00	17.00	61.50	2.00	1.00	10.00	R13TSS		41.44		MODRES	35.50	CL		61.1	27M0G7W		04	P			
SCG*	SCG14800	-7.00	20.50	43.98	0.91	0.60	145.16	R13TSS		47.07		MODRES	35.50	CR		58.9	27M0G7W			P			
SDN	SDN_100	-7.00	30.24	13.53				CB_TSS_SDNA		40.26		MODRES	35.50	CR		59.4	27M0G7W			P			
SEN	SEN22200	-37.00	-14.40	13.80	1.46	1.04	139.00	R13TSS		42.63		MODRES	35.50	CL		58.6	27M0G7W			P	5, 7		
SEY	SEY00000	42.50	51.86	-7.23	2.43	1.04	27.51	R13TSS		40.44		MODRES	35.50	CR		58.9	27M0G7W			P	5, 7		
SLM	SLM00000	128.00	159.27	-8.40	1.35	1.08	118.59	R13TSS		42.81		MODRES	35.50	CL		58.9	27M0G7W			P			
SMO	SMO05700	-178.00	-171.70	-13.87	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.6	27M0G7W			P	7		
SMR	SMR31100	-36.80	12.60	43.70	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		57.4	27M0G7W			P	7		
SNG	SNG15100	88.00	103.86	1.42	0.92	0.72	175.12	R13TSS		46.25		MODRES	35.50	CL		58.5	27M0G7W			P			
SOM	SOM31200	37.80	45.16	7.11	3.31	1.51	65.48	R13TSS		37.46		MODRES	35.50	CR		57.4	27M0G7W			P	5, 7		
SRL	SRL25900	-33.50	-11.80	8.60	0.78	0.68	114.00	R13TSS		47.20		MODRES	35.50	CR		58.4	27M0G7W			P	6		
STP	STP24100	-7.00	6.17	1.45	0.65	0.60	153.51	R13TSS		48.56		MODRES	35.50	CR		56.4	27M0G7W			P	7		
SUI	SUI14000	-18.80	10.31	49.47	1.82	0.92	151.78	MOD13FRTSS		42.19		MODRES	35.50	CL		59.1	27M0G7W			P	7		
SVK	SVK14401	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CL		59.3	27M0G7W			P	5, 7		
SVK	SVK14402	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		59.3	27M0G7W			P	5		
SVK	SVK14403	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		59.3	27M0G7W		37	P	5, 7		
SVN	SVN14800	33.80	15.01	46.18	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W			P			
SWZ	SWZ31300	4.80	31.39	-26.44	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		57.9	27M0G7W			P	7		
SYR	SYR22900	11.00	37.55	34.02	1.47	0.91	73.16	MOD13FRTSS		43.19		MODRES	35.50	CL		55.5	27M0G7W			P			
SYR	SYR33900	11.00	37.60	34.20	1.32	0.88	74.00	MOD13FRTSS		43.80		MODRES	35.50	CL		56.4	27M0G7W			P			
TCD	TCD14300	17.00	18.36	15.47	3.23	2.05	82.89	R13TSS		36.23		MODRES	35.50	CR		58.9	27M0G7W			P			
TGO	TGO22600	-30.00	0.72	8.61	1.12	0.60	109.54	R13TSS		46.19		MODRES	35.50	CR		58.5	27M0G7W			P	5, 7		
THA	THA14200	98.00	100.75	12.88	2.80	1.82	93.77	R13TSS		37.37		MODRES	35.50	CL		58.6	27M0G7W			P			
TJK	TJK06900	38.00	71.14	38.41	1.21	0.73	155.31	R13TSS		45.00		MODRES	35.50	CL		58.8	27M0G7W			P	5, 7		
TKM	TKM06800	50.00	59.24	38.83	2.26	1.02	166.64	R13TSS		40.81		MODRES	35.50	CR		58.9	27M0G7W			P	5, 7		

\* Note by the Secretariat: This designation replaces the former designation "YUG" which was used previously as a three-letter code for the Administration of Serbia and Montenegro.

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna								Polarization	
			Long.	Lat.	Major axis	Minor axis	Orientation					Co-polar	Cross-polar	Code	Gain							Type	Angle
TMP	TMP00000	128.00	126.03	-8.72	0.66	0.60	13.92	R13TSS		48.50		MODRES	35.50	CR		58.9	27M0G7W			P	9		
TON	TON21500	170.75	-175.23	-18.19	1.59	0.60	71.33	R13TSS		44.64		MODRES	35.50	CR		58.3	27M0G7W			P	5, 7		
TUN	TUN15000	-25.20	9.50	33.50	1.88	0.72	135.00	MOD13FRTSS		43.13		MODRES	35.50	CR		57.3	27M0G7W		55	P			
TUN	TUN27200	-25.20	2.10	31.75	3.41	1.81	179.18	MOD13FRTSS		36.54		MODRES	35.50	CR		55.5	27M0G7W		55	P	4		
TUR	TUR14500	42.00	34.95	39.09	3.18	0.99	0.79	R13TSS		39.47		MODRES	35.50	CL		58.8	27M0G7W		36	P			
TUV	TUV00000	176.00	177.61	-7.11	0.94	0.60	137.58	R13TSS		46.93		MODRES	35.50	CR		58.9	27M0G7W			P	5, 7		
TZA	TZA22500	11.00	34.60	-6.20	2.41	1.72	129.00	R13TSS		38.27		MODRES	35.50	CR		58.7	27M0G7W			P			
UAE	UAE27400	52.50	53.85	24.34	1.19	0.85	3.72	R13TSS		44.39		MODRES	35.50	CR		58.2	27M0G7W			P	5, 7		
UGA	UGA05100	17.00	32.20	1.04	1.50	1.02	68.73	R13TSS		42.62		MODRES	35.50	CL		58.2	27M0G7W			P			
UKR	UKR06300	38.20	31.74	48.22	2.29	0.96	177.78	R13TSS		41.01		MODRES	35.50	CR		58.9	27M0G7W			P			
USA	GUM33100	122.00	144.50	13.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CL		58.3	27M0G7W			P			
USA	MRA33200	121.80	145.90	16.90	1.20	0.60	76.00	R13TSS		45.87		MODRES	35.50	CR		58.5	27M0G7W			P			
USA	PLM33200	170.00	-161.40	7.00	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CL		57.4	27M0G7W			P			
USA	USAA_100	170.00	-170.51	-12.72				CB_TSS_USAA		48.88		MODRES	35.50	CL		56.1	27M0G7W			P			
USA	WAK33400	140.00	166.50	19.20	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.6	27M0G7W			P			
UZB	UZB07100	33.80	63.80	41.21	2.56	0.89	159.91	R13TSS		40.84		MODRES	35.50	CR		58.8	27M0G7W			P			
VTN	VTN32500	107.00	106.84	14.21	3.43	1.76	109.43	R13TSS		36.65		MODRES	35.50	CR		58.4	27M0G7W			P			
VUT	VUT12800	140.00	168.00	-16.40	1.52	0.68	87.00	R13TSS		44.30		MODRES	35.50	CL		57.8	27M0G7W			P			
YEM	YEM_100	11.00	48.05	14.64				CB_TSS_YEMA		47.63		MODRES	35.50	CL		54.9	27M0G7W			P			
ZMB	ZMB31400	-0.80	27.50	-13.10	2.38	1.48	39.00	R13TSS		38.98		MODRES	35.50	CR		58.7	27M0G7W			P			
ZWE	ZWE13500	-0.80	29.60	-18.80	1.46	1.36	37.00	R13TSS		41.47		MODRES	35.50	CR		59.2	27M0G7W			P	5, 7		

ANNEX 1 (Rev.WRC-03)

**Limits for determining whether a service of an administration is affected by a proposed modification to the Region 2 Plan or by a proposed new or modified assignment in the Regions 1 and 3 List or when it is necessary under this Appendix to seek the agreement of any other administration<sup>25</sup>**

MOD COM5/216/13 (B3/224/28) (R2/266/17)

**7 Limits to the change in equivalent noise temperature to protect the fixed-satellite service (Earth-to-space) in Region 1 from modifications to the Region 2 Plan in the band 12.5-12.7 GHz**

With respect to § 4.2.3 *e*) of Article 4, an administration is considered as being affected if the proposed modification to the Region 2 Plan would result in:

- the value of  $\Delta T/T$  of its overlapping frequency assignments in the fixed-satellite service in Region 1 resulting from the proposed modification is greater than the value of  $\Delta T/T$  resulting from the assignment in the Region 2 Plan as of the date of entry into force of the Final Acts of the 1985 Conference; *and*
- the value of  $\Delta T/T$  of its overlapping frequency assignments in the fixed-satellite service in Region 1 resulting from the proposed modification exceeds 6%,

using the method of Appendix 8 (Case II). (WRC-07)

ANNEX 4 (Rev.WRC-03)

**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)

**MOD** COM5/216/14 (B3/224/29) (R2/266/18)

With respect to § 7.1 and 7.2 of Article 7, coordination of a transmitting space station in the fixed-satellite service (FSS) (space-to-Earth) of Region 2 or Region 3 is required when, under assumed free-space propagation conditions, the power flux-density over any portion of the service area of the overlapping frequency assignments in the BSS of an administration in Region 1 or Region 3 exceeds the following values: (WRC-07)

## ANNEX 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<sup>34</sup> (Rev.WRC-03)**

**MOD** COM5/216/15 (B3/224/30) (R2/266/19)

#### **3.7.1**

...

In revising this Plan at WRC-97, the minimum receiving antenna diameter was such that the half-power beamwidth was 2.86°. (WRC-07)

...

**MOD** COM5/216/16 (B3/224/31) (R2/266/20)

*(Figure 7bis - Cross-polar pattern)*

#### **3.7.2**

...

$G_{cross}(\varphi) = G_{max} - 17 + C$  **Error!** for  $\varphi_0 \leq \varphi < \varphi_1$  (WRC-07)

...

APPENDIX 30A (Rev.WRC-07)\*

**Provisions and associated Plans and List<sup>1</sup> for feeder links for the  
broadcasting-satellite service (11.7-12.5 GHz in Region 1, 12.2-12.7 GHz  
in Region 2 and 11.7-12.2 GHz in Region 3) in the frequency bands  
14.5-14.8 GHz<sup>2</sup> and 17.3-18.1 GHz in Regions 1 and 3,  
and 17.3-17.8 GHz in Region 2** (WRC-03)

(See Articles 9 and 11) (WRC-03)

ARTICLE 2A (Rev.WRC-07)

**Use of the guardbands**

**MOD** COM5/307/17 (B11/329/24) (R6/410/43)

2A.1 The use of the guardbands defined in § 3.1 and 4.1 of Annex 3 to provide space operation functions in accordance with No. 1.23 in support of the operation of geostationary-satellite networks for the broadcasting-satellite service (BSS) feeder link is not subject to the application of Section I of Article 9.

2A.1.1 Coordination between assignments intended to provide the space operation functions and assignments of the BSS feeder link subject to a Plan shall be effected using the provisions of Article 7.

2A.1.2 Coordination among assignments intended to provide the space operation functions and services not subject to a Plan shall be effected using the provisions of Nos. 9.7, 9.17, 9.17A, 9.18, and the associated provisions of Section II of Article 9, as appropriate.

2A.1.3 Coordination of modifications to the Region 2 feeder-link Plan or assignments to be included in the Regions 1 and 3 feeder-link List, with assignments intended to provide these functions shall be effected using § 4.1.1 *d*) of Article 4.

2A.1.4 Requests for the above-mentioned coordination shall be sent by the requesting administration to the Bureau, together with the appropriate information listed in Appendix 4.

2A.2 Any assignment intended to provide these functions in support of a geostationary-satellite network for the BSS feeder link shall be notified under Article 11 and brought into use within the following time-limits:

2A.2.1 *a*) for the case where the associated BSS feeder-link assignments are contained in one of the initial Plans (Region 2 Plans incorporated in the Radio Regulations at WARC Orb-85 and Regions 1 and 3 Plan adopted at WRC-2000), within the regulatory time-limit referred to in § 4.1.3 or 4.2.6 of Article 4 from the date of receipt by the Bureau of the complete Appendix 4 data for those assignments intended to provide the space operation functions;

2A.2.2 *b*) for the case where the associated BSS feeder-link assignments have been submitted under § 4.1.3 or § 4.2.6 of Article 4 for entry in the Regions 1 and 3 List or a modification to the Region 2 Plan, within the regulatory time-limit referred to in § 4.1.3 or § 4.2.6 of Article 4 for those associated BSS feeder-link assignments;

2A.2.3 *c*) for the case where the associated BSS feeder-link assignments have already been brought into use in accordance with the Radio Regulations, within the regulatory time-limit referred to in § 4.1.3 and § 4.2.6 of Article 4 from the date of receipt by the Bureau of the complete Appendix 4 data for those assignments intended to provide these space operation functions.

ARTICLE 4 (Rev.WRC-03)

**Procedures for modifications to the Region 2 feeder-link Plan  
or for additional uses in Regions 1 and 3**

**MOD** COM5/307/18 (B11/329/25) (R6/410/44)

4.1.3 An administration, or one<sup>6</sup> acting on behalf of a group of named administrations, intending to include a new or modified assignment in the feeder-link List shall send to the Bureau, not earlier than eight years but preferably not later than two years before the date on which the assignment is to be brought into use, the relevant information listed in Appendix 4. An assignment in the feeder-link List shall lapse if it is not brought into use within eight years after the date of receipt by the Bureau of the relevant complete information. A proposed new or modified assignment not included in the List within eight years after the date of receipt by the Bureau of the relevant complete information<sup>7</sup> shall also lapse. (WRC-07)

**MOD** COM5/307/19 (B11/329/26) (R6/410/45)

4.1.5 The Bureau shall determine, on the basis of Annex 1, the administrations whose frequency assignments are considered to be affected. The Bureau shall publish<sup>9</sup>, in a Special Section of its International Frequency Information Circular (BR IFIC), the complete information received under § 4.1.3, together with the names of the affected administrations, the corresponding fixed-satellite service networks, and the corresponding feeder-links to broadcasting-satellite service assignments, as appropriate. The Bureau shall immediately send a telegram/fax to the administration proposing the assignment, drawing its attention to the information contained in the relevant BR IFIC. (WRC-07)

**4.1.5**

**MOD** COM5/308/11 (B10/326/11) (R6/410/46)

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<sup>9</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

**MOD** COM5/307/20 (B11/329/27) (R6/410/47)

4.1.6 The Bureau shall send a telegram/fax to the administrations listed in the Special Section of the BR IFIC, drawing their attention to the information it contains. (WRC-07)

**MOD** COM5/379/6 (B16/401/7)

4.1.11 If, in seeking agreement, an administration modifies its initial proposal, it shall again apply the provisions of § 4.1 and the subsequent procedure in cases where:

- the assignments of any other administration received by the Bureau in accordance with § 4.1.3 or § 4.2.6, or § 7.1 of Article 7, or No. 9.7 before this modified proposal is received under § 4.1.12; *or*
- the assignments of any other administration contained in the Plans or the Lists,

are considered as being affected and receive more interference as a result of the modifications than that produced by the initial proposal. (WRC-07)

#### **4.1.15**

**MOD** COM5/308/12 (B10/326/12) (R6/410/48)

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<sup>10</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

**MOD** COM5/307/21 (B11/329/28) (R6/410/49)

4.2.6 An administration, or one<sup>16</sup> acting on behalf of a group of named administrations, intending to make a modification to the Region 2 feeder-link Plan shall send to the Bureau, not earlier than eight years but preferably not later than two years before the date on which the assignment is to be brought into use, the relevant information listed in Appendix 4. Modifications to that Plan shall lapse if the assignment is not brought into use within eight years after the date of receipt by the Bureau of the relevant complete information<sup>17</sup>. A request for a modification that has not been included in that Plan within eight years after the date of receipt by the Bureau of the relevant complete information<sup>17</sup> shall also lapse. (WRC-07)

**MOD** COM5/307/22 (B11/329/29) (R6/410/50)

4.2.8 The Bureau shall determine, on the basis of Annex 1, the administrations whose frequency assignments are considered to be affected within the meaning of § 4.2.2. The Bureau shall publish<sup>19</sup>, in a Special Section of its BR IFIC, the complete information received under § 4.2.6, together with the names of the affected administrations, the corresponding fixed-satellite service networks, and the corresponding feeder links to broadcasting-satellite service assignments, as appropriate. The Bureau shall immediately send a telegram/fax to the administration proposing the modification to the Region 2 feeder-link Plan, drawing its attention to the information contained in the relevant BR IFIC. (WRC-07)

#### **4.2.8**

**MOD** COM5/308/13 (B10/326/13) (R6/410/51)

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<sup>19</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

**MOD** COM5/307/23 (B11/329/30) (R6/410/52)

4.2.9 The Bureau shall send a telegram/fax to the administrations listed in the Special Section of its BR IFIC, drawing their attention to the information it contains. (WRC-07)

**MOD** COM5/307/24 (B11/329/31) (R6/410/53)

4.2.10 An administration which considers that it should have been included in the publication referred to under § 4.2.8 above shall, within four months of the date of publication in the relevant BR IFIC, and giving the technical reasons for so doing, request the Bureau to include its name in the publication. The Bureau shall study this information on the basis of Annex 1 and shall inform both administrations of its conclusions. Should the Bureau agree to the administration's request, it shall publish an addendum to the publication under § 4.2.8. (WRC-07)

**4.2.19**

**MOD** COM5/308/14 (B10/326/14) (R6/410/54)

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<sup>20</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication, after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. (WRC-07)

**MOD** COM5/308/15 (B10/326/15) (R6/410/55)

ARTICLE 5 (Rev.WRC-03)

**Coordination, notification, examination and recording in the Master International Frequency Register of frequency assignments to feeder-link transmitting earth stations and receiving space stations in the fixed-satellite service**<sup>21, ADD 21A</sup> (WRC-07)

**ADD** COM5/308/16 (B10/326/16) (R6/410/56)

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<sup>21A</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication specified in § 5.1.10 and the corresponding entries in the Master Register under § 5.2.2, 5.2.2.1 or 5.2.2.2, as appropriate, and the corresponding entries included in the Plan on and after 3 June 2000 or in the List, as appropriate, after informing the administration concerned. The Bureau shall inform all administrations of such action. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482 unless the payment has already been received. See also Resolution **905 (WRC-07)**. (WRC-07)

**MOD** COM5/307/25 (B11/329/32) (R6/410/57)

5.2.2 When the Bureau reaches a favourable finding with respect to § 5.2.1 *a*), 5.2.1 *b*), 5.2.1 *c*) and 5.2.1 *f*), the frequency assignment of an administration shall be recorded in the Master Register. The date of receipt of the notice by the Bureau shall be entered in the Master Register. In relations between administrations all frequency assignments brought into use in conformity with the feeder-link Plan and recorded in the Master Register shall be considered to have the same status irrespective of the dates of receipt entered in the Master Register for such frequency assignments. (WRC-07)

**MOD** COM5/307/26 (B11/329/33) (R6/410/58)

5.2.2.1 When the Bureau reaches a favourable finding with respect to § 5.2.1 *a*), 5.2.1 *c*), 5.2.1 *d*) and 5.2.1 *f*), the frequency assignment shall be recorded in the Master Register. The date of receipt of the notice by the Bureau shall be entered in the Master Register. In relations between administrations, all frequency assignments brought into use in conformity with the feeder-link Plan and recorded in the Master Register shall be considered to have the same status irrespective of the dates of receipt entered in the Master Register for such frequency assignments. When recording these assignments, the Bureau shall indicate by an appropriate symbol the characteristics having a value different from that appearing in that Plan. (WRC-07)

**MOD** COM5/307/27 (B11/329/34) (R6/410/59)

5.2.2.2 In the case of Region 2, when the Bureau reaches a favourable finding with respect to § 5.2.1 *a*) and 5.2.1 *c*) but an unfavourable finding with respect to § 5.2.1 *b*) and 5.2.1 *d*), it shall examine the notice with respect to the successful application of the provisions of Resolution **42 (Rev.WRC-03)**. A frequency assignment for which the provisions of Resolution **42 (Rev.WRC-03)** have been successfully applied shall be recorded in the Master Register with an appropriate symbol to indicate its interim status. The date of receipt of the notice by the Bureau shall be entered in the Master Register. In relations between administrations all frequency assignments brought into use following the successful application of the provisions of Resolution **42 (Rev.WRC-03)** and recorded in the Master Register shall be considered to have the same status irrespective of the dates of receipt entered in the Master Register for such frequency assignments. If the finding with respect to § 5.2.1 *e*), where applicable, is unfavourable, the notice shall be returned immediately by airmail to the notifying administration. (WRC-07)

**MOD** COM5/307/28 (B11/329/35) (R6/410/60)

5.2.3 Whenever a frequency assignment is recorded in the Master Register, the finding reached by the Bureau shall be indicated. (WRC-07)

**MOD** COM5/307/29 (B11/329/36) (R6/410/61)

5.2.9 The date of bringing into use notified by the administration concerned shall be recorded in the Master Register. (WRC-07)

**MOD** COM5/307/30 (B11/329/37) (R6/410/62)

5.3.1 Any notified frequency assignment to which the Article 4 procedures have been applied and which has been provisionally recorded under § 5.2.7 shall be brought into use no later than the end of the period provided under § 4.1.3 or 4.2.6 of Article 4. Any other frequency assignment provisionally recorded under § 5.2.7 shall be brought into use by the date specified in the notice. Unless the Bureau has been informed by the notifying administration of the bringing into use of the assignment under § 5.2.8, it shall, no later than fifteen days before the notified date of bringing into use or the end of the regulatory period established under § 4.1.3 or 4.2.6 of Article 4, as appropriate, send a reminder requesting confirmation that the assignment has been brought into use within the regulatory period. If the Bureau does not receive that confirmation within thirty days following the notified date of bringing into use or the period provided under § 4.1.3 or 4.2.6 of Article 4, as the case may be, it shall cancel the entry in the Master Register. (WRC-07)

ARTICLE 9A (Rev.WRC-03)

**Plan for feeder links for the broadcasting-satellite service in  
the fixed-satellite service in the frequency bands  
14.5-14.8 GHz and 17.3-18.1 GHz in Regions 1 and 3**

9A.2

TEXT FOR NOTES IN THE REMARKS COLUMN OF THE  
REGIONS 1 AND 3 FEEDER-LINK PLAN (WRC-03)

**SUP** COM5/328/9 (B12/346/9) (R6/410/63)

TABLE 1A

**ADD** COM5/328/12 (B12/346/10) (R6/410/64)

TABLE 1A (WRC-07)

**Affected administrations and corresponding networks/beams identified based on Note 5 in § 9A.2 of Article 9A**

<b>Beam name</b>	<b>Channels</b>	<b>Affected administrations*</b>	<b>Affected networks/beams*</b>
CPV30100	2, 4, 8, 10, 12	GUY JMC	GUY00302, JMC00005
CPV30100	6	JMC	JMC00005
G 02700	2, 4, 8, 10, 12	GUY JMC	GUY00302, JMC00005
G 02700	6	JMC	JMC00005
LBR24400	1	GUY	GUY00302
LBR24400	3, 9, 13	JMC	JMC00005
LBR24400	5, 7, 11	GUY JMC	GUY00302, JMC00005

\* Administrations and corresponding networks or beams whose assignment(s) may receive interference from the beam shown in the left-hand column.

**SUP** COM5/328/10 (B12/346/11) (R6/410/65)

TABLE 1B

**ADD** COM5/328/13 (B12/346/12) (R6/410/66)

TABLE 1B (WRC-07)

**Affecting administrations and corresponding networks/beams identified based on Notes 6 and 7 in § 9A.2 of Article 9A**

Beam name	Channels	Note	Affecting administrations*	Affecting networks/beams*
CPV30100	2, 4, 8, 10, 12	6	GUY JMC	GUY00302, JMC00005
CPV30100	6	6	JMC	JMC00005
E____100	1, 3, 5, 7, 9, 11, 13	6	G	BERBER02
G 02700	2, 4, 8, 10, 12	6	GUY JMC	GUY00302, JMC00005
G 02700	6	6	JMC	JMC00005
LBR24400	1	6	GUY	GUY00302
LBR24400	3, 9, 13	6	JMC	JMC00005
LBR24400	5, 7, 11	6	GUY JMC	GUY00302, JMC00005
NZL__100	24	7	J	SUPERBIRD-A

\* Administrations and corresponding networks or beams whose assignment(s) may cause interference to the beam shown in the left-hand column.

SUP COM5/328/11 (B12/346/13) (R6/410/67)

TABLE 3A2

ADD COM5/328/14 (B12/346/14) (R6/410/68)

TABLE 3A2 (WRC-07)

Basic characteristics of the Regions 1 and 3 feeder-link Plan in the frequency band 17.3-18.1 GHz (sorted by administration)

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17									
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna									Polarization		e.i.r.p.	Power control	Designation of emission	Identity of the space station	Group code	Status	Remarks
			Long.	Lat.	Major axis	Minor axis	Orien-tation					Co-polar	Cross-polar	Code	Gain								Type	Angle							
AFG	AFG24501	50.00	67.00	34.30	1.89	1.19	18.00	MODRSS		40.93		MODTES	57.00	CL		84.0		27M0G7W		71	P										
AFG	AFG24502	50.00	67.00	34.30	1.89	1.19	18.00	MODRSS		40.93		MODTES	57.00	CR		84.0		27M0G7W		71	P										
AGL	AGL29500	-24.80	16.43	-12.37	2.66	1.75	77.43	MODRSS		37.77		MODTES	57.00	CR		84.0		27M0G7W			P										
ALB	ALB29600	62.00	19.50	41.37	0.60	0.60	69.35	MODRSS		48.88		MODTES	57.00	CL		82.6		27M0G7W			P										
ALG	ALG25152	-24.80	1.50	27.60	3.65	2.94	135.00	MODRSS		34.14		MODTES	57.00	CL		84.0		27M0G7W			P										
AND	AND34100	-37.00	1.60	42.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		83.0		27M0G7W			P										
ARM	ARM06400	22.80	44.99	39.95	0.73	0.60	148.17	MODRSS		48.02		MODTES	57.00	CR		84.0		27M0G7W			P										
ARS	ARS00375	17.00	44.60	23.40	4.21	2.48	145.00	MODRSS		34.26		MODTES	57.00	CL		84.0		27M0G7W		54	P										
ARS	ARS34000	17.00	44.60	23.40	4.21	2.48	145.00	MODRSS		34.28		MODTES	57.00	CL		84.0		27M0G7W		54	P										
AUS	AUS00400	152.00	135.00	-24.20	7.19	5.20	140.00	MODRSS		28.71		MODTES	57.00	CL		87.0		27M0G7W		30	P										
AUS	AUS00401	152.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P										
AUS	AUS00402	152.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P										
AUS	AUS00403	152.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P										
AUS	AUS00404	152.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P										
AUS	AUS00405	152.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P										
AUS	AUS00406	152.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P										
AUS	AUS0040A	152.00	135.36	-23.95	6.89	4.83	141.15	R123FR		29.23		MODTES	57.00	CL		87.0		27M0G7W		30	P										
AUS	AUS00500	152.00	135.00	-24.20	7.19	5.20	140.00	MODRSS		28.71		MODTES	57.00	CR		87.0		27M0G7W		41	P										
AUS	AUS00501	152.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P										
AUS	AUS00502	152.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P										
AUS	AUS00503	152.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P										
AUS	AUS00504	152.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P										
AUS	AUS00505	152.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P										
AUS	AUS00506	152.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P										
AUS	AUS00600	152.00	135.50	-24.20	7.19	5.20	140.00	MODRSS		28.71		MODTES	57.00	CR		87.0		27M0G7W		42	P										
AUS	AUS00601	152.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P										
AUS	AUS00602	152.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P										
AUS	AUS00603	152.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P										
AUS	AUS00604	152.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P										
AUS	AUS00605	152.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P										

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna									Polarization	
			Long.	Lat.	Major axis	Minor axis	Orien-tation					Co-polar	Cross-polar	Code	Gain								Type	Angle
AUS	AUS00606	152.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P			
AUS	AUS00700	164.00	136.00	-23.90	7.26	4.48	132.00	MODRSS		29.32		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00701	164.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00702	164.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00703	164.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00704	164.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00705	164.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00706	164.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS0070A	164.00	136.62	-24.16	6.82	4.20	134.19	R123FR		29.87		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00800	164.00	136.00	-23.90	7.26	4.48	132.00	MODRSS		29.32		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00801	164.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00802	164.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00803	164.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00804	164.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00805	164.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00806	164.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00900	164.00	136.00	-23.90	7.26	4.48	132.00	MODRSS		29.32		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00901	164.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00902	164.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00903	164.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00904	164.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00905	164.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00906	164.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS0090A	164.00	136.62	-24.16	6.82	4.20	134.19	R123FR		29.87		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUSA0000	152.00	135.36	-23.95	6.89	4.83	141.15	R123FR		29.23		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0001	152.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0002	152.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0003	152.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0004	152.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0005	152.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0006	152.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSB0000	164.00	136.62	-24.16	6.82	4.20	134.19	R123FR		29.87		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0001	164.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0002	164.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0003	164.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0004	164.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0005	164.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0006	164.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna									Polarization	
			Long.	Lat.	Major axis	Minor axis	Orien-tation					Co-polar	Cross-polar	Code	Gain								Type	Angle
AUT	AUT01600	-18.80	10.31	49.47	1.82	0.92	151.78	MODRSS		42.19		MODTES	57.00	CR		84.0		27M0G7W			P			
AZE	AZE06400	23.20	47.47	40.14	0.93	0.60	158.14	MODRSS		46.98		MODTES	57.00	CL		84.0		27M0G7W			P			
BDI	BDI27000	11.00	29.90	-3.10	0.71	0.60	80.00	MODRSS		48.15		MODTES	57.00	CL		81.0		27M0G7W			P			
BEL	BEL01800	38.20	5.12	51.96	1.00	1.00	0.00	MODRSS		44.44		MODTES	57.00	CR		85.5		27M0G7W			P			
BEN	BEN23300	-19.20	2.20	9.50	1.44	0.68	97.00	MODRSS		44.54		MODTES	57.00	CL		84.0		27M0G7W			P			
BFA	BFA10700	-30.00	-1.50	12.20	1.45	1.14	29.00	MODRSS		42.26		MODTES	57.00	CL		84.0		27M0G7W			P			
BGD	BGD22000	74.00	90.30	23.60	1.46	0.84	135.00	MODRSS		43.56		MODTES	57.00	CR		84.0		27M0G7W			P			
BHR	BHR25500	34.00	50.50	26.10	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		83.0		27M0G7W			P			
BIH	BIH14800	56.00	18.22	43.97	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		84.0		27M0G7W			P			
BLR	BLR06200	37.80	28.04	53.18	1.17	0.60	9.68	MODRSS		45.96		MODTES	57.00	CL		84.0		27M0G7W			P			
BOT	BOT29700	-0.80	23.30	-22.20	2.13	1.50	36.00	MODRSS		39.40		MODTES	57.00	CL		84.0		27M0G7W			P			
BRM	BRM29800	104.00	96.97	18.68	3.33	1.66	91.63	MODRSS		37.02		MODTES	57.00	CR		84.0		27M0G7W			P			
BRU	BRU3300A	74.00	114.70	4.40	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		84.0		27M0G7W			P			
BTN	BTN03100	86.00	90.44	27.05	0.72	0.60	175.47	MODRSS		48.11		MODTES	57.00	CR		84.0		27M0G7W			P			
BUL	BUL02000	-1.20	25.00	43.00	1.04	0.60	165.00	MODRSS		46.50		MODTES	57.00	CL		83.0		27M0G7W			P			
CAF	CAF25800	-13.20	21.00	6.30	2.25	1.68	31.00	MODRSS		38.67		MODTES	57.00	CR		84.0		27M0G7W			P			
CBG	CBG29900	86.00	104.89	12.79	1.12	0.94	32.89	MODRSS		44.22		MODTES	57.00	CR		84.0		27M0G7W			P			
CHN	CHN15400	62.00	101.90	33.50	5.10	2.80	143.00	MODRSS		32.90		MODTES	57.00	CR		84.0		27M0G7W			45	P		
CHN	CHN15500	62.00	101.90	33.50	5.10	2.80	143.00	MODRSS		32.90		MODTES	57.00	CL		84.0		27M0G7W			45	P		
CHN	CHN15800	134.00	113.21	34.27	6.40	3.16	10.74	MODRSS		31.39		MODTES	57.00	CL		84.0		27M0G7W			46	P		
CHN	CHN15900	134.00	113.21	34.27	6.40	3.16	10.74	MODRSS		31.39		MODTES	57.00	CR		84.0		27M0G7W			46	P		
CHN	CHN16000	92.20	108.10	33.70	5.00	4.00	148.00	MODRSS		31.44		MODTES	57.00	CR		84.0		27M0G7W			47	P		
CHN	CHN16100	92.20	108.10	33.70	5.00	4.00	148.00	MODRSS		31.44		MODTES	57.00	CL		84.0		27M0G7W			47	P		
CHN	CHN20000	122.00	113.55	22.20	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
CLN	CLN21900	50.00	80.60	7.70	1.18	0.60	106.00	MODRSS		45.95		MODTES	57.00	CL		84.0		27M0G7W			P			
COD	COD_100	-19.20	21.85	-3.40				CB_RSS_CODA		38.36		MODTES	57.00	CL		84.0		27M0G7W			P			
COG	COG23500	-13.20	14.60	-0.70	2.02	1.18	59.00	MODRSS		40.67		MODTES	57.00	CR		84.0		27M0G7W			P			
COM	COM20700	29.00	44.10	-12.10	0.76	0.60	149.00	MODRSS		47.86		MODTES	57.00	CR		84.0		27M0G7W			P			
CPV	CPV30100	-33.50	-24.12	16.09	0.77	0.63	94.46	MODRSS		47.56		MODTES	57.00	CL		84.0		27M0G7W			P	5, 6		
CTI	CTI23700	-24.80	-5.66	7.39	1.45	1.29	126.59	MODRSS		41.73		MODTES	57.00	CR		84.0		27M0G7W			P			
CVA	CVA08300	-1.20	13.02	42.09	0.75	0.66	20.53	MODRSS		47.48		MODTES	57.00	CR		84.0		27M0G7W			P			
CVA	CVA08500	-1.20	13.02	42.09	0.75	0.66	20.53	MODRSS		47.48		MODTES	57.00	CR		84.0		27M0G7W			P			
CYP	CYP08600	-1.20	33.45	35.12	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
CZE	CZE14401	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CR		84.0		27M0G7W			P			
CZE	CZE14402	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W			P			
CZE	CZE14403	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W			37	P		
D	D 08700	-18.80	10.31	49.47	1.82	0.92	151.78	MODRSS		42.19		MODTES	57.00	CR		84.0		27M0G7W			P			
DJI	DJI09900	16.80	42.68	11.68	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna									Polarization	
			Long.	Lat.	Major axis	Minor axis	Orien-tation					Co-polar	Cross-polar	Code	Gain								Type	Angle
DNK	DNK_100	-25.20	5.28	61.83				CB_RSS_DNKA		48.88		MODTES	57.00	CL		79.5		27M0G7W			P			
DNK	DNK09000	-33.50	14.34	61.72	1.83	0.60	151.50	MODRSS		44.05		MODTES	57.00	CR		84.0		27M0G7W			P			
DNK	DNK09100	-33.50	-14.94	63.79	1.52	0.60	168.57	MODRSS		44.86		MODTES	57.00	CR		84.0		27M0G7W			P			
E	E___100	-30.00	-9.40	34.15				CB_RSS_E__A		44.79		MODTES	57.00	CR		84.0		27M0G7W		01	P	6		
E	HISP27D4	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	55.00	CR		82.5		27M0G7W--	HISPASAT-1	01	PE			
E	HISP27D6	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	58.50	CR		83.5		27M0G7W--	HISPASAT-1	01	PE			
E	HISP33D4	-30.00	-3.10	39.90					ECO	43.00	18.70	MODTES	55.00	CR		82.5		33M0G7W--	HISPASAT-1	01	PE			
E	HISP33D6	-30.00	-3.10	39.90					ECO	43.00	18.70	MODTES	58.50	CR		83.5		33M0G7W--	HISPASAT-1	01	PE			
E	HISPASA4	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	55.00	CR		82.5		27M0F8W	HISPASAT-1	01	PE			
E	HISPASA6	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	58.50	CR		83.5		27M0F8W	HISPASAT-1	01	PE			
EGY	EGY02600	-7.00	29.70	26.80	2.33	1.72	136.00	MODRSS		38.42		MODTES	57.00	CR		84.0		27M0G7W		12	P			
ERI	ERI09200	22.80	39.41	14.98	1.67	0.95	145.49	MODRSS		42.44		MODTES	57.00	CL		84.0		27M0G7W			P			
EST	EST06100	44.50	25.40	59.18	0.67	0.60	5.99	MODRSS		48.42		MODTES	57.00	CR		84.0		27M0G7W			P			
F	F 09300	-7.00	3.30	45.37	2.18	1.20	156.36	MODRSS		40.27		MODTES	57.00	CR		84.0		27M0G7W		21	P			
F	F___100	-7.00	29.16	13.43				CB_RSS_F__A		48.88		MODTES	57.00	CL		84.0		27M0G7W		12	P			
F	F___200	140.00	174.50	-17.30				CB_RSS_F__B		45.80		MODTES	57.00	CL		84.0		27M0G7W		7F	P			
F	F___300	140.00	174.65	-17.65				CB_RSS_F__C		47.97		MODTES	57.00	CR		84.0		27M0G7W		7F	P			
F	OCE10100	-160.00	-145.00	-16.30	4.34	3.54	4.00	MODRSS		32.58		MODTES	57.00	CL		84.0		27M0G7W			P			
FIN	FIN10300	22.80	17.61	61.54	2.18	0.90	11.59	MODRSS		41.53		MODTES	57.00	CL		84.0		27M0G7W		52	P			
FIN	FIN10400	22.80	17.61	61.54	2.18	0.90	11.59	MODRSS		41.53		MODTES	57.00	CL		84.0		27M0G7W		52	P			
FJI	FJI19300	-178.00	179.62	-17.87	1.16	0.92	155.22	MODRSS		44.16		MODTES	57.00	CR		84.0		27M0G7W			P			
FSM	FSM00000	158.00	151.90	5.48	5.15	1.57	167.00	MODRSS		35.38		MODTES	57.00	CR		84.0		27M0G7W			P			
G	G 02700	-33.50	-3.50	53.80	1.84	0.72	142.00	MODRSS		43.23		MODTES	57.00	CR		84.0		27M0G7W			P	5, 6		
GAB	GAB26000	-13.20	11.80	-0.60	1.43	1.12	64.00	MODRSS		42.40		MODTES	57.00	CL		84.0		27M0G7W			P			
GEO	GEO06400	23.20	43.35	42.27	1.11	0.60	161.21	MODRSS		46.23		MODTES	57.00	CL		84.0		27M0G7W			P			
GMB	GMB30200	-37.20	-15.10	13.40	0.79	0.60	4.00	MODRSS		47.69		MODTES	57.00	CL		83.0		27M0G7W			P			
GNB	GNB30400	-30.00	-15.00	12.00	0.90	0.60	172.00	MODRSS		47.12		MODTES	57.00	CL		84.0		27M0G7W			P			
GNE	GNE30300	-18.80	10.30	1.50	0.68	0.60	10.00	MODRSS		48.34		MODTES	57.00	CR		84.0		27M0G7W			P			
GRC	GRC10500	-1.20	24.52	38.11	1.70	0.95	152.55	MODRSS		42.37		MODTES	57.00	CR		84.0		27M0G7W			P			
GUI	GUI19200	-37.00	-11.00	10.20	1.58	1.04	147.00	MODRSS		42.29		MODTES	57.00	CR		85.0		27M0G7W			P			
HNG	HNG10601	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CR		84.0		27M0G7W			P			
HNG	HNG10602	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W			P			
HNG	HNG10603	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W		37	P			
HOL	HOL21300	38.20	5.12	51.96	1.00	1.00	0.00	MODRSS		44.44		MODTES	57.00	CL		85.5		27M0G7W			P			
HRV	HRV14801	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CR		84.0		27M0G7W			P			
HRV	HRV14802	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W			P			
HRV	HRV14803	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W		37	P			
I	I 08200	9.00	12.67	40.74	1.99	1.35	144.20	MODRSS		40.14		MODTES	57.00	CR		84.0		27M0G7W			P			

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna									Polarization	
			Long.	Lat.	Major axis	Minor axis	Orien-tation					Co-polar	Cross-polar	Code	Gain								Type	Angle
IND	IND03700	68.00	93.00	25.50	1.46	1.13	40.00	MODRSS		42.27		MODTES	57.00	CL		84.0		27M0G7W			P			
IND	IND04701	68.00	93.30	11.10	1.92	0.60	96.00	MODRSS		43.83		MODTES	57.00	CR		84.0		27M0G7W		7E	P			
IND	IND04702	68.00	93.30	11.10	1.92	0.60	96.00	MODRSS		43.83		MODTES	57.00	CL		84.0		27M0G7W		7E	P			
IND	INDA_101	55.80	76.16	14.72				CB_RSS_INDA		45.66		MODTES	57.00	CR		84.0		27M0G7W		7G	P			
IND	INDA_102	55.80	76.16	14.72				CB_RSS_INDA		45.66		MODTES	57.00	CL		84.0		27M0G7W		7G	P			
IND	INDB_101	55.80	83.67	23.73				CB_RSS_INDB		43.13		MODTES	57.00	CR		84.0		27M0G7W		7H	P			
IND	INDB_102	55.80	83.67	23.73				CB_RSS_INDB		43.13		MODTES	57.00	CL		84.0		27M0G7W		7H	P			
IND	INDD_100	68.00	74.37	29.16				CB_RSS_INDD		41.79		MODTES	57.00	CR		84.0		27M0G7W			P			
INS	INS02800	80.20	113.60	-1.40	6.73	3.33	160.00	MODRSS		30.94		MODTES	57.00	CR		84.0		27M0G7W			P			
INS	INS03501	104.00	115.20	-1.70	9.14	3.43	170.00	MODRSS		29.48		MODTES	57.00	CL		84.0		27M0G7W		7D	P			
INS	INS03502	104.00	115.20	-1.70	9.14	3.43	170.00	MODRSS		29.48		MODTES	57.00	CR		84.0		27M0G7W		7D	P			
IRL	IRL21100	-37.20	-8.25	53.22	0.72	0.60	157.56	MODRSS		48.08		MODTES	57.00	CR		84.0		27M0G7W			P			
IRN	IRN10900	34.00	54.20	32.40	3.82	1.82	149.00	MODRSS		36.03		MODTES	57.00	CL		83.0		27M0G7W			P			
ISL	ISL04900	-33.50	-19.00	64.90	1.00	0.60	177.00	MODRSS		46.67		MODTES	57.00	CL		83.0		27M0G7W			P			
ISL	ISL05000	-33.50	-14.94	63.79	1.52	0.60	168.57	MODRSS		44.86		MODTES	57.00	CR		84.0		27M0G7W			P			
ISR	ISR11000	-4.00	34.95	31.32	0.73	0.60	110.02	MODRSS		48.03		MODTES	57.00	CR		84.0		27M0G7W			P			
J	000BS-3N	109.85	134.50	31.50	3.52	3.30	68.00	MODRSS		33.80		MODTES	57.00	CR		87.0		27M0F8W	BS-3N	02	PE			
J	J 10985	109.85	134.50	31.50	3.52	3.30	68.00	MODRSS		33.80		MODTES	57.00	CR		87.0		34M5G7W		02	P			
J	J 11100	110.00	134.50	31.50	3.52	3.30	68.00	MODRSS		33.80		MODTES	57.00	CR		87.0		34M5G7W		02	P			
J	J 1110E	110.00	134.50	31.50	3.52	3.30	68.00	MODRSS		33.80		MODTES	57.00	CR		87.0		27M0F8W	BS-3M	02	PE			
JOR	JOR22400	11.00	37.55	34.02	1.47	0.91	73.16	MODRSS		43.19		MODTES	57.00	CL		85.0		27M0G7W			P			
KAZ	KAZ06600	56.40	65.73	46.40	4.58	1.76	177.45	MODRSS		35.38		MODTES	57.00	CL		84.0		27M0G7W			P			
KEN	KEN24900	-0.80	37.99	0.88	2.06	1.30	99.68	MODRSS		40.17		MODTES	57.00	CR		84.0		27M0G7W			P			
KGZ	KGZ07000	50.00	73.91	41.32	1.47	0.64	5.05	MODRSS		44.75		MODTES	57.00	CR		84.0		27M0G7W			P			
KIR	KIR_100	176.00	-170.31	-0.56				CB_RSS_KIRA		42.60		MODTES	57.00	CL		84.0		27M0G7W			P			
KOR	KOR11201	116.00	127.50	36.00	1.24	1.02	168.00	MODRSS		43.43		MODTES	57.00	CL		89.0		27M0G7W		03	P			
KOR	KOR11202	116.00	127.50	36.00	1.24	1.02	168.00	MODRSS		43.43		MODTES	57.00	CR		89.0		27M0G7W		03	P			
KRE	KRE28600	140.00	128.45	40.32	1.63	0.68	18.89	MODRSS		44.00		MODTES	57.00	CL		87.0		27M0G7W			P			
KWT	KWT11300	11.00	47.48	29.12	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		83.0		27M0G7W			P			
LAO	LAO28400	122.20	103.71	18.17	1.87	1.03	123.99	MODRSS		42.18		MODTES	57.00	CR		84.0		33M0G7W			P			
LBN	LBN27900	11.00	37.55	34.02	1.47	0.91	73.16	MODRSS		43.19		MODTES	57.00	CR		84.0		27M0G7W			P			
LBR	LBR24400	-33.50	-9.30	6.60	1.22	0.70	133.00	MODRSS		45.13		MODTES	57.00	CR		84.0		27M0G7W			P	5, 6		
LBY	LBY28021	-24.80	17.50	26.30	3.68	1.84	130.00	MODRSS		36.14		MODTES	57.00	CL		84.0		27M0G7W			P			
LIE	LIE25300	-18.80	10.31	49.47	1.82	0.92	151.78	MODRSS		42.19		MODTES	57.00	CL		84.0		27M0G7W			P			
LSO	LSO30500	4.80	27.80	-29.80	0.66	0.60	36.00	MODRSS		48.47		MODTES	57.00	CL		84.0		27M0G7W			P			
LTU	LTU06100	23.20	24.52	56.11				CB_RSS_LTUA		47.92		MODTES	57.00	CR		84.0		27M0G7W			P			
LUX	LUX11400	28.20	5.21	49.20	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W		09	P			
LVA	LVA06100	23.20	24.52	56.11				CB_RSS_LVAA		47.92		MODTES	57.00	CR		84.0		27M0G7W			P			

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna									Polarization	
			Long.	Lat.	Major axis	Minor axis	Orientation					Co-polar	Cross-polar	Code	Gain								Type	Angle
MAU	MAU_100	29.00	58.61	-15.88				CB_RSS_MAU		41.42		MODTES	57.00	CL		84.0		27M0G7W			P			
MCO	MCO11600	34.20	7.40	43.70	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		81.0		27M0G7W			P			
MDA	MDA06300	50.00	28.45	46.99	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		84.0		27M0G7W			P			
MDG	MDG23600	29.00	46.20	-18.60	2.57	0.80	67.00	MODRSS		41.32		MODTES	57.00	CL		84.0		27M0G7W			P			
MHL	MHL00000	146.00	167.64	9.83	2.07	0.90	157.42	MODRSS		41.75		MODTES	57.00	CR		84.0		27M0G7W			P			
MKD	MKD14800	22.80	21.53	41.50	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
MLA	MLA_100	91.50	108.07	3.92				CB_RSS_MLAA		41.75		MODTES	57.00	CR		84.0		27M0G7W			P			
MLD	MLD30600	50.00	73.10	6.00	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		84.0		27M0G7W			P			
MLI	MLI_100	-19.20	-4.80	16.10				CB_RSS_MLIA		41.11		MODTES	57.00	CR		87.0		27M0G7W			P			
MLT	MLT14700	22.80	14.40	35.90	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		84.0		27M0G7W			P			
MNG	MNG24800	74.00	101.95	46.79	3.32	1.04	169.27	MODRSS		39.07		MODTES	59.92	CL		86.9		27M0G7W			P			
MRC	MRC20900	-25.20	-8.90	28.90	3.96	1.55	50.00	MODRSS		36.57		MODTES	57.00	CR		80.0		27M0G7W			P			
MTN	MTN_100	-36.80	-11.24	20.91				CB_RSS_MTNA		37.55		MODTES	57.00	CR		86.0		27M0G7W			P			
MWI	MWI30800	4.80	33.79	-13.25	1.56	0.70	92.69	MODRSS		44.10		MODTES	57.00	CR		84.0		27M0G7W			P			
NGR	NGR11500	-37.20	7.63	16.97	2.20	1.80	100.58	MODRSS		38.47		MODTES	57.00	CL		84.0		27M0G7W			P			
NOR	NOR12000	-0.80	16.70	61.58	1.84	0.95	177.31	MODRSS		42.02		MODTES	57.00	CR		84.0		27M0G7W		06	P			
NOR	NOR12100	-0.80	16.70	61.58	1.84	0.95	177.31	MODRSS		42.02		MODTES	57.00	CL		84.0		27M0G7W		06	P			
NRU	NRU30900	134.00	167.00	-0.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
NZL	NZL_100	158.00	-174.35	-24.30				CB_RSS_NZLA		48.88		MODTES	57.00	CL		84.0		27M0G7W			P	7		
OMA	OMA12300	17.20	55.60	21.00	1.88	1.02	100.00	MODRSS		41.62		MODTES	57.00	CL		85.0		27M0G7W			P			
PHL	PHL28500	98.00	121.30	11.10	3.46	1.76	99.00	MODRSS		36.60		MODTES	57.00	CL		84.0		27M0G7W			P			
PLW	PLW00000	140.00	132.98	5.51	1.30	0.60	55.41	MODRSS		45.53		MODTES	57.00	CR		84.0		27M0G7W			P			
POL	POL13200	50.00	19.71	52.18	1.22	0.63	16.12	MODRSS		45.59		MODTES	57.00	CR		84.0		27M0G7W			P			
POR	POR_100	-37.00	-15.92	37.65				CB_RSS_PORA		47.17		MODTES	57.00	CR		84.0		27M0G7W			P			
PSE	YYY00001	-13.20	34.99	31.86	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		80.5		27M0G7W			P	8		
OAT	OAT24700	20.00	51.59	25.35	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
ROU	ROU13600	50.00	25.12	45.75	1.17	0.73	9.52	MODRSS		45.15		MODTES	57.00	CL		84.0		27M0G7W			P			
RRW	RRW31000	11.00	30.00	-2.10	0.66	0.60	42.00	MODRSS		48.47		MODTES	57.00	CR		81.0		27M0G7W			P			
RUS	RSTREA11	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0F8W	RST-1	05	PE			
RUS	RSTREA12	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0F8W	RST-1	05	PE			
RUS	RSTRED11	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-1	05	PE			
RUS	RSTRED12	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-1	05	PE			
RUS	RSTRSD11	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-1	05	P			
RUS	RSTRSD12	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-1	05	P			
RUS	RSTRSD21	56.00	65.00	63.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-2	14	P			
RUS	RSTRSD22	56.00	65.00	63.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-2	14	P			
RUS	RSTRSD31	86.00	97.00	62.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-3	33	P			
RUS	RSTRSD32	86.00	97.00	62.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-3	33	P			

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna									Polarization	
			Long.	Lat.	Major axis	Minor axis	Orientation					Co-polar	Cross-polar	Code	Gain								Type	Angle
RUS	RSTRSD51	140.00	158.00	56.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-5	35	P			
RUS	RSTRSD52	140.00	158.00	56.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-5	35	P			
RUS	RUS00401	110.00	118.22	51.52					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RUS-4	34	P			
RUS	RUS00402	110.00	118.22	51.52					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RUS-4	34	P			
S	S 13800	5.00	17.00	61.50	2.00	1.00	10.00	MODRSS		41.44		MODTES	57.00	CL		84.0		27M0G7W		04	P			
S	S 13900	5.00	17.00	61.50	2.00	1.00	10.00	MODRSS		41.44		MODTES	57.00	CL		84.0		27M0G7W		04	P			
SCG*	SCG14800	-7.00	20.50	43.98	0.91	0.60	145.16	MODRSS		47.07		MODTES	57.00	CL		84.0		27M0G7W			P			
SEY	SEY00000	42.50	51.86	-7.23	2.43	1.04	27.51	MODRSS		40.44		MODTES	57.00	CR		84.0		27M0G7W			P			
SLM	SLM00000	128.00	159.27	-8.40	1.35	1.08	118.59	MODRSS		42.81		MODTES	57.00	CL		84.0		27M0G7W			P			
SMO	SMO05700	-178.00	-171.70	-13.87	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
SMR	SMR31100	-36.80	12.50	43.90	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		83.0		27M0G7W			P			
SNG	SNG15100	88.00	103.86	1.42	0.92	0.72	175.12	MODRSS		46.25		MODTES	57.00	CL		84.0		27M0G7W			P			
SRL	SRL25900	-33.50	-11.80	8.60	0.78	0.68	114.00	MODRSS		47.20		MODTES	57.00	CR		84.0		27M0G7W			P			
STP	STP24100	-7.00	7.00	0.80	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
SUI	SUI14000	-18.80	10.31	49.47	1.82	0.92	151.78	MODRSS		42.19		MODTES	57.00	CL		84.0		27M0G7W			P			
SVK	SVK14401	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CR		84.0		27M0G7W			P			
SVK	SVK14402	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W			P			
SVK	SVK14403	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W		37	P			
SVN	SVN14800	33.80	15.01	46.18	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		82.0		27M0G7W			P			
SWZ	SWZ31300	4.80	31.39	-26.44	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		82.0		27M0G7W			P			
SYR	SYR22900	11.00	37.55	34.02	1.47	0.91	73.16	MODRSS		43.19		MODTES	57.00	CL		84.0		27M0G7W		53	P			
SYR	SYR33900	11.00	37.60	34.20	1.32	0.88	74.00	MODRSS		43.80		MODTES	57.00	CL		84.0		27M0G7W		53	P			
TCD	TCD14300	17.00	18.39	15.52	3.21	2.05	83.26	MODRSS		36.26		MODTES	57.00	CR		84.0		27M0G7W			P			
THA	THA14200	98.00	100.75	12.88	2.80	1.82	93.77	MODRSS		37.38		MODTES	57.00	CR		84.0		27M0G7W			P			
TJK	TJK06900	38.00	71.14	38.41	1.21	0.73	155.31	MODRSS		45.00		MODTES	57.00	CL		82.0		27M0G7W			P			
TKM	TKM06800	50.00	59.24	38.83	2.26	1.02	166.64	MODRSS		40.81		MODTES	57.00	CL		85.7		27M0G7W			P			
TMP	TMP00000	128.00	126.03	-8.72	0.66	0.60	13.92	MODRSS		48.50		MODTES	57.00	CR		84.0		27M0G7W			P	10		
TON	TON21500	170.75	-175.23	-18.19	1.59	0.60	71.33	MODRSS		44.64		MODTES	57.00	CR		84.0		27M0G7W			P			
TUN	TUN15000	-25.20	9.50	33.50	1.88	0.72	135.00	MODRSS		43.13		MODTES	57.00	CR		84.0		27M0G7W		55	P			
TUN	TUN27200	-25.20	2.50	32.00	3.59	1.75	175.00	MODRSS		36.47		MODTES	57.00	CR		84.0		27M0G7W		55	P			
TUR	TUR14500	42.00	35.14	38.99	3.19	1.10	0.03	MODRSS		39.00		MODTES	57.00	CL		84.0		27M0G7W		36	P			
TUV	TUV00000	176.00	177.61	-7.11	0.94	0.60	137.58	MODRSS		46.93		MODTES	57.00	CR		84.0		27M0G7W			P			
TZA	TZA22500	11.00	34.60	-6.20	2.41	1.72	129.00	MODRSS		38.27		MODTES	57.00	CR		84.0		27M0G7W			P			
UAE	UAE27400	52.50	53.98	24.37	1.23	0.84	6.62	MODRSS		44.31		MODTES	57.00	CR		84.0		27M0G7W			P			
UGA	UGA05100	17.00	32.20	1.04	1.50	1.02	68.73	MODRSS		42.62		MODTES	57.00	CR		84.0		27M0G7W			P			

\* Note by the Secretariat: This designation replaces the former designation "YUG" which was used previously as a three-letter code for the Administration of Serbia and Montenegro

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17		
			Boresight		Space station antenna characteristics					Space station antenna code	Shaped beam	Space station antenna gain		Earth station antenna									Polarization	
			Long.	Lat.	Major axis	Minor axis	Orien-tation					Co-polar	Cross-polar	Code	Gain								Type	Angle
UKR	UKR06300	38.20	31.82	48.19	2.32	0.95	177.32	MODRSS		41.01		MODTES	57.00	CR		84.0		27M0G7W			P			
USA	GUM33101	122.00	155.56	13.21				CB_RSS_GUMA		43.61		MODTES	57.00	CR		87.0		27M0G7W		7C	P			
USA	GUM33102	122.00	155.56	13.21				CB_RSS_GUMA		43.61		MODTES	57.00	CL		87.0		27M0G7W		7C	P			
USA	MRA33200	121.80	155.56	13.21				CB_RSS_MRAA		43.61		MODTES	57.00	CR		91.0		27M0G7W			P			
USA	PLM33200	170.00	-145.55	19.50				CB_RSS_PLMA		39.35		MODTES	57.00	CL		87.0		27M0G7W			P			
USA	USAA_101	170.00	-145.55	19.50				CB_RSS_USAA		39.35		MODTES	57.00	CR		87.0		27M0G7W		7A	P			
USA	USAA_102	170.00	-145.55	19.50				CB_RSS_USAA		39.35		MODTES	57.00	CL		87.0		27M0G7W		7A	P			
UZB	UZB07100	33.80	63.80	41.21	2.56	0.89	159.91	MODRSS		40.84		MODTES	57.00	CR		82.0		27M0G7W			P			
VTN	VTN32500	107.00	106.84	14.21	3.43	1.76	109.43	MODRSS		36.64		MODTES	57.00	CR		84.0		27M0G7W			P			
VUT	VUT12801	140.00	168.00	-16.40	1.52	0.68	87.00	MODRSS		44.30		MODTES	57.00	CL		84.0		27M0G7W		7B	P			
VUT	VUT12802	140.00	168.00	-16.40	1.52	0.68	87.00	MODRSS		44.30		MODTES	57.00	CR		84.0		27M0G7W		7B	P			
ZMB	ZMB31400	-0.80	27.50	-13.10	2.38	1.48	39.00	MODRSS		38.98		MODTES	57.00	CR		84.0		27M0G7W			P			
ZWE	ZWE13500	-0.80	29.60	-18.80	1.46	1.36	37.00	MODRSS		41.47		MODTES	57.00	CL		85.0		27M0G7W			P			

ANNEX 3

**Technical data used in establishing the provisions and associated Plans and Regions 1 and 3 feeder-link List, which should be used for their application**<sup>36</sup> (Rev.WRC-03)

**MOD** COM6/341/22 (B14/365/41) (R7/411/211)

**2.2 Rain attenuation**

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Step 6 remains the same except the frequency dependent coefficients  $k$  and  $\alpha$  shall be obtained from Recommendation ITU-R P.838-3. (WRC-07)

...

**MOD** COM5/385/1A (B18/405/1)

APPENDIX 30B (Rev.WRC-07)

**Provisions and associated Plan for the fixed-satellite service in the frequency bands 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz and 12.75-13.25 GHz**

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## ARTICLE 1

### Objective of the provisions and associated Plan

**MOD** COM5/385/1 (B18/405/3)

1.2 The procedures prescribed in this Appendix shall in no way prevent the implementation of assignments in conformity with the national allotments of the Plan. (WRC-07)

## ARTICLE 2

### Definitions

**MOD** COM5/385/2 (B18/405/4)

2.2 *Plan*: The Plan for the fixed-satellite service in the frequency bands contained in this Appendix, consisting of national allotments. (WRC-07)

**ADD** COM5/385/3 (B18/405/5)

2.2bis *List of assignments (hereinafter, called the "List")*: The List associated with the Plan containing assignments resulting from the successful application of the provisions of Article 6 of Appendix **30B** or the application of Resolution [COM5/7] (WRC-07). (WRC-07)

**MOD** COM5/385/4 (B18/405/6)

2.3 *Allotment*: For the purpose of this Appendix, an allotment comprises:

- a nominal orbital position;
- a bandwidth of 800 MHz (up-link and down-link) in the frequency bands listed in Article 3 of this Appendix;
- a service area for national coverage

. (WRC-07)

**MOD** COM5/385/5 (B18/405/7)

2.4 *Existing systems*: Those satellite systems in the frequency bands covered by this Appendix which are identified in Resolution [COM5/7] (WRC-07). (WRC-07)

**SUP** COM5/385/6 (B18/405/8)

2.5

**MOD** COM5/385/7 (B18/405/9)

2.6 *Additional system*: For the application of the provisions of this Appendix, an additional system is a system for which the assignments submitted by an administration are not the result of conversion of an allotment into assignments. When submitting an additional system, the national allotment in the Plan of the submitting administration shall be retained. An additional system may also be submitted on behalf of a group of named administrations, with one administration designated to act as the notifying administration in respect of that additional system. (WRC-07)

**]ADD** COM5/385/8 (B18/405/10)

2.6bis When submitting additional system(s), administrations shall fully comply with the requirements stipulated in Article 44 of the ITU Constitution. In particular, these administrations shall limit the number of orbital positions and associated spectrum so that:

- a) the orbital/spectrum natural resources are used rationally, efficiently and economically;  
and
- b) the use of multiple orbital locations to cover the same service area is avoided. (WRC-07)

ARTICLE 3

**Frequency bands**

ARTICLE 4

**Execution of the provisions and associated Plan**

SUP COM5/385/9 (B18/405/11)

ARTICLE 5 (WRC-03)

**The Plan and the associated List of assignments**

MOD COM5/385/10 (B18/405/12)

ARTICLE 6 (Rev.WRC-07)

MOD COM5/385/11 (B18/405/13)

**Procedures for the conversion of an allotment into an assignment, for the introduction of an additional system or for the modification of an assignment in the List**<sup>MOD 1, ADD 1A</sup> (WRC-07)

MOD COM5/385/12 (B18/405/14)

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<sup>1</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication specified in § 6.7 and/or 6.23 and the corresponding entries in the List under § 6.23 and/or 6.25, as appropriate, and reinstate any allotments back into the Plan after informing the administration concerned. The Bureau shall inform all administrations of such action and that the network specified in the publication in question no longer has to be taken into consideration by the Bureau and other administrations. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482, unless the payment has already been received. See also Resolution **905 (WRC-07)**. (WRC-07)

ADD COM5/385/13 (B18/405/15)

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<sup>1A</sup> Resolution **49 (Rev.WRC-07)** applies.

SUP COM5/385/14 (B18/405/16)

**Section I – Procedure for conversion of an allotment into an assignment**

SUP COM5/385/15 (B18/405/17)

**Section IA – Procedure for conversion of an allotment into an assignment that is not in conformity with Part A of the Plan or that does not comply with Annex 3B**

**SUP** COM5/385/16 (B18/405/18)

**Section IB – Procedure for recording in the List of the existing systems contained in Part B of the Plan**

**SUP** COM5/385/17 (B18/405/19)

**Section II – Procedure for the introduction of a subregional system**

**MOD** COM5/385/18 (B18/405/20)

6.1 When an administration intends to convert an allotment into an assignment or when an administration, or one acting on behalf of a group of named administrations<sup>ADD 1B</sup>, intends to introduce an additional system or modify the characteristics of assignments in the List that have been brought into use, it shall, not earlier than eight years and not later than two years before the planned date of bringing the assignment into use, send to the Bureau the information specified in Appendix 4<sup>ADD 1C, ADD 1D</sup>. (WRC-07)

**ADD** COM5/385/19 (B18/405/21)

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<sup>1B</sup> Whenever, under § 6.1, an administration acts on behalf of a group of named administrations, all members of that group retain the right to respond in respect of their own allotments or assignments.

<sup>1C</sup> Submissions may include conversion of the 6/4 GHz or the 13/10-11 GHz portion (both uplink and downlink) of an allotment into an assignment provided that the orbital location of the assignment is the same as the unconverted portion of the allotment.

<sup>1D</sup> Submissions for additional systems may include use of only space-to-Earth or only Earth-to-space links.

**ADD** COM5/385/20 (B18/405/22)

6.2 If the information received by the Bureau under § 6.1 is found to be incomplete, the Bureau shall immediately seek any clarification required and information not provided from the administration concerned.

**SUP** COM5/385/21 (B18/405/23)

6.39 to 6.42

**MOD** COM5/385/22 (B18/405/24)

6.3 Upon receipt of a complete notice under § 6.1, the Bureau shall examine it with respect to its conformity with:

a) the Table of Frequency Allocations and the other provisions<sup>ADD 1E</sup> of the Radio Regulations, except those provisions relating to conformity with the fixed-satellite service Plan; *and*

b) Annex 3 to this Appendix.

**ADD** COM5/385/23 (B18/405/25)

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<sup>1E</sup> The “other provisions” shall be identified and included in the Rules of Procedure.

**ADD** COM5/385/24 (B18/405/26)

6.4 When the examination with respect to § 6.3 leads to an unfavourable finding, the relevant part of the notice shall be returned to the notifying administration with an indication of the appropriate action.

6.5 When the examination of each assignment in a notice received under § 6.1 with respect to § 6.3 leads to a favourable finding, the Bureau shall use the method of Annex 4 to determine administrations whose:

- a) allotments in the Plan; or
- b) assignments which appear in the List; or
- c) assignments which the Bureau has previously examined under this paragraph after receiving complete information in accordance with § 6.1 of this Article,

are considered as being affected by any assignment in that notice.

6.6 The Bureau shall then identify those administrations whose territories have been included in the service area of the assignment under examination. The notifying administration shall seek the agreement of any administration whose territory is partially or wholly included in the intended service area of the assignment.

6.7 The Bureau shall publish, in a Special Section of its International Frequency Information Circular (BR IFIC), the complete information received under § 6.1 and examined under § 6.5, together with:

- a) the names of the administrations identified under § 6.5 and the corresponding allotments in the Plan, assignments in the List and assignments for which the Bureau has previously received complete information in accordance with § 6.1 and which it has examined under § 6.5 of this Article;
- b) the names of the administrations identified under § 6.6.

6.8 Following the examination under § 6.5 and 6.6, the Bureau shall immediately send a telegram or fax to the administration that has submitted the notice under § 6.1, drawing attention to the requirement to seek and obtain the agreement of those administrations identified in the Special Section of the BR IFIC published under § 6.7.

6.9 The Bureau shall also send a telegram or fax to each administration listed in the Special Section of the BR IFIC published under § 6.7, drawing its attention to the information it contains.

6.10 Comments from administrations identified as affected under § 6.5 in the Special Section of the BR IFIC published under § 6.7 shall be sent to the Bureau and to the administration that has submitted the notice under § 6.1, either directly or through the Bureau, within a period of four months following the date of the publication in the BR IFIC. When an administration has not replied within this four-month period, it is deemed that this administration has not agreed to the proposed assignment, unless the provisions of § 6.13 to 6.15 are applied.

The above-mentioned four-month period shall be extended for an administration that has requested the assistance of the Bureau by up to thirty days following the date on which the Bureau communicated the result of its action.

6.11 Thirty days prior to the expiry of the same four month period, the Bureau shall dispatch a reminder telegram or fax to each administration listed in the Special Section published under § 6.7 which has not made its comments under § 6.10, bringing the matter to its attention.

6.12 An administration which considers that it should have been identified as affected in the publication referred to under § 6.7 above shall, within four months of the date of publication of the relevant BR IFIC, request the Bureau to include its name in the publication while providing the reasons therefor. The Bureau shall study this information on the basis of Annex 4 and shall inform both the affected administration and the administration that submitted the notice of its conclusions. Should the Bureau agree to the administration's request, it shall publish an addendum to the publication under § 6.7.

6.13 After the same time period as specified in § 6.10, the notifying administration may request the Bureau to assist in respect of an administration which has not replied within this time period.

6.14 The Bureau, acting on a request for assistance under § 6.13, shall send a reminder to the administration which has not replied, requesting a decision.

6.14*bis* Fifteen days before the expiry of the 30-day period referred to in § 6.15, the Bureau shall send a reminder to the above-mentioned administration drawing its attention to the consequence of no reply.

6.15 If no decision is communicated to the Bureau within thirty days after the date of dispatch of the reminder under § 6.14, it shall be deemed that the administration which has not given a decision has agreed to the proposed assignment.

6.16 An administration may at any time during or after the above-mentioned four-month period inform the Bureau about its objection to being included in the service area of any assignment, even if this assignment has been entered in the List. The Bureau shall then inform the administration responsible for the assignment and exclude the territory and test points that are within the territory of the objecting administration from the service area. The Bureau shall update the reference situation without reviewing the previous examinations.

6.17 If agreements have been reached with administrations published in accordance with § 6.7, the administration proposing the new or modified assignment may request the Bureau to have the assignment entered into the List, indicating the final characteristics of the assignment together with the names of the administrations with which agreement has been reached. For this purpose, it shall send to the Bureau the information specified in Appendix 4. In submitting the notice, the administration may request the Bureau to examine the notice under § 6.19, 6.21 and 6.22 (entry into the List) and Article 8 of this Appendix (notification).

6.18 If the information received by the Bureau under § 6.17 is found to be incomplete, the Bureau shall immediately seek any clarification required and information not provided from the administration concerned.

6.19 Upon receipt of a complete notice under § 6.17, the Bureau shall examine each assignment in the notice:

- a) with respect to the requirement for the notifying administration to seek the agreement of those administrations identified in § 6.6;
- b) with respect to its conformity with respect to the Table of Frequency Allocations and the other provisions<sup>ADD IF</sup> of the Radio Regulations, except those provisions relating to conformity with the fixed-satellite service Plan; and
- c) with respect to its conformity with Annex 3 to this Appendix.

**ADD** COM5/385/25 (B18/405/27)

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<sup>1F</sup> The “other provisions” shall be identified and included in the Rules of Procedure.

**ADD** COM5/385/26 (B18/405/28)

6.20 When the examination with respect to § 6.19 of an assignment received under § 6.17 leads to an unfavourable finding, the notice shall be returned to the notifying administration with an indication that subsequent resubmission under § 6.17 will be considered with a new date of receipt.

6.21 When the examination with respect to § 6.19 of an assignment received under § 6.17 leads to a favourable finding, the Bureau shall use the method of Annex 4 to examine if the affected administrations and the corresponding:

- a) allotments in the Plan;
- b) assignments which appear in the List at the date of receipt of the examined notice submitted under § 6.1;
- c) assignments for which the Bureau has previously received complete information in accordance with § 6.1 and has conducted the examination under § 6.5 of this Article at the date of receipt of the examined notice submitted under § 6.1;

indicated in the Special Section published under § 6.7 and whose agreement has not been provided under § 6.17 are still considered as being affected by that assignment.

6.22 The Bureau shall determine if the final characteristics of an assignment received under § 6.17 cause more interference by checking if they decrease the uplink and/or downlink single-entry *C/I* value of an allotment in the Plan or an assignment in the List or an assignment for which the Bureau has received complete information in accordance with this Article before the date of receipt of the complete notice under § 6.17. If the final characteristics cause more interference than was produced by the characteristics previously submitted under § 6.1 to an allotment in the Plan or assignment in the List or assignment for which the Bureau has received complete information in accordance with this Article, the Bureau shall use the method of Annex 4 to determine whether that allotment or assignment is considered as being affected by the proposed assignment without the explicit agreement of the identified administrations.

**SUP** COM5/385/27 (B18/405/29)

6.43*bis*

**ADD** COM5/385/28 (B18/405/30)

6.23 In the event of a favourable finding under § 6.21 and 6.22, the Bureau shall enter the proposed assignment in the List<sup>ADD 1G</sup> and publish in a Special Section of its BR IFIC the characteristics of the assignment received under § 6.17, together with the names of administrations with which the provisions of this Article have been successfully applied. The administration may then notify the assignment in accordance with Article 8 of this Appendix.

**ADD** COM5/385/29 (B18/405/31)

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<sup>1G</sup>In the case of a conversion of an allotment into an assignment, the part of the allotment that has been converted shall be removed from the Plan and the reference situation shall be updated.

**ADD** COM5/385/30 (B18/405/32)

6.24 When the examination under § 6.21 or 6.22 leads to an unfavourable finding, the Bureau shall return the notice received under § 6.17 to the notifying administration together with the names of the administrations with which necessary agreements under § 6.21 or 6.22 have not been provided and with an indication that subsequent resubmission under § 6.17 will be considered with a new date of receipt.

6.25 After a notice is returned under § 6.24, should the notifying administration resubmit the notice and insist upon its reconsideration, the Bureau, on the condition of a favourable finding under § 6.21 and 6.22 with respect to allotments in the Plan, shall enter the assignment provisionally in the List, with an indication of those administrations whose assignments were the basis of the unfavourable finding. The entry in the List shall be changed from provisional to definitive only if the Bureau is informed that all required agreements have been obtained.

6.26 Notices submitted under § 6.25 shall also include a signed commitment by the notifying administration, indicating that use of an assignment recorded in the List under § 6.25 shall not cause unacceptable interference to, nor claim protection from, those assignments for which agreement still needs to be obtained.

6.27 When an assignment is entered provisionally in the List under the provisions of § 6.25, that assignment shall not be taken into account in updating the reference situation of those assignments which were the basis for the unfavourable finding. If the Bureau is informed that an agreement has been reached with respect to a given assignment, the reference situation of this assignment shall be updated.

6.28 Should the assignments that were the basis of the unfavourable finding not be brought into use within the period specified in § 6.1, then the status of the assignment in the List shall be reviewed accordingly.

6.29 Should unacceptable interference be caused by an assignment entered in the List under § 6.25 to any assignment in the List which was the basis of the disagreement, the notifying administration of the assignment entered in the List under § 6.25 shall, upon receipt of advice thereof, immediately eliminate this unacceptable interference.

**SUP** COM5/385/31 (B18/405/33)

6.44 to 6.53

**MOD** COM5/385/32 (B18/405/34)

6.30 When an assignment included in the List is no longer required, the notifying administration shall so inform the Bureau.

**ADD** COM5/385/33 (B18/405/35)

6.31 The date of bringing into use may be extended by the notifying administration up to no more than eight years from the date of receipt by the Bureau of the complete notice under § 6.1.

6.32 Thirty days prior to the date of bringing into use under § 6.31, the Bureau shall dispatch a reminder telegram or fax to the notifying administration which has not brought its assignment into use, bringing the matter to its attention.

6.33

When:

- i) an assignment is no longer required; *or*

- ii) an assignment recorded in the List and brought into use has been suspended for a period exceeding two years and ending after the expiry date specified in § 6.31; *or*
- iii) an assignment recorded in the List has not been brought into use within the eight-year period following the receipt by the Bureau of the relevant complete information under § 6.1, with the exception of assignments submitted by new Member States where § 6.35 and 7.7 apply,

the Bureau shall:

- a) publish in a Special Section of its BR IFIC the cancellation of the related Special Sections and the assignments recorded in the Appendix **30B** List;
- b) if the cancelled assignment is the result of a conversion of an allotment without modification, reinstate the allotment in the Appendix **30B** Plan;
- c) if the cancelled assignment is the result of the conversion of an allotment with modifications, reinstate the allotment with the same orbital location and technical parameters of the cancelled assignment except for its service area, which shall be the national territory of the administration whose allotment is being reinstated; *and*
- d) update the reference situation for the allotments of the Plan and the assignments of the List.

6.34 When a proposed new or modified frequency assignment has not fulfilled all the requirements for entering the List, in accordance with § 6.23 or 6.25, by the expiry date specified in § 6.31, the Bureau shall publish in a Special Section of the BR IFIC the cancellation of the related Special Sections.

6.35 The procedure of this Article may be applied by the administration of a country\* which has joined the Union as an ITU Member State and does not have a national allotment in the Plan or an assignment in the List stemming from the conversion of an allotment in order to include new assignments in the List. Upon completion of the procedure, the next world radiocommunication conference may be requested to consider, among the assignments included in the List after the successful completion of this procedure, the inclusion in the Plan of a new allotment over the national territory of the new Member State.

6.36 Should the assignments mentioned in § 6.35 over the national territory of the administration not be brought into use within the eight years following the receipt by the Bureau of the relevant complete information under § 6.1, they would be retained in the List until the end of the World Radiocommunication Conference immediately following the successful completion of the procedure referred to in § 6.35.

**SUP** COM5/385/34 (B18/405/36)

### **Section III – Supplementary provisions applicable to additional uses in the planned bands**

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\* This procedure may be applied by Palestine to obtain assignments in the Appendix **30B** Plan. Such assignments are for exclusive use by Palestine, in accordance with the Israeli-Palestinian Interim Agreement of 28 September 1995, Resolution 741 of the Council notwithstanding, and Resolution 99 (Rev. Antalya, 2006) of the Plenipotentiary Conference. This is without prejudice of future agreements between the State of Israel and Palestine.

**MOD** COM5/385/35 (B18/405/37)

**ARTICLE 7** (Rev.WRC-07)

**Procedure for the addition of a new allotment to the Plan  
for a new Member State of the Union**

**MOD** COM5/385/36 (B18/405/38)

7.1 The administration of a country\*\* which has joined the Union as a Member State and does not have a national allotment in the Plan<sup>ADD 1H</sup> or an assignment stemming from the conversion of an allotment shall obtain a national allotment by the following procedure.

**ADD** COM5/385/37 (B18/405/39)

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<sup>1H</sup>Following WRC-07, the Administration of Ukraine may, on an exceptional basis, submit a request for an allotment in replacement of its existing allotment.

**MOD** COM5/385/38 (B18/405/40)

7.2 The administration shall submit its request for an allotment to the Bureau, with the following information:

- a) the geographical coordinates of not more than 20 test points for determining the minimal ellipse to cover its national territory;
- b) the height above sea level of each of its test points;
- c) any special requirement which is to be taken into account to the extent practicable.

**MOD** COM5/385/39 (B18/405/41)

7.3 Upon receipt of the complete information (mentioned in § 7.2 above), the Bureau shall expeditiously and ahead of submissions for which the examination under § 6.5 has not yet started, identify appropriate technical characteristics and associated orbital locations for a prospective national allotment. The Bureau shall send this information to the requesting administration.

**SUP** COM5/385/40 (B18/405/42)

7.4

**ADD** COM5/385/41 (B18/405/43)

7.4 Upon receipt of the Bureau's response under § 7.3, the requesting administration shall, within thirty days, indicate which of the proposed orbital locations with the associated technical parameters as identified by the Bureau it has selected. During this period, the requesting administration may at any time seek the assistance of the Bureau.

7.4bis If a selection for an allotment under § 7.4 has not been received by the Bureau within the specified time-limit, the Bureau will resume examination of submissions under § 6.5, or subsequent submission under Article 7, as appropriate, and inform the requesting administration

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\*\* This procedure may be applied by Palestine to obtain an allotment in the Appendix **30B** Plan. Such allotment is for exclusive use by Palestine, in accordance with the Israeli-Palestinian Interim Agreement of 28 September 1995, Resolution 741 of the Council notwithstanding, and Resolution 99 (Rev. Antalya, 2006) of the Plenipotentiary Conference. This is without prejudice of future agreements between the State of Israel and Palestine.

that its request will be processed under § 7.5 when the Bureau is informed about the selected orbit location.

7.5 Upon receipt of a request under § 7.4, the Bureau shall process the request ahead of submissions for which the examination under § 6.5 has not yet started and, using Annexes 3 and 4, with respect to its conformity with:

- a) the Table of Frequency Allocations and the other provisions<sup>ADD 11</sup> of the Radio Regulations, except those provisions relating to conformity with the fixed-satellite service Plan which are the subject of the following subparagraph;
- b) allotments in the Plan;
- c) assignments which appear in the List;
- d) assignments for which the Bureau has previously received complete information and which have been examined, or are at the stage of examination under § 6.5.

**ADD** COM5/385/42 (B18/405/44)

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<sup>11</sup> The “other provisions” shall be identified and included in the Rules of Procedure.)

**ADD** COM5/385/43 (B18/405/45)

7.6 When the examination under § 7.5 leads to a favorable finding, the Bureau shall enter the national allotment of the new Member State of the Union in the Plan and publish the characteristics of the allotment concerned and the result of its examination in a Special Section of the BR IFIC with the updated reference situation.

7.7 In the event that the Bureau’s findings under § 7.5 are unfavourable, the proposed allotment of the Member State shall be treated as a submission under § 6.1 and shall be treated by the Bureau ahead of any other submissions received under Article 6, except for submissions which were already under examination under § 6.5 by the Bureau at the time of completion of the examination of the request of the new Member State under § 7.5.

**MOD** COM5/385/44 (B18/405/46)

#### ARTICLE 8 (Rev.WRC-07)

**MOD** COM5/385/45 (B18/405/47)

**Procedure for notification and recording in the Master Register of assignments in the planned bands for the fixed-satellite service**<sup>ADD 1J, ADD 1K</sup> (WRC-07)

**ADD** COM5/385/46 (B18/405/48)

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<sup>1J</sup> If the payments are not received in accordance with the provisions of Council Decision 482, as amended, on the implementation of cost recovery for satellite network filings, the Bureau shall cancel the publication specified in § 8.5 and 8.12 and the corresponding entries in the Master Register under § 8.11, after informing the administration concerned. The Bureau shall inform all administrations of such action and that any resubmitted notice shall be considered to be a new notice. The Bureau shall send a reminder to the notifying administration not later than two months prior to the deadline for the payment in accordance with the above-mentioned Council Decision 482, unless the payment has already been received. See also Resolution [COM5/2] (WRC-07).

<sup>1K</sup> Resolution **49 (Rev.WRC-07)** applies. (WRC-07)

**MOD** COM5/385/47 (B18/405/49)

8.2 If the first notice referred to in § 8.1 has not been received by the Bureau within the eight-year period mentioned in § 6.1 of Article 6, the assignments in the List shall no longer be taken into account by the Bureau and administrations. The Bureau shall then act as if the assignment in the List has not been brought into use in conformity with § 6.1 of Article 6. The Bureau shall inform the notifying administration, three months in advance of the end of the eight-year period, of the actions it intends to take. (WRC-07)

**SUP** COM5/385/48 (B18/405/50)

8.4

**MOD** COM5/385/49 (B18/405/51)

8.5 Complete notices shall be marked by the Bureau with their date of receipt and shall be examined in the date order of their receipt. Following receipt of a complete notice the Bureau shall, within not more than two months, publish its contents, with any diagrams and maps and the date of receipt, in the BR IFIC, which shall constitute the acknowledgement to the notifying administration of receipt of its notice. When the Bureau is not in a position to comply with the time-limit referred to above, it shall periodically so inform the administrations, giving the reasons thereof. (WRC-07)

**MOD** COM5/385/50 (B18/405/52)

8.9 *b)* with respect to its conformity with the fixed-satellite service Plan and the associated provisions<sup>ADD 1L</sup>. (WRC-07)

**ADD** COM5/385/51 (B18/405/53)

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<sup>1L</sup> When an administration notifies any assignment with characteristics different from those entered in the List through successful application of Article 6 of Appendix **30B**, the Bureau shall undertake calculation to determine if the proposed new characteristics increase the interference level caused to other allotments and assignments in the Plan and List. The increase of the interference due to characteristics different from those entered in the List will be checked by comparing the *C/I* ratios of these other allotments and assignments, which result from the use of the proposed new characteristics of the subject assignment on the one hand, and those obtained with the characteristics of the subject assignment in the List, on the other hand. This *C/I* calculation is performed under the same technical assumptions and conditions. (WRC-07)

**MOD** COM5/385/52 (B18/405/54)

8.13 A notice of a change in the characteristics of an assignment already recorded, as specified in Appendix **4**, shall be examined by the Bureau under § 8.8 and 8.9 as appropriate. Any changes to the characteristics of an assignment, that has been notified and confirmed as having been brought into use, shall be brought into use within eight years from the date of the notification of the modification. Any changes to the characteristics of an assignment that has been notified but not yet brought into use shall be brought into use within the period provided for in § 6.1 or 6.31 of Article 6. (WRC-07)

**SUP** COM5/385/53 (B18/405/55)

8.14

**MOD** COM5/385/54 (B18/405/56)

8.16 All frequency assignments notified in advance of their being brought into use shall be entered provisionally in the Master Register. Any frequency assignment provisionally recorded under this provision shall be brought into use no later than the end of the period provided for in § 6.1. Unless the Bureau has been informed by the notifying administration of the bringing into use of the assignment, it shall, no later than 15 days before the end of the regulatory period established under § 6.1, send a reminder requesting confirmation that the assignment has been brought into use within the regulatory period. If the Bureau does not receive that confirmation within 30 days following the period provided under § 6.1, it shall cancel the entry in the Master Register. (WRC-07)

**MOD** COM5/385/55 (B18/405/57)

8.17 Where the use of a recorded assignment to a space station is suspended for a period not exceeding eighteen months, the notifying administration shall, as soon as possible, inform the Bureau of the date on which such use was suspended and the date on which the assignment is to be brought back into regular use. This latter date shall not exceed two years from the date of suspension. If the assignment is not brought back into use within two years from the date of suspension, the Bureau shall cancel the assignment from the Master Register and apply the provisions of § 6.33. (WRC-07)

**MOD** COM5/385/56 (B18/405/58)

## ARTICLE 9 (Rev.WRC-07)

### General provisions

**MOD** COM5/385/57 (B18/405/59)

9.1 The Plan is limited to national systems providing a domestic service. Administrations may, however, in accordance with the provisions of Article 6, convert their allotments or propose additional systems to provide national or multinational services.

**SUP** COM5/385/57B (B18/405/60)

9.2

**MOD** COM5/385/58 (B18/405/61)

## ARTICLE 10 (Rev.WRC-07)

**MOD** COM5/385/59 (B18/405/62)

### **Plan for the fixed-satellite service in the frequency bands 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz and 12.75-13.25 GHz**

**MOD** COM5/385/60 (B18/405/63)

A.1 COLUMN HEADINGS OF THE PLAN

**MOD** COM5/385/61 (B18/405/64)

Col. 2 *Nominal orbital position*, in degrees

**SUP** COM5/385/62 (B18/405/65)

Col. 3

**SUP** COM5/385/63 (B18/405/66)

Col. 4

<b>MOD</b>	COM5/385/64	(B18/405/67)
Col. 3	<i>Longitude of the boresight</i> , in degrees	
<b>MOD</b>	COM5/385/65	(B18/405/68)
Col. 4	<i>Latitude of the boresight</i> , in degrees	
<b>MOD</b>	COM5/385/66	(B18/405/69)
Col. 5	<i>Major axis of the elliptical cross-section half-power beam</i> , in degrees	
<b>MOD</b>	COM5/385/67	(B18/405/70)
Col. 6	<i>Minor axis of the elliptical cross-section half-power beam</i> , in degrees	
<b>MOD</b>	COM5/385/68	(B18/405/71)
Col. 7	<i>Orientation of the ellipse</i> determined as follows: in a plane normal to the beam axis, the direction of the major axis of the ellipse is defined by the angle measured anticlockwise from a line parallel to the equatorial plane to the major axis of the ellipse, to the nearest degree	
<b>MOD</b>	COM5/385/69	(B18/405/72)
Col. 8	Earth station <i>e.i.r.p.</i> density (dB(W/Hz))	
<b>MOD</b>	COM5/385/70	(B18/405/73)
Col. 9	Satellite <i>e.i.r.p.</i> density (dB(W/Hz))	
<b>MOD</b>	COM5/385/71	(B18/405/74)
Col. 10	<i>Remarks</i>	
<b>SUP</b>	COM5/385/72	(B18/405/75)
1		
<b>ADD</b>	COM5/385/73	(B18/405/76)
1	Assignment converted from allotment.	
<b>SUP</b>	COM5/385/74	(B18/405/77)
2		
<b>ADD</b>	COM5/385/75	(B18/405/78)
2	The Administration of Luxembourg (LUX) agreed to operate the LUX-30B-6 satellite network within the characteristics included in the Appendix <b>30B</b> List, as modified during WRC-07, and to immediately eliminate interference that could be caused by LUX-30B-6 to the national allotment of the Islamic Republic of Iran (IRN00000) (IRN).	
<b>SUP</b>	COM5/385/76	(B18/405/79)
3		
<b>ADD</b>	COM5/385/77	(B18/405/80)
3	Allotment converted into assignment with a shaped beam and then reinstated back into the Plan.	
<b>SUP</b>	COM5/385/78	(B18/405/81)
4		

**SUP** COM5/385/79 (B18/405/82)

5

**MOD** COM5/385/80 (B18/405/83)

*Note by the Secretariat (applicable when an asterisk (\*) appears in column 10):* It is to be noted that this beam is intended to be implemented as part of a multi-beam network, operating from a single orbital location. Within any multi-beam network, the beams are the responsibility of a single administration, hence interference between them has not been taken into account during the Conference. The number which appears in the alphanumeric code that follows the asterisk serves to identify the multi-beam network concerned.

**SUP** COM5/385/81 (B18/405/84)

**B** COLUMN HEADINGS OF PART B OF THE PLAN

**A.2** TEXT FOR SYMBOLS IN REMARKS COLUMN OF THE PLAN

**SUP** COM5/403/1 (B20/414/11)

Table with Appendix 30B Plan (pages from AP30B-20 to AP30B-26)

**ADD** COM5/403/2 (B20/414/12)

**4 500-4 800 MHz, 6 725-7 025 MHz**

1	2	3	4	5	6	7	8	9	10
ABW00000	-98.20	-69.10	12.40	1.60	1.60	90.00	-9.6	-41.4	
ADL00000	113.00	140.00	-66.70	1.60	1.60	90.00	-9.6	-41.3	*/MB1
AFG00000	50.00	66.40	33.90	2.20	1.60	15.00	-9.6	-39.4	
AFS00000	71.00	27.20	-30.10	5.30	1.60	128.00	-7.8	-38.6	
AGL00000	-36.10	15.90	-12.40	2.40	1.60	78.00	-9.6	-39.1	
ALB00000	4.13	20.00	41.10	1.60	1.60	90.00	-9.6	-41.4	
ALG00000	-33.50	1.60	27.80	3.30	2.20	133.00	-8.6	-38.9	
ALS00000	-159.00	-158.60	57.50	6.30	1.60	1.00	-7.9	-38.8	*/MB2
AND00000	-41.00	1.50	42.50	1.60	1.60	90.00	-9.6	-41.4	
ARG00000	-51.00	-62.00	-33.60	4.80	2.90	93.00	-2.5	-38.1	*/MB3
ARGINSUL	-51.00	-60.00	-57.50	3.60	1.60	154.00	-9.6	-38.5	*/MB3
ARM00000	71.40	45.13	40.12	1.60	1.60	90.00	-9.6	-40.4	
ARS00000	51.90	45.70	23.10	3.70	2.60	153.00	-8.7	-39.3	
ASCSTHTC	-37.10	-11.80	-19.60	5.60	1.80	77.00	-8.0	-39.0	*/MB4
ATG00000	-77.70	-61.80	17.00	1.60	1.60	90.00	-9.6	-41.8	
ATN00000	-5.00	-65.60	15.10	1.60	1.60	90.00	-9.6	-38.9	*/MB5
AUS00001	144.10	134.30	-24.50	6.60	5.30	146.00	1.9	-38.2	*/MB6
AUS00002	144.10	163.60	-30.50	1.60	1.60	90.00	-9.6	-39.5	*/MB6
AUS00003	144.10	101.50	-11.10	1.60	1.60	90.00	-9.6	-40.5	*/MB6
AUS00004	144.10	159.00	-54.50	1.60	1.60	90.00	-9.6	-41.6	*/MB6
AUS00005	144.10	110.40	-66.30	1.60	1.60	90.00	-9.6	-41.3	*/MB6
AUT00000	-11.40	13.20	47.50	1.60	1.60	90.00	-9.6	-40.8	
AZR00000	-10.60	-28.00	38.70	1.60	1.60	90.00	-9.6	-41.1	*/MB7
B 00001	-66.25	-62.60	-6.00	4.10	4.00	43.00	-2.5	-38.7	
B 00002	-63.60	-45.40	-6.30	4.60	4.10	152.00	-1.9	-38.6	
B 00003	-69.45	-50.00	-20.90	4.30	3.00	60.00	-3.4	-38.5	
BAH00000	-74.30	-75.80	24.00	1.60	1.60	133.00	-9.6	-39.4	
BDI00000	-3.50	29.90	-3.40	1.60	1.60	90.00	-9.6	-41.6	
BEL00000	54.55	5.20	50.60	1.60	1.60	90.00	-9.6	-41.2	
BEN00000	-30.60	2.30	9.30	1.60	1.60	90.00	-9.6	-39.9	
BERCAYMS	-37.10	-68.60	22.50	3.70	2.30	41.00	-5.6	-38.2	*/MB4
BFA00000	10.79	-1.40	12.20	1.70	1.60	24.00	-9.6	-39.5	
BGD00000	133.00	90.20	24.00	1.60	1.60	90.00	-9.6	-40.3	
BHR00000	13.60	50.60	26.10	1.60	1.60	90.00	-9.6	-41.9	

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
BLZ00000	-90.80	-88.60	17.20	1.60	1.60	90.00	-9.6	-41.6	
BOL00000	-34.80	-64.40	-17.10	2.70	1.70	129.00	-7.5	-38.6	
BOT00000	21.20	24.00	-21.80	1.60	1.60	90.00	-9.6	-40.0	
BRB00000	-29.60	-59.60	13.20	1.60	1.60	90.00	-9.6	-41.6	
BRM00000	111.50	97.00	18.90	3.20	1.60	88.00	-7.2	-38.8	
BRU00000	157.30	114.60	4.50	1.60	1.60	90.00	-9.6	-40.9	
BTN00000	59.10	90.40	27.00	1.60	1.60	90.00	-9.6	-41.5	
BUL00000	56.02	25.60	42.80	1.60	1.60	90.00	-9.6	-40.8	
CAF00000	14.40	21.50	6.50	2.70	1.70	14.00	-8.4	-39.1	
CANOCENT	-111.10	-96.10	51.40	4.30	2.00	155.00	-7.6	-38.4	
CANOEAST	-107.30	-76.60	50.10	5.00	1.70	154.00	-7.0	-38.3	
CANOWEST	-114.90	-120.10	57.40	3.10	1.90	173.00	-9.6	-38.7	
CBG00000	96.10	105.10	12.90	1.60	1.60	90.00	-9.6	-40.4	
CHL00000	-74.90	-82.60	-32.80	8.10	6.10	155.00	-0.7	-38.4	
CHN00001	101.40	103.70	35.00	8.10	4.30	2.00	-0.1	-38.3	
CHN00002	135.50	114.80	16.40	4.90	2.40	65.00	-3.6	-38.7	
CLM00000	-70.90	-74.00	5.70	4.00	2.30	121.00	-5.1	-38.9	
CLN00000	121.50	80.10	7.70	1.60	1.60	90.00	-9.6	-41.2	
CME00000	7.98	12.90	6.30	2.50	1.90	84.00	-8.4	-39.5	
CNR00000	-30.00	-15.90	28.50	1.60	1.60	90.00	-9.6	-41.3	*/MB8
COD00000	50.95	24.40	-4.60	3.90	3.50	92.00	-7.4	-38.5	
COG00000	-16.35	14.80	-0.60	2.00	1.60	63.00	-9.1	-38.8	
COM00000	94.50	44.10	-12.20	1.60	1.60	90.00	-9.6	-41.0	
CPV00000	-85.70	-24.10	16.00	1.60	1.60	90.00	-9.6	-41.3	
CTI00000	-15.76	-5.90	7.80	1.60	1.60	90.00	-9.6	-40.0	
CTR00000	-96.00	-85.30	8.20	1.60	1.60	90.00	-9.6	-40.2	
CUB00000	-80.60	-79.50	21.00	2.00	1.60	172.00	-9.6	-39.3	
CVA00000	59.00	12.50	41.90	1.60	1.60	90.00	-9.6	-41.3	
CYP00000	0.50	33.20	35.10	1.60	1.60	90.00	-9.6	-41.6	
CYPSBA00	57.50	32.90	34.60	1.60	1.60	90.00	-9.6	-41.7	*/MB9
D 00001	26.40	9.70	50.70	1.60	1.60	90.00	-9.6	-40.5	
D 00002	37.20	12.60	51.40	1.60	1.60	90.00	-9.6	-40.8	
DJI00000	-17.46	42.60	11.70	1.60	1.60	90.00	-9.6	-41.3	
DMA00000	-70.00	-61.30	15.30	1.60	1.60	90.00	-9.6	-41.8	
DNK00001	32.28	11.60	56.00	1.60	1.60	90.00	-9.6	-40.9	
DNK00002	-49.00	12.50	56.30	1.60	1.60	90.00	-9.6	-40.6	*/MB10
DNK00FAR	-49.00	-7.20	61.70	1.60	1.60	90.00	-9.6	-41.1	*/MB10
DOM00000	-85.40	-70.40	18.70	1.60	1.60	90.00	-9.6	-41.7	
E 00002	-30.00	-3.00	39.90	2.10	1.60	8.00	-9.6	-39.5	*/MB8
EGY00000	67.11	30.30	26.20	2.30	1.60	54.00	-9.6	-39.2	
EQA00000	-104.00	-83.10	-1.40	3.10	1.60	174.00	-7.8	-38.9	
ETH00000	58.30	40.60	10.30	2.80	2.80	64.00	-9.4	-39.4	
F 00000	-8.00								1
FIN00000	46.80	23.80	64.30	1.60	1.60	90.00	-9.6	-39.3	
FJI00000	148.80	178.50	-17.20	1.60	1.60	90.00	-9.6	-41.5	
FLKSTGGL	-37.10	-46.80	-59.60	3.70	1.60	170.00	-9.6	-38.8	*/MB4
G 00000	-37.10	-4.10	53.90	1.60	1.60	151.00	-9.6	-39.0	*/MB4
GAB00000	39.00	11.70	-0.70	1.60	1.60	90.00	-9.6	-39.8	
GDL00000	-8.00								1
GDL00002	-115.90	-61.80	16.40	1.60	1.60	90.00	-9.6	-40.3	*/MB13
GHA00000	15.90	-1.30	7.70	1.60	1.60	90.00	-9.6	-39.7	
GIB00000	57.50	-5.40	36.10	1.60	1.60	90.00	-9.6	-40.9	*/MB9
GMB00000	-34.00	-16.40	13.40	1.60	1.60	90.00	-9.6	-42.1	
GNB00000	40.00	-15.40	12.00	1.60	1.60	90.00	-9.6	-41.3	
GNE00000	-32.30	10.50	1.70	1.60	1.60	90.00	-9.6	-40.9	
GRC00000	22.05	24.70	38.30	1.70	1.60	160.00	-9.6	-39.3	
GRD00000	-32.80	-61.60	12.00	1.60	1.60	90.00	-9.6	-41.6	

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
GRL00000	-49.00	-42.90	68.60	2.30	1.60	174.00	-9.6	-38.6	*/MB10
GTM00000	-135.70	-90.50	15.50	1.60	1.60	90.00	-9.6	-40.5	
GUF00000	-8.00								1
GUF00002	-115.90	-53.30	4.30	1.60	1.60	90.00	-8.6	-39.4	*/MB13
GUI00000	27.50	-10.90	10.20	1.60	1.60	90.00	-9.6	-39.2	
GUMMRA00	-159.00	145.40	16.70	1.70	1.60	79.00	-9.4	-38.3	*/MB2
GUY00000	-23.80	-59.20	4.70	1.60	1.60	90.00	-9.6	-39.4	
HKG00000	57.50	114.50	22.40	1.60	1.60	90.00	-9.6	-40.6	
HND00000	-76.20	-86.10	15.40	1.60	1.60	90.00	-9.6	-40.0	
HNG00000	-7.50	19.40	47.40	1.60	1.60	90.00	-9.6	-41.0	
HOL00000	-5.00	5.40	52.40	1.60	1.60	90.00	-9.6	-41.4	*/MB5
HTI00000	-92.00	-73.00	18.80	1.60	1.60	90.00	-9.6	-41.7	
HWA00000	-159.00	-157.60	20.70	1.60	1.60	90.00	-9.6	-40.2	*/MB2
HWL00000	-159.00	-176.60	0.10	1.60	1.60	90.00	-9.6	-41.8	*/MB2
I 00000	-23.40	11.30	40.90	2.10	1.60	141.00	-9.6	-38.9	
IND00000	74.00	82.70	18.90	6.20	4.90	120.00	0.3	-38.5	
INS00000	115.40	117.60	-1.80	9.40	4.30	170.00	1.8	-38.6	
IRL00000	-21.80	-8.20	53.20	1.60	1.60	90.00	-9.6	-41.1	
IRN00000	24.19	54.30	33.00	3.70	1.60	143.00	-9.6	-39.0	
IRQ00000	65.45	44.30	33.10	1.60	1.60	90.00	-9.6	-39.4	
ISL00000	-35.20	-18.20	64.90	1.60	1.60	90.00	-9.6	-40.5	
ISR00000	-4.00								1
J 00000	152.50	140.40	30.40	5.70	3.70	15.00	-2.3	-38.5	
JAR00000	-159.00	-160.00	-0.40	1.60	1.60	90.00	-9.6	-41.9	*/MB2
JMC00000	-108.60	-77.60	18.20	1.60	1.60	90.00	-9.6	-41.5	
JON00000	-159.00	-168.50	17.00	1.60	1.60	90.00	-9.6	-42.2	*/MB2
JOR00000	81.76	36.70	31.30	1.60	1.60	90.00	-9.6	-40.9	
KEN00000	78.20	38.40	0.80	2.10	1.60	95.00	-9.6	-39.3	
KER00000	113.00	69.30	-43.90	1.90	1.60	169.00	-9.6	-38.7	*/MB1
KGZ00000	64.60	74.54	41.15	1.60	1.60	90.00	-9.6	-38.8	
KIR00000	150.00	173.00	1.00	1.60	1.60	90.00	-9.6	-41.8	
KNA00000	-88.80	-62.90	17.30	1.60	1.60	90.00	-9.6	-41.6	
KOR00000	116.20	127.70	36.20	1.60	1.60	90.00	-9.6	-40.5	
KRE00000	145.00	127.80	39.80	1.60	1.60	90.00	-9.6	-39.6	
KWT00000	30.90	47.70	29.10	1.60	1.60	90.00	-9.6	-41.9	
LAO00000	142.00	104.10	18.10	1.60	1.60	90.00	-9.6	-39.1	
LBN00000	97.50	35.80	33.80	1.60	1.60	90.00	-9.6	-41.3	
LBR00000	-41.80	-8.90	6.50	1.60	1.60	90.00	-9.6	-40.4	
LBY00000	28.90								1
LIE00000	-17.10	9.50	47.20	1.60	1.60	90.00	-9.6	-41.7	
LSO00000	-19.30	28.40	-29.50	1.60	1.60	90.00	-9.6	-41.5	
LUX00000	19.20	6.20	49.70	1.60	1.60	90.00	-9.6	-41.6	
MAC00000	117.00	113.60	22.20	1.60	1.60	90.00	-9.6	-41.8	
MAU00000	92.20	57.50	-20.20	1.60	1.60	90.00	-9.6	-41.4	
MCO00000	41.00	7.40	43.70	1.60	1.60	90.00	-9.6	-41.3	
MDG00000	16.90	46.60	-18.70	2.60	1.60	66.00	-7.5	-38.6	
MDR00000	-10.60	-16.20	31.60	1.60	1.60	90.00	-9.6	-41.7	*/MB7
MDW00000	-159.00	-177.40	28.20	1.60	1.60	90.00	-9.6	-42.0	*/MB2
MEX00000	-113.00	-103.60	23.30	5.80	2.40	161.00	-4.7	-38.8	
MHL00000	-159.00	175.30	8.70	2.30	1.60	94.00	-8.6	-38.8	*/MB2
MLA00000	78.50	108.20	4.70	3.20	1.60	0.00	-6.3	-38.5	
MLD00000	117.60	73.40	2.50	2.20	1.60	88.00	-9.6	-38.7	
MLI00000	-6.00	-3.90	17.60	3.30	2.50	21.00	-7.6	-39.2	
MLT00000	-3.00	14.40	35.90	1.60	1.60	90.00	-9.6	-41.8	
MNG00000	113.60	103.80	46.80	3.60	1.60	3.00	-9.6	-38.9	
MOZ00000	90.60	35.60	-17.20	3.10	1.60	98.00	-7.7	-38.3	
MRC00000	32.86	-8.90	27.90	3.40	1.60	45.00	-9.6	-38.8	

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
MTN00000	-21.10	-10.30	19.80	2.50	2.40	76.00	-9.6	-39.4	
MWI00000	28.00	34.10	-13.30	1.60	1.60	90.00	-9.6	-40.0	
MYT00000	-8.00								1
NCG00000	-84.40	-84.90	12.90	1.60	1.60	90.00	-9.6	-40.6	
NCL00000	113.00	165.80	-21.40	1.60	1.60	90.00	-9.6	-40.6	*/MB1
NGR00000	-38.50	7.50	17.20	2.10	1.70	100.00	-9.6	-38.9	
NIG00000	41.82	8.00	9.90	2.50	1.60	47.00	-7.7	-38.5	
NMB00000	12.20	18.50	-21.00	2.70	2.60	155.00	-9.6	-39.5	
NOR00000	-0.80	11.70	64.60	2.00	1.60	17.00	-9.6	-38.7	
NPL00000	123.30	84.40	28.00	1.60	1.60	90.00	-9.6	-40.8	
NRU00000	146.00	166.90	-0.50	1.60	1.60	90.00	-9.6	-41.8	
NZL00001	152.00	170.90	-44.80	5.40	1.60	49.00	-7.4	-38.1	*/MB14
NZL00002	152.00	-165.40	-13.20	2.70	2.00	82.00	-7.3	-38.3	*/MB14
OCE00000	-115.90	-141.90	-16.10	3.50	2.40	139.00	-7.1	-38.9	*/MB13
OMA00000	104.00	55.10	21.60	1.90	1.60	61.00	-9.6	-39.2	
PAK00000	56.50	69.90	29.80	3.00	2.00	22.00	-9.3	-39.0	
PHL00000	161.00	122.23	11.37	3.33	1.60	79.65	-6.3	-38.4	
PLM00000	-159.00	-161.40	7.00	1.60	1.60	90.00	-9.6	-41.9	*/MB2
PNG00000	154.10	148.40	-6.60	3.30	2.30	167.00	-6.2	-39.0	
PNR00000	-79.20	-80.20	8.50	1.60	1.60	90.00	-9.6	-40.4	
POL00000	15.20	19.30	52.00	1.60	1.60	90.00	-9.6	-40.0	
POR00000	-10.60	-8.00	39.70	1.60	1.60	90.00	-9.6	-41.2	*/MB7
PRG00000	-81.50	-58.70	-23.10	1.60	1.60	90.00	-9.6	-39.1	
PRU00000	-89.90	-74.20	-8.40	3.60	2.40	111.00	-5.4	-38.7	
PTC00000	-62.30	-130.10	-25.10	1.60	1.60	90.00	-9.6	-41.2	
QAT00000	0.90	51.60	25.40	1.60	1.60	90.00	-9.6	-41.6	
REU00000	-8.00								1
REU00002	113.00	55.60	-21.10	1.60	1.60	90.00	-9.6	-40.6	*/MB1
ROU00000	30.45	25.00	46.30	1.60	1.60	90.00	-9.6	-39.6	
RRW00000	17.60	29.70	-1.90	1.60	1.60	90.00	-9.6	-41.9	
RUS00001	61.00	51.50	52.99	5.56	2.01	10.74	-7.2	-38.3	
RUS00003	138.50	138.14	53.83	5.86	2.09	8.41	-6.7	-38.2	
RUSLA201	88.10	94.80	48.60	7.50	3.50	175.00	-1.4	-38.3	
S 00000	5.00	16.70	60.90	1.60	1.60	90.00	-9.6	-40.2	
SDN00001	23.55	29.30	10.30	3.00	1.90	131.00	-9.3	-39.0	*/MB15
SDN00002	23.55	29.40	16.70	2.60	2.40	171.00	-9.6	-39.3	*/MB15
SEN00000	-48.40	-14.00	14.10	1.60	1.60	90.00	-9.6	-40.3	
SEY00000	42.25								1
SLM00000	147.50	159.00	-9.10	1.60	1.60	90.00	-9.6	-39.5	
SLV00000	-130.50	-89.00	13.70	1.60	1.60	90.00	-9.6	-40.9	
SMA00000	-159.00	-170.70	-14.20	1.60	1.60	90.00	-9.6	-42.2	*/MB2
SMO00000	-125.50	-172.10	-13.70	1.60	1.60	90.00	-9.6	-41.1	
SMR00000	16.50	12.50	43.90	1.60	1.60	90.00	-9.6	-42.0	
SNG00000	98.10	103.90	1.30	1.60	1.60	90.00	-9.6	-41.6	
SOM00000	98.40	46.00	6.30	3.10	1.60	72.00	-9.6	-38.8	
SPM00000	-8.00								1
SRL00000	-51.80	-11.90	8.50	1.60	1.60	90.00	-9.6	-41.4	
STP00000	30.25	7.00	1.00	1.60	1.60	90.00	-9.6	-41.7	
SUI00000	9.45	8.20	46.50	1.60	1.60	90.00	-9.6	-41.3	
SUR00000	-77.00	-55.60	3.90	1.60	1.60	90.00	-9.6	-40.7	
SWZ00000	30.10	31.30	-26.40	1.60	1.60	90.00	-9.6	-42.0	
SYR00000	18.00	38.60	35.30	1.60	1.60	90.00	-9.6	-40.8	
TCD00000	-9.90	18.40	15.60	3.50	1.60	97.00	-8.9	-39.0	
TGO00000	-23.15	0.80	8.60	1.60	1.60	90.00	-9.6	-40.4	
THA00000	120.60	100.90	12.80	2.80	1.60	83.00	-7.7	-38.8	
TON00000	-128.00	-175.20	-21.20	1.60	1.60	90.00	-9.6	-41.0	
TRD00000	-73.40	-61.10	10.80	1.60	1.60	90.00	-9.6	-41.8	

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
TUN00000	5.74	9.40	33.50	1.60	1.60	90.00	-9.6	-40.3	
TUR00000	8.50	34.10	38.90	2.80	1.60	171.00	-6.4	-38.6	
TUV00000	158.00	179.20	-8.50	1.60	1.60	90.00	-9.6	-41.8	
TZA00000	67.50	35.40	-5.90	2.40	1.60	117.00	-9.6	-39.3	
UAE00000	63.50	53.80	24.90	1.60	1.60	90.00	-9.6	-41.1	
UGA00000	31.50	32.20	0.90	1.60	1.60	90.00	-9.6	-40.3	
UKR00000	50.50	34.42	49.50	1.60	1.60	0.00	-8.4	-38.2	
URG00000	-86.10	-56.30	-33.70	1.60	1.60	90.00	-9.6	-40.7	
USA00000	-101.00	-93.90	36.80	8.20	3.60	172.00	-0.9	-38.3	*/MB16
USAVIPRT	-101.00	-64.50	17.80	1.60	1.60	90.00	-9.6	-41.4	*/MB16
VCT00000	-93.10	-61.10	13.20	1.60	1.60	90.00	-9.6	-41.5	
VEN00001	-82.70	-66.40	6.80	2.80	2.10	142.00	-7.0	-38.9	*/MB17
VEN00002	-82.70	-63.60	15.70	1.60	1.60	90.00	-9.6	-41.7	*/MB17
VTN00000	107.00								1
VUT00000	150.70	168.40	-17.20	1.60	1.60	90.00	-9.6	-40.3	
WAK00000	-159.00	166.50	19.20	1.60	1.60	90.00	-9.6	-41.9	*/MB2
WAL00000	113.00	-177.10	-13.80	1.60	1.60	90.00	-9.0	-39.8	*/MB1
XCQ00000	-159.00	173.40	4.60	10.20	2.40	175.00	4.5	-35.6	*/MB2
XCS00000	-19.82	17.30	49.60	1.60	1.60	90.00	-9.6	-40.0	
XYU00000	43.04	18.70	44.40	1.60	1.60	90.00	-9.6	-40.5	
YEM00001	27.00	44.20	15.10	1.60	1.60	90.00	-9.6	-41.4	
YEM00002	108.00	49.90	14.80	1.60	1.60	90.00	-9.6	-39.7	
ZMB00000	39.55	27.90	-12.80	2.40	1.60	26.00	-9.6	-39.6	
ZWE00000	65.60	30.00	-18.90	1.60	1.60	90.00	-9.6	-39.9	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
ABW00000	-98.20	-69.10	12.40	0.80	0.80	90.00	-6.4	-25.8	
ADL00000	113.00	140.00	-66.70	0.80	0.80	90.00	-10.2	-31.9	*/MB1
AFG00000	50.00	66.40	33.90	2.20	1.30	15.00	-4.1	-29.2	
AFS00000	71.00	27.20	-30.10	5.30	1.40	128.00	3.3	-26.7	
AGL00000	-36.10	15.90	-12.40	2.40	1.40	78.00	1.1	-25.8	
ALB00000	4.13	20.00	41.10	0.80	0.80	90.00	-8.6	-28.2	
ALG00000	-33.50	1.60	27.80	3.30	2.20	133.00	3.4	-26.6	
ALS00000	-159.00	-158.60	57.50	6.30	1.50	1.00	1.6	-28.7	*/MB2
AND00000	-41.00	1.50	42.50	0.80	0.80	90.00	-10.2	-30.0	
ARG00000	-51.00	-62.00	-33.60	4.80	2.90	93.00	9.4	-21.9	*/MB3
ARGINSUL	-51.00	-60.00	-57.50	3.60	1.30	154.00	-1.4	-28.6	*/MB3
ARM00000	71.40	45.13	40.12	0.80	0.80	90.00	-10.2	-30.1	
ARS00000	51.90	45.70	23.10	3.70	2.60	153.00	0.8	-29.4	
ASCSTHTC	-37.10	-11.80	-19.60	5.60	1.80	77.00	2.1	-28.6	*/MB4
ATG00000	-77.70	-61.80	17.00	0.80	0.80	90.00	-7.2	-27.1	
ATN00000	-5.00	-65.60	15.10	1.30	1.00	58.00	-1.1	-22.3	*/MB5
AUS00001	144.10	134.30	-24.50	6.60	5.30	146.00	13.4	-22.1	*/MB6
AUS00002	144.10	163.60	-30.50	1.60	1.00	15.00	-2.9	-26.5	*/MB6
AUS00003	144.10	101.50	-11.10	1.10	1.00	15.00	-6.9	-28.5	*/MB6
AUS00004	144.10	159.00	-54.50	0.80	0.80	90.00	-10.2	-32.3	*/MB6
AUS00005	144.10	110.40	-66.30	0.80	0.80	90.00	-10.2	-31.8	*/MB6
AUT00000	-11.40	13.20	47.50	0.80	0.80	90.00	-8.1	-27.2	
AZR00000	-10.60	-28.00	38.70	0.80	0.80	90.00	-8.7	-27.9	*/MB7
B 00001	-66.25	-62.60	-6.00	4.10	4.00	43.00	9.8	-22.4	
B 00002	-63.60	-45.40	-6.30	4.60	4.10	152.00	10.4	-22.4	
B 00003	-69.45	-50.00	-20.90	4.30	3.00	60.00	8.9	-22.2	
BAH00000	-74.30	-75.80	24.00	1.60	1.00	133.00	-0.8	-24.5	
BDI00000	-3.50	29.90	-3.40	0.80	0.80	90.00	-10.2	-29.9	
BEL00000	54.55	5.20	50.60	0.80	0.80	90.00	-10.2	-30.2	
BEN00000	-30.60	2.30	9.30	1.20	1.00	89.00	-2.1	-23.0	
BERCAYMS	-37.10	-68.60	22.50	3.70	2.30	41.00	7.4	-21.8	*/MB4
BFA00000	10.79	-1.40	12.20	1.70	1.00	24.00	-0.6	-25.0	
BGD00000	133.00	90.20	24.00	0.80	0.80	90.00	-3.9	-21.9	
BHR00000	13.60	50.60	26.10	0.80	0.80	90.00	-10.2	-32.2	
BLZ00000	-90.80	-88.60	17.20	0.80	0.80	90.00	-6.5	-26.6	
BOL00000	-34.80	-64.40	-17.10	2.70	1.70	129.00	4.3	-22.5	
BOT00000	21.20	24.00	-21.80	1.50	1.50	94.00	-6.0	-30.0	
BRB00000	-29.60	-59.60	13.20	0.80	0.80	90.00	-7.0	-26.4	
BRM00000	111.50	97.00	18.90	3.20	1.60	88.00	4.6	-22.6	
BRU00000	157.30	114.60	4.50	0.80	0.80	90.00	-6.9	-24.9	
BTN00000	59.10	90.40	27.00	0.80	0.80	90.00	-10.2	-29.3	
BUL00000	56.02	25.60	42.80	0.80	0.80	90.00	-7.8	-27.0	
CAF00000	14.40	21.50	6.50	2.70	1.70	14.00	3.8	-22.8	
CANOCENT	-111.10	-96.10	51.40	4.30	2.00	155.00	3.9	-26.7	
CANOEAST	-107.30	-76.60	50.10	5.00	1.70	154.00	6.2	-25.0	
CANOWEST	-114.90	-120.10	57.40	3.10	1.90	173.00	-0.6	-28.7	
CBG00000	96.10	105.10	12.90	1.20	1.00	35.00	-2.5	-23.2	
CHL00000	-74.90	-82.60	-32.80	8.10	6.10	155.00	9.0	-28.4	
CHN00001	101.40	103.70	35.00	8.10	4.30	2.00	13.6	-23.2	
CHN00002	135.50	114.80	16.40	4.90	2.40	65.00	8.2	-22.5	
CLM00000	-70.90	-74.00	5.70	4.00	2.30	121.00	7.1	-22.6	
CLN00000	121.50	80.10	7.70	0.80	0.80	90.00	-6.5	-24.8	
CME00000	7.98	12.90	6.30	2.50	1.90	84.00	3.9	-22.7	
CNR00000	-30.00								1
COD00000	50.95	24.40	-4.60	3.90	3.50	92.00	6.5	-24.4	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
COG00000	-16.35	14.80	-0.60	2.00	1.10	63.00	0.7	-22.7	
COM00000	94.50	44.10	-12.20	0.80	0.80	90.00	-6.7	-24.7	
CPV00000	-85.70	-24.10	16.00	0.80	0.80	90.00	-10.2	-30.4	
CTI00000	-15.76	-5.90	7.80	1.40	1.20	66.00	-0.9	-23.1	
CTR00000	-96.00	-85.30	8.20	1.30	1.00	64.00	-2.1	-23.2	
CUB00000	-80.60	-79.50	21.00	2.00	1.00	172.00	0.1	-24.6	
CVA00000	59.00	12.50	41.90	0.80	0.80	90.00	-9.3	-28.8	
CYP00000	0.50	33.20	35.10	0.80	0.80	90.00	-10.2	-29.8	
CYPSBA00	57.50	32.90	34.60	0.80	0.80	90.00	-10.2	-30.2	*/MB9
D 00001	26.40	9.70	50.70	1.10	1.00	41.00	-7.7	-28.7	
D 00002	37.20	12.60	51.40	0.80	0.80	90.00	-9.3	-28.2	
DJI00000	-17.46	42.60	11.70	0.80	0.80	90.00	-10.2	-30.1	
DMA00000	-70.00	-61.30	15.30	0.80	0.80	90.00	-7.3	-27.3	
DNK00001	32.28	11.60	56.00	0.80	0.80	90.00	-10.2	-29.0	
DNK00002	-49.00	12.50	56.30	0.80	0.80	90.00	-8.2	-27.7	*/MB10
DNK00FAR	-49.00	-7.20	61.70	0.80	0.80	90.00	-10.2	-29.5	*/MB10
DOM00000	-85.40	-70.40	18.70	0.80	0.80	90.00	-7.2	-27.1	
E 00002	-30.00								1
EGY00000	67.11	30.30	26.20	2.30	1.50	54.00	-2.7	-28.8	
EQA00000	-104.00	-83.10	-1.40	3.10	1.40	174.00	3.8	-22.7	
ETH00000	58.30	40.60	10.30	2.80	2.80	64.00	1.1	-28.6	
F 00000	-8.00								1
FIN00000	46.80	23.80	64.30	1.50	1.00	23.00	-6.2	-28.6	
FJI00000	148.80	178.50	-17.20	0.80	0.80	90.00	-7.0	-26.2	
FLKSTGGL	-37.10	-46.80	-59.60	3.70	1.40	170.00	-0.9	-28.7	*/MB4
G 00000	-37.10	-4.10	53.90	1.60	1.00	151.00	-4.7	-27.8	*/MB4
GAB00000	39.00	11.70	-0.70	1.40	1.10	79.00	-1.5	-23.0	
GDL00000	-8.00								1
GDL00002	-115.90	-61.80	16.40	0.80	0.80	90.00	-4.6	-22.7	*/MB13
GHA00000	15.90	-1.30	7.70	1.50	1.10	90.00	-1.0	-23.0	
GIB00000	57.50	-5.40	36.10	0.80	0.80	90.00	-6.8	-27.0	*/MB9
GMB00000	-34.00	-16.40	13.40	0.80	0.80	90.00	-10.2	-31.0	
GNB00000	40.00	-15.40	12.00	0.80	0.80	90.00	-9.2	-28.8	
GNE00000	-32.30	10.50	1.70	0.80	0.80	90.00	-6.8	-24.9	
GRC00000	22.05	24.70	38.30	1.70	1.00	160.00	-2.7	-26.6	
GRD00000	-32.80	-61.60	12.00	0.80	0.80	90.00	-7.1	-26.5	
GRL00000	-49.00	-42.90	68.60	2.30	1.00	174.00	-3.3	-27.8	*/MB10
GTM00000	-135.70	-90.50	15.50	0.80	0.80	90.00	-4.2	-22.2	
GUF00000	-8.00								1
GUF00002	-115.90	-53.30	4.30	0.80	0.80	90.00	-5.3	-23.4	*/MB13
GUI00000	27.50	-10.90	10.20	1.30	1.10	104.00	-1.5	-22.9	
GUMMRA00	-159.00	145.40	16.70	1.70	1.00	79.00	0.0	-22.2	*/MB2
GUY00000	-23.80	-59.20	4.70	1.40	1.00	94.00	-1.4	-22.8	
HKG00000	57.50	114.50	22.40	0.80	0.80	90.00	-6.5	-24.5	
HND00000	-76.20	-86.10	15.40	1.40	1.00	26.00	-1.8	-23.1	
HNG00000	-7.50	19.40	47.40	0.80	0.80	90.00	-8.8	-28.1	
HOL00000	-5.00	5.40	52.40	0.80	0.80	90.00	-10.2	-30.8	*/MB5
HTI00000	-92.00	-73.00	18.80	0.80	0.80	90.00	-7.1	-26.9	
HWA00000	-159.00	-157.60	20.70	1.20	1.00	157.00	-2.2	-23.1	*/MB2
HWL00000	-159.00	-176.60	0.10	0.80	0.80	90.00	-7.3	-27.4	*/MB2
I 00000	-23.40	11.30	40.90	2.10	1.00	141.00	-1.6	-26.4	
IND00000	74.00	82.70	18.90	6.20	4.90	120.00	12.6	-22.2	
INS00000	115.40	117.60	-1.80	9.40	4.30	170.00	13.7	-22.4	
IRL00000	-21.80	-8.20	53.20	0.80	0.80	90.00	-10.2	-29.3	
IRN00000	24.19	54.30	33.00	3.70	1.50	143.00	1.1	-27.5	2
IRQ00000	65.45	44.30	33.10	1.60	1.30	178.00	-4.0	-28.0	
ISL00000	-35.20	-18.20	64.90	0.80	0.80	90.00	-8.5	-27.4	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
ISR00000	-4.00								1
J 00000	152.50	140.40	30.40	5.70	3.70	15.00	11.1	-22.8	
JAR00000	-159.00	-160.00	-0.40	0.80	0.80	90.00	-7.5	-27.5	*/MB2
JMC00000	-108.60	-77.60	18.20	0.80	0.80	90.00	-6.9	-25.9	
JON00000	-159.00	-168.50	17.00	0.80	0.80	90.00	-10.2	-32.5	*/MB2
JOR00000	81.76	36.70	31.30	0.80	0.80	90.00	-9.7	-28.5	
KEN00000	78.20	38.40	0.80	2.10	1.30	95.00	-2.1	-27.6	
KER00000	113.00	69.30	-43.90	1.90	1.60	169.00	-2.2	-27.8	*/MB1
KGZ00000	64.60	74.54	41.15	1.56	0.80	10.12	-8.3	-29.7	
KIR00000	150.00	173.00	1.00	0.80	0.80	90.00	-7.2	-27.1	
KNA00000	-88.80	-62.90	17.30	0.80	0.80	90.00	-7.1	-26.5	
KOR00000	116.20	127.70	36.20	1.30	1.00	4.00	-4.3	-26.7	
KRE00000	145.00	127.80	39.80	1.40	1.00	14.00	-1.2	-23.3	
KWT00000	30.90	47.70	29.10	0.80	0.80	90.00	-10.2	-31.6	
LAO00000	142.00	104.10	18.10	1.50	1.00	101.00	-0.7	-22.6	
LBN00000	97.50	35.80	33.80	0.80	0.80	90.00	-10.2	-30.5	
LBR00000	-41.80	-8.90	6.50	0.80	0.80	90.00	-4.0	-22.1	
LBY00000	28.90								1
LIE00000	-17.10	9.50	47.20	0.80	0.80	90.00	-10.2	-31.2	
LSO00000	-19.30	28.40	-29.50	0.80	0.80	90.00	-10.2	-31.1	
LUX00000	19.20	6.20	49.70	0.80	0.80	90.00	-10.2	-31.6	
MAC00000	117.00	113.60	22.20	0.80	0.80	90.00	-7.2	-27.1	
MAU00000	92.20	57.50	-20.20	0.80	0.80	90.00	-6.9	-25.6	
MCO00000	41.00	7.40	43.70	0.80	0.80	90.00	-8.0	-27.8	
MDG00000	16.90	46.60	-18.70	2.60	1.00	66.00	1.6	-22.5	
MDR00000	-10.60	-16.20	31.60	0.80	0.80	90.00	-10.2	-30.5	*/MB7
MDW00000	-159.00	-177.40	28.20	0.80	0.80	90.00	-10.2	-32.2	*/MB2
MEX00000	-113.00	-103.60	23.30	5.80	2.40	161.00	9.1	-23.7	
MHL00000	-159.00	175.30	8.70	2.30	1.40	94.00	2.7	-22.6	*/MB2
MLA00000	78.50	108.20	4.70	3.20	1.40	0.00	4.1	-22.3	
MLD00000	117.60	73.40	2.50	2.20	0.80	88.00	0.1	-22.4	
MLI00000	-6.00	-3.90	17.60	3.30	2.50	21.00	6.3	-24.8	
MLT00000	-3.00	14.40	35.90	0.80	0.80	90.00	-10.2	-30.4	
MNG00000	113.60	103.80	46.80	3.60	1.10	3.00	-0.3	-27.6	
MOZ00000	90.60	35.60	-17.20	3.10	1.10	98.00	3.2	-22.0	
MRC00000	32.86	-8.90	27.90	3.40	1.00	45.00	-0.5	-27.0	
MTN00000	-21.10	-10.30	19.80	2.50	2.40	76.00	0.1	-28.4	
MWI00000	28.00	34.10	-13.30	1.60	1.00	101.00	-6.7	-29.3	
MYT00000	-8.00								1
NCG00000	-84.40	-84.90	12.90	1.10	1.00	16.00	-2.8	-23.1	
NCL00000	113.00	165.80	-21.40	0.80	0.80	90.00	-5.9	-23.9	*/MB1
NGR00000	-38.50	7.50	17.20	2.10	1.70	100.00	-0.6	-27.3	
NIG00000	41.82	8.00	9.90	2.50	1.60	47.00	3.4	-22.4	
NMB00000	12.20	18.50	-21.00	2.70	2.60	155.00	-0.7	-29.6	
NOR00000	-0.80								1
NPL00000	123.30	84.40	28.00	0.80	0.80	90.00	-7.2	-26.6	
NRU00000	146.00	166.90	-0.50	0.80	0.80	90.00	-7.2	-27.2	
NZL00001	152.00	170.90	-44.80	5.40	1.00	49.00	2.0	-26.5	*/MB14
NZL00002	152.00	-165.40	-13.20	2.70	2.00	82.00	5.4	-22.0	*/MB14
OCE00000	-115.90	-141.90	-16.10	3.50	2.40	139.00	6.8	-24.2	*/MB13
OMA00000	104.00	55.10	21.60	1.90	1.00	61.00	-6.0	-29.3	
PAK00000	56.50	69.90	29.80	3.00	2.00	22.00	3.7	-25.7	
PHL00000	161.00	122.23	11.37	3.33	1.41	79.65	4.8	-22.3	
PLM00000	-159.00	-161.40	7.00	0.80	0.80	90.00	-7.6	-27.6	*/MB2
PNG00000	154.10	148.40	-6.60	3.30	2.30	167.00	6.0	-22.7	
PNR00000	-79.20	-80.20	8.50	1.20	1.00	177.00	-2.4	-23.2	
POL00000	15.20	19.30	52.00	1.30	1.00	166.00	-7.0	-28.7	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
POR00000	-10.60	-8.00	39.70	0.80	0.80	90.00	-9.0	-28.1	*/MB7
PRG00000	-81.50	-58.70	-23.10	1.50	1.30	116.00	0.1	-22.8	
PRU00000	-89.90	-74.20	-8.40	3.60	2.40	111.00	6.9	-22.5	
PTC00000	-62.30	-130.10	-25.10	0.80	0.80	90.00	-10.2	-27.3	
QAT00000	0.90	51.60	25.40	0.80	0.80	90.00	-10.2	-31.5	
REU00000	-8.00								1
REU00002	113.00	55.60	-21.10	0.80	0.80	90.00	-6.4	-24.5	*/MB1
ROU00000	30.45	25.00	46.30	1.50	1.00	178.00	-5.2	-28.0	
RRW00000	17.60	29.70	-1.90	0.80	0.80	90.00	-10.2	-30.8	
RUS00001	61.00	51.50	52.99	5.56	2.01	10.74	3.1	-28.2	
RUS00003	138.50	138.14	53.83	5.86	2.09	8.41	3.3	-28.4	
RUS0BF1A	87.70	38.50	52.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF1B	87.70	38.50	52.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF2A	87.70	46.00	55.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF2B	87.70	46.00	55.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF3A	87.70	57.00	57.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF3B	87.70	57.00	57.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF4A	87.70	71.00	57.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF4B	87.70	71.00	57.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF5A	87.70	87.50	58.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF5B	87.70	87.50	58.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF6A	87.70	106.50	56.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF6B	87.70	106.50	56.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF7A	87.70	120.00	55.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF7B	87.70	120.00	55.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF8A	87.70	135.00	47.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF8B	87.70	135.00	47.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF9A	87.70	42.00	44.50	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF9B	87.70	42.00	44.50	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BR1A	87.70	38.50	52.00	1.00	1.00	0.00	-8.0	-28.1	*/MB18
RUS0BR1B	87.70	38.50	52.00	1.00	1.00	0.00	-4.0	-28.1	*/MB18
RUS0BR2A	87.70	135.00	47.00	1.00	1.00	0.00	-8.0	-28.1	*/MB18
RUS0BR2B	87.70	135.00	47.00	1.00	1.00	0.00	-4.0	-28.1	*/MB18
S 00000	-5.00								1
SDN00001	23.55	29.30	10.30	3.00	1.90	131.00	5.3	-24.0	*/MB15
SDN00002	23.55	29.40	16.70	2.60	2.40	171.00	1.1	-27.4	*/MB15
SEN00000	-48.40	-14.00	14.10	1.10	1.00	148.00	-2.3	-23.8	
SEY00000	42.25								1
SLM00000	147.50	159.00	-9.10	1.50	1.00	147.00	-1.2	-23.0	
SLV00000	-130.50	-89.00	13.70	0.80	0.80	90.00	-6.8	-24.9	
SMA00000	-159.00	-170.70	-14.20	0.80	0.80	90.00	-10.2	-31.1	*/MB2
SMO00000	-125.50	-172.10	-13.70	0.80	0.80	90.00	-6.6	-24.6	
SMR00000	16.50	12.50	43.90	0.80	0.80	90.00	-10.2	-30.3	
SNG00000	98.10	103.90	1.30	0.80	0.80	90.00	-7.3	-25.4	
SOM00000	98.40	46.00	6.30	3.10	1.00	72.00	-0.8	-25.5	
SPM00000	-8.00								1
SRL00000	-51.80	-11.90	8.50	0.80	0.80	90.00	-6.9	-25.4	
STP00000	30.25	7.00	1.00	0.80	0.80	90.00	-7.1	-27.0	
SUI00000	9.45	8.20	46.50	0.80	0.80	90.00	-10.2	-29.4	
SUR00000	-77.00	-55.60	3.90	1.00	0.90	37.00	-3.6	-23.2	
SWZ00000	30.10	31.30	-26.40	0.80	0.80	90.00	-10.2	-30.9	
SYR00000	18.00	38.60	35.30	1.10	1.00	32.00	-7.1	-28.3	
TCD00000	-9.90	18.40	15.60	3.50	1.60	97.00	5.0	-24.1	
TGO00000	-23.15	0.80	8.60	1.10	1.00	116.00	-2.7	-23.2	
THA00000	120.60	100.90	12.80	2.80	1.60	83.00	4.0	-22.6	
TON00000	-128.00	-175.20	-21.20	0.80	0.80	90.00	-6.7	-24.7	
TRD00000	-73.40	-61.10	10.80	0.80	0.80	90.00	-7.2	-27.3	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
TUN00000	5.74	9.40	33.50	1.30	1.00	104.00	-5.9	-28.2	
TUR00000	8.50	34.10	38.90	2.80	1.00	171.00	0.0	-26.0	
TUV00000	158.00	179.20	-8.50	0.80	0.80	90.00	-7.1	-27.1	
TZA00000	67.50	35.40	-5.90	2.40	1.40	117.00	-1.3	-27.8	
UAE00000	63.50	53.80	24.90	1.10	1.00	12.00	-9.7	-30.4	
UGA00000	31.50	32.20	0.90	1.50	1.00	70.00	-6.3	-28.9	
UKR00000	50.50	35.43	49.71	1.14	0.80	174.61	-7.0	-28.1	
URG00000	-86.10	-56.30	-33.70	1.10	1.00	58.00	-6.5	-27.7	
USA00000	-101.00						11.2	-23.9	3, */MB16
USAVIPRT	-101.00	-64.50	17.80	0.80	0.80	90.00	-6.9	-25.5	*/MB16
VCT00000	-93.10	-61.10	13.20	0.80	0.80	90.00	-7.0	-26.2	
VEN00001	-82.70	-66.40	6.80	2.80	2.10	142.00	4.9	-22.8	*/MB17
VEN00002	-82.70	-63.60	15.70	0.80	0.80	90.00	-7.1	-27.0	*/MB17
VTN00000	107.00								1
VUT00000	150.70	168.40	-17.20	1.20	1.00	122.00	-2.4	-23.1	
WAK00000	-159.00	166.50	19.20	0.80	0.80	90.00	-10.2	-31.9	*/MB2
WAL00000	113.00	-177.10	-13.80	0.80	0.80	90.00	-6.0	-24.1	*/MB1
XCQ00000	-159.00	173.40	4.60	10.20	2.40	175.00	16.0	-16.0	*/MB2
XCS00000	-19.82	17.30	49.60	1.30	1.00	166.00	-5.1	-27.4	
XYU00000	43.04	18.70	44.40	1.10	1.00	161.00	-5.6	-27.3	
YEM00001	27.00	44.20	15.10	1.00	1.00	103.00	-9.8	-30.1	
YEM00002	108.00	49.90	14.80	1.40	1.00	53.00	-5.7	-26.9	
ZMB00000	39.55	27.90	-12.80	2.40	1.60	26.00	-3.0	-29.2	
ZWE00000	65.60	30.00	-18.90	1.50	1.10	140.00	-6.0	-28.9	

**MOD** COM5/385/82 (B18/405/85)

## ARTICLE 11

### **Period of validity of the provisions and associated Plan**

**MOD** COM5/385/83 (B18/405/86)

11.2 These provisions and associated Plan shall, in any event, remain in force until their revision by a competent world radiocommunication conference, convened in accordance with the relevant provisions of the ITU Constitution and Convention in force. (WRC-07)

**MOD** COM5/385/84 (B18/405/87)

## ANNEX 1 (WRC-03)

**MOD** COM5/385/85 (B18/405/88)

### **Parameters used in characterizing the fixed-satellite service allotment Plan**

**SUP** COM5/385/86 (B18/405/89)

#### **Section A – Technical data used in establishing the Allotment Plan and the associated provisions**

**MOD** COM5/385/87 (B18/405/90)

### **1.2 Parameters used for calculating the earth station and space station power densities**

The carrier-to-noise ratio ( $C/N$ ) is as follows:

- a) the uplink  $C/N$  ratio exceeds 21 dB under rain-faded conditions with a minimum earth station transmitter power density of  $-60$  dB(W/Hz) averaged over the necessary bandwidth of the modulated carrier;
- b) the downlink  $C/N$  ratio exceeds 15 dB under rain-faded conditions;
- c) for the 6/4 GHz bands, the above  $C/N$ s are exceeded for 99.95% of the year (NOTE – The rain attenuation margin is limited to a maximum of 8 dB);
- d) for the 13/10-11 GHz bands, the above  $C/N$ s are exceeded for 99.9% of the year (NOTE – The rain attenuation margin is limited to a maximum of 8 dB);
- e) the gaseous atmospheric attenuation and rain attenuation models used are those described in Recommendations ITU-R P.676-7 and ITU-R P.618-9. (WRC-07)

**MOD** COM5/385/88 (B18/405/91)

### **1.3 Earth station antenna elevation angle**

The minimum elevation angle for each test point included in the service area is based on the following:

- 10° for  $R_p \leq 40$  mm/h;
- 20° for  $40 < R_p \leq 70$  mm/h;
- 30° for  $70 < R_p \leq 100$  mm/h;
- 40° for  $R_p > 100$  mm/h.

Where  $R_p$  is the rainfall rate exceeded for any given percentage  $p$  of the average year, calculated in accordance with Recommendation ITU-R P.837-5. Administrations may select lower elevation angles for their service areas. For countries at high latitudes or with dispersed territories, in the

absence of such a request, if the above values for minimum elevation angle are unobtainable, then the highest elevation angle leading to a non-zero range of possible orbital positions applies. In mountainous areas, the elevation angles are specified by the administrations concerned. (WRC-07)

**MOD** COM5/385/89 (B18/405/92)

**1.4 Interference criteria**

The Plan has been prepared with a view to assuring for each allotment an overall aggregate carrier-to-interference value under free-space conditions of 21 dB or higher, and an overall single entry carrier-to-interference value under free-space conditions of 25 dB. (WRC-07)

**MOD** COM5/385/90 (B18/405/93)

**1.6 Earth station characteristics**

1.6.1 The diameters of the earth station antennas are:

- 5.5 m for the 6/4 GHz band;
- 2.7 m for the 13/10-11 GHz band. (WRC-07)

1.6.2 The earth station receiving system noise temperature referred to the output of the receiving antenna is:

- 95 K for the 4 GHz band;
- 125 K for the 10-11 GHz band. (WRC-07)

1.6.3 The earth station antenna efficiency is 70%.

1.6.3bis The gains of the earth station antennas for the diameters and the efficiency specified above at the indicated evaluation frequencies are as follows:

- 50.4 dBi at 6 875 MHz;
- 47.0 dBi at 4 650 MHz;
- 49.8 dBi at 13.0 GHz;
- 48.4 dBi at 11.075 GHz. (WRC-07)

1.6.4 The applicable earth station reference antenna pattern is shown in Table 1 below. (WRC-07)

TABLE 1 (WRC-07)

$G_{max} = 10 \log (\eta(\pi D/\lambda)^2)$		dBi
$G(\varphi) = G_{max} - 2.5 \times 10^{-3} \left( \frac{D}{\lambda} \varphi \right)^2$	for $0 < \varphi < \varphi_m$	dBi
$G(\varphi) = \min (G_1, 29 - 25 \log \varphi)$	for $\varphi_m \leq \varphi \leq 19.95^\circ$	dBi
$G(\varphi) = \max (\min (-3.5, 32 - 25 \log \varphi), -10)$	for $\varphi > 19.95^\circ$	dBi
where:		
$D$ : antenna diameter	<b>Error! Objects cannot be created from editing field codes.</b> expressed in the same unit	
$\lambda$ : wavelength		
$\varphi$ : off-axis angle of the antenna (degrees)		
$G_1$ : gain of the first side lobe	<b>Error! Objects cannot be created from editing field codes.</b> dBi	
$\varphi_m = \frac{20\lambda}{D} \times \sqrt{G_{max} - G_1} \quad \text{degrees}$		
$\eta$ : antenna efficiency		

**MOD** COM5/385/91 (B18/405/94)

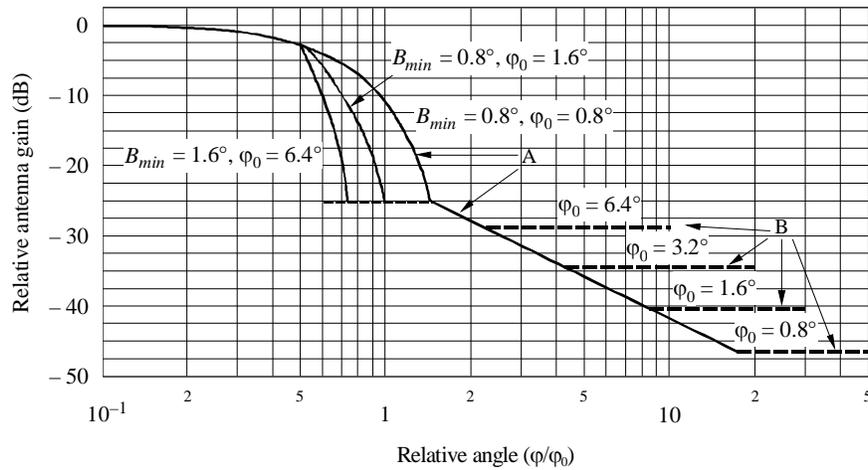
**1.7 Space station characteristics** (WRC-07)

1.7.1 The allotment Plan is based on the use of space station antennas with beams of elliptical cross-section.

1.7.2 The antenna radiation characteristics are as shown in Fig. 1.

**MOD** COM5/385/92 (B18/405/95)

FIGURE 1\* (WRC-07)  
Reference patterns for satellite antennas  
with fast roll-off in the main beam



RP/A1-02

\* Figure 1 represents patterns for some combinations of  $B_{min}$  and  $\phi_0$ . (WRC-07)

$$G_{max} = 44.45 - 10 \log (\phi_{01} \cdot \phi_{02}) \quad \text{dBi} \quad (\text{WRC-07})$$

Curve A: dB relative to main beam gain

$$-12 (\phi/\phi_0)^2 \quad \text{for } 0 \leq (\phi/\phi_0) \leq 0.5$$

**-Error! Objects cannot be created from editing field codes.** for  $0.5 < (\phi/\phi_0) \leq$  **Error! Objects cannot be created from editing field codes.**

$$-25.23 \quad \text{for } \text{Error! Objects cannot be created from editing field codes.}$$

$$-(22 + 20 \log (\phi/\phi_0)) \quad \text{for } (\phi/\phi_0) > 1.45$$

after intersection with Curve B: Curve B.

Curve B: Minus the on-axis gain (Curve B represents examples of four antennas having different values of  $\phi_0$  as labelled in Fig. 1. The on-axis gains of these antennas are approximately 28.3, 34.3, 40.4 and 46.4 dBi, respectively) (WRC-07)

where:

$\phi$ : off-axis angle (degrees)

$\phi_0$ : cross-sectional half-power beamwidth in the direction of interest (degrees)

$\phi_{01}, \phi_{02}$ : major and minor axis half-power beamwidth, respectively, of elliptical beam (degrees) (WRC-07)

**Error! Objects cannot be created from editing field codes.**

where:

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1.7.3 The space station receiving system noise temperature referred to the output of the receiving antenna is:

500 K for the 6 GHz band;

550 K for the 13 GHz band.

1.7.4 The minimum beamwidth size, in terms of the half-power beamwidth, is 1.6° for the 6/4 GHz band and 0.8° for the 13/10-11 GHz band.

1.7.5 The space station antenna efficiency is 55%.

1.7.6 The deviation of the space station antenna beam from its nominal pointing direction is limited to 0.1° in any direction. The rotation accuracy of elliptical beams is  $\pm 1.0^\circ$ .

**SUP** COM5/385/93 (B18/405/96)

**Section B – Generalized parameters used for determining when the assignments of a proposed satellite network are in conformity with the Plan**

**SUP** COM5/385/94 (B18/405/97)

**ANNEX 2** (WRC-03)

**Basic data to be furnished in notices relating to stations in the fixed-satellite service entering the design stage using frequency bands of the Plan**

**SUP** COM5/385/95 (B18/405/98)

**ANNEX 3A**

**Criteria for determining when proposed assignments are considered as being in conformity with the Plan**

**SUP** COM5/385/96 (B18/405/99)

**ANNEX 3B**

**Macrosegmentation concept**

**ADD** COM5/385/97 (B18/405/100)

**ANNEX 3** (WRC-07)

**Limits applicable to submissions received under Article 6 or Article 7<sup>1M</sup>**

Under assumed free-space propagation conditions, the power flux-density (space-to-Earth) of a proposed new allotment or assignment produced on any portion of the surface of the Earth shall not exceed:

- $-127.5 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  in the 4 500-4 800 MHz band; and
- $-114.0 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  in the 10.70-10.95 GHz and 11.20-11.45 GHz bands.

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<sup>1M</sup> These limits shall not apply to assignments recorded in the List before 17 November 2007.

Under assumed free-space propagation conditions, the power flux-density (Earth-to-space) of a proposed new allotment or assignment shall not exceed:

- -140.0 dB(W/(m<sup>2</sup> · MHz)) towards any location in the geostationary-satellite orbit located more than 10° from the proposed orbital position in the 6 725-7 025 MHz band, and
- -133.0 dB(W/(m<sup>2</sup> · MHz)) towards any location in the geostationary-satellite orbit located more than 9° from the proposed orbital position in the 12.75-13.25 GHz band.

**MOD** COM5/385/98 (B18/405/101)

#### ANNEX 4 (Rev.WRC-07)

### **Criteria for determining whether an allotment or an assignment is considered to be affected**

An allotment or an assignment is considered as being affected by a proposed new allotment or assignment:

1 if the orbital spacing between its orbital position and the orbital position of the proposed new allotment or assignment is equal to or less than:

- 1.1 10° in the 4 500-4 800 MHz (space-to-Earth) and 6 725-7 025 MHz (Earth-to-space) bands;
- 1.2 9° in the 10.70-10.95 GHz (space-to-Earth), 11.20-11.45 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) bands;

*and*

2 if at least one of the following three conditions is not satisfied:

- 2.1 the calculated<sup>1</sup> Earth-to-space single-entry carrier-to-interference  $(C/I)_u$  value at each test point associated with the allotment or assignment under consideration is greater than or equal to a reference value that is 30 dB, or  $(C/N)_u + 9$  dB<sup>2</sup>, or any already accepted Earth-to-space single-entry  $(C/I)_u$ <sup>3</sup>, whichever is the lowest;
- 2.2 the calculated<sup>1</sup> space-to-Earth single-entry  $(C/I)_d$  value everywhere within the service area of the allotment or assignment under consideration is greater than or equal to a reference value<sup>4</sup> that is 26.65 dB, or  $(C/N)_d + 11.65$  dB<sup>5</sup>, or any already accepted space-to-Earth single-entry  $(C/I)_d$  value, whichever is the lowest;
- 2.3 the calculated<sup>1</sup> overall aggregate  $(C/I)_{agg}$  value at each test point associated with the allotment or assignment under consideration, is greater than or equal to a reference value that is 21 dB, or  $(C/N)_t + 7$  dB<sup>6</sup>, or any already accepted overall aggregate  $(C/I)_{agg}$  value,

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<sup>1</sup> Including a computational precision of 0.05 dB.

<sup>2</sup>  $C/N_u$  is calculated as in Appendix 2 to this Annex.

<sup>3</sup> Excluding values accepted in accordance with § 6.15 of Article 6.

<sup>4</sup> The reference values within the service area are interpolated from the reference values on the test points.

<sup>5</sup>  $C/N_d$  is calculated as in Appendix 2 to this Annex.

<sup>6</sup>  $(C/N)_t$  is calculated as in Appendix 2 of this Annex.

whichever is the lowest, with a tolerance of 0.25 dB<sup>7</sup> in the case of assignments not stemming from the conversion of an allotment into an assignment without modification, or when the modification is within the envelope characteristics of the initial allotment.

MOD COM5/385/99 (B18/405/102)

APPENDIX 1 TO ANNEX 4 (WRC-07)

**Method for determination of the overall single-entry and aggregate carrier-to-interference value averaged over the necessary bandwidth of the modulated carrier**

**1 Single-entry C/I**

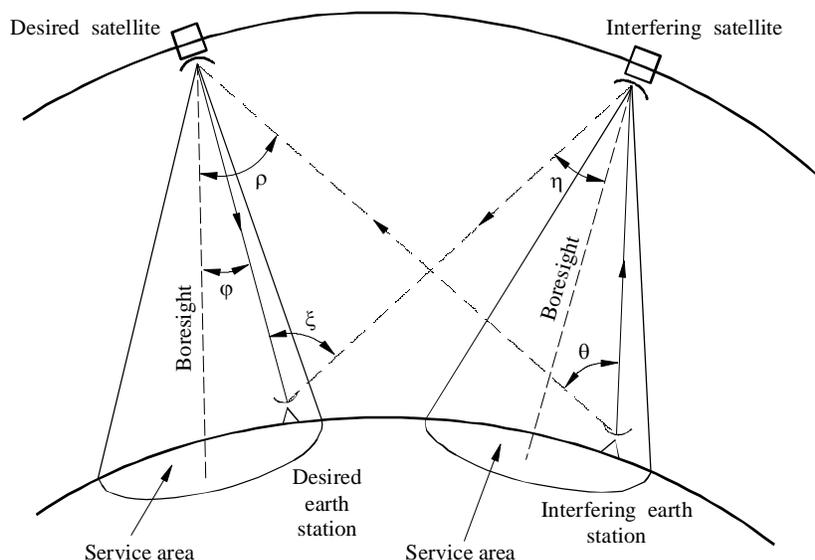
This section describes the method for calculating the single-entry interference potential.

The method is based on the single-entry carrier-to-interference ratio (C/I) which a given allotment or assignment made in accordance with the provisions of Appendix 30B might experience due to an emission from the proposed new assignment or modification. The single-entry uplink (C/I)<sub>u</sub> and downlink (C/I)<sub>d</sub> values due to a single interfering satellite network are given by:

$$(C/I)_u = 10 \log_{10} \left( \frac{P_1 g_1 g_2(\varphi) l_{su}'}{P_1' g_1'(\theta) g_2(\rho) l_{su}} \right), \text{ dB}$$

$$(C/I)_d = 10 \log_{10} \left( \frac{P_3 g_3(\varphi) g_4 l_{sd}'}{P_3' g_3'(\eta) g_4(\xi) l_{sd}} \right), \text{ dB}$$

FIGURE 1



AP30BA4-01

where:

$\theta, \varphi, \rho, \eta, \xi$  are angles as defined in Fig. 1, above.

<sup>7</sup> Inclusive of the 0.05 dB computational precision.

In the following, all ratios are numerical power ratios.

$p_1$ :	the power density, averaged over the necessary bandwidth of the modulated carrier, fed into the desired earth station transmitting antenna (W/Hz)
$g_1$ :	the maximum gain of the desired transmitting earth station antenna
$l_{su}$ :	the free-space path loss of the desired up-path signal
$l_{su}'$ :	the free-space path loss of the interfering up-path signal
$g_2(\varphi)$ :	the gain of the desired space station receiving antenna in the direction of the desired earth station
$g_2$ :	the maximum gain of the desired space station receiving antenna
$p_1'$ :	the power density, averaged over the necessary bandwidth of the modulated carrier, fed into the interfering earth station transmitting antenna (W/Hz)
$g_1'(\theta)$ :	the interfering earth station antenna gain in the direction of the desired satellite
$l_{sd}$ :	the free-space path loss of the desired down-path signal
$l_{sd}'$ :	the free-space path loss of the interfering down-path signal
$g_2(\rho)$ :	the gain of the desired space station receiving antenna in the direction of the interfering earth station
$p_3$ :	the power density, averaged over the necessary bandwidth of the modulated carrier, fed into the desired space station transmitting antenna (W/Hz)
$g_3(\varphi)$ :	the desired space station transmitting antenna gain in the direction of the desired earth station
$g_3$ :	the maximum gain of the desired space station transmitting antenna
$g_4$ :	the maximum gain of the desired receiving earth station antenna
$p_3'$ :	the power density, averaged over the necessary bandwidth of the modulated carrier, fed into the interfering space station transmitting antenna (W/Hz)
$g_3'(\eta)$ :	the interfering space station transmitting antenna gain in the direction of the desired earth station
$g_4(\xi)$ :	the desired earth station receiving antenna gain in the direction of the interfering satellite

The overall single-entry  $(C/I)_t$  at a given downlink test point due to a single interfering allotment or assignment is given by:

$$(C/I)_t = -10 \log_{10} \left[ 10^{-\frac{(C/I)_{u_{min}}}{10}} + 10^{-\frac{(C/I)_d}{10}} \right] \text{ dB}$$

where:

$(C/I)_{u_{min}}$ : the lowest uplink  $C/I$  value among all uplink test points

$(C/I)_d$ : the downlink  $C/I$  value at the test point under consideration.

NOTE – When only one of the uplink or the downlink is implemented in the bands subject to Appendix 30B, only the contribution from the link that is implemented in the bands subject to Appendix 30B shall be considered in calculating  $(C/I)_t$ .

## 2 Aggregate $C/I$

The aggregate  $(C/I)_{agg}$  at a given downlink test point is given by:

$$(C/I)_{agg} = -10 \log_{10} \left( \sum_j^n 10^{\frac{(C/I)_{tj}}{10}} \right) \text{ dB}$$

$$j = 1, 2, 3 \dots n,$$

where:

$(C/I)_{tj}$ : overall carrier-to-interference ratio due to interference from the  $j$ -th allotment or assignment calculated using the method for overall single-entry  $(C/I)_t$  as provided in § 1 of Appendix 1 to this Annex; and

where:

$n$ : the total number of interfering allotments or assignments for which the orbital separation with the desired satellite is less than or equal to  $10^\circ$  in the case of the 6/4 GHz band and less than or equal to  $9^\circ$  in the case of the 13/10-11 GHz band.

**ADD** COM5/385/100 (B18/405/103)

### APPENDIX 2 TO ANNEX 4 (WRC-07)

#### Method for determination of the carrier-to-noise ( $C/N$ ) values

The uplink carrier-to noise value  $(C/N)_u$  and the downlink carrier-to-noise value  $(C/N)_d$  are calculated as follows:

$$(C/N)_u = 10 \log_{10} \left( \frac{p_1 \cdot g_1 \cdot g_2(\varphi)}{k T_s l_{su}} \right) \text{ dB}$$

$$(C/N)_d = 10 \log_{10} \left( \frac{p_3 \cdot g_4 \cdot g_3(\varphi)}{k T_e l_{sd}} \right) \text{ dB}$$

where:

In the following, all ratios are numerical power ratios.

- $p_1$ : the power density, averaged over the necessary bandwidth of the modulated carrier, fed into the earth station transmitting antenna (W/Hz)
- $g_1$ : the maximum gain of the transmitting earth station antenna
- $l_{su}$ : the free-space path loss of the up-path signal
- $g_2(\varphi)$ : the gain of the space station receiving antenna in the direction of the earth station
- $T_s$ : the space station receiving system noise temperature referred to the output of the receiving antenna

- $p_3$ : the power density, averaged over the necessary bandwidth of the modulated carrier, fed into the space station transmitting antenna (W/Hz)
- $g_3(\varphi)$ : the space station transmitting antenna gain in the direction of the earth station
- $l_{sd}$ : the free-space path loss of the down-path signal
- $g_4$ : the maximum gain of the receiving earth station antenna
- $T_e$ : the earth station receiving system noise temperature, referred to the output of the receiving antenna
- $k$ : Boltzmann's constant.

The overall carrier-to-noise value  $(C/N)_r$  is then calculated as follows:

$$(C/N)_r = -10 \log_{10} \left[ 10^{-\frac{(C/N)_{u_{min}}}{10}} + 10^{-\frac{(C/N)_d}{10}} \right] \text{ dB}$$

where:

$(C/N)_{u_{min}}$ : the lowest uplink  $C/N$  value among all test points,

$(C/N)_d$ : the downlink  $C/N$  value at the test point under consideration.

NOTE – When only one of the uplink or the downlink is implemented in the bands subject to Appendix 30B, only the contribution from the link that is implemented in the bands subject to Appendix 30B shall be considered in calculating  $(C/N)_r$ .

SUP COM5/385/101 (B18/405/104)

#### ANNEX 5 (WRC-03)

### Application of the PDA (predetermined arc) concept

SUP COM5/385/102 (B18/405/105)

#### ANNEX 6 (WRC-03)

### Technical means which may be used to avoid incompatibilities between systems in the fixed-satellite service at their implementation stage

MOD COM4/211/19 (B3/224/32) (R2/266/21)

#### APPENDIX 42 (Rev.WRC-07)

### Table of allocation of international call sign series

(See Article 19)

- 1) SUP the following entries from the current Table:

Call sign series	Allocated to
T9A-T9Z	Bosnia and Herzegovina
YTA-YUZ	Serbia and Montenegro
YZA-YZZ	Serbia and Montenegro
4NA-4OZ	Serbia and Montenegro

2) ADD the following entries to the current Table:

<b>Call sign series</b>	<b>Allocated to</b>	
E5A-E5Z	New Zealand – Cook Islands	(WRC-07)
E7A-E7Z	Bosnia and Herzegovina	(WRC-07)
XXA-XXZ	China (People’s Republic of) – Macao	(WRC-07)
YTA-YUZ	Serbia (Republic of)	(WRC-07)
40A-40Z	Montenegro (Republic of)	(WRC-07)

## **RESOLUTIONS**

MOD COM4/296/55 (B9/305/57) (R5/336/1)

RESOLUTION 18 (Rev.WRC-07)

**Relating to the procedure for identifying and announcing the position of ships and aircraft of States not parties to an armed conflict<sup>1</sup>**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that ships and aircraft encounter considerable risk in the vicinity of an area of armed conflict;
- b) that for the safety of life and property it is desirable for ships and aircraft of States not parties to an armed conflict to be able to identify themselves and announce their position in such circumstances;
- c) that radiocommunication offers such ships and aircraft a rapid means of self-identification and providing location information prior to their entering areas of armed conflict and during their passage through the areas;
- d) that it is considered desirable to provide a supplementary signal and procedure for use, in accordance with customary practice, in the area of armed conflict by ships and aircraft of States representing themselves as not parties to an armed conflict,

*resolves*

1 that the frequencies for urgency signal and messages specified in the Radio Regulations may be used by ships and aircraft of States not parties to an armed conflict for self-identification and establishing communications. The transmission will consist of the urgency or safety signals, as appropriate, described in Article 33 followed by the addition of the single group "NNN" in radiotelegraphy and by the addition of the single word "NEUTRAL" pronounced as in French "neutral" in radiotelephony. As soon as practicable, communications shall be transferred to an appropriate working frequency;

2 that the use of the signal as described in the preceding paragraph indicates that the message which follows concerns a ship or aircraft of a State not party to an armed conflict. The message shall convey at least the following data:

- a) call sign or other recognized means of identification of such ship or aircraft;
- b) position of such ship or aircraft;
- c) number and type of such ships or aircraft;
- d) intended route;
- e) estimated time en route and of departure and arrival, as appropriate;
- f) any other information, such as flight altitude, radio frequencies guarded, languages and secondary surveillance radar modes and codes;

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<sup>1</sup> Administrations are invited to study the text of this Resolution and provide any proposals to a future competent Conference.

3 that the provisions of Article **33** relating to urgency and safety transmissions, and medical transports shall apply as appropriate to the use of the urgency and safety signals, respectively, by such ship or aircraft;

4 that the identification and location of ships of a State not party to an armed conflict may be effected by means of appropriate standard maritime radar transponders. The identification and location of aircraft of a State not party to an armed conflict may be effected by the use of the secondary surveillance radar (SSR) system in accordance with procedures to be recommended by the International Civil Aviation Organization (ICAO);

5 that the use of the signals described above would not confer or imply recognition of any rights or duties of a State not party to an armed conflict or a party to the conflict, except as may be recognized by common agreement between the parties to the conflict and a non-party;

6 to encourage parties to a conflict to enter into such agreements,  
*requests the Secretary-General*

to communicate the contents of this Resolution to the International Maritime Organization, the International Civil Aviation Organization, the International Committee of the Red Cross, and the International Federation of Red Cross and Red Crescent Societies for such action as they may consider appropriate,

*requests ITU-R*

to recommend an appropriate signal in the digital selective calling system for use in the maritime mobile service and other appropriate information as necessary, in consultation with concerned organizations.

**SUP** COM4/211/20 (B3/224/33) (R2/266/22)

**RESOLUTION 21 (Rev.WRC-03)**

**Implementation of changes in frequency allocations  
between 5 900 kHz and 19 020 kHz**

**MOD** COM6/251/1 (B5/267/1) (R3/292/99)

**RESOLUTION 26 (Rev.WRC-07)**

**Footnotes to the Table of Frequency Allocations in  
Article 5 of the Radio Regulations**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

*a)* that footnotes are an integral part of the Table of Frequency Allocations in the Radio Regulations and, as such, form part of an international treaty text;

*b)* that footnotes to the Table of Frequency Allocations should be clear, concise and easy to understand;

*c)* that footnotes should relate directly to matters of frequency allocation;

*d)* that, in order to ensure that footnotes allow modification of the Table of Frequency Allocations without introducing unnecessary complications, principles relating to the use of footnotes are needed;

- e) that, currently, footnotes are adopted by competent world radiocommunication conferences and any addition, modification or deletion of a footnote is considered and adopted by the competent conference;
- f) that some problems concerning country footnotes may be resolved through the application of a special agreement envisaged by Article 6;
- g) that, in certain cases, administrations are confronted with major difficulties due to inconsistencies or omissions in footnotes;
- h) that, in order to keep the footnotes to the Table of Frequency Allocations up to date, there should be clear and effective guidelines for additions, modifications and deletions of footnotes,

*resolves*

- 1 that, wherever possible, footnotes to the Table of Frequency Allocations should be confined to altering, limiting or otherwise changing the relevant allocations rather than dealing with the operation of stations, assignment of frequencies or other matters;
- 2 that the Table of Frequency Allocations should include only those footnotes which have international implications for the use of the radio-frequency spectrum;
- 3 that new footnotes to the Table of Frequency Allocations should only be adopted in order to:
  - a) achieve flexibility in the Table of Frequency Allocations;
  - b) protect the relevant allocations in the body of the Table and in other footnotes in accordance with Section II of Article 5;
  - c) introduce either transitional or permanent restrictions on a new service to achieve compatibility; or
  - d) meet the specific requirements of a country or area when it is impracticable to satisfy such needs otherwise within the Table of Frequency Allocations;
- 4 that footnotes serving a common purpose should be in a common format, and, where possible, be grouped into a single footnote with appropriate references to the relevant frequency bands,

*further resolves*

- 1 that any addition of a new footnote or modification of an existing footnote should be considered by a world radiocommunication conference only when:
  - a) the agenda of that conference explicitly includes the frequency band to which the proposed additional or modified footnote relates; or
  - b) the frequency bands to which the desired additions or modifications of the footnote belong are considered during the conference and the conference decides to make a change in those bands; or
  - c) the addition or modification of footnotes is specifically included in the agenda of the conference as a result of the consideration of proposals submitted by one or more interested administration(s);
- 2 that recommended agendas for future world radiocommunication conferences should include a standing agenda item which would allow for the consideration of proposals by

administrations for deletion of country footnotes, or country names in footnotes, if no longer required;

3 that in cases not covered by *further resolves* 1 and 2, proposals for new footnotes or modification of existing footnotes could exceptionally be considered by a world radiocommunication conference if they concern corrections of obvious omissions, inconsistencies, ambiguities or editorial errors and have been submitted to ITU as stipulated in No. 40 of the General Rules of Conferences, Assemblies and Meetings of the Union (Antalya, 2006),

*urges administrations*

1 to review footnotes periodically and to propose the deletion of their country footnotes or of their country names from footnotes, as appropriate;

2 to take account of the *further resolves* above in making proposals to world radiocommunication conferences.

**MOD** COM6/206/1 (B2/213/1) (R1/221/6)

## RESOLUTION 27 (Rev.WRC-07)

### **Use of incorporation by reference in the Radio Regulations**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that the principles of incorporation by reference were adopted by WRC-95, revised by WRC-97 and further refined by WRC-2000 (see Annexes 1 and 2 to this Resolution);

b) that there are provisions in the Radio Regulations containing references which fail to distinguish adequately whether the status of the referenced text is mandatory or non-mandatory,

*noting*

that references to Resolutions or Recommendations of a world radiocommunication conference (WRC) require no special procedures, and are acceptable for consideration, since such texts will have been agreed by a WRC,

*resolves*

1 that for the purposes of the Radio Regulations, the term “incorporation by reference” shall only apply to those references intended to be mandatory;

2 that when considering the introduction of new cases of incorporation by reference, such incorporation shall be kept to a minimum and made by applying the following criteria:

- only texts which are relevant to a specific WRC agenda item may be considered;
- the correct method of reference shall be determined on the basis of the principles set out in Annex 1 to this Resolution;
- the guidance contained in Annex 2 to this Resolution shall be applied in order to ensure that the correct method of reference for the intended purpose is employed;

3 that the procedure described in Annex 3 to this Resolution shall be applied for approving the incorporation by reference of ITU-R Recommendations or parts thereof;

4 that existing references to ITU-R Recommendations shall be reviewed to clarify whether the reference is mandatory or non-mandatory in accordance with Annex 2 to this Resolution;

5 that ITU-R Recommendations, or parts thereof, incorporated by reference at the conclusion of each WRC shall be collated and published in a volume of the Radio Regulations (see Annex 3 to this Resolution),

*instructs the Director of the Radiocommunication Bureau*

1 to bring this Resolution to the attention of the Radiocommunication Assembly and the ITU-R Study Groups;

2 to identify the provisions and footnotes of the Radio Regulations containing references to ITU-R Recommendations and make suggestions on any further action to the second session of the Conference Preparatory Meeting (CPM) for its consideration, as well as for inclusion in the Director's Report to the next WRC;

3 to identify the provisions and footnotes of the Radio Regulations containing references to WRC Resolutions that contain references to ITU-R Recommendations, and make suggestions on any further action to the second session of the Conference Preparatory Meeting (CPM) for its consideration, as well as for inclusion in the Director's Report to the next WRC,

*invites administrations*

to submit proposals to future conferences, taking into account the CPM Report, in order to clarify the status of references, where ambiguities remain regarding the mandatory or non-mandatory status of the references in question, with a view to amending those references:

- i) that appear to be of a mandatory nature, identifying such references as being incorporated by reference by using clear linking language in accordance with Annex 2;
- ii) that are of a non-mandatory character, so as to refer to "the most recent version" of the Recommendations.

## ANNEX 1 TO RESOLUTION 27 (Rev.WRC-07)

### **Principles of incorporation by reference**

1 For the purposes of the Radio Regulations, the term "incorporation by reference" shall apply only to those references intended to be mandatory.

2 Where the relevant texts are brief, the referenced material should be placed in the body of the Radio Regulations rather than using incorporation by reference.

*2bis* Where a mandatory reference to an ITU-R Recommendation, or parts thereof, is included in the *resolves* of a WRC Resolution, which is itself cited in a provision or footnote of the Radio Regulations using mandatory language (i.e. "shall"), that ITU-R Recommendation or parts thereof shall also be considered as incorporated by reference.

3 Texts which are of a non-mandatory nature or which refer to other texts of a non-mandatory nature shall not be considered for incorporation by reference.

4 If, on a case-by-case basis, it is decided to incorporate material by reference on a mandatory basis, then the following provisions shall apply:

4.1 the text incorporated by reference shall have the same treaty status as the Radio Regulations themselves;

4.2 the reference must be explicit, specifying the specific part of the text (if appropriate) and the version or issue number;

4.3 the text incorporated by reference must be submitted for adoption by a competent WRC in accordance with *resolves* 3;

4.4 all texts incorporated by reference shall be published following a WRC, in accordance with *resolves 5*.

5 If, between WRCs, a text incorporated by reference (e.g. an ITU-R Recommendation) is updated, the reference in the Radio Regulations shall continue to apply to the earlier version incorporated by reference until such time as a competent WRC agrees to incorporate the new version. The mechanism for considering such a step is given in Resolution **28 (Rev.WRC-03)**.

#### ANNEX 2 TO RESOLUTION 27 (Rev.WRC-07)

##### **Application of incorporation by reference**

When introducing new cases of incorporation by reference in the provisions of the Radio Regulations or reviewing existing cases of incorporation by reference, administrations and ITU-R should address the following factors in order to ensure that the correct method of reference is employed for the intended purpose, according to whether each reference is mandatory (i.e. incorporated by reference), or non-mandatory:

##### **Mandatory references**

- 1 mandatory references shall use clear linking language, i.e. “shall”;
- 2 mandatory references shall be explicitly and specifically identified, e.g. “Recommendation ITU-R M.541-8”;
- 3 if the intended reference material is, as a whole, unsuitable as treaty-status text, the reference shall be limited to just those portions of the material in question which are of a suitable nature, e.g. “Annex A to Recommendation ITU-R Z.123-4”.

##### **Non-mandatory references**

4 Non-mandatory references or ambiguous references that are determined to be of a non-mandatory character (i.e. not incorporated by reference) shall use appropriate language, such as “should” or “may”. This appropriate language may refer to “the most recent version” of a Recommendation. Any appropriate language may be changed at any future WRC.

#### ANNEX 3 TO RESOLUTION 27 (Rev.WRC-07)

##### **Procedures applicable by WRC for approving the incorporation by reference of ITU-R Recommendations or parts thereof**

The referenced texts shall be made available to delegations in sufficient time for all administrations to consult them in the ITU languages. A single copy of the texts shall be made available to each administration as a conference document.

During the course of each WRC, a list of the texts incorporated by reference shall be developed and maintained by the committees. This list shall be published as a conference document in line with developments during the conference.

Following the end of each WRC, the Bureau and General Secretariat will update the volume of the Radio Regulations which serves as the repository of texts incorporated by reference in line with developments at the conference as recorded in the above-mentioned document.

**MOD** COM5/384/1 (B16/401/8)

**RESOLUTION 49 (Rev.WRC-07)**

**Administrative due diligence applicable to some satellite  
radiocommunication services**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a)* that Resolution 18 of the Plenipotentiary Conference (Kyoto, 1994) instructed the Director of the Radiocommunication Bureau to initiate a review of some important issues concerning international satellite network coordination and to make a preliminary report to WRC-95 and a final report to WRC-97;
- b)* that the Director of the Bureau provided a comprehensive report to WRC-97, including a number of recommendations for action as soon as possible and for identifying areas requiring further study;
- c)* that one of the recommendations in the Director's report to WRC-97 was that administrative due diligence should be adopted as a means of addressing the problem of reservation of orbit and spectrum capacity without actual use;
- d)* that experience may need to be gained in the application of the administrative due diligence procedures adopted by WRC-97, and that several years may be needed to see whether administrative due diligence measures produce satisfactory results;
- e)* that new regulatory approaches may need to be carefully considered in order to avoid adverse effects on networks already going through the different phases of the procedures;
- f)* that Article 44 of the Constitution sets out the basic principles for the use of the radio-frequency spectrum and the geostationary-satellite and other satellite orbits, taking into account the needs of developing countries,

*considering further*

- g)* that WRC-97 decided to reduce the regulatory time-frame for bringing a satellite network into use;
- h)* that WRC-2000 has considered the results of the implementation of the administrative due diligence procedures and prepared a report to the 2002 Plenipotentiary Conference in response to Resolution 85 (Minneapolis, 1998),

*resolves*

1 that 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 under No. **9.2B**, or for which the request for modifications of the Region 2 Plan under Article 4, § 4.2.1 *b)* of Appendices **30** and **30A** that involve the addition of new frequencies or orbit positions, or for which the request for modifications of the Region 2 Plan under Article 4, § 4.2.1 *a)* of Appendices **30** and **30A** that extend the service area to another country or countries in addition to the existing service area, or for which the request for additional uses in Regions 1 and 3 under § 4.1 of Article 4 of Appendices **30** and **30A**, or for which the submission of information under supplementary provisions applicable to additional uses in the planned bands as defined in Article 2 of Appendix **30B** (Section III of Article 6) has been received by the Bureau from 22 November 1997, or for which submission under Article 6 of Appendix **30B**

(**Rev.WRC-07**) is received on or after 17 November 2007, with the exception of submissions of new Member States seeking the acquisition of their respective national allotments<sup>1</sup> for inclusion in the Appendix **30B** Plan;

2 that for a satellite network or satellite system within the scope of § 1 or 3 of Annex 1 to this Resolution not yet recorded in the Master International Frequency Register (MIFR) by 22 November 1997, for which the advance publication information under No. **1042** of the Radio Regulations (edition of 1990, revised in 1994) or for the application of Section III of Article 6 of Appendix **30B** has been received by the Bureau before 22 November 1997, the responsible administration shall submit to the Bureau the complete due diligence information in accordance with Annex 2 to this Resolution not later than 21 November 2004, or before the expiry of the notified period for bringing the satellite network into use, plus any extension period which shall not exceed three years pursuant to the application of No. **1550** of the Radio Regulations (edition of 1990, revised in 1994) or the dates specified in the relevant provisions Article 6 of Appendix **30B**, whichever date comes earlier. If the date of bringing into use, including extension specified above, is before 1 July 1998, the responsible administration shall submit to the Bureau the complete due diligence information in accordance with Annex 2 to this Resolution not later than 1 July 1998;

*2bis* that for a satellite network or satellite system within the scope of § 2 of Annex 1 to this Resolution not recorded in the MIFR by 22 November 1997, for which the request for a modification to the Plans of Appendices **30** and **30A** has been received by the Bureau before 22 November 1997, the responsible administration shall submit to the Bureau the complete due diligence information in accordance with Annex 2 to this Resolution as early as possible before the end of the period established as a limit to bringing into use in accordance with the relevant provisions of Article 4 of Appendix **30** and the relevant provisions of Article 4 of Appendix **30A**;

3 that for a satellite network or satellite system within the scope of § 1, 2 or 3 of Annex 1 to this Resolution recorded in the MIFR by 22 November 1997, the responsible administration shall submit to the Bureau the complete due diligence information in accordance with Annex 2 to this Resolution not later than 21 November 2000, or before the notified date of bringing the satellite network into use (including any extension period), whichever date comes later;

4 that six months before the expiry date specified in *resolves 2* or *2bis* above, if the responsible administration has not submitted the due diligence information, the Bureau shall send a reminder to that administration;

5 that if the due diligence information is found to be incomplete, the Bureau shall immediately request the administration to submit the missing information. In any case, the complete due diligence information shall be received by the Bureau before the expiry date specified in *resolves 2* or *2bis* above, as appropriate, and shall be published by the Bureau in the International Frequency Information Circular (BR IFIC);

6 that if the complete due diligence information is not received by the Bureau before the expiry date specified in *resolves 2* or *2bis* above, the request for coordination or request for a modification to the Plans of Appendices **30** and **30A** or for application of Section III of Article 6 of Appendix **30B** as covered by *resolves 1* above submitted to the Bureau shall be cancelled. Any modifications of the Plans (Appendices **30** and **30A**) shall lapse and any recording in the MIFR as well as recordings in the Appendix **30B** List shall be deleted by the Bureau after it has informed the concerned administration. The Bureau shall publish this information in the BR IFIC,

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<sup>1</sup> See § 2.3 of Appendix **30B** (**Rev.WRC-07**).

*further resolves*

that the procedures in this Resolution are in addition to the provisions under Article **9** or **11** of the Radio Regulations or Appendices **30**, **30A** or **30B**, as applicable, and, in particular, do not affect the requirement to coordinate under those provisions (Appendices **30**, **30A**) in respect of extending the service area to another country or countries in addition to the existing service area,

*instructs the Director of the Radiocommunication Bureau*

to report to future competent world radiocommunication conferences on the results of the implementation of the administrative due diligence procedure.

#### ANNEX 1 TO RESOLUTION 49 (Rev.WRC-07)

1 Any satellite network or satellite system of the fixed-satellite service, mobile-satellite service or broadcasting-satellite service with frequency assignments that are subject to coordination under Nos. **9.7**, **9.11**, **9.12**, **9.12A** and **9.13** and Resolution **33 (Rev.WRC-03)** shall be subject to these procedures.

2 Any request for modifications of the Region 2 Plan under the relevant provisions of Article 4 of Appendices **30** and **30A** that involve the addition of new frequencies or orbit positions or for modifications of the Region 2 Plan under the relevant provisions of Article 4 of Appendices **30** and **30A** that extend the service area to another country or countries in addition to the existing service area or request for additional uses in Regions 1 and 3 under the relevant provisions of Article 4 of Appendices **30** and **30A** shall be subject to these procedures.

3 Any submission of information under Article 6 of Appendix **30B (Rev.WRC-07)**, with the exception of submissions of new Member States seeking the acquisition of their respective national allotments<sup>2</sup> for inclusion in the Appendix **30B** Plan, shall be subject to these procedures.

4 An administration requesting coordination for a satellite network under § 1 above shall send to the Bureau as early as possible before the end of the period established as a limit to bringing into use in No. **9.1**, the due diligence information relating to the identity of the satellite network and the spacecraft manufacturer specified in Annex 2 to this Resolution.

5 An administration requesting a modification of the Region 2 Plan or additional uses in Regions 1 and 3 under Appendices **30** and **30A** under § 2 above shall send to the Bureau as early as possible before the end of the period established as a limit to bringing into use in accordance with the relevant provisions of Article 4 of Appendix **30** and the relevant provisions of Article 4 of Appendix **30A**, the due diligence information relating to the identity of the satellite network and the spacecraft manufacturer specified in Annex 2 to this Resolution.

6 An administration applying Article 6 of Appendix **30B (Rev.WRC-07)** under § 3 above shall send to the Bureau as early as possible before the end of the period established as a limit to bringing into use in § 6.1 of that Article, the due diligence information relating to the identity of the satellite network and the spacecraft manufacturer specified in Annex 2 to this Resolution.

7 The information to be submitted in accordance with § 4, 5 or 6 above shall be signed by an authorized official of the notifying administration or of an administration that is acting on behalf of a group of named administrations.

8 On receipt of the due diligence information under § 4, 5 or 6 above, the Bureau shall promptly examine that information for completeness. If the information is found to be complete, the Bureau shall publish the complete information in a special section of the BR IFIC within 30 days.

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<sup>2</sup> See § 2.3 of Appendix **30B (Rev.WRC-07)**.

9 If the information is found to be incomplete, the Bureau shall immediately request the administration to submit the missing information. In all cases, the complete due diligence information shall be received by the Bureau within the appropriate time period specified in § 4, 5 or 6 above, as the case may be, relating to the date of bringing the satellite network into use.

10 Six months before expiry of the period specified in § 4, 5 or 6 above and if the administration responsible for the satellite network has not submitted the due diligence information under § 4, 5 or 6 above, the Bureau shall send a reminder to the responsible administration.

11 If the complete due diligence information is not received by the Bureau within the time limits specified in this Resolution, the networks covered by § 1, 2 or 3 above shall no longer be taken into account and shall not be recorded in the MIFR. The provisional recording in the MIFR shall be deleted by the Bureau after it has informed the concerned administration. The Bureau shall publish this information in the BR IFIC.

With respect to the request for modification of the Region 2 Plan or for additional uses in Regions 1 and 3 under Appendices **30** and **30A** under § 2 above, the modification shall lapse if the due diligence information is not submitted in accordance with this Resolution.

With respect to the request for application of Article 6 of Appendix **30B (Rev.WRC-07)** under § 3 above, the network shall also be deleted from the Appendix **30B** List. When an allotment under Appendix **30B** is converted into an assignment, the assignment shall be reinstated in the Plan in accordance with § 6.33 *c*) of Article 6 of Appendix **30B (Rev.WRC-07)**.

12 An administration notifying a satellite network under § 1, 2 or 3 above for recording in the MIFR shall send to the Bureau, as early as possible before the date of bringing into use, the due diligence information relating to the identity of the satellite network and the launch services provider specified in Annex 2 to this Resolution.

13 When an administration has completely fulfilled the due diligence procedure but has not completed coordination, this does not preclude the application of No. **11.41** by that administration.

## ANNEX 2 TO RESOLUTION 49 (Rev.WRC-07)

### **A Identity of the satellite network**

- a)* Identity of the satellite network
- b)* Name of the administration
- c)* Country symbol
- d)* Reference to the advance publication information or to the request for modification of the Region 2 Plan or for additional uses in Regions 1 and 3 under Appendices **30** and **30A**; or reference to the information processed under Article 6 of Appendix **30B (Rev.WRC-07)**
- e)* Reference to the request for coordination (not applicable for Appendices **30**, **30A** and **30B**)
- f)* Frequency band(s)
- g)* Name of the operator
- h)* Name of the satellite
- i)* Orbital characteristics.

**B       Spacecraft manufacturer\***

- a) Name of the spacecraft manufacturer
- b) Date of execution of the contract
- c) Contractual “delivery window”
- d) Number of satellites procured.

**C       Launch services provider**

- a) Name of the launch vehicle provider
- b) Date of execution of the contract
- c) Launch or in-orbit delivery window
- d) Name of the launch vehicle
- e) Name and location of the launch facility.

**MOD**    COM5/307/31   (B11/329/38) (R6/410/69)

**RESOLUTION 55 (Rev.WRC-07)**

**Electronic submission of notice forms for satellite networks, earth stations and radio astronomy stations**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

that submission of notices for all satellite networks, earth stations and radio astronomy stations in electronic format would further facilitate the tasks of the Radiocommunication Bureau and of administrations, and would accelerate the processing of these notices,

*recognizing*

that, should the processing delays related to the coordination and notification procedures extend beyond the periods specified in Articles **9** and **11** as well as in Appendices **30**, **30A** and **30B**, administrations may be faced with a shortened time window in which to effect coordination,

*resolves*

1           that, as from 3 June 2000, all notices (AP4/II and AP4/III), radio astronomy notices (AP4/IV) and API (AP4/V and AP4/VI) and due diligence information (Resolution **49 (WRC-07)**) for satellite networks and earth stations submitted to the Radiocommunication Bureau pursuant to Articles **9** and **11** shall be submitted in electronic format which is compatible with the BR electronic notice form capture software (SpaceCap);

2           that, as from 17 November 2007, all notices for satellite networks, earth stations and radio astronomy stations submitted to the Radiocommunication Bureau pursuant to Articles **9** and **11**, as well as Appendices **30** and **30A** and Resolution **49 (WRC-07)**, shall be submitted in electronic format which is compatible with the BR electronic notice form capture software (SpaceCap and SpaceCom);

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\* NOTE – In cases where a contract for satellite procurement covers more than one satellite, the relevant information shall be submitted for each satellite.

3 that, as from 1 June 2008, all notices for satellite networks and earth stations submitted to the Radiocommunication Bureau pursuant to Appendix **30B** shall be submitted in electronic format which is compatible with the BR electronic notice form capture software (SpaceCap);

4 that, since 3 June 2000, all graphical data associated with the submissions addressed in *resolves* 1, 2 and 3 should be submitted in graphics data format which is compatible with the Bureau's data capture software (graphical interference management system (GIMS)); submission of graphics in paper form, however, continues to be accepted,

*instructs the Radiocommunication Bureau*

1 to make available coordination requests and notifications referred to in *resolves* 1, "as received", on its BR International Frequency Information Circular CD-ROM, within 30 days of receipt, and also on its website;

2 to provide administrations with the latest versions of the capture and validation software and any necessary technical means, training and manuals, along with any assistance requested by administrations to enable them to comply with *resolves* 1 to 4 above;

3 to integrate the validation software with the capture software to the extent practicable,  
*urges administrations*

to submit, as soon as practicable, the graphical data relating to their notices in a format compatible with the Bureau's graphic data capture software.

**MOD** COM6/269/1 (B7/283/7) (R5/336/2)

### RESOLUTION 63 (Rev.WRC-07)

#### **Protection of radiocommunication services against interference caused by radiation from industrial, scientific and medical (ISM) equipment**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that ISM applications are defined under RR 1.15 as "operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of *telecommunications*";

b) that ISM equipment may be situated in locations where outward radiation cannot always be avoided;

c) that there is an increasing amount of ISM equipment working on various frequencies throughout the spectrum;

d) that in some cases a considerable part of the energy may be radiated by ISM equipment outside its working frequency;

e) that Recommendation ITU-R SM.1056 recommends to administrations the use of International Special Committee on Radio Interference (CISPR) Publication 11 as a guide for ISM equipment to protect radiocommunication services, but that CISPR 11 does not yet fully specify radiation limits for all frequency bands;

f) that some radio services, especially those using low field strengths, may suffer interference caused by radiation from ISM equipment, a risk which is unacceptable particularly in the case of radionavigation or other safety services;

- g) that, in order to limit the risks of interference to specified parts of the spectrum:
- the preceding Radio Conferences of Atlantic City, 1947, and Geneva, 1959, designated some frequency bands within which the radiocommunication services must accept harmful interference produced by ISM equipment;
  - WARC-79 accepted an increase in the number of bands to be designated for ISM equipment, but only on the condition that limits of radiation from such equipment be specified within the bands newly designated for worldwide use and outside all the bands designated for ISM equipment,

*resolves*

that, to ensure that radiocommunication services are adequately protected, studies are required on the limits to be imposed on the radiation from ISM equipment within the frequency bands designated in the Radio Regulations for this use and outside of those bands,

*invites ITU-R*

to continue, in collaboration with CISPR, its studies relating to radiation from ISM equipment within the frequency bands designated in the Radio Regulations for this use and outside of those bands in order to ensure adequate protection of radiocommunication services, with priority being given to the completion of studies which would permit CISPR to define limits in Publication CISPR 11 on radiation from ISM equipment inside all the bands designated in the Radio Regulations for the use of such equipment,

*instructs the Director of the Radiocommunication Bureau*

- 1 to bring this Resolution to the attention of CISPR;
- 2 to provide the results of these studies to WRC-11 for its consideration.

**MOD** COM6/208/1 (B2/213/2) (R1/221/7)

## RESOLUTION 72 (Rev.WRC-07)

### **World and regional preparations for world radiocommunication conferences**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that many regional telecommunication organizations continue to coordinate their preparations for WRCs;
- b) that many common proposals have been submitted to this Conference from administrations participating in the preparations of regional telecommunication organizations;
- c) that this consolidation of views at regional level, together with the opportunity for interregional discussions prior to the Conference, has eased the task of reaching a common understanding and saved time during past WRCs;
- d) that the burden of preparation for future conferences is likely to increase;
- e) that there is consequently great benefit to the Member States of coordination of preparations at world level and at regional level;
- f) that the success of future conferences will depend on greater efficiency of regional coordination and interaction at interregional level prior to future conferences, including possible face-to-face meetings between regional groups;

g) that there is a need for overall coordination of the interregional consultations,  
*recognizing*

a) *resolves* 2 of Resolution 80 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference:  
“to support the regional harmonization of common proposals, as stated in Resolution 72 (WRC-97),  
for submission to world radiocommunication conferences”;

b) *resolves* 3 of Resolution 80 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference:  
“to encourage both formal and informal collaboration in the interval between conferences with a  
view to resolving differences on items already on the agenda of a conference or new items”,  
*noting*

that the plenipotentiary conferences have resolved that the Union should continue to develop  
stronger relations with regional telecommunication organizations,

*resolves*

to invite the regional groups to continue their preparations for WRCs, including the possible  
convening of joint meetings of regional groups formally and informally,

*further resolves to instruct the Director of the Radiocommunication Bureau*

1 to continue consulting the regional telecommunication organizations on the means by  
which assistance can be given to their preparations for future world radiocommunication  
conferences in the following areas:

- organization of regional preparatory meetings;
- organization of information sessions, preferably before and after the second session of  
the Conference Preparatory Meeting (CPM);
- identification of major issues to be resolved by the future world radiocommunication  
conference;
- facilitation of regional and interregional formal and informal meetings, with the  
objective of reaching a possible convergence of interregional views on major issues;

2 pursuant to Resolution ITU-R 2-5 of the Radiocommunication Assembly on the CPM,  
to assist in ensuring that overview presentations of the chapters of the CPM Report will be made by  
the CPM management at an early stage in the CPM session, as part of the regularly scheduled  
meetings, in order to help all participants understand the contents of the CPM Report;

3 to submit a report on the results of such consultations to the next WRC,  
*invites the Director of the Telecommunication Development Bureau*

to collaborate with the Director of the Radiocommunication Bureau in implementing this  
Resolution.

**MOD** COM6/301/1 (B10/326/17) (R6/410/70)

**RESOLUTION 80 (Rev.WRC-07)**

### **Due diligence in applying the principles embodied in the Constitution**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that Articles 12 and 44 of the Constitution lay down the basic principles for the use of the radio-frequency spectrum and the geostationary-satellite and other satellite orbits;
- b) that those principles have been included in the Radio Regulations;
- c) that Article I of the Agreement between the United Nations and the International Telecommunication Union provides that “the United Nations recognizes the International Telecommunication Union (hereinafter called “the Union”) as the specialized agency responsible for taking such action as may be appropriate under its basic instrument for the accomplishment of the purposes set forth therein”;
- d) that, in accordance with Nos. **11.30**, **11.31** and **11.31.2**, notices shall be examined with respect to the provisions of the Radio Regulations, including the provision relating to the basic principles, appropriate rules of procedure being developed for the purpose;
- e) that WRC-97 instructed the Radio Regulations Board (RRB) to develop, within the framework of Nos. **11.30**, **11.31** and **11.31.2**, rules of procedure to be followed in order to be in compliance with the principles in No. **0.3** of the Preamble to the Radio Regulations;
- f) that the Board, in accordance with Resolution **80 (WRC-97)**, submitted a report to WRC-2000 suggesting possible solutions and stating that, after examining the Radio Regulations, it had concluded that there are no provisions currently in the Radio Regulations that link the formal notification or coordination procedures with the principles stated in No. **0.3** of the Preamble to the Radio Regulations;
- g) that the Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space of the United Nations General Assembly has drawn up recommendations in this respect,

*noting*

- a) that, in accordance with the provisions of No. 127 of the Convention, the Conference may give instructions to the Sectors of the Union;
- b) that, according to No. 160C of the Convention, the Radiocommunication Advisory Group (RAG) shall review any matter as directed by a conference;
- c) the RRB report to WRC-2000 (see Annex 1);
- d) the RRB report to WRC-03 (see Annex 2);
- e) that some of the issues identified in the report referred to in *noting c)* have been resolved before WRC-07,

*resolves*

- 1 to instruct the Radiocommunication Sector, in accordance with No. 1 of Article 12 of the Constitution, to carry out studies on procedures for measurement and analysis of the application of the basic principles contained in Article 44 of the Constitution;
- 2 to instruct the RRB to consider and review possible draft recommendations and draft provisions linking the formal notification, coordination and registration procedures with the principles contained in Article 44 of the Constitution and No. **0.3** of the Preamble to the Radio Regulations, and to report to each future World Radiocommunication Conference with regard to this Resolution;
- 3 to instruct the Director of the Radiocommunication Bureau to submit to each future World Radiocommunication Conference a detailed progress report on the action taken on this Resolution,

*invites*

1 the other organs of the Radiocommunication Sector, in particular the RAG, to make relevant contributions to the Director of the Radiocommunication Bureau for inclusion in his report to each future World Radiocommunication Conference;

2 administrations to contribute to the studies referred to in *resolves* 1 and to the work of the RRB as detailed in *resolves* 2.

#### ANNEX 1 TO RESOLUTION 80 (Rev.WRC-07)

##### **RRB Report to WRC-2000**

In the RRB Report to WRC-2000<sup>1</sup>, several members of the Board noted some difficulties likely to be experienced by administrations, particularly administrations of developing countries, as follows:

- the “first-come first-served” concept restricts and sometimes prevents access to and use of certain frequency bands and orbit positions;
- a relative disadvantage for developing countries in coordination negotiations due to various reasons such as a lack of resources and expertise;
- perceived differences in consistency of application of the Radio Regulations;
- the submitting of “paper” satellites that restricts access options;
- the growing use of the bands of the Plans of Appendices **30** and **30A** by regional, multichannel systems, which may modify the main purpose of these Plans to provide equitable access to all countries;
- the considerable processing delays in the Radiocommunication Bureau are due to the very complex procedures required and the large number of filings submitted; these delays contribute to a coordination backlog of 18 months which could extend to three years and creates uncertain regulatory situations, additional delay in the coordination process that cannot be overcome by administrations, and the possible loss of the assignment because the allotted time is exceeded;
- satellite systems may already be in orbit before completion of coordination;
- statutory time-frames, such as those in No. **11.48**, may often be insufficient for developing countries to be able to complete the regulatory requirements as well as the design, construction and launch of satellite systems;
- no provisions for international monitoring to confirm the bringing into use of satellite networks (assignments and orbits).

#### ANNEX 2 TO RESOLUTION 80 (Rev.WRC-07)

##### **RRB Report to WRC-03**

In the RRB Report to WRC-03<sup>2</sup>, concepts to satisfy *resolves* 2 of Resolution **80 (WRC-2000)** were provided, as follows:

- special measures for countries submitting their first satellite filing:

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<sup>1</sup> This Report can be found in Document 29 to WRC-2000.

<sup>2</sup> This Report can be found in Addendum 5 to Document 4 to WRC-03.

- on an exceptional basis, special consideration could be given to countries submitting their first filing for a satellite system, taking into account the special needs of developing countries;
- such consideration should take into account the following:
  - impact on other administrations;
  - satellite service of the system (i.e. FSS, MSS, BSS);
  - frequency band covered by the filing;
  - system is intended to meet the direct needs of the country(s) concerned;
- extension of the regulatory time-limit for bringing into use:
  - conditions could be specified under which extensions might be granted on an exceptional basis to developing countries when they are not able to complete the regulatory date requirements, so that sufficient time for design, construction and launch of satellite systems is made available;
  - the conditions created under the previous paragraph should be included in the Radio Regulations as provisions that would allow the Radiocommunication Bureau to grant the extension.

**MOD** PLEN/422/1

## RESOLUTION 86 (Rev.WRC-07)

### **Implementation of Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

*a)* that the Plenipotentiary Conference (Marrakesh, 2002) discussed the application of Resolution 86 (Minneapolis, 1998) and decided to request WRC-03 to determine the scope and criteria to be used by future world radiocommunication conferences (WRCs) in the application of Resolution 86 (Rev. Marrakesh, 2002);

*b)* that the Plenipotentiary Conference (Antalya, 2006) invited WRC-07 to consider Resolution 86 (Marrakesh, 2002) and to report the results to the 2010 Plenipotentiary Conference,

*recognizing*

that the Radio Regulations Board makes suggestions to transform the content of the Rules of Procedure into a regulatory text in accordance with Nos. **13.0.1** and **13.0.2** of Article **13** of the Radio Regulations,

*noting*

that administrations may also wish to make proposals to transform the content of the Rules of Procedure into a regulatory text for possible inclusion in the Radio Regulations,

*resolves to invite future world radiocommunication conferences*

1 to consider any proposals which deal with deficiencies and improvements in the advance publication, coordination, notification and recording procedures of the Radio Regulations for frequency assignments pertaining to space services which have either been identified by the

Board and included in the Rules of Procedure or which have been identified by administrations or by the Radiocommunication Bureau, as appropriate;

2 to ensure that these procedures, and the related appendices of the Radio Regulations reflect the latest technologies, as far as possible,

*invites administrations*

to consider, in preparing for PP-10, appropriate action with regard to Resolution 86 (Rev. Marrakesh, 2002).

**MOD** COM6/209/1 (B2/213/3) (R1/221/8)

### RESOLUTION 95 (Rev.WRC-07)

#### **General review of the Resolutions and Recommendations of world administrative radio conferences and world radiocommunication conferences**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that it is important to keep the Resolutions and Recommendations of past world administrative radio conferences and world radiocommunication conferences under constant review, in order to keep them up to date;

b) that the reports of the Director of the Radiocommunication Bureau submitted to previous conferences provided a useful basis for a general review of the Resolutions and Recommendations of past conferences;

c) that some principles and guidelines are necessary for future conferences to treat the Resolutions and Recommendations of previous conferences which are not related to the agenda of the Conference,

*resolves to invite future competent world radiocommunication conferences*

1 to review the Resolutions and Recommendations of previous conferences that are related to the agenda of the Conference with a view to their possible revision, replacement or abrogation and to take appropriate action;

2 to review the Resolutions and Recommendations of previous conferences that are not related to any agenda item of the Conference with a view to:

- abrogating those Resolutions and Recommendations that have served their purpose or have become no longer necessary;
- reviewing the need for those Resolutions and Recommendations, or parts thereof, requesting ITU-R studies on which no progress has been made during the last two periods between conferences;
- updating and modifying Resolutions and Recommendations, or parts thereof that have become out of date, and to correct obvious omissions, inconsistencies, ambiguities or editorial errors and effect any necessary alignment;

3 at the beginning of the conference, to determine which committee within the conference has the primary responsibility to review each of the Resolutions and Recommendations referred to in *resolves* 1 and 2 above,

*instructs the Director of the Radiocommunication Bureau*

1 to conduct a general review of the Resolutions and Recommendations of previous conferences and, after consultation with the Radiocommunication Advisory Group and the Chairmen and Vice-Chairmen of the Radiocommunication Study Groups, submit a report to the second session of the Conference Preparatory Meeting (CPM) in respect of *resolves 1 and resolves 2*, including an indication of any associated agenda items;

2 to include in the above report, with the cooperation of the chairmen of the Radiocommunication Study Groups, the progress reports of ITU-R studies on the issues which have been requested by the Resolutions and Recommendations of previous conferences, but which are not placed on the agendas of the forthcoming two conferences,

*invites administrations*

to submit contributions on the implementation of this Resolution to CPM,

*invites the Conference Preparatory Meeting*

to include, in its Report, the results of the general review of the Resolutions and Recommendations of previous conferences, based on the contributions by administrations to CPM, in order to facilitate the follow-up by future WRCs.

**ADD** COM6/406/1

## RESOLUTION 97 (WRC-07)

### **Provisional application of certain provisions of the Radio Regulations as revised by WRC-07 and abrogation of certain resolutions and recommendations**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that this conference has adopted a partial revision to the Radio Regulations (RR) in accordance with its terms of reference which will enter into force on 1 January 2009;
- b) that some of the provisions, as amended by this conference, need to apply provisionally as of an earlier date;
- c) that as a general rule, new and revised resolutions and recommendations enter into force at the time of signing of the Final Acts of a conference;
- d) that as a general rule, resolutions and recommendations which a WRC has decided to suppress are abrogated at the time of the signing of the Final Acts of the conference,

*resolves*

1 that, as of 17 November 2007, the following provisions of the RR, as revised or established by this conference, shall provisionally apply: No. **5.4B06** and the associated allocation in the Table of Article **5** to the aeronautical mobile (R) service in the band 960-1 164 MHz, Nos, **5.328B** and **5.329A** and the associated allocations in the Table of Article **5** to the radionavigation-satellite service, Nos. **5.379B** and the associated allocations in the Table of Article **5** to the mobile-satellite service, No. **5.517** and the associated allocations in the Table of Article **5** to the broadcasting-satellite and to the fixed-satellite services, No. **5.538** and the associated allocations in the Table of Article **5** to the fixed-satellite service, **5.BA01** and the associated allocations in the Table of Article **5** to the Earth exploration-satellite (passive), fixed and mobile services, **5.BA02** and the associated allocations in the Table of Article **5** to the Earth exploration-satellite (passive),

fixed and mobile services, **5.BA03** and the associated allocations in the Table of Article **5** to the fixed and to the fixed-satellite services, **5.403** and the associated allocations in the Table of Article **5** to the mobile-satellite, except aeronautical mobile-satellite service, **5.414** and the associated allocations in the Table of Article **5** to the mobile-satellite service, **5.415** and the associated allocations in the Table of Article **5** to the fixed-satellite service, **5.416** and the associated allocations in the Table of Article **5** to the broadcasting-satellite service, **5.418** and the associated allocations in the Table of Article **5** to the broadcasting-satellite and the broadcasting services, **5.419** and the associated allocations in the Table of Article **5** to the mobile-satellite service, **5.420** and the associated allocations in the Table of Article **5** to the mobile-satellite service except aeronautical mobile-satellite service, **5.420A** and the associated allocations in the Table of Article **5** to the aeronautical mobile-satellite service, **5.4A01 and the associated allocations in the Table of Article 5, 9.2B.1, 9.14, 9.38.1, 9.41** of Article **9**, **A.11.6, 11.15, 11.43A, 11.46, 11.47** of Article **11**, **21.16.19, 21.16.x, 21.16.y**, Table **21-2**, Table **21-4**, No. **22.2**, Annex 2 to Appendix **4**, Tables 5-1 and 5-2 of Appendix **5**, Table 10 of Appendix **7**, Appendix **30**, Appendix **30A**, Appendix **30B**, Appendix **42**;

2 that, as of 17 November 2007, No. **5.518**, which is suppressed by this conference, shall be abrogated;

3 that, as of 1 February 2009, No. **5.199**, which is suppressed by this conference, shall be abrogated;

*further resolves*

1 to abrogate the following resolutions as of 17 November 2007:

Resolution <b>21 (Rev.WRC-03)</b> ,	Resolution <b>415 (WRC-03)</b> ,
Resolution <b>56 (Rev.WRC-03)</b> ,	Resolution <b>527 (WARC-92)</b> ,
Resolution <b>57 (WRC-2000)</b> ,	Resolution <b>544 (WRC-03)</b> ,
Resolution <b>79 (WRC-2000)</b> ,	Resolution <b>545 (WRC-03)</b> ,
Resolution <b>87 (WRC-03)</b> ,	Resolution <b>670 (WRC-03)</b> ,
Resolution <b>88 (WRC-03)</b> ,	Resolution <b>728 (Rev.WRC-2000)</b> ,
Resolution <b>89 (WRC-03)</b> ,	Resolution <b>738 (WRC-03)</b> ,
Resolution <b>96 (WRC-03)</b> ,	Resolution <b>740 (WRC-03)</b> ,
Resolution <b>105 (Orb-88)</b> ,	Resolution <b>742 (WRC-03)</b> ,
Resolution <b>132 (WRC-97)</b> ,	Resolution <b>745 (WRC-03)</b> ,
Resolution <b>139 (WRC-2000)</b> ,	Resolution <b>746 (WRC-03)</b> ,
Resolution <b>141 (WRC-03)</b> ,	Resolution <b>747 (WRC-03)</b> ,
Resolution <b>146 (WRC-03)</b> ,	Resolution <b>802 (WRC-03)</b> ,
Resolution <b>228 (Rev.WRC-03)</b> ,	Resolution <b>803 (WRC-03)</b> ,
Resolution <b>230 (WRC-03)</b> ,	Resolution <b>952 (WRC-03)</b>
Resolution <b>340 (WRC-97)</b> ,	
Resolution <b>353 (WRC-03)</b> ,	
Resolution <b>414 (WRC-03)</b> ,	

2 to abrogate the following recommendations as of 17 November 2007:

Recommendation <b>14 (Mob-87)</b> ,	Recommendation <b>606 (Mob-87)</b> ,
Recommendation <b>318 (Mob-87)</b> ,	Recommendation <b>705</b> ,
Recommendation <b>517 (Rev.WRC-03)</b> ,	Recommendation <b>722 (WRC-03)</b> ,
Recommendation <b>604 (Rev.Mob-87)</b> ,	Recommendation <b>723 (WRC-03)</b> ,
Recommendation <b>605 (Rev.Mob-87)</b> ,	Recommendation <b>800 (WRC-03)</b> ;

3 to abrogate Resolution **51 (Rev.WRC-2000)** as of 1 January 2010.

**MOD** COM5/284/6 (B8/293/13) (R5/336/3)

**RESOLUTION 122 (Rev.WRC-07)**

**Use of the bands 47.2-47.5 GHz and 47.9-48.2 GHz by high altitude platform stations in the fixed service and by other services**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the band 47.2-50.2 GHz is allocated to the fixed, mobile and fixed-satellite services on a co-primary basis;
- b) that WRC-97 made provision for operation of high altitude platform stations (HAPS), also known as stratospheric repeaters, within the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz;
- c) that establishing a stable technical and regulatory environment will promote the use of all co-primary services in the band 47.2-47.5 GHz and 47.9-48.2 GHz;
- d) that systems using HAPS are in an advanced stage of development and some countries have notified such systems to ITU in the bands 47.2-47.5 GHz and 47.9-48.2 GHz;
- e) that Recommendation ITU-R F.1500 contains the characteristics of systems in the fixed service using HAPS in the bands 47.2-47.5 GHz and 47.9-48.2 GHz;
- f) that while the decision to deploy HAPS can be taken on a national basis, such deployment may affect neighbouring administrations and operators of co-primary services;
- g) that ITU-R has completed studies dealing with sharing between systems using HAPS in the fixed service and other types of systems in the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz;
- h) that ITU-R has completed studies on compatibility between HAPS systems in the 47.2-47.5 GHz and 47.9-48.2 GHz bands and the radio astronomy service in the 48.94-49.04 GHz band;
- i) that No. **5.552** urges administrations to take all practicable steps to reserve fixed-satellite service (FSS) use of the band 47.2-49.2 GHz for feeder links for the broadcasting-satellite service (BSS) operating in the band 40.5-42.5 GHz, and that ITU-R studies indicate that HAPS in the fixed service may share with such feeder links;
- j) that the technical characteristics of expected BSS feeder links and FSS gateway-type stations are similar;
- k) that ITU-R has completed studies dealing with sharing between systems using HAPS in the fixed service and the fixed-satellite service,

*recognizing*

- a) that, in the long term, the bands 47.2-47.5 GHz and 47.9-48.2 GHz are expected to be required for HAPS operations for both gateway and ubiquitous terminal applications, for which several administrations have already notified systems to the Radiocommunication Bureau;
- b) that identification of common sub-bands for ubiquitous ground terminal applications in the use of the fixed service could facilitate HAPS deployment and sharing with other primary services in the 47.2-47.5 GHz and 47.9-48.2 GHz bands;

c) that Recommendation ITU-R SF.1481-1 and Recommendation ITU-R SF.1843 provide information on the feasibility of HAPS systems in the fixed service sharing with the FSS;

d) that ITU-R studies on HAPS operation in the bands 47.2-47.5 GHz and 47.9-48.2 GHz allocated to the fixed service have concluded that, in order to share with FSS (Earth-to-space), the maximum uplink transmit e.i.r.p. density of HAPS ground terminals in the bands should, in clear-sky conditions, be 6.4 dB(W/MHz) for Urban Area Coverage (UAC), 22.57 dB(W/MHz) for Suburban Area Coverage (SAC) and 28 dB(W/MHz) for Rural Area Coverage (RAC), and that these values can be increased by up to 5 dB during periods of rain;

e) that ITU-R studies have established specific power flux-density values to be met at international borders to facilitate bilateral agreement on sharing conditions for HAPS with other types of fixed service systems in a neighbouring country;

f) that FSS satellite networks and systems with earth station antenna diameters of 2.5 metres or larger operating as a gateway-type station are capable of sharing with ubiquitous HAPS terminals,

*resolves*

1 that to facilitate sharing with the FSS (Earth-to-space), the maximum transmit e.i.r.p. density of a ubiquitous HAPS ground terminal shall not exceed the following levels under clear-sky conditions:

6.4 dB(W/MHz)	for UAC	(30° < θ ≤ 90°)
22.57 dB(W/MHz)	for SAC	(15° < θ ≤ 30°)
28 dB(W/MHz)	for RAC	(5° < θ ≤ 15°)

where θ is the ground terminal elevation angle in degrees;

2 that the maximum transmit e.i.r.p. density levels specified in *resolves* 1 may be increased, using fading compensation techniques, by up to 5 dB during periods of rain;

3 that the ground terminal antenna patterns of HAPS operating in the bands 47.2-47.5 GHz and 47.9-48.2 GHz shall meet the following antenna beam patterns:

$$G(\varphi) = G_{max} - 2.5 \times 10^{-3} \left( \frac{D}{\lambda} \varphi \right)^2 \quad \text{for } 0^\circ < \varphi < \varphi_m$$

$$G(\varphi) = 39 - 5 \log(D/\lambda) - 25 \log \varphi \quad \text{for } \varphi_m \leq \varphi < 48^\circ$$

$$G(\varphi) = -3 - 5 \log(D/\lambda) \quad \text{for } 48^\circ \leq \varphi \leq 180^\circ$$

where:

$G_{max}$ : maximum antenna gain (dBi)

$G(\varphi)$ : gain (dBi) relative to an isotropic antenna

$\varphi$ : off-axis angle (degrees)

$D$ : antenna diameter }  
 $\lambda$ : wavelength } expressed in the same units

$$\varphi_m = \frac{20 \lambda}{D} \sqrt{G_{max} - G_1} \quad \text{degrees}$$

$G_1$ : gain of the first side lobe

$$= 2 + 15 \log (D/\lambda) \text{ (dBi)};$$

4 that for the purpose of protecting fixed wireless systems in neighbouring administrations from co-channel interference, a HAPS system operating in the frequency bands 47.2-47.5 GHz and 47.9-48.2 GHz shall not exceed the following power flux-density values at the Earth's surface at an administration's border, unless explicit agreement of the affected administration is provided at the time of the notification of HAPS:

-141	dB(W/(m <sup>2</sup> · MHz))	for	0° ≤ δ < 3°
-141 + 2(δ - 3)	dB(W/(m <sup>2</sup> · MHz))	for	3° ≤ δ ≤ 13°
-121	dB(W/(m <sup>2</sup> · MHz))	for	13° < δ ≤ 90°

where δ is the angle of the arrival above the horizontal plane in degrees;

5 that, to protect radio astronomy stations operating in the band 48.94-49.04 GHz from unwanted emissions of HAPS operating in the 47.2-47.5 GHz and 47.9-48.2 GHz bands, the separation distance between the radio astronomy station and the nadir of a HAPS platform shall exceed 50 km;

6 that administrations planning to implement a HAPS system in the 47.2-47.5 GHz and 47.9-48.2 GHz bands shall notify the frequency assignments by submitting all mandatory elements of Appendix 4 to the Bureau for the examination of compliance with respect to *resolves* 1, 2, 3, 4 and 5 above with a view to their registration in the Master International Frequency Register;

7 that administrations shall notify the new data elements for the notices referred to in *instructs the Director of the Radiocommunication Bureau* 1 in order to enable the Bureau to perform the examinations,

*invites administrations*

that intend to deploy HAPS systems in the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz to consider specifying the use of the bands 47.2-47.35 GHz and 47.9-48.05 GHz for ubiquitous HAPS terminals,

*instructs the Director of the Radiocommunication Bureau*

1 to maintain and process notices concerning HAPS that were received by the Bureau prior to 20 October 2007 and provisionally recorded in the Master International Frequency Register, only until 1 January 2012, unless the notifying administration informs the Bureau before that date that a particular assignment has been brought into use and provides the complete set of data elements of Appendix 4;

2 to examine all assignments to HAPS in the fixed service notified prior to 20 October 2007 and apply the provisions of *resolves* 1, 2, 3, 4 and 5 and the respective calculation methodologies included in Recommendation ITU-R F.1820 and Recommendation ITU-R SF.1843.

**MOD** COM6/269/2 (B7/283/8) (R5/336/4)

**RESOLUTION 143 (Rev.WRC-07)**

**Guidelines for the implementation of high-density applications in the fixed-satellite service in frequency bands identified for these applications**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that demand has been increasing steadily for global broadband communication services throughout the world, such as those provided by high-density applications in the fixed-satellite service (HDFSS);
- b) that HDFSS systems are characterized by flexible, rapid and ubiquitous deployment of large numbers of cost-optimized earth stations employing small antennas and having common technical characteristics;
- c) that HDFSS is an advanced broadband communication application concept that will provide access to a wide range of broadband telecommunication applications supported by fixed telecommunication networks (including the Internet), and thus will complement other telecommunication systems;
- d) that, as with other FSS systems, HDFSS offers great potential to establish telecommunication infrastructure rapidly;
- e) that HDFSS applications can be provided by satellites of any orbital type;
- f) that interference mitigation techniques have been and continue to be studied in ITU-R to facilitate sharing between HDFSS earth stations and terrestrial services;
- g) that to date, studies have not concluded on the practicability of implementation of interference mitigation techniques for all HDFSS earth stations,

*noting*

- a) that No. **5.516B** identifies bands for HDFSS;
- b) that, in some of these bands, the FSS allocations are co-primary with fixed and mobile service allocations as well as other services;
- c) that this identification does not preclude the use of these bands by other services or by other FSS applications, and does not establish priority in these Radio Regulations among users of the bands;
- d) that, in the band 18.6-18.8 GHz, the FSS allocation is co-primary with the Earth exploration-satellite service (EESS) (passive) with the restrictions of Nos. **5.522A** and **5.522B**;
- e) that radio astronomy observations are carried out in the 48.94-49.04 GHz band, and that such observations require protection at notified radio astronomy stations;
- f) that co-frequency sharing between transmitting HDFSS earth stations and terrestrial services is difficult in the same geographical area;
- g) that co-frequency sharing between receiving HDFSS earth stations and terrestrial stations in the same geographical area may be facilitated through the implementation of interference mitigation techniques, if practicable;
- h) that many FSS systems with other types of earth stations and characteristics have already been brought into use or are planned to be brought into use in some of the frequency bands identified for HDFSS in No. **5.516B**;
- i) that HDFSS stations in these bands are expected to be deployed in large numbers over urban, suburban and rural areas of large geographical extent;
- j) that the 50.2-50.4 GHz band, adjacent to the band 48.2-50.2 GHz (Earth-to-space) identified for HDFSS in Region 2, is allocated to the EESS (passive),

*recognizing*

- a) that in cases where FSS earth stations use bands that are shared on a co-primary basis with terrestrial services, the Radio Regulations stipulate that earth stations of the FSS shall be individually notified to the Bureau when their coordination contours extend into the territory of another administration;
- b) that, as a consequence of their general characteristics, it is expected that the coordination of HDFSS earth stations with fixed service stations on an individual site-by-site basis between administrations will be a difficult and long process;
- c) that, to minimize the burden for administrations, simplified coordination procedures and provisions can be agreed by administrations for large numbers of similar HDFSS earth stations associated with a given satellite system;
- d) that harmonized worldwide bands for HDFSS would facilitate the implementation of HDFSS, thereby helping to maximize global access and economies of scale,

*recognizing further*

that HDFSS applications implemented on FSS networks and systems are subject to all provisions of the Radio Regulations applicable to the FSS, such as coordination and notification pursuant to Articles **9** and **11**, including any requirements to coordinate with terrestrial services of other countries, and the provisions of Articles **21** and **22**,

*resolves*

that administrations which implement HDFSS should consider the following guidelines:

- a) making some or all of the frequency bands identified in No. **5.516B** available for HDFSS applications;
- b) in making frequency bands available under *resolves a)*, take into account:
  - that HDFSS deployment will be simplified in bands that are not shared with terrestrial services;
  - in bands shared with terrestrial services, the impact that the further deployment of terrestrial stations would have on the existing and future development of HDFSS, and the further deployment of HDFSS earth stations would have on the existing and future development of terrestrial services;
- c) take into account the relevant technical characteristics applicable to HDFSS, as identified by ITU-R Recommendations (e.g. Recommendations ITU-R S.524-9, ITU-R S.1594 and ITU-R S.1783);
- d) take into account other existing and planned FSS systems, having different characteristics, in frequency bands where HDFSS is implemented in accordance with *resolves a)* above and the conditions specified in No. **5.516B**,

*invites administrations*

- 1 to give due consideration to the benefits of harmonized utilization of the spectrum for HDFSS on a global basis, taking into account the use and planned use of these bands by all other services to which these bands are allocated, as well as other types of FSS applications;
- 2 to consider implementing simplified procedures and provisions that facilitate the deployment of HDFSS systems in some or all of the bands identified in No. **5.516B**;

3 when considering the deployment of HDFSS systems in the upper portion of the band 48.2-50.2 GHz, to take into account as appropriate the potential impact such deployment may have on the satellite passive services in the adjacent band 50.2-50.4 GHz, and to participate in ITU-R studies on the compatibility between these services, taking into account No. **5.340**;

4 to consider, given *invites administrations* 3 above, and where practicable, starting the deployment of HDFSS earth stations in the lower part of the band 48.2-50.2 GHz.

**MOD** COM6/251/2 (B5/267/2) (R3/292/100)

#### RESOLUTION 144 (Rev.WRC-07)

### **Special requirements of geographically small or narrow countries operating earth stations in the fixed-satellite service in the band 13.75-14 GHz**

The World Radiocommunication Conference (Geneva, 2007),

#### *considering*

- a) that WARC-92 made an additional allocation to the fixed-satellite service (FSS) (Earth-to-space) in the band 13.75-14 GHz;
- b) that this band is shared with the radiolocation and radionavigation services;
- c) that, following a decision by WRC-2000 and the completion of ITU-R studies, WRC-03 reviewed and revised the sharing conditions for the services in this band and adopted new regulations which govern sharing between the FSS, radiolocation and radionavigation services (see No. **5.502**);
- d) that these revised sharing conditions additionally permit the operation of geostationary FSS earth stations in the band 13.75-14 GHz with antennas having diameters between 1.2 m and 4.5 m,

#### *recognizing*

- a) that these sharing conditions of No. **5.502** will mean that countries which are geographically small or narrow will have significant difficulties deploying geostationary FSS earth stations in this band with antennas having diameters between 1.2 m and 4.5 m;
- b) that in order to further facilitate sharing between the FSS and the maritime radiolocation systems operating in the radiolocation service, there may be a need to develop technical and operational methods;
- c) that these technical and operational methods may be used to allow a greater deployment of FSS earth stations in the band 13.75-14 GHz in conformity with No. **5.502** while protecting the radiolocation service,

#### *resolves*

1 to continue inviting ITU-R, to pursue its studies as a matter of urgency, with a view to developing ITU-R Recommendations, which will establish technical or operational methods which will further facilitate sharing and may allow greater flexibility in the deployment of FSS earth stations in the band 13.75-14 GHz, having regard to No. **5.502**, and which may also be used as a basis for the establishment of bilateral agreements between concerned administrations;

2 that the administrations of geographically small or narrow countries may exceed the limitations on FSS earth station power flux-density at the low-water mark in No. **5.502** if such operation is in conformance with bilateral agreements with administrations deploying maritime

radiolocation systems in the band 13.75-14 GHz, this being in order to provide due consideration to administrations of geographically small or narrow countries,

*encourages*

administrations deploying maritime and land mobile radiolocation systems in the band 13.75-14 GHz to rapidly reach bilateral agreements relating to the operation of FSS earth stations in this band with administrations of those geographically small or narrow countries deploying these FSS earth stations, this being in order to provide due consideration to administrations of geographically small or narrow countries,

*invites*

1 administrations deploying maritime radiolocation systems in the band 13.75 to 14 GHz to participate actively in the ITU-R studies referred to in *resolves* 1;

2 administrations of geographically small or narrow countries to also contribute to the above studies.

**MOD** COM5/284/5 (B8/293/14) (R5/336/5)

**RESOLUTION 145 (Rev.WRC-07)**

**Use of the bands 27.9-28.2 GHz and 31-31.3 GHz  
by high altitude platform stations  
in the fixed service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that WRC-97 made provision for the operation of high altitude platform stations (HAPS), also known as stratospheric repeaters, within a 2 × 300 MHz portion of the fixed-service allocation in the bands 47.2-47.5 GHz and 47.9-48.2 GHz;

b) that WRC-97 adopted No. **4.15A** specifying that transmissions to or from HAPS shall be limited to the bands specifically identified in Article 5;

c) that at WRC-2000, several countries in Region 3 and one country in Region 1 expressed a need for a lower frequency band for HAPS due to the excessive rain attenuation that occurs at 47 GHz in these countries;

d) that some countries in Region 2 have also expressed an interest in using a frequency range lower than those referred to in *considering a)*;

e) that, in order to accommodate the need expressed by the countries referred to in *considering c)*, WRC-2000 adopted Nos. **5.537A** and **5.543A**, which were modified at WRC-03 and then again at WRC-07 to permit the use of HAPS in the fixed service in the band 27.9-28.2 GHz and in the band 31-31.3 GHz in certain Region 1 and 3 countries on a non-harmful interference, non-protection basis;

f) that the bands 27.9-28.2 GHz and 31-31.3 GHz are already heavily used or planned to be used by a number of different services and a number of other types of applications in the fixed service;

g) that while the decision to deploy HAPS can be taken on a national basis, such deployment may affect neighbouring administrations, particularly in small countries;

- h) that the 31.3-31.8 GHz band is allocated to the radio astronomy, Earth exploration-satellite (passive) and space research (passive) services, and that WRC-03 amended No. **5.543A** to specify signal levels that would protect satellite passive services and radio astronomy stations;
- i) that ITU-R has conducted studies dealing with sharing between systems using HAPS in the fixed service and other types of systems in the fixed service in the bands 27.9-28.2 GHz and 31-31.3 GHz leading to Recommendation ITU-R F.1609;
- j) that results of some ITU-R studies indicate that, in the bands 27.9-28.2 GHz and 31-31.3 GHz, sharing between fixed-service systems using HAPS and other conventional fixed-service systems in the same area will require appropriate interference mitigation techniques to be developed and implemented;
- k) that ITU-R has conducted studies dealing with compatibility between systems using HAPS and the passive services in the 31.3-31.8 GHz band leading to Recommendations ITU-R F.1570 and ITU-R F.1612;
- l) that ITU-R has produced Recommendation ITU-R SF.1601 containing methodologies for evaluating interference from fixed-service systems using HAPS into GSO FSS systems in the band 27.9-28.2 GHz;
- m) that HAPS technical issues could continue to be studied in order to determine appropriate measures for protecting the fixed service and other co-primary services in the band 27.9-28.2 GHz,

*resolves*

- 1 that, notwithstanding No. **4.15A**, in Region 2 the use of HAPS within the fixed-service allocations within the 27.9-28.2 GHz and 31-31.3 GHz bands shall not cause harmful interference to, nor claim protection from, other stations of services operating in accordance with the Table of Frequency Allocations of Article **5**, and, further, that the development of these other services shall proceed without constraints by HAPS operating pursuant to this Resolution;
- 2 that any use by HAPS of the fixed-service allocation at 27.9-28.2 GHz pursuant to *resolves* 1 above shall be limited to operation in the HAPS-to-ground direction, and that any use by HAPS of the fixed-service allocation at 31-31.3 GHz shall be limited to operation in the ground-to-HAPS direction;
- 3 that systems using HAPS in the band 31-31.3 GHz, in accordance with *resolves* 1 above, shall not cause harmful interference to the radio astronomy service having a primary allocation in the band 31.3-31.8 GHz, taking into account the protection criterion given in the relevant ITU-R Recommendation in the RA series. In order to ensure the protection of satellite passive services, the level of unwanted power density into the HAPS ground station antenna in the band 31.3-31.8 GHz shall be limited to  $-106$  dB(W/MHz) under clear-sky conditions and may be increased up to  $-100$  dB(W/MHz) under rainy conditions to mitigate fading due to rain, provided that the effective impact on the passive satellite does not exceed the impact under clear-sky conditions;
- 4 that the administrations listed in Nos. **5.537A** and **5.543A** which intend to implement systems using HAPS in the fixed service in the bands 27.9-28.2 GHz and 31-31.3 GHz shall seek explicit agreement of concerned administrations with regard to their stations of primary services to ensure that the conditions in Nos **5.537A** and **5.543A** are met, and those administrations in Region 2 which intend to implement systems using HAPS in the fixed service in these bands shall seek explicit agreement of concerned administrations with regard to their stations of services operating in accordance with the Table of Frequency Allocations of Article **5** to ensure that the conditions in *resolves* 1 and *resolves* 3 are met;

5 that administrations planning to implement a HAPS system pursuant to *resolves* 1 above shall notify the frequency assignment(s) by submitting all mandatory elements of Appendix 4 to the Radiocommunication Bureau for the examination of compliance with *resolves* 3 and 4 above,

*invites ITU-R*

1 to continue to carry out studies on the appropriate interference mitigation techniques for the situations referred to in *considering j*);

2 to develop protection criteria for the mobile service having primary allocations in the frequency bands 27.9-28.2 GHz and 31-31.3 GHz from HAPS in the fixed service.

**ADD** COM5/344/5 (B14/365/49) (R7/411/225)

### RESOLUTION 147 (WRC-07)

#### **Power flux-density limits for certain systems in the fixed-satellite service using highly-inclined orbits having an apogee altitude greater than 18 000 km and an orbital inclination between 35° and 145° in the band 17.7-19.7 GHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that the band 17.7-19.7 GHz is heavily used in many countries for fixed service (FS) applications including mobile communication network infrastructure;

b) that in the band 17.7-19.7 GHz, there are planned or existing non-geostationary (non-GSO) fixed-satellite service (FSS) systems using satellites with highly-inclined orbits having an apogee altitude greater than 18 000 km and an orbital inclination between 35° and 145°;

c) that in this frequency band, ITU-R has conducted studies of the impact on FS stations of the pfd produced or to be produced by non-GSO FSS systems of the types described in *considering b*);

d) that one of the types of systems referred to in *considering b*) under the ITU filing name USCSID-P, was notified and brought into use under the applicable power flux-density (pfd) levels for the 17.7-19.7 GHz band in Table 21-4:

$$-115 \quad \text{dB(W/(m}^2 \cdot \text{MHz)) for } 0^\circ \leq \delta < 5^\circ$$

$$-115 + 0.5(\delta - 5) \quad \text{dB(W/(m}^2 \cdot \text{MHz)) for } 5^\circ \leq \delta \leq 25^\circ$$

$$-105 \quad \text{dB(W/(m}^2 \cdot \text{MHz)) for } 25^\circ < \delta \leq 90^\circ$$

where  $\delta$  is the angle of arrival above the horizontal plane in degrees,

*recognizing*

1 that studies carried out in ITU-R of the systems described in *considering b*), demonstrated that the system described in *considering d*) did not cause harmful interference to the fixed service in the 17.7-19.7 GHz band;

2 that one FSS system of the type described in *considering d*) has been operating since 1995 at the  $-115/-105$  dB(W/(m<sup>2</sup> · MHz)) levels and there has been no complaint of harmful interference to any station in the fixed service of any administration,

*resolves*

that in the band 17.7-19.7 GHz, FSS space stations currently operating in a system of the type described in *considering d*) and for which advance publication information was received by the

Radiocommunication Bureau before 5 July 2003, as well as space stations with the same parameters in a future notice for a replacement system, shall continue to be subject to the power flux-density limits:

-115	dB(W/(m <sup>2</sup> · MHz))	for	0° ≤ δ < 5°
-115 + 0.5(δ - 5)	dB(W/(m <sup>2</sup> · MHz))	for	5° ≤ δ ≤ 25°
-105	dB(W/(m <sup>2</sup> · MHz))	for	25° < δ ≤ 90°

where δ is the angle of arrival above the horizontal plane in degrees.

**ADD** COM5/384/9 (B16/401/9)

### RESOLUTION 148 (WRC-07)

#### **Satellite systems formerly listed in Part B of the Plan of Appendix 30B (WARC Orb-88)**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that WARC Orb-88 adopted a Plan for the fixed-satellite service in the frequency bands 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz and 12.75-13.25 GHz contained in Appendix **30B (WARC Orb-88)**;

b) that, when the Plan was adopted, some satellite systems in the same frequency bands were under coordination or had been recorded in the Master International Frequency Register (MIFR), or had information relating to advance publication that was received by the Radiocommunication Bureau before 8 August 1985, and which in all cases were listed in Part B of the Plan at WARC Orb-88;

c) that in the original provisions of Appendix **30B (WARC Orb-88)**, the satellite systems mentioned in *considering b)* above were referred to as “existing systems”;

d) that satellite systems identified in *considering b)* have either been included in the List of Appendix **30B** or cancelled, and thus Part B of the Plan is empty;

e) that, therefore, this Conference suppressed Part B of the Plan in Appendix **30B**,

*recognizing*

a) that § 9.2 of Appendix **30B (WARC Orb-88)** indicates that “The existing systems listed in Part B of the Plan may continue in operation for a maximum period of 20 years from the date of entry into force of this Appendix”, and consequently the period of operation of satellite systems in Part B of the Plan expires after 16 March 2010;

b) that some administrations expressed their wish to continue operation of these systems after the deadline mentioned in *recognizing a)*;

c) that satellite systems referred to in *considering b)* are compatible with satellite networks in Appendix **30B**,

*resolves*

1 that the notified period of validity of assignments to “existing system(s)” as referred to in *considering c)* for which the notified period of validity expires before 16 May 2011 shall be extended until that date;

2 that administrations intending to further operate assignments to “existing system(s)” as referred to in *considering c*) beyond 16 March 2010 shall so inform the Radiocommunication Bureau before 16 March 2008, indicating which assignments are concerned;

3 that, after the notifying administration has acted in accordance with *resolves 2*, assignments to “existing system(s)” as referred to in *considering c*) may continue to be operated in accordance with the notified period of validity, including the extension provided in *resolves 1*, if appropriate;

4 that an administration wishing to further extend the notified period of validity, extended under *resolves 1*, if applicable, of assignments to “existing system(s)” as referred to in *considering c*), shall inform the Bureau accordingly more than three years before the expiry of the notified period of validity, extended under *resolves 1*, if applicable, and if the characteristics of that assignment remain unchanged, the Bureau shall amend, as requested, the notified period of validity and publish that information in a special section of the Bureau’s International Frequency Information Circular (BR IFIC),

*instructs the Radiocommunication Bureau*

1 to cancel from the Master Register and the List assignments to “existing system(s)” as referred to in *considering c*) upon expiry of their notified period of validity, or if the notifying administration failed to comply with *resolves 2* above;

2 to calculate aggregate *C/I* of the “existing systems” as referred to in *considering c*) without taking into account the interference between these systems;

3 to take the appropriate actions in accordance with *resolves 1* and 4.

**ADD** COM5/385/103 (B18/405/108)

## RESOLUTION 149 (WRC-07)

### **Implementation of the decisions of WRC-07 relating to Appendix 30B to the Radio Regulations**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

*a)* that WARC Orb-88 adopted a Plan for the fixed-satellite service in the frequency bands 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz and 12.75-13.25 GHz as contained in Appendix **30B (WARC Orb-88)**;

*b)* that this Conference revised the Appendix **30B** Plan and the associated regulatory procedures;

*c)* that this Conference has adopted new technical parameters, sharing criteria and associated calculation methods which are included or referred to in the Annexes to Appendix **30B (Rev.WRC-07)**;

*d)* that in revising the regulatory procedures, this Conference decided that the principle of guaranteed access to spectrum resources for all Members of the Union must be maintained and, as a consequence, the highest priority should be given to submissions from countries not having a national allotment in the Plan or an assignment in the List stemming from the conversion of an allotment;

*e)* that under the regulatory provisions adopted by WARC Orb-88 and revised by subsequent conferences, submissions from Member States not having a national allotment in the

Plan or an assignment in the List stemming from the conversion of an allotment are processed in order of receipt together with other submissions;

f) that, as a result of the decisions of this Conference, a large number of Rules of Procedure developed with respect to the application of the procedures of Appendix **30B** need to be reviewed;

g) that, at the conclusion of this Conference, there is a large number of submissions under Appendix **30B** waiting to be processed,

*recognizing*

a) that the Radiocommunication Bureau needs clear instructions from this Conference on how to implement Appendix **30B (Rev.WRC-07)** and how to process submissions that have been received, but have not yet been processed;

b) that, since the establishment of the WARC Orb-88 Plan, the geographical situation of some ITU Member States has changed;

c) that some countries that have joined, or may join, the Union as a Member State do not have a national allotment or an assignment in the List stemming from the conversion of an allotment;

d) that the Radiocommunication Bureau needs some time to modify its software to implement the new criteria adopted by this Conference,

*resolves*

1 that the revised Appendix **30B** as adopted by this Conference shall enter into force as of 17 November 2007;

2 that following WRC-07, the Bureau shall update and publish the reference situation of the Appendix **30B** Plan and List as of 17 November 2007, based on the decisions of this Conference;

3 that a single-entry *C/I* of 25 dB and an aggregate *C/I* of 21 dB shall be applied when processing requests from new Member States received before 17 November 2007 under Article 7 of Appendix **30B**;

4 that as of 17 November 2007 the Bureau shall use the revised Appendix **30B** as adopted by this Conference in its examination of submissions received after the Conference as well as submissions received before 17 November 2007, but not yet processed at that time<sup>1</sup>;

5 that an administration of a country which has joined the Union as a Member State and does not have a national allotment in the Plan or an assignment in the List stemming from the conversion of an allotment shall have the right to request the Bureau to exclude its territory from the service area of an allotment or an assignment, whereupon the Bureau shall exclude the territory accordingly without adversely affecting the rest of the service area and subsequently recalculate the new reference situation for the Appendix **30B** Plan and List;

6 that administrations, in compliance with Article 44 of the ITU Constitution, review their submissions under Appendix **30B** received before 17 November 2007 but not yet processed, with a view to reducing their number of submissions, and to indicate to the Bureau the networks which are no longer required to be considered and processed under Article 6 of Appendix **30B**;

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<sup>1</sup> With the exception of those cases identified in the revised Appendix **30B** as adopted by this Conference.

7 that, for submissions received under Appendix **30B** before 17 November 2007 but not yet processed, administrations may reduce the e.i.r.p. density to meet the limits of Annex 3 and supply new values before the Bureau's examination under § 6.3 of Article 6 of Appendix **30B (Rev.WRC-07)**;

8 to urge administrations<sup>2</sup> to make utmost efforts to accommodate submissions received from new Member States of ITU,

*instructs the Radio Regulations Board*

1 to review the current Rules of Procedure and make necessary revisions;

2 to prepare necessary Rules of Procedure in response to possible inconsistencies or difficulties encountered by the Radiocommunication Bureau in applying Appendix **30B (WRC-07)**;

3 in compliance with Nos. **13.01** and **13.02**, report to the next World Radiocommunication Conference any possible modifications to the Radio Regulations to alleviate inconsistencies or difficulties encountered in applying the procedures of Appendix **30B (WRC-07)**,

*instructs the Director of the Radiocommunication Bureau*

1 to prepare a report for the next meeting of the ITU Council on the revised procedures of Appendix **30B (WRC-07)** for their consideration of required consequential changes to Council Decision 482;

2 to communicate to administrations the details of the interpolation method implemented for examination under Annex 4 of Appendix **30B (Rev.WRC-07)**;

3 to take all possible measures in order to make available, not later than 17 November 2008, the software for the application of revised Annexes 3 and 4 to Appendix **30B (Rev.WRC-07)**,

*invites administrations*

whose geographical situation has changed to evaluate the technical parameters of their allotments in conjunction with the principles of Appendix **30B (WRC-07)**.

**MOD** COM4/332/74 (B13/347/171) (R7/411/213)

#### RESOLUTION 212 (Rev.WRC-07)

### **Implementation of International Mobile Telecommunications in the bands 1 885-2 025 MHz and 2 110-2 200 MHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that International Mobile Telecommunications (IMT) includes IMT-2000 and IMT Advanced;

b) that ITU-R, for WRC-97, recommended approximately 230 MHz for use by the terrestrial and satellite components of IMT-2000;

c) that ITU-R studies forecast that additional spectrum may be required to support the future services of IMT-Advanced and to accommodate future user requirements and network deployments;

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<sup>2</sup> Those administrations which are the basis of unfavourable findings with respect to submissions from new Member States.

- d) that ITU-R has recognized that space techniques are an integral part of IMT;
- e) that, in No. **5.388**, WARC-92 identified bands to accommodate certain mobile services, now called IMT,

*noting*

- a) that the terrestrial component of IMT has already been deployed or is being considered for deployment in the bands 1 885-2 025 MHz and 2 110-2 200 MHz;
- b) that the availability of the satellite component of IMT in the bands 1 980-2 010 MHz and 2 170-2 200 MHz simultaneously with the terrestrial component of IMT in the bands identified in No. **5.388** would improve the overall implementation and the attractiveness of IMT,

*resolves*

that administrations which implement IMT:

- a) should make the necessary frequencies available for system development;
- b) should use those frequencies when IMT is implemented;
- c) should use the relevant international technical characteristics, as identified by ITU-R and ITU-T Recommendations,

*invites administrations*

to give due consideration to the accommodation of other services currently operating in these bands when implementing IMT,

*invites ITU-R*

to continue its studies with a view to developing suitable and acceptable technical characteristics for IMT that will facilitate worldwide use and roaming, and ensure that IMT can also meet the telecommunication needs of the developing countries and rural areas.

**MOD** COM6/338/1 (B12/346/15) (R6/410/72)

### RESOLUTION 221 (Rev.WRC-07)

#### **Use of high altitude platform stations providing IMT in the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz in Regions 1 and 3 and 1 885-1 980 MHz and 2 110-2 160 MHz in Region 2**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the bands 1 885-2 025 MHz and 2 110-2 200 MHz are identified in No. **5.388** as intended for use on a worldwide basis for IMT, including the bands 1 980-2 010 MHz and 2 170-2 200 MHz for the terrestrial and satellite components of IMT;
- b) that a high altitude platform station (HAPS) is defined in No. **1.66A** as “a station located on an object at an altitude of 20 to 50 km and at a specified, nominal, fixed point relative to the Earth”;
- c) that HAPS may offer a new means of providing IMT services with minimal network infrastructure as they are capable of providing service to a large footprint together with a dense coverage;

- d) that the use of HAPS as base stations within the terrestrial component of IMT is optional for administrations, and that such use should not have any priority over other terrestrial IMT use;
- e) that, in accordance with No. **5.388** and Resolution **212 (Rev.WRC-97)**, administrations may use the bands identified for IMT, including the bands referred to in this Resolution, for stations of other primary services to which they are allocated;
- f) that these bands are allocated to the fixed and mobile services on a co-primary basis;
- g) that, in accordance with No. **5.388A**, HAPS may be used as base stations within the terrestrial component of IMT in the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz in Regions 1 and 3 and 1 885-1 980 MHz and 2 110-2 160 MHz in Region 2. Their use by IMT applications using HAPS as base stations does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations;
- h) that ITU-R has studied sharing and coordination between HAPS and other stations within IMT, has considered compatibility of HAPS within IMT with some services having allocations in the adjacent bands, and has approved Recommendation ITU-R M.1456;
- i) that radio interfaces of IMT HAPS are compliant with Recommendation ITU-R M.1457;
- j) that ITU-R has addressed sharing between systems using HAPS and some existing systems, particularly PCS (personal communications system), MMDS (multichannel multipoint distribution system) and systems in the fixed service, which are currently operating in some countries in the bands 1 885-2 025 MHz and 2 110-2 200 MHz;
- k) that HAPS stations are intended to transmit in the band 2 110-2 170 MHz in Regions 1 and 3 and in the band 2 110-2 160 MHz in Region 2;
- l) that administrations planning to implement a HAPS as an IMT base station may need to exchange information, on a bilateral basis, with other concerned administrations, including data items describing the HAPS characteristics in a more detailed manner than the data items currently included in Annexes 1A and 1B of Appendix 4, as indicated in the Annex to this Resolution,

*resolves*

1 that:

1.1 for the purpose of protecting IMT mobile stations in neighbouring countries from co-channel interference, a HAPS operating as an IMT base station shall not exceed a co-channel power flux-density (pfd) of  $-117 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  at the Earth's surface outside a country's borders unless explicit agreement of the affected administration is provided at the time of the notification of HAPS;

1.2 a HAPS operating as an IMT base station shall not transmit outside the frequency bands 2 110-2 170 MHz in Regions 1 and 3 and 2 110-2 160 MHz in Region 2;

1.3 in Region 2, for the purpose of protecting MMDS stations in some neighbouring countries in the band 2 150-2 160 MHz from co-channel interference, a HAPS operating as an IMT base station shall not exceed the following co-channel pfd at the Earth's surface outside a country's borders unless explicit agreement of the affected administration is provided at the time of the notification of the HAPS;

–  $-127 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  for angles of arrival ( $\theta$ ) less than  $7^\circ$  above the horizontal plane;

- $-127 + 0.666 (\theta - 7)$  dB(W/(m<sup>2</sup> · MHz)) for angles of arrival between 7° and 22° above the horizontal plane; and
- $-117$  dB(W/(m<sup>2</sup> · MHz)) for angles of arrival between 22° and 90° above the horizontal plane;

1.4 in some countries (see No. **5.388B**), for the purpose of protecting fixed and mobile services, including IMT mobile stations, in their territories from co-channel interference caused by a HAPS operating as an IMT base station in accordance with No. **5.388A** in neighbouring countries, the limits of **5.388B** shall apply;

2 that the limits referred to in this Resolution shall apply to all HAPS operating in accordance with No. **5.388A**;

3 that administrations wishing to implement HAPS within a terrestrial IMT system shall comply with the following:

3.1 for the purpose of protecting IMT stations operating in neighbouring countries from co-channel interference, a HAPS operating as a base station within IMT shall use antennas that comply with the following antenna pattern:

$$G(\psi) = G_m - 3(\psi/\psi_b)^2 \quad \text{dBi} \quad \text{for } 0^\circ \leq \psi \leq \psi_1$$

$$G(\psi) = G_m + L_N \quad \text{dBi} \quad \text{for } \psi_1 < \psi \leq \psi_2$$

$$G(\psi) = X - 60 \log(\psi) \quad \text{dBi} \quad \text{for } \psi_2 < \psi \leq \psi_3$$

$$G(\psi) = L_F \quad \text{dBi} \quad \text{for } \psi_3 < \psi \leq 90^\circ$$

where:

$G(\psi)$ : gain at the angle  $\psi$  from the main beam direction (dBi)

$G_m$ : maximum gain in the main lobe (dBi)

$\psi_b$ : one-half of the 3 dB beamwidth in the plane considered (3 dB below  $G_m$ ) (degrees)

$L_N$ : near side-lobe level (dB) relative to the peak gain required by the system design, and has a maximum value of  $-25$  dB

$L_F$ : far side-lobe level,  $G_m - 73$  dBi

$$\psi_1 = \psi_b \sqrt{-L_N/3} \quad \text{degrees}$$

$$\psi_2 = 3.745 \psi_b \quad \text{degrees}$$

$$X = G_m + L_N + 60 \log(\psi_2) \quad \text{dBi}$$

$$\psi_3 = 10^{(X-L_F)/60} \quad \text{degrees}$$

The 3 dB beamwidth ( $2\psi_b$ ) is estimated by:

$$(\psi_b)^2 = 7442/(10^{0.1G_m}) \quad \text{degrees}^2;$$

3.2 for the purpose of protecting mobile earth stations within the satellite component of IMT from interference, a HAPS operating as an IMT base station, shall not exceed an out-of-band pfd of  $-165$  dB(W/(m<sup>2</sup> · 4 kHz)) at the Earth's surface in the bands 2 160-2 200 MHz in Region 2 and 2 170-2 200 MHz in Regions 1 and 3;

3.3 a HAPS operating as an IMT base station, in order to protect fixed stations from interference, shall not exceed the following limits of out-of-band power flux-density (pfd) at the Earth's surface in the bands 2 025-2 110 MHz:

- $-165 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  for angles of arrival ( $\theta$ ) less than  $5^\circ$  above the horizontal plane;
- $-165 + 1.75 (\theta - 5) \text{ dB(W/(m}^2 \cdot \text{MHz))}$  for angles of arrival between  $5^\circ$  and  $25^\circ$  above the horizontal plane; and
- $-130 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  for angles of arrival between  $25^\circ$  and  $90^\circ$  above the horizontal plane;

4 that, for facilitating consultations between administrations, administrations planning to implement a HAPS as an IMT base station shall furnish to the concerned administrations the additional data elements listed in the Annex to this Resolution, if so requested;

5 that administrations planning to implement a HAPS as an IMT base station shall notify the frequency assignment(s) by submitting all mandatory elements of Appendix 4 to the Radiocommunication Bureau for the examination of compliance with *resolves* 1.1, 1.3 and 1.4 above;

6 that, since 5 July 2003, the Bureau and administrations provisionally apply Nos. **5.388A** and **5.388B** as revised by WRC-03 for the frequency assignments to HAPS referred to in this Resolution, including those received before this date but not yet processed by the Bureau,

*invites ITU-R*

to develop, as a matter of urgency, an ITU-R Recommendation providing technical guidance to facilitate consultations with neighbouring administrations.

#### ANNEX TO RESOLUTION 221 (Rev.WRC-07)

### **Characteristics of a HAPS operating as an IMT base station in the frequency bands given in Resolution 221 (Rev.WRC-07)**

#### **A General characteristics to be provided for the station**

##### **A.1 Identity of the station**

- a) Identity of the station
- b) Country

##### **A.2 Date of bringing into use**

The date (actual or foreseen, as appropriate) of bringing the frequency assignment (new or modified) into use.

##### **A.3 Administration or operating agency**

Symbols for the administration or operating agency and for the address of the administration to which communication should be sent on urgent matters regarding interference, quality of emissions and questions referring to the technical operation of the station (see Article 15).

##### **A.4 Position information of the HAPS**

- a) The nominal geographical longitude for the HAPS
- b) The nominal geographical latitude for the HAPS
- c) The nominal altitude for the HAPS

- d) The planned longitudinal and latitudinal tolerance for the HAPS
- e) The planned tolerance of altitude for the HAPS

#### **A.5 Agreements**

If appropriate, the country symbol of any administration or administration representing a group of administrations with which agreement has been reached, including where the agreement is to exceed the limits prescribed in Resolution **221 (Rev.WRC-07)**.

### **B Characteristics to be provided for each antenna beam**

#### **B.1 HAPS antenna characteristics**

- a) The maximum isotropic gain (dBi).
- b) HAPS antenna gain contours plotted on a map of the Earth's surface.

### **C Characteristics to be provided for each frequency assignment for HAPS antenna beam**

#### **C.1 Frequency range**

#### **C.2 Power density characteristics of the transmission**

The maximum value of the maximum power density (dB(W/MHz)), averaged over the worst 1 MHz supplied to the input of the antenna.

### **D Calculated pfd limit produced over any country in visibility of HAPS**

The maximum pfd calculated at the Earth's surface within each administration's territory over which the HAPS may be visible and over which these calculated pfd levels exceed the limits indicated in *resolves* 1.1, 1.3 and 1.4 of Resolution **221 (Rev.WRC-07)**.

**MOD** PLEN/408/5 (B24/419/1)

### **RESOLUTION 222 (Rev.WRC-07)**

#### **Use of the bands 1525-1559 MHz and 1626.5-1660.5 MHz by the mobile-satellite service, and studies to ensure long-term spectrum availability for the aeronautical mobile-satellite (R) service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that prior to WRC-97, the bands 1530-1544 MHz (space-to-Earth) and 1626.5-1645.5 MHz (Earth-to-space) were allocated to the maritime mobile-satellite service and the bands 1545-1555 MHz (space-to-Earth) and 1646.5-1656.5 MHz (Earth-to-space) were allocated on an exclusive basis to the aeronautical mobile-satellite (R) service (AMS(R)S) in most countries;
- b) that WRC-97 allocated the bands 1525-1559 MHz (space-to-Earth) and 1626.5-1660.5 MHz (Earth-to-space) to the mobile-satellite service (MSS) to facilitate the assignment of spectrum to multiple MSS systems in a flexible and efficient manner;
- c) that WRC-97 adopted No. **5.353A** giving priority to accommodating spectrum requirements for and protecting from unacceptable interference distress, urgency and safety communications of the Global Maritime Distress and Safety System (GMDSS) in the bands 1530-1544 MHz and 1626.5-1645.5 MHz and No. **5.357A** giving priority to accommodating spectrum requirements for and protecting from unacceptable interference the AMS(R)S providing

transmission of messages with priority categories 1 to 6 in Article **44** in the bands 1 545-1 555 MHz and 1 646.5-1 656.5 MHz;

*d)* that AMS(R)S is an essential element of ICAO CNS/ATM to provide safety and regularity of flight in the civil air transportation,

*further considering*

*a)* that coordination between satellite networks is required on a bilateral basis in accordance with the Radio Regulations, and, in the bands 1 525-1 559 MHz (space-to-Earth) and 1 626.5-1 660.5 MHz (Earth-to-space), coordination is partially assisted by regional multilateral meetings;

*b)* that, in these bands, geostationary satellite system operators currently use a capacity-planning approach at multilateral coordination meetings, with the guidance and support of their administrations, to periodically coordinate access to the spectrum needed to accommodate their requirements;

*c)* that spectrum requirements for MSS networks, including the GMDSS and AMS(R)S, are currently accommodated through the capacity-planning approach and that, in the bands to which Nos. **5.353A** or **5.357A** apply, this approach, and other methods may assist in accommodating the expected increase of spectrum requirements for GMDSS and AMS(R)S;

*d)* that Report ITU-R M.2073 has concluded that prioritization and inter-system pre-emption between different mobile-satellite systems is not practical and, without a significant advance in technology, is unlikely to be feasible for technical, operational and economical reasons. It summarized that prioritization and intersystem real-time pre-emption would not necessarily increase the efficiency of spectrum use compared to the current situation, but it would certainly complicate substantially the coordination process and network structure;

*e)* that there is existing and increasing demand for spectrum for AMS(R)S and non-AMS(R)S by several mobile satellite systems in the bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz, and that the application of this Resolution may impact the provision of services by non-AMS(R)S systems in the mobile satellite service;

*f)* that future requirements for AMS(R)S and GMDSS spectrum may require additional allocations,

*recognizing*

*a)* that absolute priority to all telecommunications concerning safety of life at sea, on land, in air or in outer space is given by No. 191 of the ITU Constitution;

*b)* that the International Civil Aviation Organization (ICAO) has adopted Standards and Recommended Practices (SARPs) addressing satellite communications with aircraft in accordance with the Convention on International Civil Aviation;

*c)* that all air traffic communications as defined in Annex 10 to the Convention on International Civil Aviation fall within priority categories 1 to 6 of Article **44**;

*d)* that Table 15-2 of Appendix **15** identifies the bands 1 530-1 544 MHz (space-to-Earth) and 1 626.5-1 645.5 MHz (Earth-to-space) for distress and safety purposes in the maritime mobile-satellite service as well as for routine non-safety purposes,

*resolves*

1 that, in frequency coordination of MSS in the bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz, administrations shall ensure that the spectrum needed for distress, urgency and safety communications of GMDSS, as elaborated in Articles **32** and **33**, in the bands where No. **5.353A**

applies, and for AMS(R)S communications within priority categories 1 to 6 of Article 44 in the bands where No. 5.357A applies is accommodated;

2 that administrations shall ensure the use of the latest technical advances, in order to achieve the most flexible and practical use of the generic allocations;

3 that administrations shall ensure that MSS operators carrying non-safety-related traffic yield capacity, as and when necessary, to accommodate the spectrum requirements for distress, urgency and safety communication of GMDSS communications, as elaborated in Articles 32 and 33, and for AMS(R)S communications within priority categories 1 to 6 of Article 44; this could be achieved in advance through the coordination process in *resolves* 1, and, when necessary, through other means if such means are identified as a result of studies in *invites ITU-R*,

*invites ITU-R*

to conduct, in time for consideration by WRC-11, the appropriate technical, operational and regulatory studies to ensure long-term spectrum availability for the aeronautical mobile-satellite (R) service (AMS(R)S) including:

(i) to study, as a matter of urgency, the existing and future spectrum requirements of the aeronautical mobile-satellite (R) service;

(ii) to assess whether the long-term requirements of the AMS(R)S can be met within the existing allocations with respect to No. 5.357A while retaining unchanged the generic allocation for the mobile-satellite service in the bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz, and without placing undue constraints on the existing systems operating in accordance with the Radio Regulations;

(iii) to complete studies to determine the feasibility and practicality of technical or regulatory means, other than the coordination process referred to in *resolves* 1 or the means considered in Report ITU-R M.2073, in order to ensure adequate access to spectrum to accommodate the AMS(R)S requirements as referenced in *resolves* 3 above, while taking into account the latest technical advances in order to maximize spectral efficiency;

(iv) if the assessment identified in *invites ITU-R* (i) and (ii) indicates that these requirements cannot be met, to study existing MSS allocations or possible, new allocations only for satisfying the requirements of the aeronautical mobile satellite (R) service for communications with priority categories 1 to 6 of Article 44, for global and seamless operation of civil aviation taking into account the need to avoid undue constraints on existing systems and other services,

*invites WRC-11*

to consider the results of the above ITU-R studies and to take appropriate action on this subject, while retaining unchanged the generic allocation to the mobile-satellite service in the bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz,

*invites*

the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO), the International Air Transport Association (IATA), administrations and other organizations concerned to participate in the studies identified in *invites ITU-R* above.

**MOD** COM4/332/82 (B13/347/172) (R7/411/214)

**RESOLUTION 223 (Rev.WRC-07)**

### **Additional frequency bands identified for IMT**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that International Mobile Telecommunications (IMT), including IMT-2000 and IMT-Advanced, is the ITU vision of global mobile access;
- b) that IMT systems provide telecommunication services on a worldwide scale regardless of location, network or terminal used;
- c) that IMT provides access to a wide range of telecommunication services supported by fixed telecommunication networks (e.g. PSTN/ISDN, high bitrate Internet access), and to other services which are specific to mobile users;
- d) that the technical characteristics of IMT-2000 are specified in ITU-R and ITU-T Recommendations, including Recommendation ITU-R M.1457, which contains the detailed specifications of the radio interfaces of IMT-2000;
- e) that the evolution of IMT is being studied within ITU-R;
- f) that the review of IMT-2000 spectrum requirements at WRC-2000 concentrated on the bands below 3 GHz;
- g) that at WARC-92, 230 MHz of spectrum was identified for IMT-2000 in the bands 1 885-2 025 MHz and 2 110-2 200 MHz, including the bands 1 980-2 010 MHz and 2 170-2 200 MHz for the satellite component of IMT-2000, in No. **5.388** and under the provisions of Resolution **212 (Rev.WRC-07)**;
- h) that since WARC-92 there has been a tremendous growth in mobile communications including an increasing demand for broadband multimedia capability;
- i) that the bands identified for IMT are currently used by mobile systems or applications of other radiocommunication services;
- j) that Recommendation ITU-R M.1308 addresses the evolution of existing mobile communication systems to IMT-2000, and that Recommendation ITU-R M.1645 addresses the evolution of the IMT systems and maps out their future development;
- k) that harmonized worldwide bands for IMT are desirable in order to achieve global roaming and the benefits of economies of scale;
- l) that the bands 1 710-1 885 MHz and 2 500-2 690 MHz are allocated to a variety of services in accordance with the relevant provisions of the Radio Regulations;
- m) that the band 2 300-2 400 MHz is allocated to the mobile service on a co-primary basis in the three ITU Regions;
- n) that the band 2 300-2 400 MHz, or portions thereof, is used extensively in a number of administrations by other services including the aeronautical mobile service for telemetry in accordance with the relevant provisions in the Radio Regulations;
- o) that IMT has already been deployed or is being considered for deployment in some countries in the band 1 710-1 885 MHz, 2 300-2 400 MHz and 2 500-2 690 MHz and equipment is readily available;
- p) that the bands, or parts of the bands, 1 710-1 885 MHz, 2 300-2 400 MHz and 2 500-2 690 MHz are identified for use by administrations wishing to implement IMT;
- q) that technological advancement and user needs will promote innovation and accelerate the delivery of advanced communication applications to consumers;

- r) that changes in technology may lead to the further development of communication applications, including IMT;
- s) that timely availability of spectrum is important to support future applications;
- t) that IMT systems are envisaged to provide increased peak data rates and capacity that may require a larger bandwidth;
- u) that ITU-R studies forecasted that additional spectrum may be required to support the future services of IMT and to accommodate future user requirements and network deployments,

*emphasizing*

- a) that flexibility must be afforded to administrations:
  - to determine, at a national level, how much spectrum to make available for IMT from within the identified bands;
  - to develop their own transition plans, if necessary, tailored to meet their specific deployment of existing systems;
  - to have the ability for the identified bands to be used by all services having allocations in those bands;
  - to determine the timing of availability and use of the bands identified for IMT, in order to meet particular user demand and other national considerations;
- b) that the particular needs of developing countries must be met;
- c) that Recommendation ITU-R M.819 describes the objectives to be met by IMT-2000 in order to meet the needs of developing countries,

*noting*

- a) Resolutions **224 (Rev.WRC-07)** and **225 (Rev.WRC-07)**, which also relate to IMT;
- b) that the sharing implications between services sharing the bands identified for IMT in No. **5.384A**, as relevant, will need further study in ITU-R;
- c) that studies regarding the availability of the band 2 300-2 400 MHz for IMT are being conducted in many countries, the results of which could have implications for the use of those bands in those countries;
- d) that, due to differing requirements, not all administrations may need all of the IMT bands identified at this Conference, or, due to the usage by and investment in existing services, may not be able to implement IMT in all of those bands;
- e) that the spectrum for IMT identified by this Conference may not completely satisfy the expected requirements of some administrations;
- f) that currently operating mobile communication systems may evolve to IMT in their existing bands;
- g) that services such as fixed, mobile (second-generation systems), space operations, space research and aeronautical mobile are in operation or planned in the band 1 710-1 885 MHz, or in portions of that band;
- h) that in the band 2 300-2 400 MHz, or portions of that band, there are services such as the fixed, mobile, amateur and radiolocation service which are currently in operation or planned to be in operation in the future;

- i) that services such as broadcasting-satellite, broadcasting-satellite (sound), mobile-satellite and fixed (including multipoint distribution/communication systems) are in operation or planned in the band 2 500-2 690 MHz, or in portions of that band;
- j) that the identification of several bands for IMT allows administrations to choose the best band or parts of bands for their circumstances;
- k) that ITU-R has identified additional work to address further developments in IMT;
- l) that the IMT-2000 radio interfaces as defined in Recommendation ITU-R M.1457 are expected to evolve within the framework of ITU-R beyond those initially specified, to provide enhanced services and services beyond those envisaged in the initial implementation;
- m) that the identification of a band for IMT does not establish priority in the Radio Regulations and does not preclude the use of the band for any application of the services to which they are allocated;
- n) that the provisions of Nos. **5.317A**, **5.384A** and **5.388** do not prevent administrations from having the choice to implement other technologies in the frequency bands identified for IMT, based on national requirements,

*recognizing*

that for some administrations the only way of implementing IMT would be spectrum refarming, requiring significant financial investment,

*resolves*

1 to invite administrations implementing IMT or planning to implement IMT to make available, based on user demand and other national considerations, additional bands or portions of the bands above 1 GHz identified in No. **5.384A** for the terrestrial component of IMT; due consideration should be given to the benefits of harmonized utilization of the spectrum for the terrestrial component of IMT, taking into account the services to which the frequency band is currently allocated;

2 to acknowledge that the differences in the texts of Nos. **5.384A** and **5.388** do not confer differences in regulatory status,

*invites ITU-R*

1 to study the implications of sharing of IMT with other applications and services in the band 2 300-2 400 MHz and the implementation, sharing and frequency arrangements of IMT in the band 2 300-2 400 MHz;

2 to develop harmonized frequency arrangements for the 2 300-2 400 MHz band for operation of the terrestrial component of IMT, taking into account the results of the sharing studies;

3 to continue its studies on further enhancements of IMT, including the provision of Internet Protocol (IP)-based applications that may require unbalanced radio resources between the mobile and base stations;

4 to continue providing guidance to ensure that IMT can meet the telecommunication needs of the developing countries and rural areas in the context of the studies referred to above;

5 to include these frequency arrangements and the results of these studies in one or more ITU-R Recommendations,

*further invites ITU-R*

to commence these studies forthwith.

**MOD** (R9/425/17)

**RESOLUTION 224 (Rev.WRC-07)**

**Frequency bands for the terrestrial component of International Mobile Telecommunications below 1 GHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that International Mobile Telecommunications (IMT) is the root name, encompassing both IMT-2000 and IMT-Advanced (see Resolution ITU-R 56);
  - b) that IMT systems are intended to provide telecommunication services on a worldwide scale, regardless of location, network or terminal used;
  - c) that parts of the band 806-960 MHz are extensively used in the three Regions by mobile systems;
  - d) that IMT systems have already been deployed in the band 806-960 MHz in some countries of the three Regions;
  - e) that some administrations are planning to use the band 698-862 MHz, or part of that band, for IMT;
  - f) that, as a result of the transition from analogue to digital terrestrial television broadcasting, some countries are planning to make or are making the band 698-862 MHz, or parts of that band, available for applications in the mobile service (including uplinks);
  - g) that the band 450-470 MHz is allocated to the mobile service on a primary basis in the three Regions and that IMT systems have already been deployed in some countries of the three Regions;
  - h) that results of the sharing studies for the band 450-470 MHz are contained in Report ITU-R M.2110;
  - i) that cellular mobile systems in the three Regions in the bands below 1 GHz operate using various frequency arrangements;
  - j) that where cost considerations warrant the installation of fewer base stations, such as in rural and/or sparsely populated areas, bands below 1 GHz are generally suitable for implementing mobile systems including IMT;
  - k) that bands below 1 GHz are important, especially for some developing countries and countries with large areas where economic solutions for low population density areas are necessary;
  - l) that Recommendation ITU-R M.819 describes the objectives to be met by IMT-2000 in order to meet the needs of developing countries, and in order to assist them to “bridge the gap” between their communication capabilities and those in developed countries;
  - m) that Recommendation ITU-R M.1645 also describes the coverage objectives of IMT,
- recognizing*
- a) that cellular-based mobile networks’ evolution to IMT can be facilitated if they are permitted to evolve within their current frequency bands;
  - b) that the band 450-470 MHz and parts of the bands 746-806 MHz and 806-862 MHz are used extensively in many countries by various other terrestrial mobile systems and applications,

including public protection and disaster relief radiocommunications (see Resolution **646 (WRC-03)**);

- c) that there is a need, in many developing countries and countries with large areas of low population density, for the cost-effective implementation of IMT, and that the propagation characteristics of frequency bands below 1 GHz identified in Nos **5.XXX\*** and **5.317A** result in larger cells;
- d) that the band 450-470 MHz, or parts of that band, is also allocated to services other than the mobile service;
- e) that the band 460-470 MHz is also allocated to the meteorological-satellite service in accordance with No. **5.290**;
- f) that the frequency band 470-806/862 MHz is allocated to the broadcasting service on a primary basis in all three Regions and used predominantly by this service, and that the GE06 Agreement applies in all Region 1 countries, except Mongolia, and in the Islamic Republic of Iran in Region 3;
- g) that the GE06 Agreement contains provisions for the terrestrial broadcasting service and other primary terrestrial services, a Plan for digital television, and a list of stations of other primary terrestrial services;
- h) that the transition from analogue to digital television is expected to result in situations where the band 470-806/862 MHz will be used extensively for both analogue and digital terrestrial transmission, and the demand for spectrum during the transition period may be even greater than the stand-alone usage of analogue broadcasting systems;
- i) that the time-frame and transition period for analogue to digital television switchover may not be the same for all countries;
- j) that, after analogue to digital television switchover, some administrations may decide to use all or parts of the band 698-806/862 MHz for other services to which the band is allocated on a primary basis, in particular the mobile service for the implementation of IMT, while in other countries the broadcasting service will continue to operate in that band;
- k) that in the band 470-862 MHz, or parts of that band, there is an allocation on a primary basis for the fixed service;
- l) that, in some countries, the band 698-806/862 MHz is allocated to the mobile service on a primary basis;
- m) that the band 645-862 MHz is allocated on a primary basis to the aeronautical radionavigation service in the countries listed in No. **5.312**;
- n) that the compatibility of the mobile service with the broadcasting, fixed and aeronautical radionavigation service in the band referred to in *recognizing k)* and *m)* will need further study in ITU-R,  
*emphasizing*
  - a) that in all administrations terrestrial broadcasting is a vital part of the communication and information infrastructure;
  - b) that flexibility must be afforded to administrations:

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\* Note from the Secretariat: This footnote refers to 450-470 MHz.

- to determine, at a national level, how much spectrum to make available for IMT from within the identified bands, taking into account current uses of the spectrum and the needs of other applications;
  - to develop their own transition plans, if necessary, tailored to meet their specific deployment of existing systems;
  - to have the ability for the identified bands to be used by all services having allocations in those bands;
  - to determine the timing of availability and use of the bands identified for IMT, in order to meet particular market demand and other national considerations;
- c)* that the particular needs and national conditions and circumstances of developing countries, including least-developed countries, highly-indebted poor countries with economies in transition, and countries with large territories and territories with a low-subscriber density, must be met;
- d)* that due consideration should be given to the benefits of harmonized utilization of the spectrum for the terrestrial component of IMT, taking into account the current and planned use of these bands by all services to which these bands are allocated;
- e)* that the use of frequency bands below 1 GHz for IMT also helps to “bridge the gap” between sparsely-populated areas and densely-populated areas in various countries;
- f)* that the identification of a band for IMT does not preclude the use of this band by other services or applications to which it is allocated;
- g)* that the use of the band 470-862 MHz by the broadcasting service and other primary services is also covered by the GE06 Agreement;
- h)* that the requirements of the different services to which the band is allocated, including the mobile and broadcasting services, need to be taken into account,

*resolves*

- 1 that administrations which are implementing, or planning to implement IMT, consider the use of bands identified for IMT below 1 GHz and the possibility of cellular-based mobile networks’ evolution to IMT, in the frequency band identified in Nos **5.XXX\*** and **5.317A**, based on user demand and other considerations;
- 2 to encourage administrations to take into account the results of the ITU-R studies referred to in *invites ITU-R* below, and any recommended measures when implementing applications/systems in the bands 790-862 MHz in Region 1 and Region 3, in the band 698-806 MHz in Region 2, and in those administrations mentioned in No. **5.YYY**;
- 3 that administrations should take into account the need to protect the existing and future broadcasting stations, both analogue and digital, in the 470-806/862 MHz band, as well as other primary terrestrial services;
- 4 that administrations planning to implement IMT in the bands mentioned in *resolves 2* shall effect coordination with all neighbouring administrations prior to implementation;
- 5 that in Region 1 (excluding Mongolia) and in the Islamic Republic of Iran the implementation of stations in the mobile service shall be subject to the applications of procedures contained in the GE06 Agreement. In so doing:

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\* Note from the Secretariat: This footnote refers to 450-470 MHz.

- a) administrations which deploy stations in the mobile service for which coordination was not required, or without having obtained the prior consent of those administrations that may be affected, shall not cause unacceptable interference to, nor claim protection from, stations of the broadcasting service of administrations operating in conformity with the GE06 Agreement. This should include a signed commitment as required under § 5.2.6 of the GE06 Agreement;
- b) administrations which deploy stations in the mobile service for which coordination was not required, or without having obtained the prior consent of those administrations that may be affected, shall not object nor prevent the entry into the GE06 plan or recording in the MIFR of additional future broadcasting allotments or assignments of any other administration in the GE06 Plan with reference to those stations;
- 6 that, in Region 2, implementation of IMT shall be subject to the decision of each administration on the transition from analogue to digital television,

*invites ITU-R*

1 to study the potential use of the band 790-862 MHz in Region 1 and Region 3, the band 698-806 MHz in Region 2 and in those administrations mentioned in No. 5.YYY in Region 3 by new mobile and broadcasting applications, including the impact on the GE06 Agreement, where applicable, and to develop ITU-R Recommendations on how to protect the services to which these bands are currently allocated, including the broadcasting service and in particular the GE06 Plan, as updated, and its future developments;

2 in the frequency bands mentioned in *invites ITU-R 1*, to study compatibility between mobile systems with different technical characteristics and provide guidance on any impact the new considerations may have on spectrum arrangements;

3 to include the results of the studies referred to in *invites ITU-R 2*, and in particular harmonization measures for IMT, in one or more ITU-R Recommendations by 2010;

4 to develop harmonized frequency arrangements for the 450-470 MHz band for operation of the terrestrial component of IMT, taking into account *considering h*) above.

*invites the Director of the Telecommunication Development Sector*

to draw the attention of the Telecommunication Development Sector to this Resolution.

**MOD** COM4/332/79 (B13/347/173) (R7/411/215)

## RESOLUTION 225 (Rev.WRC-07)

### **Use of additional frequency bands for the satellite component of IMT**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the bands 1 980-2 010 MHz and 2 170-2 200 MHz are identified for use by the satellite component of International Mobile Telecommunications (IMT) through No. 5.388 and Resolution 212 (Rev.WRC-07);
- b) Resolutions 212 (Rev.WRC-07), 223 (WRC-07) and 224 (WRC-07) on the implementation of the terrestrial and satellite components of IMT;
- c) that the bands 1 518-1 544 MHz, 1 545-1 559 MHz, 1 610-1 626.5 MHz, 1 626.5-1 645.5 MHz, 1 646.5-1 660.5 MHz, 1 668-1 675 MHz, 2 483.5-2 500 MHz, 2 500-2 520 MHz and 2 670-2 690 MHz are allocated on a co-primary basis to the mobile-satellite service and other services in accordance with the Radio Regulations;

d) that distress, urgency and safety communications of the Global Maritime Distress and Safety System and the aeronautical mobile-satellite (R) service have priority over all other mobile-satellite service communications in accordance with Nos. **5.353A** and **5.357A**,

*recognizing*

a) that services such as broadcasting-satellite, broadcasting-satellite (sound), mobile-satellite, fixed (including point-to-multipoint distribution/communication systems) and mobile are in operation or planned in the band 2 500-2 690 MHz, or in portions of that band;

b) that other services such as the mobile service, the radio astronomy service and radiodetermination-satellite service are in operation or planned, in accordance with the Table of Frequency Allocations, in the bands 1 518-1 559/1 626.5-1 660.5 MHz, 1 610-1 626.5/2 483.5-2 500 MHz and 1 668-1 670 MHz, or in portions of those bands, and that those bands, or portions thereof, are intensively used in some countries by applications other than the IMT satellite component, and the sharing studies within ITU-R are not finished;

c) that studies of potential sharing and coordination between the satellite component of IMT and the terrestrial component of IMT, mobile-satellite service applications and other high-density applications in other services such as point-to-multipoint communication/distribution systems in the bands 2 500-2 520 MHz and 2 670-2 690 MHz bands are not finished;

d) that the bands 2 520-2 535 MHz and 2 655-2 670 MHz are allocated to the mobile-satellite, except aeronautical mobile-satellite, service for operation limited to within national boundaries pursuant to Nos. **5.403** and **5.420**;

e) Resolution ITU-R 47 on studies under way on satellite radio transmission technologies for IMT,

*resolves*

1 that, in addition to the frequency bands indicated in *considering a)* and *resolves 2*, the frequency bands 1 518-1 544 MHz, 1 545-1 559 MHz, 1 610-1 626.5 MHz, 1 626.5-1 645.5 MHz, 1 646.5-1 660.5 MHz, 1 668-1 675 MHz and 2 483.5-2 500 MHz may be used by administrations wishing to implement the satellite component of IMT, subject to the regulatory provisions related to the mobile-satellite service in these frequency bands;

2 that the bands 2 500-2 520 MHz and 2 670-2 690 MHz as identified for IMT in No. **5.384A** and allocated to the mobile-satellite service may be used by administrations wishing to implement the satellite component of IMT; however, depending on user demand, it may be possible in the longer term that the administrations decide to use these bands for the terrestrial component of IMT (see the Preamble of the ITU Constitution);

3 that this identification of frequency bands for the satellite component of IMT does not preclude the use of these bands by any applications of the services to which they are allocated and does not establish priority in the Radio Regulations,

*invites ITU-R*

1 to study the sharing and coordination issues in the above bands related to use of the mobile-satellite service allocations for the satellite component of IMT and the use of this spectrum by the other allocated services, including the radiodetermination-satellite service;

2 to report the results of these studies to a future world radiocommunication conference,

*invites the Director of the Telecommunication Development Bureau*

to draw the attention of the Telecommunication Development Sector to this Resolution,

**ADD** PLEN/408/18 (B24/419/18)

**RESOLUTION 231 (WRC-07)**

**Additional allocations to the mobile-satellite service with particular focus on the bands between 4 GHz and 16 GHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that ITU has studied the spectrum requirements for the satellite component of IMT for the period 2010-2020, and the results are contained in Report ITU-R M.2077;
- b) that the results in Report ITU-R M.2077 indicate a shortfall of spectrum available for the satellite component of IMT in the Earth-to-space direction of between 19 and 90 MHz for the year 2020;
- c) that the results in Report ITU-R M.2077 indicate a shortfall of spectrum available for the satellite component of IMT in the space-to-Earth direction of between 144 and 257 MHz for the year 2020;
- d) that MSS systems which are not part of the satellite component of IMT may also require additional spectrum,

*resolves to invite ITU-R*

to complete, for WRC-11, studies of possible bands for new allocations to the mobile-satellite service in the Earth-to-space and space-to-Earth directions, with particular focus on the range 4 GHz to 16 GHz, taking into account sharing and compatibility, without placing undue constraints on existing services in this band,

*invites administrations*

to participate in the studies by submitting contributions to ITU-R.

**MOD** COM4/296/56 (B9/305/58) (R5/336/6)

**RESOLUTION 331 (Rev.WRC-07)**

**Transition to the Global Maritime Distress and Safety System (GMDSS)**

The World Radiocommunication Conference (Geneva, 2007),

*noting*

that all ships subject to the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, are required to be fitted for the Global Maritime Distress and Safety System (GMDSS),

*noting further*

- a) that a number of administrations have taken steps to implement the GMDSS also for classes of vessels not subject to SOLAS, 1974, as amended;
- b) that an increasing number of vessels not subject to SOLAS, 1974, as amended, are making use of the techniques and frequencies of the GMDSS prescribed in Chapter VII;
- c) that this Conference has amended Chapter VII to provide for maintaining interoperability between ships fitted for GMDSS and ships not yet fully equipped for GMDSS;

d) that there may be a need to maintain existing shore-based distress and safety services for the reception of distress, urgency and safety calling by voice on VHF channel 16 so that vessels not subject to SOLAS, 1974, as amended and not yet using the techniques and frequencies of the GMDSS will be able to attract attention and obtain assistance from these services;

e) that the International Maritime Organization (IMO) is of the view that SOLAS ships, while at sea, should be required to keep a listening watch on VHF channel 16, for the foreseeable future, with a view to providing:

- a distress alerting and communication channel for non-SOLAS ships; and
- bridge-to-bridge communications;

f) that IMO has urged administrations to require all seagoing vessels under national legislation, and encourage all vessels voluntarily carrying VHF radio equipment to be fitted with facilities for transmitting and receiving distress alerts by digital selective calling (DSC) on VHF channel 70;

g) that the Radio Regulations require GMDSS ships to keep watch on the appropriate DSC distress frequencies;

h) that separate provisions in the existing Radio Regulations designate VHF channel 16 as the international channel for general calling by radiotelephony;

i) that several administrations have established Vessel Traffic Service (VTS) systems and require their vessels to keep watch on local VTS channels;

j) that ships that are required by SOLAS to carry a radio station have been equipped with DSC, and many vessels subject to national carriage requirements are also being equipped with DSC, but the majority of vessels that carry a radio station on a voluntary basis might not yet have DSC equipment;

k) that similarly, many administrations have established distress and safety service based on DSC watchkeeping, but the majority of port stations, pilot stations and other operational coast stations might not yet have been equipped with DSC facilities;

l) that Nos **52.190** to **52.192** and **52.232** to **52.234** allow frequency 2 182 kHz and channel 16 to be used for call and reply,

*recognizing*

a) that, as indicated in *noting further a), b), f), j) and k)* above, stations in the maritime mobile service are increasingly making use of the frequencies and techniques of GMDSS;

b) that this Conference has adopted provisions for distress, urgency and safety calling by radiotelephony on VHF channel 16, requiring ships, where practicable, to maintain watch on VHF channel 16;

c) the need to maintain existing shore-based distress and safety services for reception of distress, urgency and safety calling by voice on VHF channel 16 for some years after this Conference so that vessels not subject to SOLAS, 1974, as amended, and not yet using the techniques and frequencies of the GMDSS, will be able to attract attention and obtain assistance from these services until such time as they are able to participate in the GMDSS;

d) the need indicated in *noting further d)* above for maintaining existing shore-based distress, urgency and safety services on VHF channel 16,

*resolves*

1 to retain the provisions permitting use of VHF channel 16 and the frequency 2 182 kHz for general voice-calling;

2 to urge all administrations to assist in enhancing safety at sea by:

- encouraging all vessels to finalize the transition to the GMDSS as soon as possible;
- encouraging, where appropriate, establishment of suitable shore-based facilities for GMDSS, either on an individual basis or in cooperation with other relevant parties in the area;
- encouraging all vessels carrying maritime VHF equipment to be fitted with DSC on VHF channel 70 as soon as possible, taking into account the relevant decisions of IMO;
- encouraging vessels to limit their use of VHF channel 16 and the frequency 2 182 kHz for calling to the minimum necessary, noting the provisions of No. **52.239**;

3 that coast stations forming part of shore-based arrangements in the area concerned for reception of distress calling by radiotelephony on VHF channel 16 should maintain an efficient watch on VHF channel 16. Such watch should be indicated in the List of Coast Stations and Special Service Stations;

4 that administrations may release their ship stations and coast stations from the listening watch on VHF channel 16 in respect of distress, urgency and safety calling by voice, in accordance with relevant decisions of IMO and ITU on aural watch-keeping requirements on channel 16, taking into account the GMDSS radio systems available in the area concerned;

when doing so, administrations should:

- inform IMO of their decisions and submit to IMO details on the area concerned;
- inform the Secretary-General of the necessary details for inclusion in the List of Coast Stations and Special Service Stations,

*invites ITU-R*

to monitor the development of and changes to the GMDSS, in particular:

- watch-keeping requirements;
- distress alerting;
- carriage requirements,

and report to a future world radiocommunication conference on when further rationalization of Chapter **VII** should be considered,

*resolves further*

that the Secretary-General should ensure that such arrangements and details regarding the area concerned be indicated in relevant maritime publications,

*instructs the Secretary-General*

to bring this Resolution to the attention of the International Maritime Organization, the International Civil Aviation Organization and the International Association of Marine Aids to Navigation and Lighthouse Authorities.

**MOD** COM4/332/178 (B14/365/43) (R7/411/217)

**RESOLUTION 339 (Rev.WRC-07)**

**Coordination of NAVTEX services**

The World Radiocommunication Conference (Geneva, 2007),

...

*instructs the Secretary-General*

1 to invite IMO to provide ITU with information on a regular basis on operational coordination for NAVTEX services on the frequencies 490 kHz, 518 kHz and 4 209.5 kHz,

*instructs the Director of the Radiocommunication Bureau*

to publish this information in the *List of Coast Stations and Special Service Stations* (List IV) (see No. **20.7**).

**MOD** COM4/380/73 (B17/404/68)

**RESOLUTION 351 (Rev.WRC-07)**

**Review of the frequency and channel arrangements in the HF bands allocated to the maritime mobile service contained in Appendix 17 with a view to improving efficiency through the use of new digital technology by the maritime mobile service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the introduction of new digital technology in the maritime mobile service (MMS) shall not disrupt the distress and safety communications in the HF bands including those established by the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended;
- b) that changes made in Appendix 17 should not prejudice the future use of these frequencies or the capabilities of systems or new applications required for use by the MMS;
- c) that the need to use new digital technologies in the MMS is growing rapidly;
- d) that the use of new digital technology on HF frequencies allocated to the MMS will make it possible to better respond to the emerging demand for new services;
- e) that the HF bands allocated to the MMS for A1A Morse telegraphy and narrow-band direct-printing (NBDP) contained in Appendix 17 are significantly under-utilized at present;
- f) that there are new HF data exchange technologies capable of delivering maritime safety information;
- g) that the International Maritime Organization (IMO) supports the frequencies of Appendix 15, concerning NBDP, being retained for the foreseeable future;
- h) that the ITU Radiocommunication Sector is conducting ongoing studies to improve the efficient use of these bands,

*noting*

- a) that different digital technologies have already been developed and are in use in the HF bands in several radiocommunication services;

b) that new maritime HF data transfer protocols have already been developed and are in operation using Appendix 17 frequencies and other frequencies outside Appendix 17,

*resolves*

to invite [WRC-11] to consider necessary changes to Appendix 17 in order to implement the use of new technology by MMS, in accordance with *invites ITU-R*,

*invites ITU-R*

to finalize studies currently ongoing:

- to identify any necessary modifications to the frequency table contained within Appendix 17;
- to identify any necessary transition arrangements for the introduction of new digital technologies and any consequential changes to Appendix 17;
- to recommend how digital technologies can be introduced while ensuring compliance with distress and safety requirements,

*encourages Member States*

when contributing to the implementation of this Resolution, to take into consideration other modifications to Articles and Appendices as necessary,

*instructs the Secretary-General*

to bring this Resolution to the attention of IMO, the International Civil Aviation Organization (ICAO), the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), the Comité International Radio-Maritime (CIRM), and International Electrotechnical Commission (IEC).

**ADD** COM4/332/179 (B14/365/47) (R7/411/223)

## RESOLUTION 354 (WRC-07)

### **Distress and safety radiotelephony procedures for 2 182 kHz**

The World Radiocommunication Conference (Geneva, 2007),

*noting*

a) that all ships subject to the International Convention for the Safety of Life at Sea (SOLAS), 1974, as amended, are required to be fitted for the Global Maritime Distress and Safety System (GMDSS);

b) that some vessels not subject to SOLAS, 1974, as amended, may not be making use of the techniques and frequencies of GMDSS prescribed in Chapter VII and may wish to continue using radiotelephony procedures for distress and safety communications on 2 182 kHz until such time as they are able to participate in the GMDSS;

c) that some administrations may have a need to maintain shore-based radiotelephony distress and safety services on 2 182 kHz so that vessels not subject to SOLAS, 1974, as amended, and not yet using the techniques and frequencies of GMDSS will be able to obtain assistance from these services until such time as they are able to participate in GMDSS,

*considering*

that there needs to be some recognized guidance for the use of radiotelephony on 2 182 kHz for distress and safety communications,

*resolves*

1 that ships, when in distress or when engaged in urgency or safety-related communications on 2 182 kHz, use the radiotelephony procedures contained in the Annex to this Resolution;

2 that coast stations, in order to maintain communication with non-GMDSS ships that are in distress or engaged in urgency or safety related communications on 2 182 kHz, use the radiotelephony procedures contained in the Annex to this Resolution.

## ANNEX TO RESOLUTION 354 (WRC-07)

### **Distress and safety radiotelephony procedures for 2 182 kHz\***

#### PART A1 – GENERAL

§ 1 The frequencies and techniques specified in this Resolution may be used in the maritime mobile service for stations<sup>1</sup> not required by national or international regulation to fit GMDSS equipment and for communications between those stations and aircraft. However, stations of the maritime mobile service, when additionally fitted with any of the equipment used by stations operating in conformity with the provisions specified in Chapter **VII**, should, when using that equipment, comply with the appropriate provisions of that Chapter.

§ 2 1) No provision of this Resolution prevents the use by a mobile station or mobile earth station in distress of any means at its disposal to attract attention, make known its position, and obtain help.

2) No provision of this Resolution prevents the use by stations on board aircraft or ships engaged in search and rescue operations, in exceptional circumstances, of any means at their disposal to assist a mobile station or mobile earth station in distress.

3) No provision of this Resolution prevents the use by a land station or coast earth station, in exceptional circumstances, of any means at its disposal to assist a mobile station or mobile earth station in distress (see also No. **4.16**).

§ 3 In cases of distress, urgency or safety, communications by radiotelephony should be made slowly and distinctly, each word being clearly pronounced to facilitate transcription.

§ 4 The abbreviations and signals of Recommendation ITU-R M.1172 and the Phonetic Alphabet and Figure Code in Appendix **14** should be used where applicable<sup>2</sup>.

§ 5 Distress, urgency and safety communications may also be made using digital selective calling and satellite techniques and/or direct-printing telegraphy, in accordance with the provisions specified in Chapter **VII** and relevant ITU-R Recommendations.

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\* Distress and safety communications include distress, urgency and safety calls and messages.

<sup>1</sup> These stations may include rescue coordination centres. The term “Rescue Coordination Centre” as defined in the International Convention on Maritime Search and Rescue (1979) refers to a unit responsible for promoting the efficient organization of search and rescue services and for coordinating the conduct of search and rescue operations within a search and rescue region.

<sup>2</sup> The use of the Standard Marine Communication Phrases and, where language difficulties exist, the International Code of Signals, both published by the International Maritime Organization, is also recommended.

§ 6 Mobile stations<sup>3</sup> of the maritime mobile service may communicate for safety purposes with stations of the aeronautical mobile service. Such communications shall normally be made on the frequencies authorized, and under the conditions specified, in Section I of Part A2 (see also § 2 1)).

§ 6A Mobile stations of the aeronautical mobile service may communicate for distress and safety purposes with stations of the maritime mobile service in conformity with the provisions of this Resolution.

§ 7 Any aircraft required by national or international regulations to communicate for distress, urgency or safety purposes with stations of the maritime mobile service shall be capable of transmitting and receiving class J3E emissions when using the carrier frequency 2 182 kHz or the carrier frequency 4 125 kHz.

## PART A2 – FREQUENCIES FOR DISTRESS AND SAFETY

### Section I – Availability of frequencies

#### *A – 2 182 kHz*

§ 1 1) The carrier frequency 2 182 kHz is an international distress frequency for radiotelephony; it may be used by ship, aircraft and survival craft stations when requesting assistance from the maritime services. It is used for distress calls and distress traffic, for the urgency signal and urgency messages and for the safety signal. Safety messages should be transmitted, when practicable, on a working frequency, after a preliminary announcement on 2 182 kHz. The class of emission to be used for radiotelephony on the frequency 2 182 kHz shall be J3E. Distress traffic on 2 182 kHz following the reception of a distress call using digital selective calling should take into account that some shipping in the vicinity may not be able to receive this traffic.

2) If a distress message on the carrier frequency 2 182 kHz has not been acknowledged, the distress call and message may be transmitted again on a carrier frequency of 4 125 kHz or 6 215 kHz, as appropriate.

3) However, ship stations and aircraft which cannot transmit either on the carrier frequency 2 182 kHz or on the carrier frequencies 4 125 kHz or 6 215 kHz may use any other available frequency on which attention might be attracted.

4) Coast stations using the carrier frequency 2 182 kHz for distress purposes and to send navigational warnings may transmit an audible alarm signal<sup>4</sup> of short duration for the purpose of attracting attention to the message which follows.

#### *B – 4 125 kHz*

§ 2 1) The carrier frequency 4 125 kHz is used to supplement the carrier frequency 2 182 kHz for distress and safety purposes and for call and reply. This frequency is also used for distress and safety traffic by radiotelephony.

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<sup>3</sup> Mobile stations communicating with the stations of the aeronautical mobile (R) service in bands allocated to the aeronautical mobile (R) service shall conform to the provisions of the Regulations which relate to that service and, as appropriate, any special arrangements between the governments concerned by which the aeronautical mobile (R) service is regulated.

<sup>4</sup> Alarm signals may consist of transmissions of sinusoidal audio frequency tones 1 300 Hz, 2 200 Hz, or both. Different tone generation patterns may be used to signal the type of message which follows, and an alarm signal ending in a 10-second continuous tone could be used to identify a transmission by a coast station.

2) The carrier frequency 4 125 kHz may be used by aircraft to communicate with stations of the maritime mobile service for distress and safety purposes, including search and rescue.

*C – 6 215 kHz*

§ 3 The carrier frequency 6 215 kHz is used to supplement the carrier frequency 2 182 kHz for distress and safety purposes and for call and reply. This frequency is also used for distress and safety traffic by radiotelephony.

**Section II – Protection of distress and safety frequencies**

*A – General*

§ 4 Test transmissions on any of the distress and safety frequencies described above shall be kept to a minimum and, wherever practicable, be carried out on artificial antennas or with reduced power.

§ 5 Before transmitting on any of the frequencies identified for distress and safety communications, a station shall listen on the frequency concerned to make sure that no distress transmission is being sent (see Recommendation ITU-R M.1171). This does not apply to stations in distress.

*B – 2 182 kHz*

§ 6 1) Except for transmissions authorized on the carrier frequency 2 182 kHz and on the frequencies 2 174.5 kHz, 2 177 kHz, 2 187.5 kHz and 2 189.5 kHz, all transmissions on the frequencies between 2 173.5 kHz and 2 190.5 kHz are forbidden (see also Appendix 15).

2) To facilitate the reception of distress calls, all transmissions on 2 182 kHz should be kept to a minimum.

**Section III – Watch on distress frequencies**

*A – 2 182 kHz*

§ 7 1) Coast stations may maintain a watch on the carrier frequency 2182 kHz if so directed by their Administration. Such assignments should be indicated in the List of Coast Stations and Special Service Stations.

2) Ship stations not fitted with equipment compatible with the GMDSS are encouraged to keep the maximum watch practicable on the carrier frequency 2 182 kHz.

*B – 4 125 kHz, 6 215 kHz*

§ 8 Coast stations may maintain additional watch, as permitted, on the carrier frequencies 4 125 kHz and 6 215 kHz. Such assignments should be indicated in the List of Coast Stations and Special Service Stations.

**PART A3 – DISTRESS COMMUNICATIONS**

**Section I – General**

§ 1 The general provisions for distress communications are found in Section I of Article 32 (see Nos. 32.1, 32.3, and 32.4).

**Section II – Distress signal, call and message**

§ 2 The radiotelephone distress signal, call and message are described in Section II of Article 32 (see Nos. 32.13Bbis, 32.9, 32.13B, 32.13C, and 32.13D).

**Section III – Procedures**

§ 3 After the transmission by radiotelephony of its distress message, the mobile station may be requested to transmit suitable signals, followed by its call sign or other identification, to permit direction-finding stations to determine its position. This request may be repeated at frequent intervals if necessary.

§ 4 1) The distress message, preceded by the distress call, shall be repeated at intervals until an answer is received.

2) The intervals shall be sufficiently long to allow time for replying stations, in their preparations, to start their sending apparatus.

§ 5 When the mobile station in distress receives no answer to a distress message sent on the distress frequency, the message may be repeated on any other available frequency on which attention might be attracted.

#### **Section IV – Transmission of a distress relay message by a station not itself in distress**

§ 6 The radiotelephone procedures for the transmission of a distress relay message by a station not itself in distress are found in Section II of Article 32 (see Nos. 32.16 to 32.19A and 32.19D to 32.19F).

#### **Section V – Receipt and acknowledgement of a distress message**

§ 7 The procedures relating to the receipt and acknowledgement of a distress message are found in Section II of Article 32 (see Nos. 32.23, 32.26, 32.28, 32.29, 32.30 and 32.35).

#### **Section VI – Distress traffic**

§ 8 The radiotelephone procedures relating to the distress traffic are found in Section III of Article 32 (see Nos. 32.39 to 32.42, 32.45 to 32.47, 32.49 to 32.52 and 32.54 to 32.59).

§ 9 1) Every mobile station acknowledging receipt of a distress message shall, on the order of the person responsible for the ship, aircraft or other vehicle, transmit the following information in the order shown as soon as possible:

- its name;
- its position;
- the speed at which it is proceeding towards, and the approximate time it will take to reach, the mobile station in distress;
- additionally, if the position of the ship in distress appears doubtful, ship stations should also transmit, when available, the true bearing of the ship in distress.

2) Before transmitting the message specified in § 9 1), the station shall ensure that it will not interfere with the emissions of other stations better situated to render immediate assistance to the station in distress.

### **PART A4 – URGENCY AND SAFETY COMMUNICATIONS**

#### **Section I – Urgency communications**

§ 1 The radiotelephone procedures for urgency communications are found in Sections I and II of Article 33 (see Nos. 33.1 to 33.7 and 33.8, 33.8b to 33.9a and 33.11 to 33.16).

#### **Section II – Safety communications**

§ 2 The radiotelephone procedures for safety communications are found in Sections I and IV of Article 33 (see Nos. 33.31, 33.31C, 33.32, 33.34 to 33.35 and 33.38B).

**ADD** COM4/332/180 (B14/365/48) (R7/411/224)

**RESOLUTION 355 (WRC-07)**

**Content, formats and periodicity of the maritime related service publications**

The World Radiocommunication Conference (Geneva, 2007),

*noting*

- a) that Appendix **16** specifies the documents with which stations on board ships and aircraft shall be provided;
- b) that Article **20** specifies the titles, content, preparation, and amendment of service publications and on-line information systems;
- c) that stations in the maritime mobile service have an increasing requirement to have up-to-date information in the publications and on-line information systems,

*noting further*

- a) that administrations have indicated a need for establishing a functional series of service publications which will enhance safety on board ships;
- b) that this Conference has modified the relevant provisions, concerning the preparation and amendments of service publications and on-line information systems in Article **20**;
- c) that this Conference decided to merge certain Lists, previously mentioned in Article **20**;
- d) that this Conference also decided to modify the carriage requirements as stipulated in Appendix **16**;
- e) that there will be a transition period until 31 December 2010, during which the Radiocommunication Bureau will continue to issue service publications in their prior format,

*recognizing*

- a) that this Conference has adopted modifications with regard to the titles and content of List IV as well as of List V of the service publications;
- b) that administrations may exempt ships from the carriage of the documents required in Appendix **16 (Rev. WRC-07)**,

*resolves to invite all administrations*

- 1 to submit regular updates of the information for recording in the ITU maritime databases in accordance with provision **20.16**;
- 2 to assist in enhancing maritime safety by contributing to the continued work with regard to the content, formats and periodicity of the maritime service publications,

*invites ITU-R*

- 1 to conduct studies with the active participation of the Radiocommunication Bureau in view of developing a functional series of maritime Service Publications (Lists IV and V), which will enhance safety of life at sea;
- 2 to complete these studies by 31 December 2010 (see *noting further e*));
- 3 to conduct studies with a view to developing a practice-oriented and user-friendly format of the current Manual for Use by the Maritime Mobile and Maritime Mobile-Satellite Services;

4 to periodically update the text of this Manual to cover the latest developments,  
*instructs the Director of the Radiocommunication Bureau*

1 to publish the maritime service publications in the current format in the transition period until 31 December 2010, and after that date in the new format in the six official languages of the Union in accordance with *invites ITU-R 2* above;

2 to report to the next World Radiocommunication Conference on further rationalization of Lists IV and V and the Manual, and to include the results of the studies on further rationalization of these documents in the Report of the Director of the Radiocommunication Bureau,

*instructs the Secretary-General*

to bring this Resolution to the attention of the International Maritime Organization, the International Civil Aviation Organization and the International Association of Marine Aids to Navigation and Lighthouse Authorities.

**ADD** COM4/380/57 (B17/404/73)

### RESOLUTION 356 (WRC-07)

#### **ITU maritime service information registration**

The World Radiocommunication Conference (Geneva, 2007),

*noting*

a) that the provisions of No. **20.16** of Article **20** require administrations to notify the Radiocommunication Bureau of operational information contained in the List of Coast Stations and Special Service Stations (List IV) and List of Ship Stations and Maritime Mobile Service Identity Assignments (List V);

b) that this Conference has modified Article **19** to provide for the assignment of a maritime mobile service identity (MMSI) to search and rescue aircraft, automatic identification system (AIS) aids to navigation, and craft associated with a parent ship;

c) that the provisions of No. **20.15**, however, give the Radiocommunication Bureau authority to change the content and form of this information in consultation with administrations;

d) that the International Maritime Organization (IMO) has already identified, in Resolution A.887(21) adopted on 25 November 1999, information to be included in search and rescue databases, including:

- vessel identification number (IMO number or national registration number);
- Maritime mobile service identity (MMSI);
- radio call sign;
- name, address and telephone number and, if applicable, telefax number of emergency contact person ashore;
- alternative 24-hour emergency telephone number;
- capacity for persons on board (passengers and crew),

*resolves to instruct the Director of the Radiocommunication Bureau*

to maintain online information systems to allow rescue coordination centres to have immediate access to this information on a 24-hour per day, 7-day per week basis,

*invites ITU-R*

to consult with administrations, IMO, the International Civil Aviation Organization (ICAO), the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), and the International Hydrographic Organization (IHO) to identify elements for incorporation in ITU online information systems,

*instructs the Secretary-General*

to communicate this Resolution to IMO, ICAO, IALA, and IHO.

**ADD** PLEN/408/6 (B24/419/7)

## RESOLUTION 357 (WRC-07)

### **Consideration of regulatory provisions and spectrum allocations for use by enhanced maritime safety systems for ships and ports**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that there is increasing need, on a global basis, to enhance ship and cargo identification, tracking, and surveillance as well as ship and port security and safety;
- b) that the International Maritime Organization (IMO) adoption of the International Ship and Port Facility Security (ISPS) Code, specifically Safety of Life at Sea (SOLAS) Convention, Chapter XI-2, on special measures to enhance maritime security, requires long-range spectrum dependent systems;
- c) that the introduction of the shipborne universal automatic identification system (AIS) supports maritime safety and offers potential enhancements to ship and port security and maritime safety;
- d) that studies within ITU-R indicate that additional AIS channels in the mobile-satellite service may be required to enhance and accommodate global ship tracking capabilities;
- e) that advanced maritime HF data systems may be used to deliver security alerts and safety information to, and to receive similar information and long-range identification and tracking (LRIT) information from, ships in global regions not under satellite coverage;
- f) that use of existing maritime mobile allocations, where practicable, for ship and port security and enhanced maritime safety would be preferable, particularly where international interoperability is required;
- g) that additional studies within ITU-R on spectrum efficient radio technologies may be required to resolve these multifaceted spectrum requirements;
- h) that requirements for ITU Service Publications and specific revisions of content, format and structure of those publications may be required to support maritime security and safety systems,

*noting*

- a) Resolution **342 (Rev.WRC-2000)**: “New technologies to provide improved efficiency in the use of the band 156-174 MHz by stations in the maritime mobile service”;
- b) Resolution **351 (Rev.WRC-07)**: “Review of the frequency and channel arrangements in the HF bands allocated to the maritime mobile service contained in Appendix 17 with a view to improving efficiency through the use of new digital technology by the maritime mobile service”,

*recognizing*

- a) that there is a global requirement to enhance maritime safety, ship and port security via spectrum dependent systems;
- b) that existing and future technologies for Ship Security and Alerting Systems (SSAS), introduced as a result of the ISPS Code referred to in *considering b)*, will require long-range communication links and networks between mobile ships and shore-based stations;
- c) that due to the importance of these radio links in ensuring the safe and secure operation of international shipping and commerce, they must be resilient to interference;
- d) that studies will be required to provide a basis for considering regulatory changes, including additional allocations and recommendations, designed to accommodate spectrum requirements of ship and port security, consistent with the protection of incumbent services;
- e) that the ITU and international standards organizations have initiated related studies on spectrum efficient technology,

*resolves*

- 1 that WRC-11 consider amendments to provisions of the Radio Regulations necessary to provide for the operation of ship and port security and maritime safety systems;
- 2 that WRC-11 consider additional allocations to the maritime mobile service below 1 GHz to support the requirements identified in *resolves 1*;
- 3 that WRC-11 consider additional allocations to the maritime mobile-satellite service in frequency bands allocated to the maritime mobile service between 156 and 162.025 MHz to support the requirements identified in *resolves 1*,

*invites ITU-R*

- 1 to conduct, as a matter of urgency, studies to determine the spectrum requirements and potential frequency bands suitable to support ship and port security and enhanced maritime safety systems;
- 2 that the studies referred to in *invites ITU-R 1* should include the applicability of spectrum efficient technologies, and sharing and compatibility studies with services already having allocations in potential spectrum for ship safety and port security systems,

*invites*

all members of the Radiocommunication Sector, the International Maritime Organization (IMO), International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), and the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA) to contribute to these studies,

*instructs the Secretary-General*

to bring this Resolution to the attention of IMO, ISO, IEC, IALA and other international and regional organizations concerned.

**MOD** COM4/318/7 (B11/329/39) (R6/410/73)

**RESOLUTION 413 (Rev.WRC-07)**

**Use of the band 108-117.975 MHz by the aeronautical mobile (R) service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) the current allocation of the frequency band 108-117.975 MHz to the aeronautical radionavigation service (ARNS);
- b) the current requirements of FM broadcasting systems operating in the frequency band 87-108 MHz;
- c) that digital sound broadcasting systems are capable of operating in the frequency band at about 87-108 MHz as described in Recommendation ITU-R BS.1114;
- d) the need for the aeronautical community to provide additional services by enhancing navigation systems through a radiocommunication data link;
- e) the need for the broadcasting community to provide digital terrestrial sound broadcasting services;
- f) that this allocation was made by this Conference in the knowledge that studies are ongoing with respect to the technical characteristics, sharing criteria and sharing capabilities;
- g) the need for the aeronautical community to provide additional services for radiocommunications, relating to safety and regularity of flight, in the band 112-117.975 MHz;
- h) that this Conference has modified the allocation of the band 112-117.975 MHz to the aeronautical mobile (R) services (AM(R)S) in order to make available this frequency band for new AM(R)S systems, and in doing so enabled further technical developments, investments and deployment;
- i) that the frequency band 117.975-137 MHz currently allocated to the AM(R)S is reaching saturation in certain areas of the world;
- j) that this new allocation is intended to support the introduction of applications and concepts in air traffic management which are data intensive, and which could support data links that carry safety-critical aeronautical data;
- k) that additional information is needed about the new technologies which will be used, the amount of spectrum required, the characteristics and sharing capabilities/conditions, and that therefore studies are urgently required on which AM(R)S systems will be used, the amount of spectrum required, the characteristics and the conditions for sharing with ARNS systems,

*recognizing*

- a) that precedence must be given to the ARNS operating in the frequency band 108-117.975 MHz;
- b) that, in accordance with Annex 10 of the Convention of the International Civil Aviation Organization (ICAO) on international civil aviation, all aeronautical systems must meet standards and recommended practices (SARPs) requirements;
- c) that within ITU-R, compatibility criteria between FM broadcasting systems operating in the frequency band 87-108 MHz and the ARNS operating in the frequency band 108-117.975 MHz already exist, as indicated in the most recent version of Recommendation ITU-R SM.1009;
- d) that all compatibility issues between FM broadcasting systems and ICAO standard ground-based systems for the transmission of radionavigation-satellite differential correction signals have been addressed,

*noting*

- a) that aeronautical systems are converging towards a radiocommunication data link environment to support aeronautical navigation and surveillance functions, which need to be accommodated in existing radio spectrum;
- b) that some administrations are planning to introduce digital sound broadcasting systems in the frequency band at about 87-108 MHz;
- c) that no compatibility criteria currently exist between FM broadcasting systems operating in the frequency band 87-108 MHz and the planned additional aeronautical systems in the adjacent band 108-117.975 MHz using aircraft transmission;
- d) that no compatibility criteria currently exist between digital sound broadcasting systems capable of operating in the frequency band at about 87-108 MHz and aeronautical services in the band 108-117.975 MHz,

*resolves*

- 1 that any aeronautical mobile (R) service systems operating in the band 108-117.975 MHz shall not cause harmful interference to, nor claim protection from ARNS systems operating in accordance with international aeronautical standards;
- 2 that any AM(R)S systems planned to operate in the frequency band 108-117.975 MHz shall, as a minimum, meet the FM broadcasting immunity requirements contained in Annex 10 of the ICAO Convention on International Civil Aviation for existing aeronautical radionavigation systems operating in this frequency band;
- 3 that AM(R)S systems operating in the band 108-117.975 MHz shall place no additional constraints on the broadcasting service or cause harmful interference to stations operating in the bands allocated to the broadcasting service in the frequency band 87-108 MHz and No. 5.43 does not apply to systems identified in *recognizing d*);
- 4 that frequencies below 112 MHz shall not be used for AM(R)S systems excluding the ICAO systems identified in *recognizing d*);
- 5 that any AM(R)S operating in the frequency band 108-117.975 MHz shall meet SARPs requirements published in Annex 10 of the ICAO Convention on International Civil Aviation;
- 6 that WRC-11 should consider, based on the results of the ITU-R studies mentioned under *invites ITU-R*, any further regulatory measure to facilitate introduction of new AM(R)S systems,

*invites ITU-R*

- 1 to study any compatibility issues between the broadcasting and AM(R) services that may arise from the introduction of AM(R)S systems in the band 112-117.975 MHz, and to develop new or revised ITU-R Recommendations as appropriate;
- 2 to study any compatibility issues between the broadcasting and AM(R) services in the band 108-117.975 MHz that may arise from the introduction of appropriate digital sound broadcasting systems, described in Recommendation ITU-R BS.1114, and to develop new or revised ITU-R Recommendations as appropriate;
- 3 to report to WRC-11 on the results of these studies,

*instructs the Secretary-General*

to bring this Resolution to the attention of ICAO.

**ADD** COM4/296/7 (B9/305/59) (R5/336/9)

**RESOLUTION 416 (WRC-07)**

**Use of the bands 4 400-4 940 MHz and 5 925-6 700 MHz by an aeronautical mobile telemetry application in the mobile service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that there is a need to provide global spectrum to the mobile service for wideband aeronautical mobile telemetry (AMT) systems;
- b) that studies have been conducted within ITU-R concerning the sharing and compatibility of AMT for flight testing with other services in the bands 4 400-4 940 MHz and 5 925-6 700 MHz;
- c) that based on the results of these studies, in the bands 4 400-4 940 MHz and 5 925-6 700 MHz, technical and operational measures applied to AMT for flight testing purposes facilitate sharing with other services and applications in these bands;
- d) that spectrum efficiency is enhanced in situations where new applications can be implemented compatibly in bands that are heavily occupied;
- e) that there is extensive deployment of fixed-satellite service (FSS) earth stations in the band 5 925-6 425 MHz and to a lesser extent in the band 6 425-6 700 MHz;
- f) that there is extensive deployment of fixed service stations in the bands 4 400-4 940 MHz and 5 925-6 700 MHz;
- g) that in certain locations, availability of spectrum will be limited due to its extensive use by the various services while in other locations, this may not be the case;
- h) that there are various techniques which can enhance sharing between co-primary services such as frequency or geographic separation;
- i) that WRC-07 has adopted Nos. **5.4B01** and **5.4B02**,

*recognizing*

- a) that the bands 4 400-4 500 MHz and 4 800-4 940 MHz are allocated to the fixed and mobile services on a primary basis;
- b) that the band 4 500-4 800 MHz is allocated to the fixed, fixed-satellite (space-to-Earth), and mobile services on a co-primary basis;
- c) that the band 4 800-4 990 MHz is allocated to the radio astronomy service on a secondary basis worldwide and that No. **5.149** applies;
- d) that the band 4 825-4 835 MHz referred to in *recognizing c)* is allocated on a primary basis to radio astronomy in Argentina, Australia and Canada (see No. **5.443**);
- e) that No. **5.442** applies to AMT for flight testing operations in the band 4 825-4 835 MHz;
- f) that the band 5 925-6 700 MHz is allocated to the fixed, fixed-satellite (Earth-to-space), and mobile services on a co-primary basis;
- g) that the use of the band 4 500-4 800 MHz (space-to-Earth) by the FSS shall be in accordance with the provisions of Appendix **30B** (see No. **5.441**);

*h)* that provisions for the coordination of terrestrial and space services exist in the Radio Regulations,

*resolves*

1 that, in the bands 4 400-4 940 MHz and 5 925-6 700 MHz, administrations authorizing AMT for flight test purposes per Nos **5.4B01**, **5.442** and **5.4B02** shall utilize the criteria set forth below:

- emissions limited to transmission from aircraft stations only, see No. **1.83**;
- in these bands, AMT in the aeronautical mobile service is not considered an application of a safety service as per No. **1.59**;
- the peak e.i.r.p. density of a telemetry transmitter antenna shall not exceed  $-2.2$  dB(W/MHz);
- transmissions limited to designated flight test areas, where flight test areas are airspace designated by administrations for flight testing;
- if operation of AMT aircraft stations is planned within 500 km of the territory of an administration in which the band 4 825-4 835 MHz is allocated to radio astronomy on a primary basis (see No. **5.443**), consult with that administration to determine whether any special measures are needed to prevent interference to their radio astronomy observations;
- in the bands 4 400-4 940 MHz and 5 925-6 700 MHz, bilateral coordination of transmitting AMT aircraft stations with respect to receiving fixed or mobile stations must be effected if the AMT aircraft station will operate within 450 km of the receiving fixed or mobile stations of another administration. The following procedure should be used to establish whether a fixed or mobile service receiver within 450 km of the flight test area will receive an acceptable level of interference:
  - determine if the receiving fixed or mobile station's antenna main-beam axis, out to a distance of 450 km, passes within 12 km of the designated area used by transmitting AMT aircraft stations, where this distance is measured orthogonally from the main-beam axis projection on the Earth's surface to the nearest boundary of the projection of the flight test area on the Earth's surface;
  - if the main-beam axis does not intersect the flight test area or any point within the 12 km offset, the interference could be accepted. Otherwise, further bilateral coordination discussions would be needed;

2 that administrations authorizing AMT per Nos **5.4B01**, **5.442** and **5.4B02** in the bands 4 400-4 940 MHz and 5 925-6 700 MHz require the use of technical and/or operational measures on AMT where appropriate to facilitate sharing with other services and applications in these bands.

**ADD** COM4/318/10 (B11/329/43) (R6/410/78)

### RESOLUTION 417 (WRC-07)

#### **Use of the band 960-1 164 MHz by the aeronautical mobile (R) service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

*a)* that this Conference has allocated the band 960 to 1 164 MHz to the aeronautical mobile (R) service (AM(R)S) in order to make available this frequency band for new AM(R)S systems, and in doing so enabled further technical developments, investments and deployment;

- b) the current allocation of the frequency band 960-1 164 MHz to the aeronautical radionavigation service (ARNS);
- c) the use of the band 960-1 215 MHz by the ARNS is reserved on a worldwide basis for the operation and development of airborne electronic aids to air navigation and any directly associated ground-based facilities per No. **5.328**;
- d) that new technologies are being developed to support communications and air navigation, including airborne and ground surveillance applications;
- e) that this new allocation is intended to support the introduction of applications and concepts in air traffic management which are data intensive and which could support data links that carry safety critical aeronautical data;
- f) that in countries listed in No. **5.312** the frequency band 960-1 164 MHz is also used by systems in the ARNS for which standards and recommended practices (SARPs) have not been developed nor published by the International Civil Aviation Organization (ICAO);
- g) that, furthermore, the frequency band 960-1 164 MHz is also used by a non-ICAO system operating in the ARNS that has characteristics similar to those of ICAO standard distance measuring equipment;
- h) that this allocation was made knowing that studies are ongoing with respect to the technical characteristics, sharing criteria and sharing capabilities;
- i) that the frequency band 117.975-137 MHz currently allocated to the AM(R)S is reaching saturation within certain areas of the world, therefore that band would not be available to support additional medium- and long-range data communications;
- j) that, additional information is needed on the new technologies which will be used, other than the AM(R)S system identified in *recognizing c*), the amount of spectrum required, and the characteristics and sharing capabilities/conditions. Therefore, studies are urgently required on which AM(R)S systems will be used, the amount of spectrum required and the characteristics and conditions for sharing with ARNS systems,

*recognizing*

- a) that precedence must be given to the ARNS operating in the frequency band 960-1 164 MHz;
- b) that Annex 10 of the Convention of the ICAO contains SARPs for aeronautical radionavigation and radiocommunication systems used by international civil aviation;
- c) that all compatibility issues between the ICAO Standard Universal Access Transceiver (UAT) and other systems which operate in the same frequency range, excluding the system identified in *considering f*), have been addressed;
- d) that in the frequency band 1 024-1 164 MHz the sharing conditions are more complex than in the band 960-1 024 MHz,

*noting*

that, excluding the system identified in *recognizing c*), no compatibility criteria currently exist between AM(R)S systems proposed for operations in the frequency band 960-1 164 MHz and the existing aeronautical systems in the band,

*resolves*

- 1 that any AM(R)S system operating in the frequency band 960-1 164 MHz shall meet SARPs requirements published in Annex 10 of the ICAO Convention on International Civil Aviation;
- 2 that any AM(R)S systems operating in the band 960-1 164 MHz shall not cause harmful interference to, nor claim protection from, and shall not impose constraints on the operation and planned development of aeronautical radionavigation systems in the same band;
- 3 that compatibility studies between AM(R)S systems operating in the band 960-1 164 MHz and ARNS systems in *considering f) and g)* need to be conducted to develop sharing conditions to ensure that the conditions of *resolves 2* are satisfied, and that ITU-R Recommendations are developed as appropriate;
- 4 that the result of the studies pursuant to *resolves 3* shall be reported to WRC-11 and the decision should be taken by WRC-11 to review, if appropriate, regulatory provisions in *resolves 2* taking into account protection requirements of ARNS systems identified in *considering f) and g)* and the need for global facilitation of AM(R)S operating in accordance with ICAO standards;
- 5 that frequencies in the band 960-1 164 MHz shall not be used by an AM(R)S system, except for the AM(R)S system identified in *recognizing c)*, until all potential compatibility issues with the ARNS and, as necessary, the radionavigation-satellite service (RNSS) in the adjacent band have been resolved, also taking into account *recognizing d)*,

*invites*

administrations and ICAO, for the purposes of conducting the ITU-R studies mentioned in *resolves 3 and 5*, to provide to ITU-R the technical and operational characteristics of systems involved,

*invites ITU-R*

- 1 to conduct studies in accordance with *resolves 3 and 5* on operational and technical means to facilitate sharing between AM(R)S systems operating in the band 960-1 164 MHz and ARNS systems identified in *considering f) and g)*;
- 2 to conduct studies in accordance with *resolves 5* on operational and technical means to facilitate sharing between AM(R)S systems operating in the band 960-1 164 MHz and the RNSS operating in the band 1 164-1 215 MHz;
- 3 to report the results of the studies to WRC-11,

*instructs the Secretary-General*

to bring this Resolution to the attention of ICAO.

**ADD** COM4/380/9 (B17/404/69)

**RESOLUTION 418 (WRC-07)**

**Use of the band 5 091-5 250 MHz by the aeronautical mobile service  
for telemetry applications**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that there is a need to provide global spectrum to the mobile service for wideband aeronautical telemetry systems;

- b) that the operation of aircraft stations is subject to national and international rules and regulations;
- c) that the frequency band 5 030-5 150 MHz is allocated to the aeronautical radionavigation service on a primary basis;
- d) that the allocation of the 5 091-5 250 MHz band to the fixed-satellite service (Earth-to-space) is limited to feeder links of non-geostationary satellite systems in the mobile-satellite service;
- e) that the band 5 000-5 150 MHz is also allocated to the aeronautical mobile-satellite (R) service on a primary basis, subject to agreement obtained under No. **9.21**;
- f) that this Conference allocated the band 5 091-5 150 MHz to the aeronautical mobile service on a primary basis subject to No. **5.4B03**;
- g) that the band 5 150-5 250 MHz is also allocated to the mobile, except aeronautical mobile, service on a primary basis;
- h) that this Conference additionally allocated the band 5 150-5 250 MHz to the aeronautical mobile service on a primary basis, subject to No. **5.4B04**;
- i) that aeronautical mobile telemetry (AMT) in the aeronautical mobile service is not considered an application of a safety service as defined in No. **1.59**,

*noting*

- a) that results of studies conducted in accordance with Resolution **230 (Rev.WRC-03)** show the feasibility of using the band 5 091-5 250 MHz for the aeronautical mobile service on a primary basis, limited to transmissions of telemetry for flight testing, under certain conditions and arrangements;
- b) that the identification by ITU-R of technical and operational requirements for aircraft stations operating in the band 5 091-5 250 MHz should prevent unacceptable interference to other services;
- c) that the band 5 091-5 150 MHz is to be used for the operation of the international standard microwave landing system (MLS) for precision approach and landing;
- d) that MLS can be protected through the implementation of an adequate separation distance between an aeronautical mobile service transmitter to support telemetry and MLS receivers;
- e) that ITU-R studies have generated methods, described in Report ITU-R M.2118, for ensuring compatibility and sharing between the aeronautical mobile service and the fixed-satellite service operating in the band 5 091-5 250 MHz, which result in interference of no more than 1%  $\Delta T_{satellite}/T_{satellite}$  from AMT aircraft station transmissions to fixed-satellite service spacecraft receivers;
- f) that a method to facilitate sharing between MLS and aeronautical mobile service is contained in Recommendation ITU-R M.1829;
- g) that Recommendation ITU-R M.1828 provides the technical and operational requirements for aircraft stations of the aeronautical mobile service, limited to transmissions of telemetry for flight testing;
- h) that ITU-R compatibility studies have been performed for AMT, limited to flight testing; such application is for the testing of aircraft during non-commercial flights for the purpose

of development, evaluation and/or certification of aircraft in airspace designated by administrations for this purpose,

*recognizing*

- a) that precedence is to be given to MLS in accordance with No. **5.444** in the frequency band 5 030-5 091 MHz;
- b) that studies have been performed within ITU-R concerning the sharing and compatibility of AMT for flight testing with other services in the band 5 091-5 250 MHz;
- c) that Resolutions [COM4/4] (WRC-07) and [COM4/8] (WRC-07) also provide guidance on the use of the band 5 091-5 150 MHz by the aeronautical mobile service,

*resolves*

1 that administrations choosing to implement AMT shall limit AMT applications to those identified in *noting h*) in the band 5 091-5 250 MHz, and shall utilize the criteria set forth in Annex 1 to this Resolution;

2 that the pfd limits in §§ 3 and 4 of Annex 1 to this Resolution which protect terrestrial services may be exceeded on the territory of any country whose administration has so agreed,

*invites ITU-R*

to continue studying the conditions and arrangements stipulated in *noting a*).

**ADD** COM4/380/10 (B17/404/70)

#### ANNEX 1 TO RESOLUTION 418 (WRC-07)

1 In implementing aeronautical mobile telemetry (AMT), administrations shall utilize the following criteria:

- limit transmissions to those from aircraft stations only (see No. **1.83**);
- the operation of aeronautical telemetry systems within the band 5 091-5 150 MHz shall be coordinated with administrations operating microwave landing systems (MLS) and whose territory is located within a distance  $D$  of the AMT flight area, where  $D$  is determined by the following equation:

$$D = 43 + 10^{(127.55 - 20 \log(f) + E)/20}$$

where:

$D$ : separation distance (km) triggering the coordination

$f$ : minimum frequency (MHz) used by the AMT system

$E$ : peak equivalent isotropically radiated power density (dBW in 150 kHz) of the aircraft transmitter.

2 For the protection of the fixed-satellite service (FSS), a telemetry aircraft station in the band 5 091-5 250 MHz shall be operated in such a manner that one aircraft station transmitter power flux-density be limited to  $-198.9$  dB(W/(m<sup>2</sup> · Hz)) at the FSS satellite orbit for spacecraft using Earth coverage receive antennas. Such pfd limit per aircraft transmitter has been derived under the assumptions that the FSS satellite orbit is at 1 414 km altitude and that a total of 21 co-frequency AMT transmitters operate concurrently within the field of view of the FSS satellite. In case of fewer than 21 AMT co-frequency transmitters operating simultaneously in view of the satellite, the transmitter power can be adjusted so as not to exceed an aggregate pfd at the satellite of  $-185.7$  dB(W/(m<sup>2</sup> · Hz)), which corresponds to a  $\Delta T_{\text{satellite}}/T_{\text{satellite}}$  of 1%.

3 For the protection of the mobile service in the 5 150-5 250 MHz frequency band, the maximum pfd produced at the surface of the Earth by emissions from an aircraft station of an aeronautical mobile service system, limited to transmissions of telemetry for flight testing, shall not exceed:  $-79.4 \text{ dB(W/(m}^2 \cdot 20 \text{ MHz))} - G_r(\theta)$ .

$G_r(\theta)$  represents the mobile service receiver antenna gain versus elevation angle  $\theta$  and is defined as follows:

**Wireless access system elevation antenna pattern**

Elevation angle, $\theta$ (degrees)	Gain $G_r(\theta)$ (dBi)
$45 < \theta \leq 90$	-4
$35 < \theta \leq 45$	-3
$0 < \theta \leq 35$	0
$-15 < \theta \leq 0$	-1
$-30 < \theta \leq -15$	-4
$-60 < \theta \leq -30$	-6
$-90 < \theta \leq -60$	-5

4 For the protection of the aeronautical mobile (R) service (AM(R)S) in the frequency band 5 091-5 150 MHz, the maximum pfd produced at the surface of the Earth, where AM(R)S may be deployed in accordance with No. **5.4B03**, by emissions from an aircraft station of an aeronautical mobile service system, limited to transmissions of telemetry for flight testing, shall not exceed:  $-89.4 \text{ dB(W/(m}^2 \cdot 20 \text{ MHz))} - G_r(\theta)$ .

$G_r(\theta)$  represents the mobile service receiver antenna gain versus elevation angle  $\theta$  and is defined as follows:

$$G_r(\theta) = \max[G_1(\theta), G_2(\theta)]$$

$$G_1(\theta) = 6 - 12 \left( \frac{\theta}{27} \right)^2$$

$$G_2(\theta) = -6 + 10 \log \left[ \left( \max \left\{ \frac{|\theta|}{27}, 1 \right\} \right)^{-1.5} + 0.7 \right]$$

where:

$G(\theta)$ : gain relative to an isotropic antenna (dBi)

$\theta$ : absolute value of the elevation angle relative to the angle of maximum gain (degrees).

**ADD** COM4/380/11 (B17/404/71)

**RESOLUTION 419 (WRC-07)**

**Considerations for use of the band 5 091-5 150 MHz by the aeronautical mobile service for certain aeronautical applications**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) the current allocation of the 5 091-5 150 MHz band to the fixed-satellite (FSS) (Earth-to-space), which is limited to feeder links of non-geostationary-satellite systems in the mobile-satellite service;
- b) the current allocation of the frequency band 5 000-5 150 MHz to the aeronautical mobile-satellite (R) service, subject to agreement obtained under No. **9.21**, and the aeronautical radionavigation service (ARNS);
- c) that this Conference allocated the band 5 091-5 150 MHz to the aeronautical mobile service (AMS) on a primary basis, subject to No. **5.4B03**,

*recognizing*

- a) that precedence is to be given to the microwave landing system (MLS) in accordance with No. **5.444** in the frequency band 5 030-5 091 MHz;
- b) that Resolution **114 (Rev.WRC-03)** applies to the sharing conditions between FSS and ARNS in the band 5 091-5 150 MHz;
- c) that Resolutions [**COM4/4**] (**WRC-07**) and [**COM4/7**] (**WRC-07**) also provide guidance on the use of the band 5 091-5 150 MHz by AMS,

*noting*

that Recommendation ITU-R M.1827 describes methods for ensuring compatibility between AMS for aeronautical security applications and FSS operating in the band 5 091-5 150 MHz,

*resolves*

- 1 that the use of AMS for aeronautical applications described in *noting* above is limited to stations providing confidential radiocommunications intended for systems used in response to interruption of aircraft operations that have not been permitted by the appropriate authorities;
- 2 that AMS stations for such aeronautical applications shall be designed to operate in accordance with Recommendation ITU-R M.1827;
- 3 that administrations, in making assignments, shall ensure that requirements for the aeronautical mobile (R) service take precedence over those of AMS for applications described in *resolves* 1 and 2 above.

**ADD** COM4/380/12 (B17/404/72)

**RESOLUTION 420 (WRC-07)**

**Consideration of the frequency bands between 5 000 and 5 030 MHz for aeronautical mobile (R) service surface applications at airports**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a)* the current allocation of the frequency band 5 000-5 010 MHz to the aeronautical mobile-satellite (R) service (AMS(R)S), subject to agreement obtained under No. **9.21**, the aeronautical radionavigation service (ARNS) and the radionavigation-satellite service (RNSS) (Earth-to-space);
- b)* the current allocation of the frequency band 5 010-5 030 MHz to AMS(R)S, subject to agreement obtained under No. **9.21**, ARNS and RNSS (space-to-Earth and space-to-space);
- c)* the current allocation of the frequency band 4 990-5 000 MHz to the radio astronomy service;
- d)* that this Conference has additionally allocated the band 5 091-5 150 MHz to the aeronautical mobile (R) service (AM(R)S), for use by systems operating in accordance with international aeronautical standards, limited to surface applications at airports;
- e)* that the International Civil Aviation Organization (ICAO) is in the process of identifying the technical and operating characteristics of such AM(R)S systems, and that initial estimates for associated spectrum requirements are approximately 60-100 MHz in some portion of the band 5 000-5 150 MHz (Report ITU-R M.2120);
- f)* that the band 5 091-5 150 MHz may not provide sufficient spectrum capacity to satisfy the requirement identified in *considering e)*, and therefore additional spectrum may be required;
- g)* that the protection requirements for the radio astronomy service are given in Recommendation ITU-R RA.769,

*recognizing*

- a)* that the RNSS allocations in these bands were made at WRC-2000;
- b)* that RNSS currently operates in the Earth-to-space direction in the band 5 000-5 010 MHz, and needs access to the space-to-Earth allocation in 5 010-5 030 MHz for service and feeder links in the longer term;
- c)* that RNSS and AM(R)S systems planned in the 5 GHz range are still evolving, and that technical characteristics and operational parameters for these systems have not been fully established within ITU-R;
- d)* that protection of RNSS and the radio astronomy service must first be demonstrated before additional services can be allocated in the bands between 5 000-5 030 MHz;
- e)* that, currently, there are no agreed studies within ITU-R for AM(R)S to ensure protection of RNSS and the radio astronomy service,

*resolves*

- 1 that ITU-R investigate, with priority, AM(R)S spectrum requirements for surface applications in the 5 GHz range, in order to determine if they can be fulfilled in the band 5 091-5 150 MHz;
- 2 that ITU-R further investigate, if necessary, the feasibility of an allocation for AM(R)S for surface applications at airports, study the technical and operational issues relating to the protection of RNSS in the bands between 5 000 and 5 030 MHz and of the radio astronomy service in the band 4 990-5 000 MHz from AM(R)S, and develop appropriate Recommendations;
- 3 that WRC-11 consider results of the above studies and take appropriate actions,

*invites*

- 1 administrations and ICAO to supply technical and operational characteristics for AM(R)S necessary for compatibility studies, and to participate actively in the studies;
- 2 administrations to supply technical and operational characteristics and protection criteria for RNSS necessary for compatibility studies, and to participate actively in the studies,

*instructs the Secretary-General*

to bring this Resolution to the attention of ICAO.

**ADD** PLEN/408/2 (B24/419/5)

## RESOLUTION 421 (WRC-07)

### **Consideration of appropriate regulatory provisions for the operation of unmanned aircraft systems**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that worldwide use of unmanned aircraft systems (UAS) is expected to increase significantly in the near future;
- b) that unmanned aircraft need to operate seamlessly with piloted aircraft in non-segregated airspaces and that there is a need to provide globally harmonized spectrum for that purpose;
- c) that the safe flight operation of UAS needs reliable communication links and associated spectrum, especially for the remote pilot to command and control the flight and to relay the air traffic control communications;
- d) that the safe flight operation of UAS necessitates advanced techniques to detect and track nearby aircraft, terrain and obstacles to navigation in order to ensure the UAS avoids these objects in a manner equivalent to that achieved by manned aircraft;
- e) that satellite radiocommunications are part of UAS operations, in particular to relay transmissions beyond the horizon and maintain safety of flight;
- f) that there is a need to protect existing services;
- g) that some applications of UAS involve high data-rate payload transmissions from the aircraft to remote stations,

*recognizing*

- a) that UAS will operate in the same environment as manned aircraft;

- b) that some UAS will operate below or above the current conventional air traffic of manned aircraft, including in specific environments not accessible to manned aircraft, such as volcanoes, hurricanes, poisonous or electromagnetic zones;
- c) that studies are required to provide a basis for considering regulatory changes, including additional allocations, to accommodate spectrum requirements of UAS consistent with the protection of incumbent services;
- d) that any new allocation should not place undue constraints on services to which the frequency bands are allocated;
- e) that this agenda item is not intended to be used to identify bands for UAS use, but rather only to propose, as necessary, new allocations or modifications to existing allocations to accommodate UAS,

*resolves*

that WRC-11 consider, based on the results of ITU-R studies:

- 1 the spectrum requirements and possible regulatory actions, including additional allocations, to support the remote pilot in commanding and controlling the unmanned aircraft systems and in relaying the air traffic control communications, as mentioned in *considering c)*;
- 2 the spectrum requirements and possible regulatory actions, including additional allocations, to support the safe operation of unmanned aircraft systems not covered by *resolves 1*, as mentioned in *considering d)*,

*invites ITU-R*

- 1 to conduct in time for WRC-11 the necessary studies leading to technical, regulatory and operational recommendations to the Conference, enabling that Conference to decide on appropriate allocations for the operation of UAS;
- 2 that the studies referred to in *invites ITU-R 1* should include sharing and compatibility studies with services already having allocations in those bands;
- 3 to produce a report or a recommendation, as appropriate, on how to accommodate the radiocommunication requirements for UAS payloads,

*further invites*

the International Civil Aviation Organization (ICAO), the International Air Transport Association (IATA), administrations and other organizations concerned to participate in the studies identified in *invites ITU-R* above,

*requests the Secretary-General*

to bring this Resolution to the attention of ICAO.

**MOD** COM4/380/74 (B19/413/25)

RESOLUTION 517 (Rev.WRC-07)

**Introduction of digitally modulated emissions in the  
high-frequency bands between 3 200 kHz and 26 100 kHz  
allocated to the broadcasting service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that digital techniques are being introduced into many existing services;
- b) that digital techniques allow more effective utilization of the frequency spectrum than double-sideband (DSB) techniques;
- c) that digital techniques enable reception quality to be improved;
- d) the relevant parts of Appendix **11** concerning the digital system specification in the HF broadcasting services;
- e) that ITU-R, in its Recommendation ITU-R BS.1514, has recommended system characteristics for digital sound broadcasts in the broadcast bands below 30 MHz;
- f) that digital modulation techniques are expected to provide the means to achieve the optimum balance between sound quality, circuit reliability and bandwidth;
- g) that digitally modulated emissions can, in general, provide more efficient coverage than amplitude-modulated transmissions by using fewer simultaneous frequencies and less power;
- h) that it may be economically attractive, using current technology, to convert modern conventional DSB broadcasting systems to digital operation in accordance with *considering d*);
- i) that some DSB transmitters have been used with digital modulation techniques without transmitter modifications;
- j) that ITU-R is carrying out further studies on the development of broadcasting using digitally modulated emissions in the bands allocated to the broadcasting service below 30 MHz;
- k) that a long period could be needed for the introduction of digital broadcasting, taking into account the cost impact of replacement of transmitters and receivers,

*resolves*

- 1 that the early introduction of digitally modulated emissions as recommended by ITU-R in the HF bands between 3 200 kHz and 26 100 kHz allocated to the broadcasting service is to be encouraged;
- 2 that digitally modulated emissions shall comply with the characteristics specified in the relevant parts of Appendix **11**;
- 3 that whenever an administration replaces a DSB emission by an emission using digital modulation techniques, it shall ensure that the level of interference is not greater than that caused by the original DSB emission, and shall use the RF protection values specified in Resolution **543 (WRC-03)** and Recommendation **517 (Rev.WRC-03)**;
- 4 that the continued use of DSB emissions may be reviewed by a future competent world radiocommunication conference based on administrations' experience with the introduction of digital HF broadcasting services,

*instructs the Director of the Radiocommunication Bureau*

to compile and provide to the future competent world radiocommunication conference referred to in *resolves 4* the latest available complete statistics on the worldwide distribution of digital HF broadcasting receivers and transmitters,

*invites ITU-R*

to continue its studies on digital techniques in HF broadcasting with a view to assisting in the development of this technology for future use,

*invites administrations*

to encourage the inclusion in all new HF broadcasting transmitters put into service after 1 January 2004 of the capability to offer digital modulation,

*further invites administrations*

1 to assist the Director of the Radiocommunication Bureau by providing the relevant statistical data and to participate in ITU-R studies on matters relating to the development and introduction of digitally modulated emissions in the HF bands between 3 200 kHz and 26 100 kHz allocated to the broadcasting service;

2 to bring to the notice of transmitter and receiver manufacturers the recent results of relevant ITU-R studies on spectrum-efficient modulation techniques suitable for use at HF as well as the information referred to in *considering d)* and *e)*, and encourage the availability of affordable low-cost digital receivers.

**MOD** COM6/340/1 (B14/365/45) (R7/411/220)

#### RESOLUTION 525 (Rev.WRC-07)

### **Introduction of high-definition television systems of the broadcasting-satellite service in the band 21.4-22.0 GHz in Regions 1 and 3**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that WARC-92 reallocated the band 21.4-22.0 GHz in Regions 1 and 3 to the broadcasting-satellite service (BSS) to be implemented after 1 April 2007;
- b) that until 1 April 2007 the existing services operating in the band 21.4-22.0 GHz in Regions 1 and 3 in accordance with the Table of Frequency Allocations were therefore entitled to continue operating without harmful interference from other services;
- c) that as of 1 April 2007 the introduction of high-definition television (HDTV) systems in this band is to be regulated in a flexible and equitable manner until such time as a future competent world radiocommunication conference has adopted definitive provisions for this purpose in accordance with Resolution **507 (Rev.WRC-03)**;
- d) that procedures are required for the circumstances envisaged in *considering c)* above,  
*further considering*
  - a) that mitigation techniques for rain attenuation for the BSS have been developed and given in Recommendation ITU-R BO.1659;
  - b) that in the band 21.4-22.0 GHz in Regions 1 and 3, a reference power flux-density for the BSS has been developed and given in Recommendation ITU-R BO.1776;

- c) that in the band 21.4-22.0 GHz in Regions 1 and 3, intra-service sharing criteria for geostationary BSS systems have been developed and given in Recommendation ITU-R BO.1785;
- d) that in the band 21.4-22.0 GHz in Regions 1 and 3, system parameters of BSS between 17.3 GHz and 42.5 GHz and associated feeder links have been developed and given in Report ITU-R BO.2071,

*noting*

- a) that Recommendation ITU-R BT.1201 deals with extremely high resolution imagery (EHRI);
- b) that Recommendation ITU-R BT.1769 contains parameter values for an expanded hierarchy of large screen digital imagery (LSDI) image formats for production and international programme exchange;
- c) that, in future BSS systems in the band 21.4-22.0 GHz, HDTV applications may include such EHRI applications as shown in Report ITU-R BT.2042,

*recognizing*

that there might have been some broadcasting satellite networks that introduced operational HDTV systems in this band before 1 April 2007 without affecting the continued operation of existing services,

*resolves*

to adopt the interim procedures contained in the Annex hereto,

*invites all administrations*

to comply with the above procedures,

*instructs the Radiocommunication Bureau*

to apply the above procedures.

## ANNEX TO RESOLUTION 525 (Rev.WRC-07)

### **Interim procedures for the introduction of broadcasting-satellite service (HDTV) systems in the band 21.4-22.0 GHz in Regions 1 and 3**

#### **Section I – General provisions**

1 All services other than the broadcasting-satellite service (BSS) in the band 21.4-22.0 GHz in Regions 1 and 3 operating in accordance with the Table of Frequency Allocations may operate subject to not causing harmful interference to BSS (HDTV) systems nor claiming protection from such systems. It shall be understood that the introduction of an operational BSS (HDTV) system in the band 21.4-22.0 GHz in Regions 1 and 3 should be regulated by an interim procedure in a flexible and equitable manner until the date to be decided by WRC-11.

#### **Section II – Interim procedure relating to BSS (HDTV) systems**

2 For the purpose of introducing and operating BSS (HDTV) systems in the band 21.4-22.0 GHz in Regions 1 and 3 before the next conference has taken decisions on definitive procedures, all relevant provisions of Articles 9 to 14 except No. 9.11 shall be applied.

3 Administrations shall, to the maximum extent possible, seek to ensure that operational BSS (HDTV) systems introduced in the band 21.4-22.0 GHz in Regions 1 and 3 have characteristics which take into account the studies of the ITU-R for the preparation of WRC-11.

**MOD** COM5/307/32 (B11/329/41) (R6/410/75)

**RESOLUTION 547 (Rev.WRC-07)**

**Updating of the “Remarks” columns in the Tables of Article 9A of Appendix 30A and Article 11 of Appendix 30 of the Radio Regulations**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that this Conference updated the “Remarks” columns in the Tables of Article 9A of Appendix **30A** and Article 11 of Appendix **30** based on the results of studies by the Radiocommunication Bureau;
- b) that this Conference updated the Tables, included in Article 9A of Appendix **30A** and Article 11 of Appendix **30**, that specify affected or affecting networks, terrestrial stations or beams of administrations based on the results of studies by the Radiocommunication Bureau;
- c) that it would be appropriate to update the Tables referred to in *considering b)* to reflect the changes in status of the fixed-satellite service networks and modifications to the characteristics, contained in these Tables,

*recognizing*

- a) that the integrity of the Region 2 Plan and its associated provisions must be preserved;
- b) that the compatibility between the broadcasting-satellite service (BSS) in Regions 1 and 3 and the other services in all three Regions must be ensured,

*resolves*

that, in order to reduce the number of affected and affecting administrations or networks, the Bureau shall carry out the required analyses following any changes in the characteristics and any suppression of assignments contained in Tables 1A and 1B of Article 9A of Appendix **30A** and in Tables 2, 3 and 4 of Article 11 of Appendix **30**,

*instructs the Director of the Radiocommunication Bureau*

to report to WRC-11 and subsequent world radiocommunication conferences on the results of the implementation of this Resolution, with a view to updating the “Remarks” columns in the Tables of Article 9A of Appendix **30A** and Article 11 of Appendix **30** as well as the Tables, contained in the same Articles, that specify affected or affecting networks, terrestrial stations or beams of administrations.

**ADD** COM4/211/6 (B3/224/36) (R2/266/25)

**RESOLUTION 549 (WRC-07)**

**Use of the frequency band 620-790 MHz for existing assignments to stations of the broadcasting-satellite service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the Regional Radiocommunication Conference, (Geneva, 2006) (RRC-06) has adopted an Agreement and associated Plans for digital terrestrial broadcasting for Region 1, except Mongolia, and the Islamic Republic of Iran, in the frequency bands 174-230 MHz and 470-862 MHz;

b) that a number of notices have been submitted to the Radiocommunication Bureau for satellite systems and networks in the band 620-790 MHz under No. **5.311** of the Radio Regulations (Edition of 2004);

c) that many administrations have extensive infrastructure for the transmission and reception of analogue and digital television signals between 620 MHz and 790 MHz;

d) that it is necessary to protect terrestrial services such as terrestrial television broadcasting, fixed, mobile and aeronautical radionavigation services in the band 620-790 MHz (see also Nos. **5.293**, **5.300**, **5.309** and **5.312**);

e) that, as a result of the transition from analogue to digital terrestrial television broadcasting, some countries plan to make available part of that band for applications in the mobile service,

*recognizing*

a) that, in accordance with No. **5.311**, two frequency assignments to BSS stations, “STATSIONAR-T” and “STATSIONAR-T2”, in the band 620-790 MHz were notified and brought into use and that their date of bringing into use was confirmed before 5 July 2003;

b) that this Conference has deleted No. **5.311**, in the light of the protection requirements of the terrestrial television systems and other terrestrial systems mentioned in *considering a) to e)* above;

c) that, according to the records of the Bureau, there has been no complaint of any harmful interference to or request for claiming protection for these two frequency assignments from the terrestrial television systems of any administration;

d) that, by Resolution 1 (RRC-06) on the broadcasting-satellite service in the band 620-790 MHz, RRC-06 *resolves to invite the 2007 World Radiocommunication Conference* “to take appropriate and necessary measures to effectively protect the broadcasting Plans adopted by RRC-06 and their subsequent evolution from the GSO-BSS and/or non-GSO BSS networks/systems which were not brought into use prior to 5 July 2003”;

*further recognizing*

that there is a need to authorize these two frequency assignments to the BSS stations to continue their operation in providing the broadcasting-satellite service to their intended service area,

*resolves*

1 that the frequency assignments to the BSS stations, “STATSIONAR-T” and “STATSIONAR-T2”, as described in *recognizing a)* and recorded in the Master International Frequency Register with a favourable finding, shall be allowed to continue to operate during the period of validity of the assignments in question if so decided by the notifying administration;

2 that any submission of a frequency assignment relating to the broadcasting-satellite service in the frequency band 620-790 MHz, received by the Radiocommunication Bureau under Articles **9** and/or **11**, as the case may be, other than those referred to in *resolves 1*, shall be returned to the submitting administration,

*instructs the Director of the Radiocommunication Bureau*

to implement this Resolution.

**ADD** COM4/380/77 (B19/413/28)

**RESOLUTION 550 (WRC-07)**

**Information relating to the high-frequency broadcasting service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that this Conference reviewed the case for relieving congestion in certain of the HF bands allocated to the broadcasting service;
- b) that this Conference decided to maintain the present Table of Frequency Allocations in the HF bands, in view of the rapid development and use of the bands by all services;
- c) that, as part of a general transition away from analogue transmission systems, digital modulation is being introduced into the HF broadcasting bands;
- d) that, in common with the other services using the HF bands, the broadcasting service has an ongoing need to review the effectiveness of its use of spectrum,

*noting*

that Resolution **517 (Rev.WRC-07)** deals with the introduction of digitally modulated emissions in the HF bands allocated to the broadcasting service,

*noting further*

that ITU-R Study Group 6 has prepared a wide-ranging report, namely Report ITU-R BS.2105 “Information relating to the HF broadcasting service”,

*resolves to invite ITU-R*

to continue studies on HF broadcasting taking into account:

- technical and operational factors,
- digital transmissions, including how the introduction of these emissions will affect HF broadcasting requirements and operations,

*invites administrations and Sector Members*

to participate actively in the aforementioned studies by submitting contributions to ITU-R.

**ADD** PLEN/408/9 (B24/419/10)

**RESOLUTION 551 (WRC-07)**

**Use of the band 21.4-22 GHz for broadcasting-satellite service  
and associated feeder-link bands in Regions 1 and 3**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that WARC-92 allocated the band 21.4-22.0 GHz in Regions 1 and 3 to the broadcasting-satellite service and the allocation came into effect on 1 April 2007;
- b) that after 1 April 2007 the introduction of BSS (HDTV) systems in this band should be regulated in a flexible and equitable manner until such time as a future competent world radiocommunication conference has adopted definitive provisions for this purpose in accordance with Resolution **507 (Rev.WRC-03)**;

- c) that the interim use of this band by the broadcasting-satellite service is subject to the provisions of Resolution **525 (Rev.WRC-07)**;
- d) that future BSS systems in the band 21.4-22.0 GHz may provide extremely high resolution imagery (EHRI) applications as shown in Recommendation ITU-R BT.1201 and Report ITU-R BT.2042;
- e) that, based on its studies, ITU-R has established basic operating parameters of BSS systems in this band, including methods of overcoming attenuation in countries with higher rainfall (Recommendation ITU-R BO.1659 and Report ITU-R BO.2071);
- f) that in the band 21.4-22.0 GHz in Regions 1 and 3, reference power flux-density for the BSS has been developed and given in Recommendation ITU-R BO.1776;
- g) that in the band 21.4-22.0 GHz in Regions 1 and 3, intra-service sharing criteria for GSO BSS systems have been developed and given in Recommendation ITU-R BO.1785;
- h) that *a priori* planning is not necessary and should be avoided as it freezes access according to technological assumptions at the time of planning and then prevents flexible use taking account of real world demand and technical developments;
- i) that interim arrangements for the use of the bands are on a first-come-first-served basis;
- j) that further study is needed for the spectrum usage of the band 21.4-22.0 GHz in Regions 1 and 3,

*noting*

that Resolution **525 (Rev.WRC-07)** identifies interim procedures for introduction of HDTV BSS systems in the band 21.4-22 GHz in Regions 1 and 3,

*resolves*

1 that ITU-R continue technical and regulatory studies on harmonization of spectrum usage, including planning methodologies, coordination procedures or other procedures, and BSS technologies, in preparation for WRC-11, in the 21.4-22 GHz band and the associated feeder-link bands in Regions 1 and 3, taking into account *considering h) and i)*;

2 that WRC-11 review the results of the studies and decide the usage of the 21.4-22 GHz band and the associated feeder-link bands in Regions 1 and 3,

*invites administrations*

to participate in ITU-R studies by providing contributions.

MOD COM6/341/23 (B14/365/46) (R7/411/221)

RESOLUTION 609 (Rev.WRC-07)

**Protection of aeronautical radionavigation service systems from the equivalent power flux-density produced by radionavigation-satellite service networks and systems in the 1 164-1 215 MHz frequency band**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

...

d) that WRC-03 determined that protection of the ARNS from harmful interference can be achieved if the value of the equivalent pfd (epfd) produced by all the space stations of all RNSS (space-to-Earth) systems in the 1 164-1 215 MHz band does not exceed the level of  $-121.5$  dB(W/m<sup>2</sup>) in any 1 MHz band;

...

i) that WRC-03 decided to apply the coordination provisions of Nos. **9.12**, **9.12A** and **9.13** to RNSS systems and networks for which complete coordination or notification information, as appropriate, is received by the Bureau after 1 January 2005,

...

*resolves*

...

5 that in order to allow multiple RNSS systems to operate in the frequency band 1 164-1 215 MHz, no single RNSS system shall be permitted to use up the entire interference allowance specified in *resolves 1* above in any 1 MHz of the 1 164-1 215 MHz band (see Recommendation **608 (Rev.WRC-07)**);

...

8 the administrations participating in the consultation meeting shall designate one administration that shall communicate to the Bureau the results of any aggregate sharing determinations made in application of *resolves 2* above, without regard to whether such determinations result in any modifications to the published characteristics of their respective systems or networks (see Recommendation **608 (Rev.WRC-07)**);

9 that administrations operating or planning to operate ARNS systems in the 1 164-1 215 MHz band should participate, as appropriate, in discussions and determinations relating to the *resolves* above;

10 that the methodology and the reference worst-case ARNS system antenna contained in Recommendation ITU-R M.1642-2 shall be used by administrations for calculating the aggregate epfd produced by all the space stations within all RNSS systems in the band 1 164-1 215 MHz,

*instructs the Radiocommunication Bureau*

1 to participate in consultation meetings mentioned under *resolves 6* and to observe carefully results of the epfd calculation mentioned in *resolves 1*;

2 to determine whether the pfd level in *recommends* 1 of Recommendation **608 (Rev.WRC-07)** is exceeded by any subject space station, and to report the findings of this determination to the participants in the consultation meeting;

3 to publish in the International Frequency Information Circular (BR IFIC), the information referred to in *resolves* 8 and *instructs the Radiocommunication Bureau* 2,

...

## ANNEX TO RESOLUTION 609 (Rev.WRC-07)

### Criteria for application of Resolution 609 (Rev.WRC-07)

...

**ADD** PLEN/408/10 (B24/419/11)

## RESOLUTION 611 (WRC-07)

### Use of portion of the VHF band by the radiolocation service

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the band below 300 MHz is primarily allocated to terrestrial services;
- b) that the radiolocation service has no global primary allocations in the band 30-300 MHz;
- c) that the frequency band 138-144 MHz is allocated to the radiolocation service on a primary basis in Region 2, the frequency band 216-225 MHz is allocated to radiolocation service on a secondary basis in Region 2, and the frequency band 223-230 MHz is also allocated to radiolocation service on a secondary basis in Region 3;
- d) the current regional allocations to radiolocation service are used on the shared basis with other services, specifically with fixed and mobile services;
- e) that due to extensive development of broadcasting service in the frequency bands 174-230 MHz and 470-862 MHz there is an increasing need to accommodate the existing radiolocation service operating in these bands to different frequency bands, while improving the interference mitigation techniques and introducing modern technologies;
- f) that there are emerging requirements for increased resolution and range for radars operation;
- g) that VHF radiowaves propagate well through the ionosphere, thus enabling various space object detection applications including remote space sensing and asteroid detection, as well as for defining the position of natural and artificial Earth satellites, from terrestrial-based radiolocation systems;
- h) that Recommendation ITU-R M.1372 identifies interference reduction techniques which enhance compatibility among radar systems;
- i) that over the horizon operation of radiolocation in VHF frequency range is technically not feasible;
- j) that current requirements for radiolocation systems for space-object detection from terrestrial locations in portion of the band 30-300 MHz are based on 2 MHz bandwidth systems, however allocation with a wider frequency range may provide flexibility and facilitate sharing with existing services;

k) that, to provide adequate spectrum for new radar systems, there is a need to allocate on a primary basis worldwide additional spectrum in the 30-300 MHz frequency range,

*recognizing*

a) that it is important to ensure radiolocation radars can be operated compatibly with the existing primary services having allocations in the portions of the VHF band;

b) that ITU-R initiated studies in response to ITU-R Question 237/8 on characteristics and protection criteria for radars operating in the radiolocation service in the frequency band 30-300 MHz,

*resolves*

1 to consider at WRC-11 a primary allocation to the radiolocation service in the portion of the band 30-300 MHz for the implementation of new applications in the radiolocation service, with bandwidth no larger than 2 MHz, taking into account the results of ITU-R studies;

2 that the introduction of new systems in the radiolocation service shall be avoided in the frequency bands 156.4875-156.8375 MHz and 161.9625-162.0375 MHz, which are used by distress and safety applications in the maritime mobile service,

*invites ITU-R*

1 to continue to study, as a matter of urgency, the technical characteristics, protection criteria, and other factors to ensure that radiolocation systems can operate compatibly with systems operating in accordance with the Table in service in the 30-300 MHz frequency range band;

2 to include the results of the above studies in one or more new or existing ITU-R Recommendations, if appropriate;

3 to complete these studies in time for WRC-11.

**ADD** PLEN/408/11 (B24/419/12)

### RESOLUTION 612 (WRC-07)

#### **Use of the radiolocation service between 3 and 50 MHz to support high-frequency oceanographic radar operations**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that there is increasing interest, on a global basis, in the operation of high-frequency oceanographic radars for measurement of coastal sea surface conditions to support environmental, oceanographic, meteorological, climatological, maritime and disaster mitigation operations;

b) that high-frequency oceanographic radars are also known in parts of the world as HF ocean radars, HF wave height sensing radars or HF surface wave radars;

c) that high-frequency oceanographic radars operate through the use of ground-wave propagation;

d) that high-frequency oceanographic radar technology has applications in global maritime domain awareness by allowing the long-range sensing of surface vessels, which provides a benefit to the global safety and security of shipping and ports;

e) that operation of high-frequency oceanographic radars provides benefits to society through environmental protection, disaster preparedness, public health protection, improved

meteorological operations, increased coastal and maritime safety and enhancement of national economies;

f) that high-frequency oceanographic radars have been operated on an experimental basis around the world, providing an understanding of spectrum needs and spectrum sharing considerations, as well as an understanding of the benefits these systems provide;

g) that between 3 and 50 MHz, no radiolocation allocations exist;

h) that performance and data requirements dictate the regions of spectrum that can be used by high-frequency oceanographic radar systems for ocean observations,

*recognizing*

a) that high-frequency oceanographic radars have been operated on an experimental basis for more than 30 years;

b) that developers of the experimental systems have implemented techniques to make the most efficient use of the spectrum and mitigate interference to other radio services;

c) that the objective of Question ITU-R 240/8 is to study the most appropriate frequency bands for operation of high-frequency oceanographic radars considering both radar system requirements and the protection of existing services;

d) that high-frequency oceanographic radars operate with peak power levels on the order of 50 Watts,

*resolves*

1 to invite ITU-R to identify high-frequency oceanographic radar system applications between 3 and 50 MHz, including bandwidth requirements, appropriate portions of this band for these applications, and other characteristics necessary to conduct sharing studies;

2 to invite ITU-R to conduct sharing analyses between the radiolocation service applications identified under *resolves* 1 and incumbent services in the bands identified to be suitable for the operation of high-frequency oceanographic radar systems;

3 that, if compatibility with existing services is confirmed under *resolves* 2, to recommend that WRC-11 consider allocations to the radiolocation service in several suitable bands between 3 and 50 MHz, as determined in the ITU-R studies, each band not exceeding 600 kHz, for the operation of oceanographic radars,

*invites administrations*

to contribute to the sharing studies between the radiolocation service and incumbent services in portions of the 3 to 50 MHz band identified as suitable for high-frequency oceanographic radar operations,

*invites ITU-R*

to complete the necessary studies, as a matter of urgency, taking into account the present use of the allocated band, with a view to presenting, at the appropriate time, the technical information likely to be required as a basis for the work of WRC-11,

*instructs the Secretary-General*

to bring this Resolution to the attention of the International Maritime Organization (IMO), World Meteorological Organization (WMO) and other international and regional organizations concerned.

**ADD** PLEN/408/13 (B24/419/14)

**RESOLUTION 613 (WRC-07)**

**Global primary allocation to the radiodetermination-satellite service in the frequency band 2 483.5-2 500 MHz (space-to-Earth)**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that determination of position and time using satellite systems offers great societal benefits by, for example, enabling efficiencies in transport utilization, banking and location-based services;
- b) that the accuracy of positions and timing determined by means of transmissions from space subject to ionospheric delays can be improved using multiple frequencies;
- c) that the band 2 483.5-2 500 MHz is allocated worldwide to the fixed, mobile and mobile-satellite services (space-to-Earth) on a primary basis;
- d) that the band 2 400-2 500 MHz is also designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in these bands is subject to the provisions of No. **15.13**;
- e) that the band 2 483.5-2 500 MHz is also allocated to radiolocation on a primary basis in Regions 2 and 3 and on a secondary basis in Region 1;
- f) that the band 2 483.5-2 500 MHz is already allocated to the radiodetermination-satellite service on a primary basis in Region 2 and on a secondary basis in Region 3, and that in addition No. **5.371** specifies a secondary allocation in Region 1 and No. **5.400** a primary allocation in 22 countries of Regions 1 and 3;
- g) that systems in the radiodetermination-satellite service (RDSS) already use the band 2 483.5-2 500 MHz (space-to-Earth) in parts of Region 3 to provide position and timing determination;
- h) that in Europe a radionavigation-satellite system is under development that intends to use the band 2 483.5-2 500 MHz in response to the growing need of public end users for positioning and timing applications,

*recognizing*

- a) that mobile satellite systems using the 2 483.5-2 500 MHz band provide telecommunication services in many remote areas;
- b) that other bands are available for radiodetermination- and radionavigation-satellite services,

*noting*

that the proposed allocation is not intended to prevent the development of other services in the same frequency band but for this to be done in a regulated manner. ITU-R may need to develop the appropriate sharing criteria, taking into account other in-band services,

*resolves to invite ITU-R*

to conduct, and complete in time for WRC-11, the appropriate technical, operational and regulatory studies leading to technical and procedural recommendations to the Conference enabling it to

decide whether a global primary allocation for the radiodetermination-satellite service in the frequency band 2 483.5-2 500 MHz (space-to-Earth) is compatible with other services in the band,

*invites administrations*

to participate in the studies by submitting contributions to ITU-R.

**ADD** PLEN/408/16 (B24/419/16)

## RESOLUTION 614 (WRC-07)

### **Use of the band 15.4-15.7 GHz by the radiolocation service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the aeronautical radionavigation service (ARNS) has an allocation on a primary basis in the frequency range 15.4-15.7 GHz;
- b) that the radionavigation service is a safety service used permanently or temporarily for the safeguarding of human life (RR **1.59**);
- c) that in accordance with **4.10** Member States are to recognize that the safety aspects of radionavigation and other safety services require special measures to ensure their freedom from harmful interference; it is necessary therefore to take this factor into account in the assignment and use of frequencies;
- d) that the mobile aspect of the aeronautical radionavigation service may require the stations of this service to be used in unspecified points;
- e) that the fixed-satellite service has an allocation on a primary basis in the frequency range 15.43-15.63 GHz taking into account the constraints of No. **5.511A**, as well as the bands 15.4-15.43 and 15.63-15.7 GHz taking into account the constraints of No. **5.11D**;
- f) that there are no ICAO-standard ARNS systems operating in this band and that those ARNS systems that do use this band are radars that have similar technical and operational characteristics as radiolocation systems;
- g) that, to provide adequate spectrum for new radar systems, there is a need to allocate on a primary basis worldwide additional spectrum in the band 15.4-15.7 GHz for the radiolocation service;
- h) that emerging requirements for increased resolution and range accuracy necessitate wider emission bandwidths;
- i) that radiolocation services using system low duty cycle emissions, scanning beams and interference reduction have demonstrated compatible operations with radionavigation radars in several bands (2 900-3 100 MHz, 9 000-9 200 MHz and 9 300-9 500 MHz) over many years;
- j) that radars in the radiolocation service operate on a primary basis worldwide in the band 15.7-17.3 GHz;
- k) that Recommendation ITU-R M.1372 identifies interference reduction techniques which enhance compatibility among radar systems;
- l) that Report ITU-R M.2076 contains further mitigation factors for radiolocation interference to radionavigation radars in the 9 GHz band, many of which apply to the band 15.4-15.7 GHz;

*m)* that Recommendation ITU-R M.1730 provides information on the technical characteristics and protection criteria for the radiolocation service in the band 15.7-17.3 GHz,  
*recognizing*

*a)* that it is important to ensure radiolocation radars can be operated compatibly with the existing primary services having allocations in the band 15.4-15.7 GHz and with the radio astronomy service (RAS) in the adjacent band 15.35-15.40 GHz;

*b)* that a primary allocation worldwide may be required to give developers of radar systems operating in the radiolocation service, manufacturers and investors confidence that their systems will have the regulatory assurance to operate globally;

*c)* that the safety aspects of the radionavigation service in RR **1.59** require special measures to ensure the freedom of harmful interference in accordance with RR **4.10**,

*resolves*

to consider at WRC-11 a primary allocation to the radiolocation service in the band 15.4-15.7 GHz, taking into account the results of ITU-R studies,

*invites ITU-R*

1 to study, as a matter of urgency, the technical characteristics, protection criteria, and other factors to ensure that radiolocation systems can operate compatibly with systems in the aeronautical radionavigation and fixed-satellite services in the band 15.4-15.7 GHz, taking account of the safety nature of the aeronautical radionavigation service;

2 to study, as a matter of urgency, the compatibility between the radiolocation service in the band 15.4-15.7 GHz and RAS in the adjacent band 15.35-15.40 GHz;

3 to include the results of the above studies in one or more new or existing ITU-R Recommendations;

4 to complete these studies in time for WRC-11.

**MOD** COM6/258/1 (B5/267/3) (R3/292/101)

#### RESOLUTION 644 (Rev.WRC-07)

### **Radiocommunication resources for early warning, disaster mitigation and relief operations**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

*a)* that administrations have been urged to take all practical steps to facilitate the rapid deployment and effective use of telecommunication resources for early warning, disaster mitigation and disaster relief operations by reducing and, where possible, removing regulatory barriers and strengthening global, regional and transborder cooperation between States;

*b)* the potential of modern telecommunication technologies as an essential tool for disaster mitigation and relief operations and the vital role of telecommunications and ICT for the safety and security of relief workers in the field;

*c)* the particular needs of developing countries and the special requirements of the inhabitants living in high risk areas exposed to disasters, as well as those living in remote areas;

*d)* the work carried out by the Telecommunication Standardization Sector in standardizing the common alerting protocol (CAP), through the approval of the relevant CAP Recommendation;

e) that, under the Strategic Plan of the Union 2008-2011, “encouraging the effective use of telecommunications/ICTs and modern technologies during critical emergencies, as a crucial part of disaster early warning, mitigation, management and relief strategies, in light of the accelerating pace of change in the global environment and of the action lines of WSIS”, is considered one of the three major priorities for ITU in this period;

f) that the majority of terrestrial networks in affected areas were damaged during recent disasters,

*recognizing*

a) Article 40 of the Constitution, on priority of telecommunications concerning safety of life;

b) Article 46 of the Constitution, on distress calls and messages;

c) No. 91 of the Tunis Agenda for the Information Society adopted by the second phase of the World Summit on the Information Society and in particular provision c): “Working expeditiously towards the establishment of standards-based monitoring and worldwide early-warning systems linked to national and regional networks and facilitating emergency disaster response all over the world, particularly in high-risk regions”;

d) Resolution 34 (Rev.Doha, 2006) of the World Telecommunication Development Conference on the role of telecommunications/ICT in early warning and mitigation of disasters and humanitarian assistance, as well as ITU-D Question 22/2 “Utilization of ICT for disaster management, resources and active and passive space-based sensing systems as they apply to disaster and emergency relief situations”;

e) Resolution 36 (Rev. Antalya, 2006) of the Plenipotentiary Conference on telecommunications/information and communication technology in the service of humanitarian assistance;

f) Resolution 136 (Antalya, 2006) of the Plenipotentiary Conference on the use of telecommunications/information and communication technologies for monitoring and management in emergency and disaster situations for early warning, prevention, mitigation and relief;

g) Resolution ITU-R 53 of the Radiocommunication Assembly (Geneva, 2007), on the use of radiocommunications in disaster response and relief;

h) Resolution ITU-R 55 of the Radiocommunication Assembly (Geneva, 2007), on the ITU-R studies of disaster prediction, detection, mitigation and relief,

*noting*

the close relation of this Resolution with Resolution **646 (WRC-03)** on public protection and disaster relief and Resolution **[COM6/2] (WRC-07)** on spectrum management guidelines for emergency and disaster relief radiocommunication, and the need to coordinate activities under these Resolutions in order to prevent any possible overlap,

*resolves*

1 that the ITU Radiocommunication Sector (ITU-R) continue to study, as a matter of urgency, those aspects of radiocommunications/ICT that are relevant to early warning, disaster mitigation and relief operations, such as decentralized means of telecommunications that are appropriate and generally available, including amateur terrestrial and satellite radio facilities, mobile and portable satellite terminals, as well as the use of passive space-based sensing systems;

2 to urge the ITU-R Study Groups, taking into account the scope of ongoing studies/activities appended to Resolution ITU-R 55 of the Radiocommunication Assembly

(Geneva, 2007), to accelerate their work, particularly in the areas of disaster prediction, detection, mitigation and relief,

*instructs the Director of the Radiocommunication Bureau*

1 to support administrations in their work towards the implementation of both Resolutions 36 (Rev. Antalya, 2006) and 136 (Antalya, 2006), as well as the Tampere Convention;

2 to collaborate, as appropriate, with the United Nations Working Group on Emergency Telecommunications (WGET);

3 to participate actively in, and contribute to, the ITU Global Forum on Effective Use of Telecommunications/ICT for Disaster Management: Saving Lives (Geneva, 10-12 December 2007);

4 to participate in, and contribute to, Telecommunications for Disaster Relief and Mitigation – Partnership Coordination Panel (PCP-TDR);

5 to synchronize activities between this Resolution, Resolution **646 (WRC-03)** and Resolution **[COM6/2] (WRC-07)** to prevent a possible overlap.

**ADD** COM6/258/2 (B5/267/5) (R3/292/106)

### RESOLUTION 647 (WRC-07)

#### **Spectrum management guidelines for emergency and disaster relief radiocommunication<sup>1</sup>**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) the Tampere Convention on the Provision of Telecommunications Resources for Disaster Mitigation and Relief Operations (Tampere, 1998)<sup>2</sup>, an international treaty deposited with the United Nations Secretary-General, calls on the States Parties, when possible, and in conformity with their national law, to develop and implement measures to facilitate the availability of telecommunication resources for such operations;

b) that some administrations may have different operational needs and spectrum requirements for emergency and disaster-relief applications, depending on the circumstances;

c) that the immediate availability of pre-identified and pre-coordinated frequencies, and/or spectrum-flexible technologies to allow near-instantaneous decisions to make use of available spectrum, are important for successful telecommunications in the very early stages of humanitarian assistance intervention for disaster relief,

*recognizing*

a) Resolution 36 (Rev. Antalya, 2006) of the Plenipotentiary Conference on telecommunications/information and communication technologies (ICTs) in the service of humanitarian assistance;

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<sup>1</sup> The term “emergency and disaster relief radiocommunication” refers to radiocommunications used by agencies and organizations dealing with a serious disruption of the functioning of society, posing a significant widespread threat to human life, health, property or the environment, whether caused by accident, natural phenomena or human activity, and whether occurring suddenly or as a result of complex, long-term processes.

<sup>2</sup> However, a number of countries have not ratified the Tampere Convention.

- b) Resolution 136 (Antalya, 2006) of the Plenipotentiary Conference on the use of telecommunications/information and communication technologies for monitoring and management in emergency and disaster situations for early warning, prevention, mitigation and relief;
- c) Resolution 34 (Rev.Doha, 2006) of the World Telecommunication Development Conference (WTDC) on the role of telecommunications/ICT in early warning and mitigation of disasters and humanitarian assistance, as well as ITU-D Question 22/2 “Utilization of ICT for disaster management, resources, and active and passive space-based sensing systems as they apply to disaster and emergency relief situations”;
- d) Resolution 48 (Doha, 2006) of WTDC on strengthening cooperation among telecommunication regulators;
- e) Resolution **644 (Rev.WRC-07)** on radiocommunication resources for early warning, disaster mitigation and relief operations;
- f) Programme 6 (Least developed countries and small island developing states, and emergency communications), a revised version of which was adopted by WTDC (Doha, 2006);
- g) Resolution **646 (WRC-03)** on public protection and disaster relief;
- h) Recommendation ITU-R M.1637, which offers guidance to facilitate the global circulation of radiocommunication equipment in emergency and disaster relief situations;
- i) Report ITU-R M.2033, which contains information on some bands or parts thereof which have been designated for disaster relief operations,

*aware*

of the progress made in regional organizations around the world, and in particular in regional telecommunication organizations, on matters related to emergency communications planning and response,

*recognizing further*

- a) Resolution ITU-R 55 of the Radiocommunication Assembly (Geneva, 2007), which invites the ITU-R Study Groups to take into consideration the scope of ongoing studies/activities outlined in the annex to the Resolution, and to develop guidelines related to the management of radiocommunications in disaster prediction, detection, mitigation and relief, collaboratively and cooperatively, within ITU and with organizations external to the Union, in order to avoid duplication of effort;
- b) Resolution ITU-R 53 of the Radiocommunication Assembly (Geneva, 2007), which instructs the Director of the Radiocommunication Bureau to assist Member States with their emergency radiocommunication preparedness activities such as the listing of currently available frequencies for use in emergency situations for inclusion in a database maintained by the Bureau,

*noting*

- a) that when a disaster occurs, the disaster relief agencies are usually the first on the scene using their day-to-day communication systems, but that in most cases other agencies and organizations may also be involved in disaster relief operations;
- b) that there is a critical requirement to perform immediate spectrum management actions, including frequency coordination, sharing and spectrum reuse, within a disaster area;
- c) that national spectrum planning for emergency and disaster relief should take into account the need for cooperation and bilateral consultation with other concerned administrations,

which can be facilitated by spectrum harmonization and/or spectrum-flexible technology, as well as agreed spectrum management guidelines pertaining to disaster relief and emergency planning;

d) that in times of disasters, radiocommunication facilities may be destroyed or impaired and the national regulatory authorities may not be able to provide the necessary spectrum management services for the deployment of radio systems for relief operations;

e) that the identification of frequency availability within individual administrations within which equipment could operate, or the use of spectrum-flexible equipment that allows for operation in various spectrum-access scenarios, may ease the interoperability and/or interworking, with mutual cooperation and consultation, especially in national, regional and cross-border emergency situations and disaster relief activities,

*noting further*

a) that flexibility must be afforded to disaster relief agencies and organizations to use current and future radiocommunications, so as to facilitate their humanitarian operations;

b) that it is in the interest of administrations and disaster relief agencies and organizations to have access to updated information on national spectrum planning for emergency and disaster relief,

*resolves*

1 to encourage administrations to consider global and/or regional frequency bands/ranges for emergency and disaster relief when undertaking their national planning and to communicate this information to the Bureau;

2 to encourage administrations to maintain available frequencies for use in the very early stages of humanitarian assistance intervention for disaster relief,

*instructs the Director of the Radiocommunication Bureau*

1 to assist Member States with their emergency communication preparedness activities by establishing a database of currently available frequencies for use in emergency situations, which are not limited to those listed in Resolution **646 (WRC-03)**, and by issuing an appropriate listing, taking into account Resolution ITU-R 53 of the Radiocommunication Assembly (Geneva, 2007);

2 to maintain the database and facilitate online access thereto by administrations, national regulatory authorities, disaster relief agencies and organizations, in particular the United Nations Emergency Relief Coordinator, in accordance with the operating procedures developed for disaster situations;

3 to collaborate with the United Nations Office for the Coordination of Humanitarian Affairs and other organizations, as appropriate, in the development and dissemination of standard operating procedures and relevant spectrum management practices for use in the event of a disaster situation;

4 to take into consideration all relevant activities in ITU's other two Sectors and General Secretariat;

5 to report on the progress on this Resolution to subsequent World Radiocommunication Conferences,

*invites ITU-R*

to conduct studies as necessary, and as a matter of urgency, in support of the establishment of appropriate spectrum management guidelines applicable in emergency and disaster relief operations,

*urges administrations*

1 to participate in the emergency communication preparedness activities described above and to provide the relevant information to the Bureau concerning their national frequency allocations and spectrum management practices for emergency and disaster relief radiocommunications, taking into account Resolution ITU-R 53 of the Radiocommunication Assembly (Geneva, 2007);

2 to assist in keeping the database up to date by advising the Bureau on an ongoing basis of any modifications to the information requested above.

**ADD** PLEN/408/12 (B24/419/13)

**RESOLUTION 671 (WRC-07)**

**Recognition of systems in the meteorological aids service  
in the frequency range below 20 kHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that lightning detection systems used by meteorological organizations are long-established, passive applications which have operational, safety-of-life considerations providing warnings of extreme weather events to a range of organizations and customers including emergency services, aviation, defence, the utilities and the public;

b) that although lightning strikes emit electromagnetic waves over a range of frequencies, the propagation characteristics below 20 kHz make the frequency range of about 9 kHz to 20 kHz the most suitable for detection;

c) that to avoid interference in certain parts of the world, the centre frequency of a current international network of lightning detection stations, which had been centred on 9.765625 kHz since 1939, has recently had to be moved to 13.733 kHz;

d) that other lightning detection systems often use a combination of UHF and LF frequencies, but these provide more limited coverage than systems operating at VLF frequencies;

e) that it is expected that between 30 and 40 reception stations would be needed at VLF frequencies to provide global coverage;

f) that these systems have coexisted with services already having allocations in potential spectrum for systems in the meteorological aid service for a considerable period of time without interference,

*recognizing*

a) that the accurate location of lightning is important to public safety. As well as the dangers of the lightning strike itself, thunderstorms can result in intense precipitation with consequent flooding, severe icing, wind shear, turbulence and gusting winds;

b) that recent instances of interference have increased concerns that lightning detection systems may not be able to maintain the quality of service or to provide global coverage unless recognition is afforded to these systems in the Radio Regulations, and coordination with other services is carried out properly;

c) that this passive use is poorly protected at present;

d) that it is desirable to allocate frequencies to the meteorological aids service for lightning detection systems in spectrum which is not shared with high-power systems,

*noting*

- a) that the 3 dB bandwidth of existing lightning detection systems is approximately 2.5 kHz and hence an allocation of between 3 and 5 kHz bandwidth would be required;
- b) that the proposed allocation is not intended to prevent the development of other services in the same frequency band but for this to be done in a regulated manner. ITU-R may need to develop the appropriate sharing criteria, taking into account both in-band and adjacent band services,

*resolves*

- 1 to invite ITU-R to conduct, and complete in time for WRC-11, the required studies leading to technical and procedural recommendations to the Conference enabling it to decide on an appropriate method of providing recognition to long-established systems, including the possibility of making an allocation to the meteorological aids service in the frequency range below 20 kHz;
- 2 that the studies referred to in *resolves* 1, without placing constraints on existing services operating in accordance with the Radio Regulations, shall include sharing and compatibility studies with services already having allocations in potential spectrum for systems in the meteorological aids service taking into account the needs of other services,

*invites administrations*

to participate in the studies by submitting contributions to ITU-R.

**ADD** PLEN/408/17 (B24/419/17)

#### RESOLUTION 672 (WRC-07)

### **Extension of the allocation to the meteorological-satellite service in the band 7 750-7 850 MHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the band 7 750-7 850 MHz is allocated to the fixed, the meteorological-satellite (space-to-Earth) and the mobile services;
- b) that this band is currently used by non-geostationary polar orbiting meteorological satellites transmitting typically in data dump modes to large earth stations;
- c) the maximum contact times between satellites and corresponding earth stations occur at high latitudes resulting in optimum deployment of such earth stations at high latitudes in the northern and the southern hemispheres;
- d) that the bandwidth requirements for transmission of data from high-resolution sensors on the next-generation non-geostationary meteorological satellites planned to be launched in the time-frame 2017-2020 are in excess of 100 MHz;
- e) that an extension of the current allocation by 50 MHz would be necessary to accommodate future data transmission requirements;
- f) that the band 7 850-7 900 MHz is allocated to exactly the same services as the band 7 750-7 850 MHz and would be a prime candidate for extension of the current allocation to the meteorological-satellite service;

g) that ITU-R studies conducted prior to WRC-97 concluded that sharing between the meteorological-satellite service and the fixed service is possible with ample margins resulting to the allocation of the band 7 750-7 850 MHz,

*recognizing*

1 that the data obtained by these meteorological satellites are essential for global weather forecast, climate changes and hazard predictions;

2 that existing systems need to be duly protected,

*resolves*

1 to invite ITU-R to conduct sharing analyses between non-geostationary meteorological satellites operating in the space-to-Earth direction and the fixed and mobile services in the band 7 850-7 900 MHz with a view to extending the current allocation in the space-to-Earth direction to this band;

2 to recommend that WRC-11 review the results of the studies under *resolves* 1;

3 to make appropriate modifications to the Table of Frequency Allocations with respect to *resolves* 1, based on proposals from administrations,

*invites administrations*

to contribute to the sharing studies between the meteorological-satellite service and the fixed and mobile services in the frequency range 7 850-7 900 MHz,

*invites ITU-R*

to complete the necessary studies, taking into account the present use of allocated bands, with a view to presenting its results to WRC-11.

**ADD** COM6/409/1 (B22/416/4)

### RESOLUTION 673 (WRC-07)

#### **Radiocommunications use for Earth observation applications**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that *in situ* and remote Earth observation capabilities depend on the availability of radio frequencies under a number of radio services, allowing for a wide range of passive and active applications on satellite- or ground-based platforms;

b) that the collection and exchange of Earth observation data are essential for maintaining and improving the accuracy of weather forecasts that contribute to the protection of life, preservation of property and sustainable development throughout the world;

c) that Earth observation data are also essential for monitoring and predicting climate changes, for disaster prediction, monitoring and mitigation, for increasing the understanding, modelling and verification of all aspects of climate change, and for related policy-making;

d) that Earth observations are also used to obtain pertinent data regarding natural resources, this being particularly crucial for the benefit of developing countries;

e) that Earth observations are performed for the benefit of the whole international community and all mankind, are shared among all countries and are generally available at no cost,

*recognizing*

a) that § 20 c) of the Plan of Action of the World Summit on Information Society (Geneva, 2003), on e-environment, calls for the establishment of monitoring systems, using information and communication technologies (ICT), to forecast and monitor the impact of natural and man-made disasters, particularly in developing countries, least developed countries and small economies;

b) Resolution 34 (Rev. Doha, 2006) of the World Telecommunication Development Conference, on the role of telecommunications/ICT in early warning and mitigation of disasters and humanitarian assistance;

c) ITU-D Question 22/2 “Utilization of ICT for disaster management, resources and active and passive space-based sensing systems as they apply to disaster and emergency relief situations”,

*noting*

a) that Earth observation applications are conducted under the Earth exploration-satellite (active and passive), meteorological satellite, meteorological aids and radiolocation services;

b) that some essential passive frequency bands are covered by No. **5.340**,

*noting further*

a) that the importance of Earth observation radiocommunications applications has been stressed by a number of international bodies such as the Group on Earth Observation (GEO), the World Meteorological Organization (WMO) and the Intergovernmental Panel on Climate Change (IPCC) and that collaboration of ITU-R with these bodies could be important;

b) that, in particular, GEO is leading a worldwide effort to build a Global Earth Observation System of Systems (GEOSS) to provide comprehensive and coordinated Earth observations from thousands of instruments worldwide, transforming the collected data into vital information for society and mankind;

c) that GEOSS provides a broad range of societal benefits, including disaster management and aspects related to human health, energy, climate, water, weather, ecosystems, agriculture and biodiversity;

d) that more than 90 per cent of natural disasters are climate- or weather-related;

e) that some essential passive Earth observation operations currently suffer radio interference resulting in erroneous data or even complete loss of data;

f) that, although meteorological and Earth observation satellites are currently only operated by a limited number of countries, the data and/or related analyses resulting from their operation are distributed and used globally, in particular by national weather services in developed and developing countries and by climate-change-related organizations,

*resolves to invite ITU-R*

to carry out studies on possible means to improve the recognition of the essential role and global importance of Earth observation radiocommunications applications and the knowledge and understanding of administrations regarding the utilization and benefits of these applications,

*instructs the Director of the Radiocommunication Bureau*

to include the results of these studies in his Report to WRC-11 for the purposes of considering adequate actions in response to *resolves to invite ITU-R* above, noting that neither new allocations nor additional protection would be objectives of such studies,

*invites administrations*

to participate actively in the studies by submitting contributions to ITU-R.

MOD COM6/251/3 (B5/267/4) (R3/292/102)

RESOLUTION 703 (Rev.WRC-07)

**Calculation methods and interference criteria recommended by ITU-R  
for sharing frequency bands between space radiocommunication and  
terrestrial radiocommunication services or between space  
radiocommunication services**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that, in frequency bands shared with equal rights by space radiocommunication and terrestrial radiocommunication services, it is necessary to impose certain technical limitations and coordination procedures on each of the sharing services for the purpose of limiting mutual interference;
- b) that, in frequency bands shared by space stations located on geostationary satellites, it is necessary to impose coordination procedures for the purpose of limiting mutual interference;
- c) that the calculation methods and interference criteria relating to coordination procedures referred to in *considering a)* and *b)* are based upon ITU-R Recommendations;
- d) that, in recognition of the successful sharing of the frequency bands by space radiocommunication and terrestrial radiocommunication services, and the continuing improvements in space technology and that of the Earth segment, each Radiocommunication Assembly has improved upon some of the technical criteria recommended by the preceding Assembly;
- e) that the ITU Radiocommunication Assembly has approved a procedure for approving Recommendations between Radiocommunication Assemblies;
- f) that the Constitution recognizes the right of Member States to make special arrangements on telecommunication matters; however, such arrangements shall not be in conflict with the terms of the Constitution, Convention or of the Regulations annexed thereto as far as harmful interference to the radio services of other countries is concerned;
- g) that the use of this Resolution may reduce the need for incorporation by reference of some ITU-R Recommendations,

*is of the opinion*

- a) that future decisions of the ITU-R are likely to make further changes in the recommended calculation methods and interference criteria;
- b) that the administrations should whenever possible apply the current ITU-R Recommendations on sharing criteria when planning systems for use in frequency bands shared with equal rights between space radiocommunication and terrestrial radiocommunication services, or between space radiocommunication services,

*invites administrations*

to submit contributions to the Radiocommunication Study Groups, providing information on practical results and experience of sharing between terrestrial and space radiocommunication services or between space services, which help to bring about significant improvements in coordination procedures, calculation methods and harmful interference thresholds, and thereby to optimize the available orbit/spectrum resources,

*resolves*

1 that the Director of the Radiocommunication Bureau, in consultation with Study Group Chairmen, shall annually prepare a list identifying the relevant newly approved ITU-R Recommendations relating to sharing between space radiocommunication and terrestrial radiocommunication services, or between space radiocommunication services;

2 that the Director of the Radiocommunication Bureau shall, once a year, publish this list electronically for the information of all administrations.

**MOD** COM4/380/76 (B19/413/27)

## RESOLUTION 729 (Rev.WRC-07)

### **Use of frequency adaptive systems in the MF and HF bands\***

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that the efficiency of spectrum use will be improved by the use of frequency adaptive systems in the MF and HF bands shared by the fixed and the mobile services;

b) that trials and deployment of frequency adaptive systems have been under way during the past 30 years and have demonstrated the effectiveness of such systems and improved spectrum efficiency;

c) that such improved efficiency is attained through:

- shorter call set-up and improved transmission quality by selection of the most suitable assigned channels;
- reduced channel occupancy, permitting the same channels to be used by different networks, yet decreasing the probability of harmful interference;
- minimization of the transmitter power required for each transmission;
- continued optimization of the emissions owing to the sophistication of the systems;
- simple operation by the use of intelligent peripheral equipment;
- reduced need for skilled radio operators;

d) that following WRC-95, the Radiocommunication Bureau no longer undertakes examination with respect to the probability of harmful interference caused by new assignments recorded in the Master International Frequency Register (MIFR) in the non-planned bands below 28 MHz;

e) that WRC-97 introduced a means for notification of block assignments;

f) that frequency adaptive systems will actively contribute to the avoidance of interference since, when other signals are observed on the channel, the frequency adaptive system will move to another frequency,

*resolves*

1 that, in authorizing the operation of frequency adaptive systems in the fixed and mobile services for the MF and HF bands, administrations shall:

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\* This Resolution should be brought to the attention of ITU-D Study Group 2.

- 1.1 not make assignments in those bands:
- governed by the Appendix **25** frequency allotment Plan for the maritime mobile service or the Appendix **27** frequency allotment Plan for the aeronautical mobile (R) service;
  - shared on a co-primary basis with the broadcasting service, radiodetermination service or the amateur services;
  - allocated to the radio astronomy service;
- 1.2 avoid use which may affect frequency assignments involving safety services made in accordance with Nos. **5.155**, **5.155A** and **5.155B**;
- 1.3 take into account any footnotes applicable to the proposed bands and the implications regarding compatibility;
- 2 that frequency adaptive systems shall automatically limit simultaneous use of frequencies to the minimum necessary for communication requirements;
- 3 that, with a view to avoiding harmful interference, frequency adaptive systems should evaluate the channel occupancy prior to and during operation;
- 4 that assignments for frequency adaptive systems shall be notified to the Bureau in accordance with the provisions of Article **11** and Appendix **4**.

**MOD** PLEN/408/15 (B24/419/2)

**RESOLUTION 734 (Rev.WRC-07)**

**Studies for spectrum identification for gateway links for high-altitude platform stations in the range from 5 850 to 7 500 MHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a)* that ITU has among its purposes “to promote the extension of the benefit of the new telecommunication technologies to all the world’s inhabitants” (No. 6 of the Constitution);
- b)* that systems based on new technologies using high altitude platform stations (HAPS) can potentially be used for various applications such as the provision of high-capacity services to urban and rural areas;
- c)* that provision has been made in the Radio Regulations for the deployment of HAPS in specific bands, including as base stations to serve IMT-2000 networks (Article **11**);
- d)* that it is desirable to have adequate provision for gateway links to serve HAPS operations;
- e)* that ITU-R has studied spectrum sharing between HAPS as a fixed service with other fixed services and with fixed-satellite services in much higher bands, as well as the regulatory considerations to avoid interference to services in neighbouring countries,

*recognizing*

- a)* that ITU-R has studied the sharing of HAPS with fixed services in part of the 6 GHz band resulting in Recommendation ITU-R F.1764, which provides a methodology for interference evaluation that could be used for sharing studies between fixed services systems and HAPS;

- b) that as in some areas the bands may be saturated with other fixed service use and it would be desirable to have greater flexibility in the choice of spectrum for gateway operations in support of HAPS networks;
- c) that the World Summit on the Information Society has encouraged the development and application of emerging technologies to facilitate infrastructure and network development worldwide with special focus on underserved regions and areas;
- d) that the allocations to the fixed-satellite service in the band 5 925–6 425 MHz are heavily used for Earth-to-space links providing telecommunication services, and that are particularly important for the development of infrastructure in developing countries through the deployment of VSAT capabilities;
- e) that more than 160 geostationary satellites currently in operation use frequencies in the range 5 850-6 725 MHz and such use will continue to grow in the future;
- f) that No. 5.441 in the band 6 725-7 025 MHz is used by uplinks in the FSS Plan of Appendix **30B** of the Radio Regulations (see No. 5.441), and, while the band 5 150-5 250 is used by uplinks on non-geostationary-satellite systems (see No. 5.447A);
- g) that the Earth-to-space transmissions in the FSS described in “*recognizing*” d), e) and f) above will have levels much higher than those in HAPS systems and have therefore the potential for causing interference to HAPS receivers either on the ground or on the platform;
- h) that in view of *recognizing* g), HAPS use of frequencies around 6 GHz may be limited by current FSS transmit earth stations while protection of HAPS receivers may limit future deployment of these FSS earth stations,

*resolves*

1 to invite ITU-R to extend the sharing studies, with a view to identifying two channels of 80 MHz each for gateway links for HAPS in the range from 5 850 to 7 500 MHz, in bands already allocated to the fixed service, while ensuring the protection of existing services;

2 to recommend to WRC-11 to review the extended studies, with a view to taking an appropriate decision for the deployment of HAPS gateway links to service the relevant stratospheric base station operations and support for these networks,

*encourages administrations*

to contribute actively to the sharing studies in accordance with this Resolution.

**MOD** COM5/265/7 (B6/268/96) (R5/336/7)

#### RESOLUTION 739 (Rev.WRC-07)

### **Compatibility between the radio astronomy service and the active space services in certain adjacent and nearby frequency bands**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that adjacent or nearby primary service allocations have been made to the radio astronomy service, and to various space services, such as the fixed-satellite service (FSS), radionavigation-satellite service (RNSS), mobile-satellite service (MSS) and broadcasting-satellite service (BSS), hereafter referred to as “active space services”;

- b) that, in many cases, the frequencies used by the radio astronomy service (RAS) are chosen to study natural phenomena producing radio emissions at frequencies fixed by the laws of nature, so shifting frequency to avoid or mitigate interference problems may not be possible;
- c) that Report ITU-R SM.2091 provides a methodology for conducting, and a framework for documenting the results of, compatibility studies between active space service and the radio astronomy service band-pairs;
- d) that Report ITU-R SM.2091 also provides the results of compatibility studies between the radio astronomy service and an active space service in certain adjacent and nearby bands;
- e) that appropriate consultation between administrations has the potential to lead to the development of innovative solutions and to the rapid deployment of systems;
- f) that, for technical or operational reasons, more stringent spurious emission limits than the general limits in Appendix 3 may be required to protect the RAS from active services in specific bands,

*noting*

- a) that the additional burden of undertaking any technical examination should not be placed on the Radiocommunication Bureau;
- b) that a consultation procedure, as contained in this Resolution, would not place an additional burden on the Bureau;
- c) that Recommendation ITU-R M.1583 provides a methodology based on the equivalent power flux-density (epfd) concept for calculation of interference resulting from unwanted emissions from non-geostationary (non-GSO) satellite systems of the MSS or RNSS into radio astronomy stations;
- d) that Recommendation ITU-R S.1586 provides a methodology based on the epfd concept for calculation of interference resulting from unwanted emissions from non-GSO systems of the FSS into radio astronomy stations;
- e) that the methodology described in these Recommendations may also be used to study the case of non-GSO systems in the BSS;
- f) that Recommendation ITU-R RA.1631 provides antenna patterns to be used for compatibility analyses between non-GSO systems and RAS stations, based on the epfd concept;
- g) that Recommendation ITU-R RA.1513 provides acceptable levels of data loss to radio astronomy observations, stating in particular that the percentage of data loss caused by any system should be lower than 2%;
- h) that some of the results documented in Report ITU-R SM.2091 may be used as threshold levels to initiate the consultation procedure;
- i) that the results of successful consultation between concerned administrations would ensure that the interests of both the active and radio astronomy services are considered;
- j) that measures taken by active space services to protect radio astronomy stations from interference may result in increased costs and/or reduced capabilities for those services;
- k) that conversely, not taking such measures may result in additional operating costs and reduced operational effectiveness for the radio astronomy stations concerned;
- l) that the implementation of additional interference mitigation measures at the radio astronomy station may increase operating costs and reduce observational effectiveness;

*m)* that conversely, not implementing such measures may impose upon the active space services an additional cost burden and reduction in service capability,

*recognizing*

*a)* that unwanted emissions produced by stations of the active space services may cause unacceptable interference to stations of the RAS;

*b)* that, although some unwanted emissions from transmitters on space stations can be controlled through careful design methods and appropriate testing procedures, other unwanted emissions, such as narrow-band spurious emissions, generated by uncontrollable and/or unpredictable physical mechanisms, may only be detected after the spacecraft is launched;

*c)* that there is an uncertainty in the pre-launch assessment of the levels of unwanted emissions;

*d)* that it is necessary to ensure an equitable sharing of burden for achieving compatibility between the active space services and the RAS;

*e)* that for those cases where difficulties are encountered in meeting the values in Annex 1, a consultation procedure could be used to resolve the difficulties,

*resolves*

1 that an administration takes all reasonable steps to ensure that any space station or satellite system being designed and constructed to operate in the bands in Annex 1 meets the values given therein at any radio astronomy station operating in the corresponding bands identified in this Annex;

2 that in the event that during construction and prior to launch it is determined that, after having considered all reasonable means, the unwanted emissions from the space station or satellite system cannot meet the values given in Annex 1, the administration that notified the space station or satellite system contacts, as soon as possible, the administration operating the radio astronomy station to confirm that *resolves* 1 has been fulfilled, and the concerned administrations enter into a consultation process in order to achieve a mutually acceptable solution;

3 that in the event, following the space station launch, an administration operating a radio astronomy station determines that, due to unexpected circumstances, a space station or satellite system does not meet the values for unwanted emissions given in Annex 1 at that radio astronomy station, it contacts the administration that notified the space station or satellite system so that the administration that notified the space station or satellite system confirms that *resolves* 1 has been fulfilled, and the concerned administrations enter into a consultation process in order to identify further steps with a view to achieving a mutually acceptable solution;

4 that the radio astronomy stations to be taken into account in applying *resolves* 1, 2 and 3 are those which are operating in the frequency band(s) identified in Annex 1 and which are notified before the date of reception of the advance publication information of the space station or satellite system to which this Resolution applies;

5 that the space stations or satellite systems to be considered in the application of *resolves* 1 to 4 above are those designed to operate in the space service frequency bands listed in the tables of Annex 1 for which advance publication information (API) is received by the Bureau following the entry into force of the Final Acts of the appropriate conference, as specified in these tables;

6 that the objective of the consultation process in *resolves* 1, 2 and 3 is to achieve a mutually acceptable solution, using as guidance Report ITU-R SM.2091 and any other ITU-R Recommendations deemed relevant by the concerned administrations;

7 that the Bureau shall make no examination or finding with respect to this Resolution under either Article 9 or 11,

*invites administrations*

1 to take all appropriate and practicable steps, from the design phase onward, to ensure that unwanted emissions are minimized from space stations that are planned to operate in one or more space service allocations, in order to avoid exceeding the threshold levels of unwanted emissions identified in Annex 1 at any radio astronomy station;

2 to take all practicable steps, from the design phase onward, to minimize the sensitivity of radio astronomy stations to interference and to take into account the need to implement interference mitigation measures.

## ANNEX 1 TO RESOLUTION 739 (Rev.WRC-07)

### **Unwanted emission threshold levels**

The unwanted emission threshold levels applicable to geostationary space stations are given in Table 1-1 in terms of power flux-density (pfd) in a reference bandwidth produced at a radio astronomy station.

In Table 1-1 the unwanted emission threshold levels given in the fourth, sixth and eighth columns (associated with the reference bandwidth contained in the adjacent columns) should be met by any geostationary space station operating in the bands indicated in the second column at the radio astronomy station operating in the band mentioned in the third column.

The unwanted emission threshold levels applicable to space stations of a non-geostationary system are given in Table 1-2 in terms of the equivalent power flux-density (epfd), produced at a radio astronomy station in a reference bandwidth by all the space stations in a non-geostationary satellite system that are visible to the radio astronomy station considered, not to be exceeded during a given percentage of time, over the whole sky.

In Table 1-2 the epfd value given in the fourth, sixth and eighth columns (associated with the reference bandwidths contained in the adjacent column) should be met by all the space stations of a non-geostationary satellite system operating in the bands indicated in the second column at the radio astronomy station operating in the band mentioned in the third column. The epfd value at a given radio astronomy station shall be evaluated by using the antenna pattern and the RAS maximum antenna gain given in Recommendation ITU-R RA.1631. Guidance on the calculation of epfd can be found in Recommendations ITU-R S.1586 and ITU-R M.1583. The elevation angles of the radio astronomy stations to be taken into account in the epfd calculation are those higher than the minimum elevation angle  $\theta_{min}$  of the radio telescope. In the absence of such information a value of  $5^\circ$  shall be taken. The percentage of time during which the epfd level shall not be exceeded is mentioned in Note <sup>(1)</sup> of Table 1-2.

Some sections of Report ITU-R SM.2091 indicate levels of unwanted emissions in radio astronomy bands that certain satellite systems, by design, do not exceed.

TABLE 1-1  
**pdf thresholds for unwanted emissions from any geostationary space station  
at a radio astronomy station**

Space service	Space service band	Radio astronomy band	Single dish, continuum observations		Single dish, spectral line observations		VLBI		Condition of application: the API is received by the Bureau following the entry into force of the Final Acts of:
			pdf <sup>(1)</sup>	Reference bandwidth	pdf <sup>(1)</sup>	Reference bandwidth	pdf <sup>(1)</sup>	Reference bandwidth	
	(MHz)	(MHz)	(dB(W/m <sup>2</sup> ))	(MHz)	(dB(W/m <sup>2</sup> ))	(kHz)	(dB(W/m <sup>2</sup> ))	(kHz)	
MSS (space-to-Earth)	387-390	322-328.6	-189	6.6	-204	10	-177	10	WRC-07
BSS MSS (space-to-Earth)	1 452-1 492 1 525-1 559	1 400-1 427	-180	27	-196	20	-166	20	WRC-03
MSS (space-to-Earth) MSS (space-to-Earth)	1 525-1 559 1 613.8- 1 626.5	1 610.6-1 613.8	NA	NA	-194	20	-166	20	WRC-03
RNSS (space-to-Earth)	1 559-1 610	1 610.6-1 613.8	NA	NA	-194	20	-166	20	WRC-07
BSS FSS (space-to-Earth)	2 655-2 670	2 690-2 700	-177	10	NA	NA	-161	20	WRC-03
FSS (space-to-Earth)	2 670-2 690	2 690-2 700 (in Regions 1 and 3)	-177	10	NA	NA	-161	20	WRC-03
	<b>(GHz)</b>	<b>(GHz)</b>	-	-	-	-	-	-	
BSS	21.4-22.0	22.21-22.5	-146	290	-162	250	-128	250	WRC-03 for VLBI, and WRC-07 for other types of observation

NA: Not applicable, measurements of this type are not made in this band.

<sup>(1)</sup> Integrated over the reference bandwidth with an integration time of 2 000 s.

TABLE 1-2

**epfd thresholds<sup>(1)</sup> for unwanted emissions from all space stations of a non-GSO satellite system at a radio astronomy station**

Space service	Space service band	Radio astronomy band	Single dish, continuum observations		Single dish, spectral line observations		VLBI		Condition of application: the API is received by the Bureau following the entry into force of the Final Acts of:
			epfd <sup>(2)</sup>	Reference bandwidth	epfd <sup>(2)</sup>	Reference bandwidth	epfd <sup>(2)</sup>	Reference bandwidth	
	(MHz)	(MHz)	(dB(W/m <sup>2</sup> ))	(MHz)	(dB(W/m <sup>2</sup> ))	(kHz)	(dB(W/m <sup>2</sup> ))	(kHz)	
MSS (space-to-Earth)	137-138	150.05-153	-238	2.95	NA	NA	NA	NA	WRC-07
MSS (space-to-Earth)	387-390	322-328.6	-240	6.6	-255	10	-228	10	WRC-07
MSS (space-to-Earth)	400.15-401	406.1-410	-242	3.9	NA	NA	NA	NA	WRC-07
MSS (space-to-Earth)	1 525-1 559	1 400-1 427	-243	27	-259	20	-229	20	WRC-07
RNSS (space-to-Earth) <sup>(3)</sup>	1 559-1 610	1 610.6-1 613.8	NA	NA	-258	20	-230	20	WRC-07
MSS (space-to-Earth)	1 525-1 559	1 610.6-1 613.8	NA	NA	-258	20	-230	20	WRC-07
MSS (space-to-Earth)	1 613.8-1 626.5	1 610.6-1 613.8	NA	NA	-258	20	-230	20	WRC-03

NA: Not applicable, measurements of this type are not made in this band.

<sup>(1)</sup> These epfd thresholds should not be exceeded for more than 2% of time.

<sup>(2)</sup> Integrated over the reference bandwidth with an integration time of 2 000 s.

<sup>(3)</sup> This Resolution does not apply to current and future assignments of the radionavigation-satellite system GLONASS/GLONASS-M in the band 1 559-1 610 MHz, irrespective of the date of reception of the related coordination or notification information, as appropriate. The protection of the radio astronomy service in the 1 610.6-1 613.8 MHz band is ensured and will continue to be in accordance with the bilateral agreement between the Russian Federation, the notifying administration of the GLONASS/GLONASS-M system, and IUCAF, and subsequent bilateral agreements with other administrations.

**MOD** COM5/230/8 (B4/234/7) (R3/292/104)

**RESOLUTION 744 (Rev.WRC-07)**

**Sharing between the mobile-satellite service (Earth-to-space) and the fixed and mobile services in the band 1 668.4-1 675 MHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that WRC-03 made a global allocation to the mobile-satellite service (MSS) (Earth-to-space) in the band 1 668-1 675 MHz and a global allocation to the MSS (space-to-Earth) in the band 1 518-1 525 MHz;
- b) that the band 1 668.4-1 675 MHz is also allocated to the fixed and mobile services;
- c) that due to sharing conditions between MSS (space-to-Earth) and the aeronautical mobile service for telemetry in the band 1 518-1 525 MHz (see No. **5.348B**), MSS operation in the United States of America is unlikely to be feasible;
- d) that the above constraints on the MSS in the band 1 518-1 525 MHz therefore limit the possible use of the band 1 668-1 675 MHz by the MSS in the United States of America;
- e) that the band 1 670-1 675 MHz is used in Canada and the United States of America for the fixed and mobile services;
- f) that some administrations operate transportable radio-relay systems in the band 1 668.4-1 675 MHz which could operate as part of the fixed or mobile service allocations;
- g) that sharing between the mobile service and the mobile-satellite service (Earth-to-space) in the band 1 668.4-1 675 MHz has been studied in Recommendation ITU-R M.1799,

*resolves*

- 1 that the use of the band 1 668.4-1 675 MHz by systems in the mobile service is limited to transportable radio-relay systems;
- 2 that administrations operating transportable radio-relay systems should take into account Recommendation ITU-R M.1799, which states that, to adequately protect MSS networks, the e.i.r.p. of transportable radio-relay stations should not exceed  $-27$  dB(W/4 kHz) in the band 1 668.4-1 675 MHz in the direction of the geostationary orbit;
- 3 that from 1 January 2015 administrations operating such systems in the mobile service shall limit the e.i.r.p. spectral density radiated in the direction of the geostationary orbit by these systems to  $-27$  dB(W/4 kHz) in the band 1 668.4-1 675 MHz;
- 4 that, in the band 1 670-1 675 MHz, stations in the MSS shall not claim protection from stations in the fixed and mobile services operating in Canada and the United States of America;
- 5 that *resolves* 1, 2 and 3 do not apply to stations in the fixed and mobile services operating in Canada and the United States of America.

**ADD** COM4/318/11 (B11/329/42)

## RESOLUTION 748 (WRC-07)

### **Compatibility between the aeronautical mobile (R) service and the fixed-satellite service (Earth-to-space) in the band 5 091-5 150 MHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the allocation of the 5 091-5 150 MHz band to the fixed-satellite service (FSS) (Earth-to-space) is limited to feeder links of non-geostationary-satellite (non-GSO) systems in the mobile-satellite service (MSS);
- b) that the frequency band 5 000-5 150 MHz is currently allocated to the aeronautical mobile-satellite (R) service (AMS(R)S), subject to agreement obtained under No. **9.21**, and to the aeronautical radionavigation service (ARNS);
- c) that this Conference has allocated the band 5 091-5 150 MHz to the aeronautical mobile service (AMS) on a primary basis subject to No. **5.4B03**;
- d) that the International Civil Aviation Organization (ICAO) is in the process of identifying the technical and operating characteristics of new systems operating in the AM(R)S in the band 5 091-5 150 MHz;
- e) that the compatibility of one AM(R)S system, to be used by aircraft operating on the airport surface, and the FSS has been demonstrated in the 5 091-5 150 MHz band;
- f) that ITU-R studies have examined potential sharing among AMS applications and have shown that the aggregate interference from aeronautical security, aeronautical telemetry and AM(R)S should total no more than 3%  $\Delta T_s/T_s$ ;
- g) that the frequency band 117.975-137 MHz currently allocated to the AM(R)S is reaching saturation in certain areas of the world, and therefore that band would not be available to support additional surface applications at airports;
- h) that this new allocation is intended to support the introduction of applications and concepts in air traffic management which are data intensive, and which will support data links that carry safety-critical aeronautical data,

*recognizing*

- a) that in the frequency band 5 030-5 091 MHz precedence is to be given to the microwave landing system (MLS) in accordance with No. **5.444**;
- b) that ICAO publishes recognized international aeronautical standards for AM(R)S systems;
- c) that Resolution **114 (Rev.WRC-03)** applies to the sharing conditions between the FSS and ARNS in the 5 091-5 150 MHz band,

*noting*

- a) that the number of FSS transmitting stations required may be limited;
- b) that the use of the band 5 091-5 150 MHz by the AM(R)S needs to ensure protection of the current or planned use of this band by the FSS (Earth-to-space);

c) that ITU-R studies describe methods for ensuring compatibility between the AM(R)S and FSS operating in the band 5 091-5 150 MHz, and compatibility has been demonstrated for the AM(R)S system referred to in *considering e*),

*resolves*

1 that any AM(R)S systems operating in the band 5 091-5 150 MHz shall not cause harmful interference to, nor claim protection from, systems operating in the ARNS;

2 that any AM(R)S systems operating in the frequency band 5 091-5 150 MHz shall meet the SARPs requirements published in Annex 10 of the ICAO Convention on International Civil Aviation and the requirements of Recommendation ITU-R M.1827, to ensure compatibility with FSS systems operating in that band;

3 that, in part to meet the provisions of No. **4.10**, the coordination distance with respect to stations in the FSS operating in the band 5 091-5 150 MHz shall be based on ensuring that the signal received at the AM(R)S station from the FSS transmitter does not exceed  $-143$  dB(W/MHz), where the required basic transmission loss shall be determined using the methods described in Recommendations ITU-R P.525-2 and ITU-R P.526-10,

*invites*

1 administrations to supply technical and operational criteria necessary for sharing studies for the AM(R)S, and to participate actively in such studies;

2 ICAO and other organizations to actively participate in such studies,

*instructs the Secretary-General*

to bring this Resolution to the attention of ICAO.

**ADD** (R9/425/18)

## RESOLUTION 749 (WRC-07)

### **Studies on the use of the band 790-862 MHz by mobile applications and by other services**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that the favourable propagation characteristics of the band 470-806/862 MHz are beneficial to provide cost-effective solutions for coverage, including large areas of low population density;

b) that the operation of broadcasting stations and base stations in the same geographical area may create incompatibility issues;

c) that, according to Resolution **646 (WRC-03)**, the bands 764-776 MHz and 794-806 MHz are currently used in some countries for Public Protection and Disaster Relief (PPDR); and the bands 806-866 MHz (in Region 2) and 806-824 MHz and 851-869 MHz (in Region 3) are currently identified for PPDR;

d) that many communities are particularly underserved compared to urban centres;

e) that applications ancillary to broadcasting are sharing the band 470-862 MHz with the broadcasting service in all three Regions, and are expected to continue their operations in this band;

f) that it is necessary to adequately protect, *inter alia*, terrestrial television broadcasting and other systems in this band,

*recognizing*

- a) that, in Article 5 of the Radio Regulations, the band 790-862 MHz, or parts of that band, is allocated, and is used on a primary basis for services other than broadcasting;
- b) that the frequency band 470-806/862 MHz is allocated to the broadcasting service on a primary basis in all three Regions and used predominantly by this service, and that the GE06 Agreement applies in all Region 1 countries except Mongolia and one country in Region 3;
- c) that the transition from analogue to digital television is expected to result in situations where the band 790-862 MHz will be used for both analogue and digital terrestrial transmission; and the demand for spectrum during the transition period may be even greater than the stand-alone usage of analogue broadcasting systems;
- d) the switch-over to digital may result in spectrum opportunities for new applications;
- e) the timing of the switch-over to digital is likely to vary from country to country;
- f) that the use of spectrum for different services should take into account the need for sharing studies;
- g) that the Radio Regulations provide that the identification of a given band for IMT does not preclude the use of that band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations;
- h) that the GE06 Agreement contains provisions for the terrestrial broadcasting service and other terrestrial services, a Plan for digital TV, and the List of other primary terrestrial services,

*noting*

that Resolution ITU-R 57 provides principles for the process of development of IMT-Advanced and this process is planned to start after this Conference,

*emphasizing*

- a) that the use of the band 470-862 MHz by broadcasting and other primary services is also covered by the GE06 Agreement;
- b) that the requirements of the different services to which the band is allocated, including mobile and broadcasting services, shall be taken into account,

*resolves*

- 1 to invite ITU-R to conduct sharing studies for Regions 1 and 3 in the band 790-862 MHz between the mobile service and other services in order to protect the services to which the frequency band is currently allocated;
- 2 to invite ITU-R to report the results of the studies referred to in *resolves* 1 for consideration by WRC-11 to take appropriate action,

*invites administrations*

to participate in the studies by submitting contributions to ITU-R.

*invites the Director of the Telecommunication Development Bureau*

to draw the attention of the Telecommunication Development Sector to this Resolution.

**ADD** COM5/372/7 (B15/396/15)

**RESOLUTION 750 (WRC-07)**

**Compatibility between the Earth exploration-satellite service (passive) and relevant active services**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a)* that primary allocations have been made to various space services such as the fixed-satellite service (Earth-to-space), the space operation service (Earth-to-space) and the inter-satellite service and/or to terrestrial services such as the fixed service, the mobile service and the radiolocation service, hereinafter referred to as “active services”, in bands adjacent or nearby to bands allocated to the Earth exploration-satellite service (EESS) (passive) subject to No. **5.340**;
- b)* that unwanted emissions from active services have the potential to cause unacceptable interference to EESS (passive) sensors;
- c)* that, for technical or operational reasons, the general limits in Appendix **3** may be insufficient in protecting the EESS (passive) in specific bands;
- d)* that, in many cases, the frequencies used by EESS (passive) sensors are chosen to study natural phenomena producing radio emissions at frequencies fixed by the laws of nature, and therefore shifting frequency to avoid or mitigate interference problems is not possible;
- e)* that the band 1 400-1 427 MHz is used for measuring soil moisture, and also for measuring sea-surface salinity and vegetation biomass;
- f)* that long-term protection of the EESS in the bands 23.6-24 GHz, 31.3-31.5 GHz, 50.2-50.4 GHz and 52.6-54.25 GHz is vital to weather prediction and disaster management, and measurements at several frequencies must be made simultaneously in order to isolate and retrieve each individual contribution;
- g)* that, in many cases, the bands adjacent or nearby to passive service bands are used and will continue to be used for various active service applications;
- h)* that it is necessary to ensure equitable burden sharing for achieving compatibility between active and passive services operating in adjacent or nearby bands,

*noting*

- a)* that the compatibility studies between relevant active and passive services operating in adjacent and nearby bands are documented in Report ITU-R SM.2092;
- b)* that Recommendation ITU-R RS.1029 provides the interference criteria for satellite passive remote sensing,

*noting further*

that, for the purpose of this Resolution:

- point-to-point communication is defined as radiocommunication provided by a link, for example a radio-relay link, between two stations located at specified fixed points;
- point-to-multipoint communication is defined as radiocommunication provided by links between a single station located at a specified fixed point (also called “hub station”) and a number of stations located at specified fixed points (also called “customer stations”),

*recognizing*

that studies documented in Report ITU-R SM.2092 do not consider point-to-multipoint communication links in the fixed service in the bands 1 350-1 400 MHz and 1 427-1 452 MHz,

*resolves*

1 that unwanted emissions of stations brought into use in the bands and services listed in Table 1-1 below shall not exceed the corresponding limits in that table, subject to the specified conditions;

2 to urge administrations to take all reasonable steps to ensure that unwanted emissions of active service stations in the bands and services listed in Table 1-2 below do not exceed the recommended maximum levels contained in that table, noting that EESS (passive) sensors provide worldwide measurements that benefit all countries, even if these sensors are not operated by their country;

3 that the Radiocommunication Bureau shall not make any examination or finding with respect to compliance with this Resolution under either Article 9 or 11.

TABLE 1-1

EESS (passive) band	Active service band	Active service	Limits of unwanted emission power from active service stations in a specified bandwidth within the EESS (passive) band <sup>1</sup>
23.6-24.0 GHz	22.55-23.55 GHz	Inter-satellite	-36 dBW in any 200 MHz of the EESS (passive) band for non-geostationary (non-GSO) inter-satellite service (ISS) systems for which complete advance publication information is received by the Bureau before 1 January 2020, and -46 dBW in any 200 MHz of the EESS (passive) band for non-GSO ISS systems for which complete advance publication information is received by the Bureau on or after 1 January 2020
31.3-31.5 GHz	31-31.3 GHz	Fixed (excluding HAPS)	For stations brought into use after 1 January 2012: -38 dBW in any 100 MHz of the EESS (passive) band. This limit does not apply to stations that have been authorized prior to 1 January 2012
50.2-50.4 GHz	49.7-50.2 GHz	Fixed-satellite (E-to-s) <sup>2</sup>	For stations brought into use after the date of entry into force of the Final Acts of WRC-07: -10 dBW into the 200 MHz of the EESS (passive) band for earth stations having an antenna gain greater than or equal to 57 dBi -20 dBW into the 200 MHz of the EESS (passive) band for earth stations having an antenna gain less than 57 dBi
50.2-50.4 GHz	50.4-50.9 GHz	Fixed-satellite (E-to-s) <sup>2</sup>	For stations brought into use after the date of entry into force of the Final Acts of WRC-07: -10 dBW into the 200 MHz of the EESS (passive) band for earth stations having an antenna gain greater than or equal to 57 dBi -20 dBW into the 200 MHz of the EESS (passive) band for earth stations having an antenna gain less than 57 dBi
52.6-54.25 GHz	51.4-52.6 GHz	Fixed	For stations brought into use after the date of entry into force of the Final Acts of WRC-07: -33 dBW in any 100 MHz of the EESS (passive) band

<sup>1</sup> The unwanted emission power level is to be understood here as the level measured at the antenna port.

<sup>2</sup> The limits apply under clear-sky conditions. During fading conditions, the limits may be exceeded by earth stations when using uplink power control.

TABLE 1-2

EESS (passive) band	Active service band	Active service	Recommended maximum level of unwanted emission power from active service stations in a specified bandwidth within the EESS (passive) band <sup>1</sup>	
1 400-1 427 MHz	1 350-1 400 MHz	Radiolocation <sup>2</sup>	-29 dBW in the 27 MHz of the EESS (passive) band	
		Fixed	-45 dBW in the 27 MHz of the EESS (passive) band for point-to-point	
		Mobile	-60 dBW in the 27 MHz of the EESS (passive) band for mobile service stations except transportable radio-relay stations -45 dBW in the 27 MHz of the EESS (passive) band for transportable radio-relay stations	
		1 427-1 429 MHz	Space operation (E-to-s)	-36 dBW in the 27 MHz of the EESS (passive) band
	1 427-1 429 MHz	1 427-1 429 MHz	Mobile except aeronautical mobile	-60 dBW in the 27 MHz of the EESS (passive) band for mobile service stations except transportable radio-relay stations <sup>3</sup> -45 dBW in the 27 MHz of the EESS (passive) band for transportable radio-relay stations
			Fixed	-45 dBW in the 27 MHz of the EESS (passive) band for point-to-point
	1 429-1 452 MHz	1 429-1 452 MHz	Mobile	-60 dBW in the 27 MHz of the EESS (passive) band for mobile service stations except transportable radio-relay stations <sup>3</sup> -45 dBW in the 27 MHz of the EESS (passive) band for transportable radio-relay stations -28 dBW in the 27 MHz of the EESS (passive) band for aeronautical telemetry stations <sup>4</sup>
			Fixed	-45 dBW in the 27 MHz of the EESS (passive) band for point-to-point
31.3-31.5 GHz	30.0-31.0 GHz	Fixed-satellite (E-to-s) <sup>5</sup>	-9 dBW into the 200 MHz of the EESS (passive) band for earth stations having an antenna gain greater than or equal to 56 dBi -20 dBW into the 200 MHz of the EESS (passive) band for earth stations having an antenna gain less than 56 dBi	

<sup>1</sup> The unwanted emission power level is to be understood here as the level measured at the antenna port.

<sup>2</sup> The mean power is to be understood here as the total power measured at the antenna port (or an equivalent thereof) in the band 1 400-1 427 MHz, averaged over a period of the order of 5 seconds.

<sup>3</sup> Stations of the mobile service for cellular systems, including those complying with Recommendation ITU-R M.1457 or IMT standards, are likely to meet this unwanted emission power level.

<sup>4</sup> The band 1 429-1 435 MHz is also allocated to the aeronautical mobile service in eight Region 1 administrations on a primary basis exclusively for the purposes of aeronautical telemetry within their national territory (RR No. 5.342).

<sup>5</sup> The recommended maximum levels apply under clear-sky conditions. During fading conditions, these levels may be exceeded by earth stations when using uplink power control.

**ADD** COM5/373/4 (B15/396/16)

**RESOLUTION 751 (WRC-07)**

**Use of the frequency band 10.6-10.68 GHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the frequency band 10.6-10.7 GHz is allocated to the Earth exploration-satellite service (EESS) (passive) and to the space research service (passive) on a primary basis;
- b) that the band 10.6-10.7 GHz is of primary interest for the measurement of rain, snow, sea state, ocean wind and soil moisture;
- c) that this frequency band is used by passive sensors to study natural phenomena producing radio emissions at frequencies fixed by the laws of nature, and therefore shifting frequency to avoid or mitigate interference problems may not be possible;
- d) that any limitation of the operation of passive sensors in the band 10.68-10.7 GHz covered by No. **5.340** would degrade the sensitivity of those sensors;
- e) that the frequency band 10.6-10.68 GHz is also allocated to the mobile, except aeronautical mobile, and the fixed services on a primary basis;
- f) that experience has shown that EESS (passive) sensors currently operating in the band 10.6-10.68 GHz are facing high interference levels from the emissions of systems of active services in some parts of the world;
- g) that studies have concluded that appropriate sharing criteria applicable to both passive and active services would reduce this interference to a level that would permit passive sensors to operate successfully, while allowing continuing operation of active services in the same band,

*noting*

that, for the purpose of this Resolution:

- point-to-point communication is defined as radiocommunication provided by a link, for example a radio-relay link, between two stations located at specified fixed points;
- point-to-multipoint communication is defined as radiocommunication provided by links between a single station located at a specified fixed point (also called “hub station”) and a number of stations located at specified fixed points (also called “customer stations”);
- automatic transmit-power control (ATPC) is a technique in which the output power of a microwave transmitter is automatically varied to compensate for path propagation conditions; in normal propagation conditions, ATPC maintains the transmitter output power at a reduced level; ATPC is characterized by its range, which is defined as the difference between the maximum and minimum values of transmitted power, and has no impact on the design of the related link,

*resolves*

1 to urge administrations to take all reasonable steps to comply with the sharing criteria in Tables 1 to 4 contained in Annex 1 to this Resolution when bringing into use stations in the Earth exploration-satellite service (passive), the fixed service and the mobile, except aeronautical mobile, service, noting that EESS (passive) sensors provide worldwide measurements that benefit all countries, even if these sensors are not operated by their country;

2 that the Radiocommunication Bureau shall not make any examination or finding with respect to compliance with this Resolution under either Article 9 or 11.

**ANNEX 1 TO RESOLUTION 751 (WRC-07)**

**Sharing criteria in the band 10.6-10.68 GHz**

TABLE 1

**Earth exploration-satellite service (passive)**

Parameter	Value
Incidence angle (defined as the angle at the Earth's surface between the local vertical and the direction of the passive sensor)	≤ 60°
Spatial resolution (defined as the maximum cross-section of the passive sensor -3 dB contour on the Earth's surface)	≤ 50 km (See Note 1)
Main-beam efficiency (defined as the energy of main and cross-polarization components within 2.5 times the -3 dB beamwidth region, relative to the total energy within all angles)	≥ 85% (See Note 1)

NOTE 1 – These parameters only apply to real-aperture EESS (passive) systems.

TABLE 2

**Stations of point-to-point systems in the fixed service**

Parameter	Value
Maximum elevation angle	20°
Maximum transmitter power at the antenna port	-15 dBW (See Notes 2 and 3)

NOTE 2 – In the case of point-to-point systems using ATPC, the maximum transmitter power at the antenna port may be increased by a value corresponding to the ATPC range, up to a maximum of -3 dBW.

NOTE 3 – In the case of point-to-point fixed service used for unidirectional transmissions for broadcasting applications, the maximum transmitter power at the antenna port may be increased up to -3 dBW. For such applications, administrations are urged to limit the off-axis e.i.r.p. above 20° elevation to a level of -10 dBW.

TABLE 3

**Stations of point-to-multipoint systems in the fixed service**

Parameter	Value
<b>Hub stations</b> (See Note 4)	
Maximum transmitter power at the antenna port	-7 dBW
Maximum off-axis e.i.r.p. above 20° from the horizontal plane	-6 dBW
Maximum off-axis e.i.r.p. above 45° from the horizontal plane	-11 dBW
Maximum off-axis e.i.r.p. at 90° from the horizontal plane	-13 dBW
<b>Customer stations</b> (See Note 4)	
Maximum elevation angle	20°
Maximum transmitter power at the antenna port	-8 dBW
Maximum off-axis e.i.r.p. above 45° from the horizontal plane	-18 dBW (See Note 5)

NOTE 4 – Administrations planning point-to-multipoint deployment in the band 10.6-10.68 GHz, paired with another frequency band, are encouraged to only deploy return links (i.e. emissions from customer stations) in the 10.6-10.68 GHz band.

NOTE 5 – In the case of point-to-multipoint systems using ATPC, the maximum transmitter power at the antenna port may be increased by a value corresponding to the ATPC range, up to a maximum of -3 dBW.

TABLE 4

**Stations in the mobile service**

Parameter	Value
Maximum transmitter power at the antenna port	-17 dBW (See Note 6)

NOTE 6 – In the case of mobile service systems used for broadcasting applications, the maximum transmitter power at the antenna port may be increased up to -3 dBW. For such applications, administrations are urged to limit the off-axis e.i.r.p. above 20° elevation to a level of -10 dBW.

**ADD** COM5/373/8 (B15/396/17)

**RESOLUTION 752 (WRC-07)**

**Use of the frequency band 36-37 GHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a)* that the frequency band 36-37 GHz is allocated to the Earth exploration-satellite service (EESS) (passive) and to the space research service (passive) on a primary basis;
- b)* that the band 36-37 GHz is of primary interest for the measurement of rain, snow, ocean ice and water vapour;
- c)* that this frequency band is used by passive sensors to study natural phenomena producing radio emissions at frequencies fixed by the laws of nature, and therefore shifting frequency to avoid or mitigate interference problems may not be possible;
- d)* that the frequency band 36-37 GHz is also allocated to the fixed service and to the mobile service on a primary basis;
- e)* that the EESS (passive) operating in the band 36-37 GHz may suffer from interference from the emissions of systems of active services;
- f)* that studies have concluded that appropriate sharing criteria applicable to both passive and active services would reduce this interference to a level that would permit passive sensors to operate successfully in this band, while allowing continuing operation of active services in the same band,

*noting*

that, for the purpose of this Resolution:

- point-to-point communication is defined as radiocommunication provided by a link, for example a radio-relay link, between two stations located at specified fixed points;
- point-to-multipoint communication is defined as radiocommunication provided by links between a single station located at a specified fixed point (also called “hub station”) and a number of stations located at specified fixed points (also called “customer stations”);
- automatic transmit-power control (ATPC) is a technique in which the output power of a microwave transmitter is automatically varied to compensate for path propagation conditions; in normal propagation conditions, ATPC maintains the transmitter output power at a reduced level; ATPC is characterized by its range, which is defined as the difference between the maximum and minimum values of transmitted power,

*resolves*

- 1 that, in order to facilitate sharing between active and passive services in the band 36-37 GHz, EESS (passive) stations brought into use after the date of entry into force of the Final Acts of WRC-07 shall comply with the sharing criteria contained in Table 1 of Annex 1 to this Resolution;
- 2 that, in order to facilitate sharing between active and passive services in the band 36-37 GHz, stations of point-to-point systems in the fixed service brought into use after 1 January 2012 shall comply with the sharing criteria contained in Table 2 of Annex 1 to this Resolution;

3 that, in order to facilitate sharing between active and passive services in the band 36-37 GHz, stations of point-to-multipoint systems in the fixed service brought into use after the date of entry into force of Final Acts of WRC-07 shall comply with the sharing criteria contained in Table 2 of Annex 1 to this Resolution;

4 that, in order to facilitate sharing between active and passive services in the band 36-37 GHz, stations in the mobile service brought into use after the date of entry into force of the Final Acts of WRC-07 shall comply with the sharing criteria contained in Table 3 of Annex 1 to this Resolution;

5 that the Radiocommunication Bureau shall not make any examination or finding with respect to compliance with this Resolution under either Article 9 or 11.

## ANNEX 1 TO RESOLUTION 752 (WRC-07)

### Sharing criteria in the band 36-37 GHz

TABLE 1

#### Earth exploration-satellite service (passive)

Parameter	Value
Incidence angle (defined as the angle at the Earth's surface between the local vertical and the direction of the passive sensor)	$\leq 60^\circ$
Spatial resolution (defined as the maximum cross-section of the passive sensor $-3$ dB contour on the Earth's surface)	$\leq 50$ km (See Note 1)
Main-beam efficiency (defined as the energy of main and cross-polarization components within 2.5 times the $-3$ dB beamwidth region, relative to the total energy within all angles)	$\geq 92\%$ (See Note 1)

NOTE 1 – These parameters only apply to real-aperture EESS (passive) systems.

TABLE 2

#### Fixed service

Parameter	Value
Maximum elevation angle	$20^\circ$
<b>Point-to-point systems</b>	
Maximum transmitter power at the antenna port	$-10$ dBW (See Note 2)
<b>Point-to-multipoint systems</b>	
Maximum transmitter power at the antenna port of hub stations	$-5$ dBW
Maximum transmitter power at the antenna port of customer stations	$-10$ dBW (See Note 2)

NOTE 2 – In the case of fixed service systems using ATPC, the maximum transmitter power at the antenna port may be increased by a value corresponding to the ATPC range, up to a maximum of  $-7$  dBW.

TABLE 3

#### Mobile service

Parameter	Value
Maximum transmitter power at the antenna port	$-10$ dBW (See Note 3)

NOTE 3 – The maximum transmitter power at the antenna port may be increased up to  $-3$  dBW for stations used for public safety and disaster management.

**ADD** PLEN/408/7 (B24/419/8)

**RESOLUTION 753 (WRC-07)**

**Use of the band 22.55-23.15 GHz by the space research service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that there is growing interest around the world in the comprehensive space exploration in particular around the Moon;
- b) that the lunar exploration missions, examining the terrain, environment and potential landing sites, will be robotic for the foreseeable future and manned in the long term;
- c) that a primary space research service (space-to-Earth) allocation in the band 25.5-27.0 GHz was added to the Table of Frequency Allocations to support a wide range of space research missions;
- d) that space research service (space-to-Earth) transmissions in the 25.5-27.0 GHz band will be used to support space research service missions in near-Earth orbit, including missions in transit to the Moon and at or near the Moon;
- e) that the space research service (space-to-Earth) transmissions in the 25.5-27.0 GHz band will be used for both scientific data retrieval and voice/videocommunication with the Earth;
- f) that there is a need for a companion uplink space research service (Earth-to-space) band to provide the mission data, command and control links for the lunar exploration missions;
- g) that due to the potential for many concurrent exploration-related systems and the large bandwidth requirements of these systems, especially those supporting manned missions, it is envisaged that a total uplink bandwidth of at least several hundred MHz will be needed;
- h) that the 22.55-23.15 GHz band is far enough from the 25.5-27.0 GHz band to provide adequate frequency separation;
- i) that the 22.55-23.55 GHz band is used by data relay satellite systems to communicate with user satellites (forward links) in the existing primary inter-satellite service allocation;
- j) that the 22.55-23.15 GHz band is the logical companion band to provide the necessary uplink bandwidth and by using the same band as data relay satellite systems in *considering i)* for radiocommunication in the Earth-to-space direction, it provides a degree of redundancy and coverage that may prove vital for future missions,

*recognizing*

- 1 that the band 22.55-23.55 GHz is allocated to the fixed, inter-satellite and mobile services;
- 2 that the inter-satellite forward links in the 22.55-23.55 GHz band are paired with inter-satellite return links in the 25.25-27.5 GHz band;
- 3 that non-GSO inter-satellite service links have been operating for several years and are expected to continue to operate in the 23.183-23.377 GHz band and that these links are increasingly being used in situations of emergencies and natural disasters;
- 4 that systems referred to in *recognizing 1* need to be protected and their future requirements be taken into account,

*resolves*

1 to invite ITU-R to conduct sharing studies between space research service systems operating in the Earth-to-space direction and the fixed, inter-satellite and mobile services in the band 22.55-23.15 GHz, and to recommend appropriate sharing criteria for an allocation to the space research service in the Earth-to-space direction;

2 to invite WRC-11 to review the results of the studies under *resolves* 1 and consider the inclusion of the sharing criteria within the Radio Regulations and appropriate modifications to the Table of Frequency Allocations,

*invites administrations*

to contribute to the sharing studies between the space research service and the fixed, inter-satellite and mobile services in the 22.55-23.15 GHz band,

*invites ITU-R*

to complete the necessary studies, as a matter of urgency, taking into account the present use of the allocated band, with a view to presenting, at the appropriate time, the technical information likely to be required as a basis for the work of the conference,

*instructs the Secretary-General*

to bring this Resolution to the attention of the international and regional organizations concerned.

**ADD** PLEN/408/8 (B24/419/9)

#### RESOLUTION 754 (WRC-07)

### **Consideration of modification of the aeronautical component of the mobile service allocation in the 37-38 GHz band for protection of other primary services in the band**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that the band 37-38 GHz is allocated on a primary basis to the fixed, mobile and space research (space-to-Earth) services, and the 37.5-38 GHz portion of this band is also allocated on a primary basis to the fixed-satellite service (space-to-Earth);

b) that an aeronautical mobile station can cause unacceptable interference to receivers in the fixed service (including high-density applications), as well as land mobile, maritime mobile and fixed-satellite (space-to-Earth) receivers within line-of-sight;

c) that an aeronautical mobile station can cause unacceptable interference to receivers in the space research service whenever it is within line-of-sight of the receiver, as indicated in Recommendation ITU-R SA.1016;

d) that interference from the emissions of an aeronautical mobile station to a space research service earth station receiver may significantly exceed the permissible interference levels for extended periods of time, thus jeopardizing the success of a space mission,

*recognizing*

a) that the Table of Frequency Allocations already excludes the operation of aeronautical mobile stations in the bands 2.29-2.3 GHz, 8.4-8.5 GHz and 22.21-22.5 GHz where the mobile service is co-allocated on a primary basis with the space research service (space-to-Earth), and in the 31.5-31.8 GHz band where the mobile service is allocated on a secondary basis;

b) that the Table of Frequency Allocations also already excludes the operation of aeronautical mobile stations in many bands where the mobile service is co-allocated on a primary basis with the fixed service, such as in the band 11.7-12.5 GHz and the fixed service and the fixed-satellite service (space-to-Earth), such as 7 300-7 750 MHz;

c) that RR No. **5.547** indicates that the 37-38 GHz band is available for high-density applications in the fixed service;

d) that use of the 37-38 GHz band is required to support the increased data requirements of planned manned and scientific missions,

*noting*

a) that aeronautical mobile service systems are currently neither deployed nor planned in the 37-38 GHz band;

b) that sharing studies between the space research service (space-to-Earth) and the aeronautical mobile service have already begun,

*resolves*

1 to invite ITU-R to conduct appropriate studies involving the aeronautical mobile service and the affected primary services in the band 37-38 GHz in order to determine the compatibility of the aeronautical mobile service with these other services;

2 to invite WRC-11 to review the results of the studies under *resolves* 1 and consider the inclusion of any appropriate compatibility criteria within the Radio Regulations or appropriate modifications to the Table of Frequency Allocations,

*invites ITU-R*

to complete the necessary studies, as a matter of urgency, taking into account the present use of the allocated band, with a view to presenting, at the appropriate time, the technical information likely to be required as a basis for the work of the Conference,

*invites administrations*

to contribute to the compatibility studies between the aeronautical mobile service and the other services in the 37-38 GHz band,

*instructs the Director of BR*

to bring this Resolution to the attention of the international and regional organizations concerned.

**ADD** COM6/338/3 (B12/346/17) (R6/410/80)

## RESOLUTION 804 (WRC-07)

### **Principles for establishing agendas for world radiocommunication conferences**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that, in accordance with No. 118 of the ITU Convention, the general scope of the agendas for world radiocommunication conferences (WRCs) should be established four to six years in advance;

b) Article **13** of the ITU Constitution relating to the competence and scheduling of WRCs and Article 7 of the Convention relating to their agendas;

- c) that No. 92 of the Constitution and Nos. 488 and 489 of the Convention require conferences to be fiscally responsible;
  - d) that in Resolution 71 (Rev. Marrakesh, 2002), concerning the strategic plan of the Union, the Plenipotentiary Conference noted the increasingly complex and lengthy agendas for world radiocommunication conferences;
  - e) that Resolution 80 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference and Resolution **72 (Rev. WRC-07)** recognize the positive contribution of regional and informal groups and the need for improved efficiency and fiscal prudence;
  - f) the relevant Resolutions of previous WRCs,
- noting*
- a) that the number of issues addressed in agendas for WRCs has been growing, and that some issues could not be resolved adequately in the time allotted to the Conference, including conference preparations;
  - b) that some agenda items may have a greater impact on the future of radio-communications than others;
  - c) that the human and financial resources of ITU are limited;
  - d) that there is a need to limit the agenda of conferences, taking account of the needs of developing countries, in a manner that allows the major issues to be dealt with equitably and efficiently,

*resolves*

that the principles in Annex 1 should be used when developing future WRC agendas,

*resolves to invite administrations*

- 1 to use the template in Annex 2 in proposing agenda items for WRCs;
- 2 to participate in regional activities for the preparation of future WRC agendas.

## ANNEX 1 TO RESOLUTION 804 (WRC-07)

### **Principles for establishing agendas for WRCs**

A conference agenda shall include:

- 1) items assigned to it by the ITU Plenipotentiary Conference;
- 2) items on which the Director of the Radiocommunication Bureau has been requested to report;
- 3) items concerning instructions to the Radio Regulations Board and the Radiocommunication Bureau regarding their activities, and concerning the review of those activities.

In general, a conference may include on a future conference agenda an item proposed by a group of administrations or an administration, if all the following conditions are met:

- 1) it addresses issues of a worldwide or regional character;
- 2) it is expected that changes in the Radio Regulations, including WRC Resolutions and Recommendations, may be necessary;
- 3) it is expected that required studies can be completed (e.g. that appropriate ITU-R Recommendations will be approved) prior to that conference;

- 4) resources associated with the subject are kept within a range which is manageable for Member States and Sector Members, the Radiocommunication Bureau and ITU-R Study Groups, Conference Preparatory Meeting (CPM) and the Special Committee.

To the extent possible, agenda items arising from previous conferences, normally reflected in Resolutions, and which have been considered by two successive conferences, should not be considered, unless justified.

In developing the conference agenda, efforts should be made to:

- a) encourage regional and interregional coordination on the subjects to be considered in the preparatory process for the WRC, in accordance with Resolution **72 (Rev.WRC-07)** and Resolution 80 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference;
- b) include, to the extent possible, agenda items that are prepared within regional groups, taking into account the equal right of individual administrations to submit proposals for agenda items;
- c) ensure that proposals are submitted with an indication of priority;
- d) include in proposals an assessment of their financial and other resource implications (with the assistance of the Radiocommunication Bureau) to ensure that they are within the agreed budgetary limits for ITU-R;
- e) ensure that the objectives and scope of proposed agenda items are complete and unambiguous;
- f) take into account the status of the ITU-R studies related to the potential agenda items before considering them as possible candidates for future agendas;
- g) distinguish between items intended to result in changes to the Radio Regulations and those dealing solely with the progress of studies.

ANNEX 2 TO RESOLUTION 804 (WRC-07)

**Template for the submission of  
proposals for agenda items**

**Subject:**

**Origin:**

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***Proposal:***

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***Background/reason:***

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***Radiocommunication services concerned:***

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***Indication of possible difficulties:***

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***Previous/ongoing studies on the issue:***

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<b><i>Studies to be carried out by:</i></b>
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<b><i>with the participation of:</i></b>
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***ITU-R Study Groups concerned:***

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***ITU resource implications, including financial implications (refer to CVI26):***

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***Common regional proposal:*** Yes/No

***Multicountry proposal:*** Yes/No

***Number of countries:***

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***Remarks***

**ADD** PLEN/408/1 (B24/419/4)

RESOLUTION 805 (WRC-07)

**Agenda for the 2011 World Radiocommunication Conference**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that, in accordance with No. 118 of the ITU Convention, the general scope of the agenda for a world radiocommunication conference should be established four to six years in advance and a final agenda shall be established by the Council two years before the conference;
- b) Article 13 of the ITU Constitution relating to the competence and scheduling of world radiocommunication conferences and Article 7 of the Convention relating to their agendas;
- c) the relevant resolutions and recommendations of previous world administrative radio conferences (WARCs) and world radiocommunication conferences (WRCs),

*recognizing*

- a) that this Conference has identified a number of urgent issues requiring further examination by WRC-11;

b) that, in preparing this agenda, many items proposed by administrations could not be included and have had to be deferred to future conference agendas,

*resolves*

to recommend to the Council that a world radiocommunication conference be held in 2011 for a period of four weeks, with the following agenda:

1 on the basis of proposals from administrations, taking account of the results of WRC-07 and the Report of the Conference Preparatory Meeting, and with due regard to the requirements of existing and future services in the bands under consideration, to consider and take appropriate action with respect to the following items:

1.1 to consider and take appropriate action on requests from administrations to delete their country footnotes or to have their country name deleted from footnotes, if no longer required, taking into account Resolution **26 (Rev.WRC-07)**;

1.2 taking into account the ITU-R studies carried out in accordance with Resolution **951 (Rev.WRC-07)**, to take appropriate action with a view to enhancing the international regulatory framework;

1.3 to consider spectrum requirements and possible regulatory actions, including allocations, in order to support the safe operation of unmanned aircraft systems (UAS), based on the results of ITU-R studies, in accordance with Resolution [**COM6/8 (WRC-07)**];

1.4 to consider, based on the results of ITU-R studies, any further regulatory measures to facilitate introduction of new aeronautical mobile (R) service (AM(R)S) systems in the bands 112-117.975 MHz, 960-1 164 MHz and 5 000-5 030 MHz in accordance with Resolutions **413 (Rev.WRC-07)**, [**COM4/5 (WRC-07)**] and [**COM4/9 (WRC-07)**];

1.5 to consider worldwide/regional harmonization of spectrum for electronic news gathering (ENG), taking into account the results of ITU-R studies, in accordance with Resolution [**COM6/5 (WRC-07)**];

1.6 to review No. **5.565** of the Radio Regulations in order to update the spectrum use by the passive services between 275 GHz and 3 000 GHz, in accordance with Resolution **950 (Rev.WRC-07)**, and to consider possible procedures for free-space optical-links, taking into account the results of ITU-R studies, in accordance with Resolution [**COM6/9 (WRC-07)**];

1.7 to consider the results of ITU-R studies in accordance with Resolution **222 (Rev.WRC-07)** in order to ensure long-term spectrum availability and access to spectrum necessary to meet requirements for the aeronautical mobile-satellite (R) service, and to take appropriate action on this subject, while retaining unchanged the generic allocation to the mobile-satellite service in the bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz;

1.8 to consider the progress of ITU-R studies concerning the technical and regulatory issues relative to the fixed service in the bands between 71 GHz and 238 GHz, taking into account Resolutions **731 (WRC-2000)** and **732 (WRC-2000)**;

1.9 to revise frequencies and channelling arrangements of Appendix 17 to the Radio Regulations, in accordance with Resolution **351 (Rev.WRC-07)**, in order to implement new digital technologies for the maritime mobile service;

1.10 to examine the frequency allocation requirements with regard to operation of safety systems for ships and ports and the related regulatory provisions, in accordance with Resolution [**COM6/10 (WRC-07)**];

- 1.11 to consider a primary allocation to the space research service (Earth-to-space) within the band 22.55-23.15 GHz, taking into account the results of ITU-R studies, in accordance with Resolution [COM6/11] (WRC-07);
- 1.12 to protect the primary services in the band 37-38 GHz from interference resulting from aeronautical mobile service operations, taking into account the results of ITU-R studies, in accordance with Resolution [COM6/12] (WRC-07);
- 1.13 to consider the results of ITU-R studies in accordance with Resolution [COM6/13] (WRC-07) and decide on the spectrum usage of the 21.4-22 GHz band for the broadcasting-satellite service and the associated feeder-link bands in Regions 1 and 3;
- 1.14 to consider requirements for new applications in the radiolocation service and review allocations or regulatory provisions for implementation of the radiolocation service in the range 30-300 MHz, in accordance with Resolution [COM6/14] (WRC-07);
- 1.15 to consider possible allocations in the range 3-50 MHz to the radiolocation service for oceanographic radar applications, taking into account the results of ITU-R studies, in accordance with Resolution [COM6/15] (WRC-07);
- 1.16 to consider the needs of passive systems for lightning detection in the meteorological aids service, including the possibility of an allocation in the frequency range below 20 kHz, and to take appropriate action, in accordance with Resolution [COM6/16] (WRC-07);
- 1.17 to consider results of sharing studies between the mobile service and other services in the band 790-862 MHz in Regions 1 and 3, in accordance with Resolution [COM4/13] (WRC-07), to ensure the adequate protection of services to which this frequency band is allocated, and take appropriate action;
- 1.18 to consider extending the existing primary and secondary radiodetermination-satellite service (space-to-Earth) allocations in the band 2 483.5-2 500 MHz in order to make a global primary allocation, and to determine the necessary regulatory provisions based upon the results of ITU-R studies, in accordance with Resolution [COM6/17] (WRC-07);
- 1.19 to consider regulatory measures and their relevance, in order to enable the introduction of software-defined radio and cognitive radio systems, based on the results of ITU-R studies, in accordance with Resolution [COM6/18] (WRC-07);
- 1.20 to consider the results of ITU-R studies and spectrum identification for gateway links for high altitude platform stations (HAPS) in the range 5 850-7 075 MHz in order to support operations in the fixed and mobile services, in accordance with Resolution 734 (Rev.WRC-07);
- 1.21 to consider a primary allocation to the radiolocation service in the band 15.4-15.7 GHz, taking into account the results of ITU-R studies, in accordance with Resolution [COM6/19] (WRC-07);
- 1.22 to examine the effect of emissions from short-range devices on radiocommunication services, in accordance with Resolution [COM6/4] (WRC-07);
- 1.23 to consider an allocation of about 15 kHz in parts of the band 415-526.5 kHz to the amateur service on a secondary basis, taking into account the need to protect existing services;
- 1.24 to consider the existing allocation to the meteorological-satellite service in the band 7 750-7 850 MHz with a view to extending this allocation to the band 7 850-7 900 MHz, limited to non-geostationary meteorological satellites in the space-to-Earth direction, in accordance with Resolution [COM6/20] (WRC-07);

- 1.25 to consider possible additional allocations to the mobile-satellite service, in accordance with Resolution [COM6/21] (WRC-07);
- 2 to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution 28 (Rev.WRC-03), and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with principles contained in the Annex 1 to Resolution 27 (Rev.WRC-07);
- 3 to consider such consequential changes and amendments to the Radio Regulations as may be necessitated by the decisions of the Conference;
- 4 in accordance with Resolution 95 (Rev.WRC-07), to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation;
- 5 to review, and take appropriate action on, the Report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention;
- 6 to identify those items requiring urgent action by the Radiocommunication Study Groups in preparation for the next world radiocommunication conference;
- 7 to consider possible changes in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference: “Advance publication, coordination, notification and recording procedures for frequency assignments pertaining to satellite networks”, in accordance with Resolution 86 (Rev.WRC-07);
- 8 in accordance with Article 7 of the Convention:
  - 8.1 to consider and approve the Report of the Director of the Radiocommunication Bureau:
    - 8.1.1 on the activities of the Radiocommunication Sector since WRC-07;
    - 8.1.2 on any difficulties or inconsistencies encountered in the application of the Radio Regulations; and
    - 8.1.3 on action in response to Resolution 80 (Rev.WRC-07);
  - 8.2 to recommend to the Council items for inclusion in the agenda for the next WRC, and to give its views on the preliminary agenda for the subsequent conference and on possible agenda items for future conferences, taking into account Resolution [COM6/22] (WRC-07),

*resolves further*

to activate the Conference Preparatory Meeting and the Special Committee on Regulatory/Procedural Matters,

*invites the Council*

to finalize the agenda and arrange for the convening of WRC-11, and to initiate as soon as possible the necessary consultations with Member States,

*instructs the Director of the Radiocommunication Bureau*

to make the necessary arrangements to convene meetings of the Conference Preparatory Meeting and to prepare a report to WRC-11,

*instructs the Secretary-General*

to communicate this Resolution to international and regional organizations concerned.

**ADD** PLEN/408/19 (B24/419/19)

RESOLUTION 806 (WRC-07)

**Preliminary agenda for the 2015 World Radiocommunication Conference**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that, in accordance with No. 118 of the ITU Convention, the general scope of the agenda for WRC-15 should be established four to six years in advance;
- b) Article 13 of the ITU Constitution relating to the competence and scheduling of world radiocommunication conferences and Article 7 of the Convention relating to their agendas;
- c) the relevant resolutions and recommendations of previous world administrative radio conferences (WARCs) and world radiocommunication conferences (WRCs),

*resolves to give the view*

that the following items should be included in the preliminary agenda for WRC-15:

- 1 to take appropriate action in respect of those urgent issues that were specifically requested by WRC-11;
- 2 on the basis of proposals from administrations and the Report of the Conference Preparatory Meeting, and taking account of the results of WRC-11, to consider and take appropriate action in respect of the following items:
  - 2.1 to consider spectrum requirements and possible additional spectrum allocations in the radiodetermination service to support the operation of unmanned aerial systems (UAS) in non-segregated airspace;
  - 2.2 to review the use of the band 5 091-5 150 MHz by the fixed-satellite service (Earth-to-space) (limited to feeder links of the non-GSO mobile-satellite service) in accordance with Resolution **114 (Rev.WRC-03)**;
- 3 to examine the revised ITU-R Recommendations incorporated by reference in the Radio Regulations communicated by the Radiocommunication Assembly, in accordance with Resolution **28 (Rev.WRC-03)**, and to decide whether or not to update the corresponding references in the Radio Regulations, in accordance with the principles contained in Annex 1 to Resolution **27 (Rev.WRC-07)**;
- 4 to consider such consequential changes and amendments to the Radio Regulations as may be necessitated by the decisions of the Conference;
- 5 in accordance with Resolution **95 (Rev.WRC-07)**, to review the resolutions and recommendations of previous conferences with a view to their possible revision, replacement or abrogation;
- 6 to review, and take appropriate action on, the Report from the Radiocommunication Assembly submitted in accordance with Nos. 135 and 136 of the Convention;
- 7 to identify those items requiring urgent action by the Radiocommunication Study Groups;
- 8 to consider possible changes in response to Resolution 86 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference: "Advance publication, coordination, notification and recording

procedures for frequency assignments pertaining to satellite networks”, in accordance with Resolution **86 (Rev.WRC-07)**;

9 in accordance with Article 7 of the Convention:

9.1 to consider and approve the Report of the Director of the Radiocommunication Bureau on the activities of the Radiocommunication Sector since WRC-11;

9.2 to recommend to the Council items for inclusion in the agenda for the following WRC,  
*invites the Council*

to consider the views given in this Resolution,

*instructs the Director of the Radiocommunication Bureau*

to make the necessary arrangements to convene meetings of the Conference Preparatory Meeting and to prepare a report to WRC-15,

*instructs the Secretary-General*

to communicate this Resolution to international and regional organizations concerned.

**MOD** COM5/287/9 (B8/293/15) (R5/336/8)

#### RESOLUTION 901 (Rev.WRC-07)

### **Determination of the orbital arc separation for which coordination would be required between two satellite networks operating in a space service not subject to a Plan**

The World Radiocommunication Conference (Geneva, 2007),

...

*invites ITU-R*

...

2 to recommend, as appropriate, the orbital separation required for triggering inter-service and intra-service coordination concerning the satellite services in frequency bands above 3.4 GHz for geostationary-satellite (GSO) networks not subject to a Plan and not already covered by the coordination arc concept specified in No. **9.7** (GSO/GSO) of Table 5-1 (Appendix **5**), under items 1) to 8) of the frequency band column, and subject to Section II of Article **9**,

...

**ADD** COM4/392/16 (B19/413/29)

#### RESOLUTION 903 (Rev. WRC-07)

### **Transitional measures for certain broadcasting-satellite/fixed-satellite service systems in the band 2 500-2 690 MHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that this Conference revised the limits of power flux-density from space stations in Article **21**, Table **21-4** for the band 2 500-2 690 MHz;

- b) that use of the bands 2 500-2 690 MHz in Region 2 and 2 500-2 535 MHz and 2 655-2 690 MHz in Region 3 by the fixed-satellite service (FSS) is limited to national and regional systems, subject to agreement obtained under No. **9.21** (see No. **5.415** and No. **5.2.1**);
- c) that in the band 2 520-2 670 MHz, the broadcasting-satellite service (BSS) is limited to national and regional systems, subject to agreement obtained under No. **9.21** (see No. **5.416** and No. **5.2.1**);
- d) that, in No. **5.384A**, the 2 500-2 690 MHz band is identified as one of the bands for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution **223 (Rev.WRC-07)**;
- e) that, due to the specific national and regional allocation status applied to the space services mentioned above, and the identification for use by administrations wishing to implement IMT, it is advantageous to apply the revised Article **21**, Table **21-4** limits in the band 2 500-2 690 MHz at an early date;
- f) that certain space systems are at advanced stages of development and need to be taken into account;
- g) that agenda item 1.9 of this Conference mentioned a requirement to not place undue constraints on the services to which the band is allocated,

*resolves*

1 that in the band 2 500-2 690 MHz space stations of satellite networks listed in Annex 1 to this Resolution shall not exceed the following pfd values:

$-152 \text{ dB(W/m}^2\text{)}$	for	$\delta < 5^\circ$
$-152 + 0.75 (\delta - 5) \text{ dB(W/m}^2\text{)}$	for	$5^\circ \leq \delta \leq 25^\circ$
$-137 \text{ dB(W/m}^2\text{)}$	for	$\delta > 25^\circ$

in any 4 kHz band, where  $\delta$  is the angle of arrival above the horizontal plane. The limits in Table **21-4** do not apply;

2 that, for systems other than those addressed in *resolves* 1, Nos **5.418**, **5.417A** and Resolution **539**, the Bureau shall examine any coordination and notification information with respect to the provisions Nos **9.35** and **11.31** (respectively) for frequency assignments in the FSS or BSS received by the Bureau after 14 November 2007 using the pfd limits for the band 2 500-2 690 MHz in Table **21-4** of Article **21**, as revised by this Conference,

*instructs the Bureau*

to implement *resolves* 1 and *resolves* 2.

ANNEX 1 TO RESOLUTION 903 (WRC-07)

Notifying administration	Name of space station	Orbital position	Coordination request Special Section	Date of receipt of Advance Publication Information
ARS/ARB	ARABSAT 5A-30.5E	30.50 E	CR/C/1626 M2	10.01.05
ARS/ARB	ARABSAT 5B-26E	26.00 E	CR/C/1627 M2	10.01.05
CHN	CHINASAT-MSB4	115.50 E	CR/C/1448 M1 and CR/C/1448 M2	03.11.03
CHN	CHNBSAT-113E	113.20 E	CR/C/1564 M1 and CR/C/1564 M2	18.06.04
CHN	CHNBSAT-119E	119.00 E	CR/C/1565 M1 and CR/C/1565 M2	18.06.04
IND	INSAT-2(74)	74.00 E	CR/C/1311 and CR/C/1311 M1	07.08.85
IND	INSAT-2(83)	83.00 E	CR/C/1312 and CR/C/1312 M1	07.08.85
IND	INSAT-2(93.5)	93.50 E	CR/C/1313 and CR/C/1313 M1	07.08.85
INS	INDOSTAR-107.7E	107.70 E	CR/C/1940	31.07.06
INS	INDOSTAR-118E	118.00 E	CR/C/1941	31.07.06

**ADD** COM5/230/6 (B4/234/8) (R3/292/105)

RESOLUTION 904 (WRC-07)

**Transitional measures for coordination between the mobile-satellite service (Earth-to-space) and the space research (passive) service in the band 1 668-1 668.4 MHz for a specific case**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that WRC-03 made a global allocation to the mobile-satellite service (MSS) (Earth-to-space) in the band 1 668-1 675 MHz and a global allocation to the MSS (space-to-Earth) in the band 1 518-1 525 MHz;
- b) that the band 1 660.5-1 668.4 MHz is allocated to the space research (passive) service;
- c) that in the band 1 668-1 668.4 MHz, mobile earth stations and space research (passive) stations are subject to coordination under No. **9.11A**;
- d) that the relevant coordination threshold condition is given in Appendix 5;
- e) that before WRC-07, Appendix 4 did not contain the relevant information for the request for coordination for passive services;
- f) that before WRC-07, Appendix 4 contained all necessary data for request for coordination for MSS systems, and coordination information was submitted after WRC-03 for some MSS systems;
- g) that there is one satellite system (SPECTR-R) in the space research (passive) service in the band 1 668-1 668.4 MHz for which relevant advance publication information has been communicated to the Bureau prior to WRC-07, and that it is necessary to provide some transitional measures for the treatment of this information by the Bureau,

*noting*

- a) that Report ITU-R M.2124 contains an assessment of sharing between the mobile-satellite service and space research (passive) service in the band 1 668-1 668.4 MHz;
- b) that the satellite system SPECTR-R is associated with the RADIOASTRON project, which is an international project for a space very long baseline interferometry system,

*resolves*

that, in the band 1 668-1 668.4 MHz, mobile-satellite service systems that exceed the relevant coordination threshold condition shall be coordinated with the SPECTR-R system operating in the space research service (passive), for which advance publication information was received by the Bureau on 7 December 2005<sup>1</sup>, provided that the complete coordination information is received by the Bureau within the time-limit mentioned in No. **9.5D**.

**ADD** COM5/308/22 (B10/326/20) (R6/410/79)

### RESOLUTION 905 (WRC-07)

#### **Date of entry into force of certain provisions of the Radio Regulations relating to the non-payment of cost-recovery fees**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that Council 2005 modified Decision 482 to apply satellite network cost recovery to all satellite network filings concerning notification for recording of frequency assignments in the Master International Frequency Register (Article **11**, Article 5 of Appendices **30/30A** and Article 8 of Appendix **30B**) received by the Radiocommunication Bureau on or after 1 January 2006 if they refer to advance publication or modification of the space service Plans or Lists (Part A) or requests for the implementation of the fixed-satellite service Plan, as appropriate, received on or after 19 October 2002;
- b) that Council 2005 also modified Decision 482 to apply satellite network cost recovery to all requests for the implementation of the fixed-satellite service Plan (Sections IA and III of Article 6 of Appendix **30B**) received by the Radiocommunication Bureau on or after 1 January 2006;
- c) that this Conference adopted certain provisions in Article **11**, Appendices **30**, **30A** and **30B** relating to the consequences of the non-payment of cost-recovery fees for notification of satellite networks and the implementation of the fixed-satellite service Plan (Sections IA and III of Article 6 of Appendix **30B**) as adopted by the Council in Decision 482 (as modified),

*recognizing*

that Resolution 88 (Rev. Marrakesh, 2002) of the Plenipotentiary Conference recognizes that the provisions adopted by WRC-2000 established a linkage between the rights acquired by Member States in applying the relevant procedures of the Radio Regulations after 7 November 1998 and the payment of the fees for cost recovery for satellite network filings,

*noting*

that invoices have been issued for cost-recovery fees for notifications since 1 January 2006, as indicated in *considering a) and b)*,

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<sup>1</sup> API/A/3957 dated 24 January 2006.

*resolves*

1 that the date of entry into force of footnote A.11.6 to the title of Article **11**, footnote 17A to the title of Article 5 in Appendix **30**, footnote 21A to the title of Article 5 in Appendix **30A**, footnote 1 to the title of Article 6 in Appendix **30B** and footnote 3A to the title of Article 8 in Appendix **30B** shall be 17 November 2007;

2 that satellite network filings subject to satellite network cost recovery for notification in accordance with Decision 482 (modified 2005) as summarized in *considering a*) and *b*) and for which complete information was received by the Radiocommunication Bureau before 17 November 2007 and the corresponding invoice was issued before that date but the payment was not yet made, shall be cancelled if payment has not been received by 17 May 2008;

3 that satellite network filings subject to satellite network cost recovery for notification in accordance with Decision 482 (modified 2005) as summarized in *considering a*) and *b*) and for which complete information was received by the Radiocommunication Bureau before 17 November 2007 but the corresponding invoice was not issued before 17 November 2007, shall be cancelled if the payment has not been made by the due date specified in that invoice,

*instructs the Director of the Radiocommunication Bureau*

1 to send, to the notifying administrations responsible for satellite networks to which *resolves* 2 or 3 applies, a reminder concerning the deadline for the payment in Council Decision 482 (modified 2005) and of the consequences of non-payment according to *resolves* 2 or 3 not later than two months prior to 17 May 2008, in the case of *resolves* 2, or the invoice payment due date in the case of *resolves* 3, unless the payment has already been received;

2 to take necessary action, as appropriate, with respect to the consequential changes to Appendix **30B**.

**ADD** COM6/207/1 (B2/213/4) (R1/221/10)

**RESOLUTION 906 (WRC-07)**

**Submission of notices for terrestrial services to the Radiocommunication Bureau**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

*a*) that the electronic format for submission of notifications concerning terrestrial services under Article **11** and Plans annexed to Regional Agreements has been used by the Radiocommunication Bureau since September 1994;

*b*) that the “BR High Frequency Broadcasting Schedule” (HFBC Schedule) and the “BR International Frequency Information Circular” (BR IFIC) are the only regulatory publications resulting from the application of Chapter **III** and the associated Regional Agreements, and that the HFBC Schedule has been published every month, except the month of June, in CD-ROM format since January 1999, while the BR IFIC has been published every two weeks in CD-ROM format since 11 January 2000 and, subsequently, for terrestrial services, in DVD-ROM format since September 2005;

*c*) that, since 8 December 1998, submission of HFBC requirements under Article **12** has been in electronic format only;

*d*) that, since 3 June 2001 for space services, all notice forms (AP4/II and AP4/III), radio astronomy notices (AP4/IV) and advanced publication information (AP4/V and AP4/VI) and due

diligence information (Resolution **49 (Rev.WRC-03)**) for satellite networks and earth stations submitted to the Radiocommunication Bureau pursuant to Articles **9** and **11** have been submitted in electronic format only;

e) that, from 7 December 2004, the submission of digital broadcasting requirements to be used for the planning exercise and the development of a draft plan for the second session of the Regional Radiocommunication Conference for the planning of digital terrestrial broadcasting in parts of Regions 1 and 3, in the frequency bands 174-230 MHz and 470-862 MHz (RRC-06), were only provided in electronic format;

f) that RRC-06 decided that all submissions in the application of Articles 4 and 5 of the GE06 Regional Agreement shall be in electronic format only;

g) that preparation of notices for terrestrial services in electronic format would allow administrations to validate the data prior to submission using Radiocommunication Bureau software tools;

h) that submission of notices for terrestrial services in electronic format would remove the need for the Radiocommunication Bureau to transcribe the data, avoid the potential for the introduction of errors and reduce the data processing effort required by the Radiocommunication Bureau;

i) that the introduction of the submission of notices for terrestrial services only in electronic format may require appropriate training on the Radiocommunication Bureau's software tools, especially in developing countries;

j) that, for some administrations, the submission of notices for terrestrial services only in electronic format may require the adaptation of their national procedures and the development of appropriate electronic facilities;

k) that information in electronic format could be used to fulfil administrations' database requirements and facilitate the exchange of information between administrations and with the Radiocommunication Bureau,

*further considering*

a) that the use of an electronic format for the submission of notices for terrestrial services to the Radiocommunication Bureau would reduce its costs;

b) that the revision of Appendix 4, at this Conference, would facilitate the administrations' and the Radiocommunication Bureau's transition to the use of an electronic format for the submission of notices for terrestrial services;

c) that the Radiocommunication Bureau has already developed an electronic format for submission of all notice types for terrestrial services;

d) that the large majority of notices for terrestrial services received by the Radiocommunication Bureau are already submitted only in electronic format,

*resolves*

1 that, from 1 January 2009, the submission of notices for terrestrial services to the Radiocommunication Bureau shall be in electronic format only;

2 that administrations are encouraged to discontinue usage of paper notices as soon as possible and to inform the Radiocommunication Bureau accordingly;

3 that administrations are encouraged to use, as soon as possible, an electronic format and electronic facilities for the exchange of coordination data between administrations,

*instructs the Director of the Radiocommunication Bureau*

1 to refine and complete the specification of the electronic format to be used for the submission of notices for terrestrial services, as may be required after the revision of Appendix 4 at this Conference;

2 to provide assistance, as required, to any administration, particularly in the transition to use of the electronic format for the submission of notices for terrestrial services;

3 to include in radiocommunication seminars appropriate training in the use of the electronic format for the submission of notices for terrestrial services,

*invites the Secretary-General*

to consider the provision free of charge of suitable software and/or hardware for any least developed countries that so request.

**MOD** PLEN/408/3 (B24/419/3)

### RESOLUTION 950 (Rev.WRC-07)

#### **Consideration of the use of the frequencies between 275 and 3 000 GHz**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that, in the Table of Frequency Allocations, frequency bands above 275 GHz are not allocated;

b) that, notwithstanding *considering a*), No. **5.565** makes provision for the use of the frequency band 275-1 000 GHz for experimentation with, and development of various passive services and all other services and recognizes the need to conduct further research;

c) that No. **5.565** also makes provision for the protection of passive services until, and if, such time as the Table of Frequency Allocations may be extended;

d) that, in addition to the spectral lines identified by No. **5.565**, research activities in the bands above 275 GHz may yield other spectral lines of interest, such as those listed in Recommendation ITU-R RA.314;

e) that within various Radiocommunication Study Groups, studies on systems between 275 and 3 000 GHz, including system characteristics of suitable applications, are being considered;

f) that the present use of the bands between 275 and 3 000 GHz is mainly related to the passive services, however, with anticipated technology development, the bands may become increasingly important for suitable active service applications;

g) that sharing studies in ITU-R among passive services and all other services operating in frequencies between 275 and 3 000 GHz have not been completed;

h) that the lack of use to date of the band 275-3 000 GHz by the various active services indicates a general consideration of frequency allocations above 275 GHz may be premature,

*recognizing*

a) that propagation characteristics at frequencies above 275 GHz, such as atmospheric absorption and scattering, have a significant impact on the performance of both active and passive systems and need to be studied;

b) that it is necessary to investigate further the potential uses of the bands between 275 and 3 000 GHz by suitable applications,

*noting*

a) that significant infrastructure investments are being made under international collaboration for the use of these bands between 275 and 3 000 GHz, for example, the Atacama Large Millimetre Array (ALMA), a facility under construction that will provide new insights on the structure of the universe;

b) that Radiocommunication Bureau Circular Letter CR/137 identified additional information for the Bureau to record characteristics of active and passive sensors for Earth exploration-satellite service and space research service satellites, in frequency bands below 275 GHz,

*further noting*

a) that a process and format similar to that provided in *noting b)* could be used to record systems operating in the 275 to 3 000 GHz band;

b) that recording active and passive systems operating in the 275 to 3 000 GHz band will provide information until the date when, and if, it is determined that changes to the Radio Regulations are needed,

*resolves*

1 to review No. **5.565** of the Radio Regulations, excluding frequency allocations, in order to update the spectrum use between 275 GHz and 3 000 GHz by the passive services at WRC-11, taking into account the result of the ITU-R studies;

2 that administrations may submit for inclusion in the Master International Frequency Register details on systems which operate between 275 and 3 000 GHz and which may be recorded by the Radiocommunication Bureau under Nos. **8.4**, **11.8** and **11.12**,

*invites ITU-R*

to conduct the necessary studies in time for consideration by WRC-11 with a view to the modification of No. **5.565**, including advice on the applications suitable for the band 275-3 000 GHz,

*instructs the Director of the Radiocommunication Bureau*

to accept submissions referred to in *resolves 2*, and to record them in the Master International Frequency Register.

**MOD** COM6/301/2 (B10/326/19) (R6/410/76)

**RESOLUTION 951 (Rev.WRC-07)**

**Enhancing the international spectrum  
regulatory framework**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that radio spectrum is a finite resource and there is a continued increase and evolution in demand and multiplicity of existing and future applications for radiocommunications;

- b) that the current technological environment for some applications is substantively different from the one which prevailed when the current allocation principles and definitions were established;
- c) that past WRCs were able to respond to the developments mentioned under *considering a) and b)* in certain cases;
- d) that there is a keen interest in the rational, efficient and economic use of spectrum;
- e) that allocations to radiocommunication services should aim to reach the best outcome in terms of spectrum efficiency;
- f) that applications are emerging in which elements of different radiocommunication services (as defined in the Radio Regulations) are combined;
- g) that there is a convergence of radio technologies, inasmuch as the same radio technology can be used in systems that operate in different radiocommunication services or with different allocation status (primary or secondary), that might have an impact on the allocation scenario;
- h) that similar data rates and quality of service attributes are available with different radiocommunication systems operating in different radiocommunication services;
- i) that the use of modern underlying communication architectures and protocols, such as those used in packet radio systems, enables the concurrent provision of different applications from the same platform operating in the same frequency bands;
- j) that evolving and emerging radiocommunication technologies may enable sharing possibilities and may lead to more frequency-agile and interference-tolerant equipment and consequently to more flexible use of spectrum;
- k) that these evolving and emerging technologies may not require band segmentation within the traditional spectrum allocation framework;
- l) that the regulatory procedures should be continually assessed in order to meet the demands of administrations,

*recognizing*

- a) that the rights of administrations to deploy, operate and protect services should be the guiding principle;
- b) that the studies in response to Resolution **951 (WRC-03)** have shown that any change intended to improve the flexibility of administrations in accommodating converging services has to rely on a combination of service definitions, allocations and procedures,

*noting*

- a) that one of the purposes of the Radio Regulations is the effective management and use of spectrum;
- b) that World Radiocommunication Conferences shall normally be convened every three to four years for possible amending of the Radio Regulations;
- c) that the studies initiated under Resolution **951 (WRC-03)** have shown a need for additional studies,

*resolves*

1 that, as a matter of urgency, taking into account Annexes 1 and 2, studies are to be continued by ITU-R, in order to develop concepts and procedures for enhancing the Radio Regulations to

meet the demands of current, emerging and future radio applications, while taking into account existing services and usage;

2 that the studies mentioned in *resolves* 1 shall be limited to general allocation or procedural issues relating to general spectrum management solutions, such as those already developed in Annex 1, in line with the process contained in Annex 2;

3 to invite WRC-11 to take into consideration the results of these studies, including sharing and their impact on allocations in the concerned frequency bands, and take appropriate action in accordance with Annex 2,

*invites ITU-R*

to conduct the necessary studies in time for consideration by WRC-11 and in accordance with this Resolution,

*invites administrations*

to participate actively in the studies by submitting contributions to ITU-R.

## ANNEX 1 TO RESOLUTION 951 (Rev.WRC-07)

### **Options for enhancing the international spectrum regulatory framework\***

The following four possible options have been so far identified in order to develop concepts and procedures for enhancing the Radio Regulations; a combination of these options as well as other options may also be used.

Option 1 is keeping the current practice as it is.

Option 2 is reviewing and possibly revising the current service definitions or adding a new service to the list of service definitions, which would encompass several of the existing ones.

Option 3 is the introduction of a new provision in the Radio Regulations enabling substitution<sup>1</sup> between assignments of specific services.

Option 4 is the introduction of composite services in the Table of Frequency Allocations.

NOTE – For Options 2, 3 and 4, improved forms of notices associated with existing Appendix 4, and/or relevant adjustments to this Appendix, should be considered.

#### **1 Option 1: Keeping current practice**

Under this option, it is considered that there is sufficient flexibility within the present Radio Regulations and the WRC process to meet any current or likely future requirements within the time-frame typically set forth for WRCs.

Under this option, national regulation may be appropriate to provide relevant solutions to the changing environment.

Although new applications may be introduced in a shorter time-frame, this would be without protection against harmful interference, which may not be practical for the vast majority of emerging wireless applications, including IMT, scientific, public safety, radiolocation, radionavigation, broadcast and fixed/mobile/broadcast satellite systems.

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\* Further information can be found in Document 24 to WRC-07.

<sup>1</sup> This term needs to be clarified and defined properly.

The current service definitions in Article 1 of the Radio Regulations appear to have generally enabled the Radio Regulations to be adapted dynamically to latest technology evolution such as IMT, HAPS, RLANs, digital TV, public protection and disaster relief (PPDR) and scientific community interests.

It was noted that, in spite of different definitions for the fixed and mobile (except aeronautical and maritime) services, in most frequency bands where one of the two services is allocated, the other one is also allocated. This indicates that convergence is already achieved in the ITU Table of Frequency Allocations, except in some frequency bands, where allocations to both services may be considered on a band-by-band basis by future WRCs, as required.

## **2 Option 2: Review and possibly revise some of the service definitions**

Under this approach, the current service definitions in Article 1 of the Radio Regulations would be reviewed in order to ensure that they adequately and clearly cover actual use while providing flexibility for emerging technologies. After an extensive consultation within the ITU-R Study Groups, this review may encompass the fixed and mobile (except aeronautical and maritime mobile) services and possibly other services, if considered appropriate<sup>2</sup>. It may lead to reviewing the current definitions for these services and modifying them as necessary.

Possible changes to the service definitions would need to be addressed from the point of view of their regulatory implications in the assignment and use of frequencies, in particular in the ITU coordination, notification and recording processes, impact on assignments made under the current definitions, and impact on other services.

## **3 Option 3: Introduction of a new provision in the Radio Regulations enabling substitution between assignments of specific services**

Under this approach, a new provision would be introduced in the Radio Regulations in order to enable substitution between assignments of specific services. For example, in the context of fixed and mobile (except maritime and aeronautical mobile) services, substitution could be applied in the same way as it is applied by Nos. 5.485 or 5.492 in the context of the fixed-satellite and broadcasting-satellite services.

Using the example of fixed and mobile services, this could reflect the current convergence between the services, address the current ambiguities between the definitions of these services, facilitate the timely implementation of new applications, provide adequate regulatory protection for such applications, and protect the rights of other administrations against interference caused by them.

A new provision enabling substitution would need to be addressed from the point of view of its regulatory implications in the assignment and use of frequencies, in particular in the ITU coordination, notification and recording processes, impact on assignments made under the current definitions, and impact on other services.

## **4 Option 4: Introduction of composite services in the Table of Frequency Allocations**

Under this approach, which could reflect the convergence between some radiocommunication services in a specific frequency band, the Table of Frequency Allocations (Article 5 of the RR) could be modified by replacing the current separate allocations to some radiocommunication services by a joint allocation to these services (e.g. a specific frequency band allocated to the “fixed

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<sup>2</sup> The ITU-R studies indicated that the current definition of the fixed-satellite service has been able to accommodate new technologies and applications in the fixed-satellite service.

service” and to the “land mobile service” could be modified to a composite allocation of “fixed and land mobile service”). The above approach would only be applicable if all concerned services referred to in the allocation to the composite services have equal regulatory status.

This approach would provide administrations with increased flexibility. In the example above, administrations could opt for either the fixed service alone, for the land mobile service alone, for separate applications in both services in an independent manner, or for a composite application which would include both services. This option would not require any revision to the current definitions of the concerned radiocommunication services (i.e. neither to the fixed nor to the land mobile service).

To enable the notification and recording of frequency assignments in such a composite service, a new class of station could be introduced named “Station in the fixed and land mobile service” (with a separate symbol than those used for the fixed and land mobile service), with appropriate forms of notice, or other adequate notification mechanisms.

## ANNEX 2 TO RESOLUTION 951 (Rev.WRC-07)

### **Guidelines for implementing this Resolution**

**These guidelines contain three steps:**

- 1 Step 1: Evaluate various options including those in Annex 1 as to their usefulness regarding the enhancement of spectrum management solutions to meet the objectives of this Resolution.
- 2 Step 2: Develop concepts and procedures based on the options evaluated in Step 1 including sharing studies on a band-by-band basis.
- 3 Step 3: Prepare, based on Step 2, technical and regulatory solutions for consideration and appropriate action at WRC-11.

**ADD** COM6/339/2 (B12/346/18) (R6/410/81)

## RESOLUTION 953 (WRC-07)

### **Protection of radiocommunication services from emissions by short-range radio devices**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a)* that short-range radio devices (SRDs) are radio transmitters or receivers, or both, and hence are not considered as industrial, scientific and medical (ISM) applications under No. **1.15**;
- b)* that SRDs, including devices using ultra-wideband (UWB) technologies, radio-frequency identification devices (RFIDs), and other similar devices, generate and use radio frequencies locally;
- c)* that SRDs cannot claim protection from interference from radio services and therefore have been developed in priority in ISM frequency bands;
- d)* that there is an increasing amount of SRDs proliferating across various frequencies throughout the spectrum, such as devices using UWB technologies or RFIDs, etc.;
- e)* that in some cases considerable energy may be radiated by RFIDs;

f) that some radio services, especially those using low field strengths, may suffer harmful interference from SRDs, in particular RFIDs, a risk which is unacceptable, particularly in the case of radionavigation or other safety services,

*recognizing*

a) the work carried out by ITU-R resulting in relevant ITU-R Recommendations (see ITU-R SM.1538, ITU-R SM.1754, ITU-R SM.1755, ITU-R SM.1756, ITU-R SM.1757);

b) the work carried out by ITU-T on RFID;

c) that SRDs, in particular RFIDs, hold promise for an array of new applications that may provide benefits for users;

d) that the characteristics of RFIDs, including the power of the transmitter, are standardized in the framework of the International Standardization Organization (ISO),

*recognizing further*

Resolution ITU-R 54 of the Radiocommunication Assembly (Geneva, 2007), which resolves that ITU-R should study the capabilities of SRDs while ensuring protection of radiocommunication services,

*resolves*

that, to ensure that radiocommunication services are adequately protected, further studies are required on the emissions from SRDs, inside and outside the frequency bands designated in the Radio Regulations for ISM applications,

*invites ITU-R*

to study emissions from SRDs, in particular RFIDs, inside and outside the frequency bands designated in the Radio Regulations for ISM applications to ensure adequate protection of radiocommunication services,

*invites administrations*

to participate in the studies by submitting contributions to ITU-R,

*instructs the Director of the Radiocommunication Bureau*

1 to bring this Resolution to the attention of ITU-T, ISO and the International Electrotechnical Commission;

2 to provide the results of these studies to WRC-11 for its considerations and actions.

**ADD** COM6/340/2 (B14/365/50) (R7/411/226)

## RESOLUTION 954 (WRC-07)

### **Harmonization of spectrum for use by terrestrial electronic news gathering<sup>1</sup> systems**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the use of terrestrial portable radio equipment by services ancillary to broadcasting, commonly described as electronic news gathering (ENG), operating in the bands allocated to the broadcasting, fixed and mobile services has become an important element in the comprehensive coverage of a wide range of internationally noteworthy events, including natural disasters;
- b) that WRC-03 initiated studies concerned with spectrum usage and operational characteristics of portable and nomadic links for terrestrial ENG systems operation on a global basis, in accordance with Recommendation **723 (WRC-03)**;
- c) that modularization and miniaturization of terrestrial ENG systems has increased the portability for these systems and has thus increased the trend towards cross-border operation of ENG equipment;
- d) that the technical characteristics for television outside broadcast, ENG and electronic field production systems in the fixed and mobile services for use in sharing studies have been established in ITU-R Recommendations,

*noting*

- a) that studies undertaken by ITU-R indicate that national spectrum management could benefit from globally harmonized band planning for ENG systems;
- b) that ENG-related studies in ITU-R are based on data for current and anticipated ENG spectrum requirements collected from many administrations in all regions;
- c) that some of the frequency bands currently used for ENG have a number of technical and operational attributes making them suitable for continued long-term use for ENG;
- d) that lower frequency spectrum bands tend to provide better propagation characteristics over obstructed paths, thereby increasing the reliability of ENG links operating in these bands,

*recognizing*

- a) that broadcasters now embrace advanced digital technologies that open new opportunities for both fixed and mobile ENG operations, and that these developments have spectrum related implications;
- b) that the dynamic nature of the use of ENG is driven by scheduled, unscheduled and unpredictable events such as breaking news, emergencies and disasters;
- c) that news gathering and electronic production typically takes place in an environment where several television broadcasters/organizations/networks attempt to cover the same event,

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<sup>1</sup> For the purpose of this Resolution, ENG represents all applications ancillary to broadcasting, such as terrestrial electronic news gathering, electronic field production, TV outside broadcast, wireless radio microphones and radio outside production and broadcast.

creating a demand for multiple ENG links and increased demand for access to spectrum in suitable frequency bands;

d) that access to a globally harmonized spectrum is highly desirable to facilitate the rapid and less restricted deployment and operation of ENG systems from one country to another,

*resolves*

1 that, based on studies undertaken by ITU-R, WRC-11 should address the feasibility of achieving a satisfactory degree of worldwide/regional harmonization of spectrum for ENG use in terms of the frequency bands and tuning ranges;

2 that methods should be identified for the possible harmonization of frequency bands and tuning ranges for ENG usage,

*invites ITU-R*

1 to carry out studies of ENG regarding possible solutions for global/regional harmonization in frequency bands and tuning ranges, taking into account:

- available technologies to maximize efficient and flexible use of frequency;
- system characteristics and operational practices which facilitate the implementation of these solutions;

2 to include in the studies referred to above sharing and compatibility issues with services already having allocations in frequency bands and tuning ranges which have potential for ENG use;

3 to propose operational measures to facilitate operation of ENG equipment consistent with global circulation of radiocommunication equipment, taking into account Recommendation ITU-R M.1637;

4 to report the results of those studies to the World Radiocommunication Conference 2011,

*invites administrations*

to participate in the studies by submitting contributions to ITU-R.

**ADD** PLEN/408/4 (B24/419/6)

## RESOLUTION 955 (WRC-07)

### **Consideration of procedures for free-space optical links**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that frequencies above 3 000 GHz are already used for various optical applications from telecommunication links to satellite remote sensing;

b) that optical links are currently under consideration by several ITU-R Study Groups;

c) that Recommendations ITU-R P.1621, P.1622, S.1590, RA.1630; SA.1742, SA.1805, and RS.1744 contain information pertaining to free-space optical links and remote sensing;

d) that the ITU-R is in the process of preparing reports regarding the possibility and relevance of including in the Radio Regulations frequency bands above 3 000 GHz as well as fixed service applications using such frequency bands,

*recognizing*

- a) that Resolution 118 (Marrakesh, 2002) of the Plenipotentiary Conference instructs the Director of the BR to report to world radiocommunication conferences on the progress of ITU-R studies concerning the use of frequencies above 3 000 GHz;
- b) that the ITU-R has identified technical aspects regarding the use of optical free-space telecommunications as an item requiring urgent study by the ITU-R Study Groups,

*resolves*

to consider possible procedures for free-space optical links, taking into account the results of ITU-R studies covering at least sharing aspects with other services, a clear definition of the band limits and measures to be considered if allocations to various services in the Radio Regulations above 3 000 GHz are considered feasible,

*invites ITU-R*

to conduct the necessary studies in time for consideration by WRC-11.

**ADD** PLEN/408/14 (B24/419/15)

### RESOLUTION 956 (WRC-07)

#### **Regulatory measures and their relevance to enable the introduction of software-defined radio and cognitive radio systems**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that cognitive radio and self-configuring networks are expected to provide additional flexibility and improved efficiency to the overall spectrum use;
- b) that ITU-R is already studying such advanced radio technologies, their functionalities, the key technical characteristics, requirements, performance and benefits (Question ITU-R 241/8);
- c) that studies have shown that software defined radio using cognitive control mechanisms is an approach for achieving better spectrum utilization, dynamic spectrum management, and flexible spectrum use (Report ITU-R M.2064);
- d) that considerable research and development is being carried out on cognitive radio systems and related network configurations such as self-configuring networks;
- e) that cognitive radio systems may cover a number of radio access techniques (RATs);
- f) that cognitive radio systems include self-configuring networks of different network topologies that will be able to set their spectrum usage based on the locally available spectrum;
- g) that without any information about the location and characteristics of other RATs within the covered frequency range reachable from the mobile terminal, it will be necessary to scan the whole tuning range in order to discover the local spectrum usage, which will result in a huge power and time consumption;
- h) that without additional means, it may not be possible to discover receive-only usage;
- i) that some studies indicate usefulness to have means to assist in the determination of the local spectrum usage, such as wireless or wired access to a database or to other networks;
- j) that some studies indicate a possible need for a worldwide harmonized cognitive supporting pilot channel with a bandwidth less than 50 kHz, whilst other studies indicate that the

availability of a database could support access and connectivity, and therefore support the use of these systems,

*resolves to invite ITU-R*

1 to study whether there is a need for regulatory measures related to the application of cognitive radio system technologies;

2 to study whether there is a need for regulatory measures related to the application of software-defined radio,

*resolves further*

that WRC-11 consider the results of these studies and take the appropriate actions.

## **RECOMMENDATIONS**

**ADD** COM4/380/78 (B19/413/30)

RECOMMENDATION 206 (WRC-07)

**Consideration on the possible use of integrated mobile-satellite service  
and ground component systems in some frequency bands  
identified for the satellite component of International  
Mobile Telecommunications**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that mobile-satellite service (MSS) systems may provide service to a wide area;
- b) that MSS systems have a limited capacity for providing reliable radiocommunication services in urban areas on account of natural or man-made obstacles and that the ground component of an integrated MSS system can mitigate blockage areas, as well as allow for indoor service coverage;
- c) that MSS systems can improve coverage of rural areas, thus being one element that can bridge the digital divide in terms of geography;
- d) that MSS systems are suitable for public protection and disaster relief communications, as stated in Resolution **646 (WRC-03)**;
- e) that the bands 1 525-1 544 MHz, 1 545-1 559 MHz, 1 610-1 626.5 MHz, 1 626.5-1 645.5 MHz, 1 646.5-1 660.5 MHz and 2 483.5-2 500 MHz are among those identified in Resolution **225 (Rev.WRC-07)** for administrations wishing to implement the satellite component of International Mobile Telecommunications (IMT);
- f) that the bands mentioned in *considering e)* are allocated on a primary basis to the mobile-satellite services and other services and that not all of them are allocated to the mobile service;
- g) that the bands 1 980-2 010 MHz and 2 170-2 200 MHz are identified for use by the satellite component of IMT-2000 in accordance with Resolution **212 (Rev.WRC-07)**;
- h) that within their territories in some or parts of the bands identified in *considering e)* and *g)* and in parts of the band 2 010-2 025 MHz in some countries in Region 2, some administrations have authorized or plan to authorize MSS system operators to establish an integrated ground component to their MSS systems (“Integrated System”) and under certain conditions determined at the national level such as:
  - i) the ground component is complementary to, and operates as an integral part, of the MSS system and, together with the satellite component, provides an integrated service offering;
  - ii) the ground component is controlled by the satellite resource and network management system;
  - iii) the ground component uses the same designated portions of the frequency band as the associated operational MSS system;
- i) that ITU-R has performed frequency sharing studies and has determined that the coexistence between independent systems in the MSS and systems in the mobile services in the same spectrum without harmful interference is not feasible in the same or adjacent geographical area,

*recognizing*

- a) that ITU-R has not performed studies on sharing, technical or regulatory issues with regard to integrated MSS and ground component systems, but that some administrations have performed such studies;
- b) that the radionavigation-satellite service in the 1 559-1 610 MHz band and the radio astronomy service in the bands 1 610.6-1 613.8 MHz and 1 660-1 670 MHz need to be protected from harmful interference;
- c) that the MSS needs to be protected from harmful interference that may be caused by the introduction of the ground component of Integrated Systems;
- d) that Nos. **5.353A** and **5.357A** are applicable to MSS systems in different portions of the bands 1 525-1 559 MHz and 1 626.5-1 660.5 MHz with respect to the spectrum requirements and prioritization of communications for the Global Maritime Distress and Safety System and the aeronautical mobile-satellite (R) service,

*noting*

- a) that the combined wide-area and urban coverage capabilities of Integrated Systems may contribute to meeting the particular needs of developing countries such as is noted in Resolution **212 (Rev.WRC-07)**;
- b) that some administrations that are planning to implement or are implementing Integrated Systems within their national territories have imposed limitations, in rules and authorization actions, on the e.i.r.p. density that the ground component of such systems may produce into bands allocated to the radionavigation-satellite service;
- c) that there are a limited number of frequency bands allocated to the MSS, that these bands are already congested, and that the introduction of integrated ground components may in some instances make spectrum access for other MSS systems more difficult;
- d) that administrations implementing Integrated Systems may provide, in bilateral consultations of administrations, information on system characteristics of the ground component,

*recommends*

to invite ITU-R to conduct studies, as appropriate, taking into account existing systems and those proposed to be used soon and the above *considering*, *recognizing* and *noting*,

*invites administrations*

to participate as necessary in the ITU-R studies taking into account *recognizing a*).

**ADD** COM4/426/1 (B19/413/30)

**RECOMMENDATION 207 (WRC-07)**

**Future IMT systems**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the future development of IMT is being studied by ITU-R in accordance with Recommendation ITU-R M.1645 and further Recommendations are to be developed for IMT-Advanced;
- b) that the future development of IMT is foreseen to address the need for higher data rates than those of currently deployed IMT systems;

c) the need to define the requirements associated with ongoing enhancement of future IMT systems,

*noting*

a) the ongoing relevant studies by ITU-R on IMT-Advanced, in particular the outputs from Question ITU-R 229-1/8;

b) the need to take into consideration requirements of applications of other services,

*recommends*

to invite ITU-R to study as necessary technical, operational and spectrum related issues to meet the objectives of future IMT systems.

**MOD** COM6/341/24 (B14/365/51) (R7/411/227)

### RECOMMENDATION 608 (Rev.WRC-07)

### **Guidelines for consultation meetings established in Resolution 609 (Rev.WRC-07)**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

a) that in accordance with the Radio Regulations (RR), the band 960-1 215 MHz is allocated on a primary basis to the aeronautical radionavigation service (ARNS) in all the ITU Regions;

b) that WRC-2000 introduced a co-primary allocation for the radionavigation-satellite service (RNSS) in the frequency band 1 164-1 215 MHz (subject to the conditions specified under No. **5.328A**), with a provisional limit on the aggregate power flux-density (pfd) produced by all the space stations within all radionavigation-satellite systems at the Earth's surface of  $-115$  dB(W/m<sup>2</sup>) in any 1 MHz band for all angles of arrival;

c) that WRC-03 revised this provisional limit and decided that the level of  $-121.5$  dB(W/m<sup>2</sup>) in any 1 MHz for the aggregate equivalent pfd (epfd) applying for all the space stations within all RNSS systems, taking into account the reference worst-case ARNS system antenna characteristics described in Annex 2 of Recommendation ITU-R M.1642-2, is adequate to ensure the protection of the ARNS in the band 1 164-1 215 MHz;

d) that WRC-03 decided that to achieve the objectives in *resolves* 1 and 2 of Resolution **609 (Rev.WRC-07)**, administrations operating or planning to operate RNSS systems will need to agree cooperatively through consultation meetings to achieve the level of protection for ARNS systems, and shall establish mechanisms to ensure that all potential RNSS system operators are given full visibility of the process but that only real systems are taken into account in the calculation of the aggregate epfd,

*recommends*

1 that in the implementation of *resolves* 5 of Resolution **609 (Rev.WRC-07)**, in the frequency band 1 164-1 215 MHz, the maximum pfd produced at the surface of the Earth by emissions from a space station in the RNSS, for all angles of arrival, should not exceed  $-129$  dB(W/m<sup>2</sup>) in any 1 MHz band under free space propagation conditions;

2 that the RNSS characteristics listed in the Annex 1, used when applying the methodology contained in Recommendation ITU-R M.1642-2, as well as the calculated aggregate

epfd in dB(W/m<sup>2</sup>) in each 1 MHz in the range 1 164-1 215 MHz, should be made available in electronic format by the consultation meetings.

ANNEX 1 TO RECOMMENDATION 608 (Rev.WRC-07)

**List of RNSS system characteristics and format of the result of the aggregate epfd calculation to be provided to the Radiocommunication Bureau for publication for information**

**ADD** COM4/318/4 (B11/329/44) (R6/410/83)

RECOMMENDATION 724 (WRC-07)

**Use by civil aviation of frequency allocations on a primary basis to the fixed-satellite service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that remote and rural areas often still lack a terrestrial communication infrastructure that meets the evolving requirements of modern civil aviation;
- b) that the cost of providing and maintaining such an infrastructure could be expensive, particularly in remote regions;
- c) that satellite communication systems operating in the fixed-satellite service (FSS) may be the only medium to satisfy the requirements of the International Civil Aviation Organization's (ICAO) communication, navigation, surveillance and air traffic management (CNS/ATM) systems, where an adequate terrestrial communication infrastructure is not available;
- d) that the use of VSAT systems, operating in the FSS and being deployed on a large scale in aeronautical communications, has the potential to significantly enhance communications between air traffic control centres as well as with remote aeronautical stations;
- e) that establishing and utilizing satellite communication systems for civil aviation would also bring benefits for developing countries and countries with remote and rural areas by enabling the use of VSAT systems for non-aeronautical communications;
- f) that in the cases identified in *considering e)* it is necessary to draw attention to the importance of aeronautical communications as opposed to non-aeronautical communications,

*noting*

- a) that the FSS is not a safety service;
- b) that Resolution **20 (Rev.WRC-03)** resolves to instruct the Secretary-General "to encourage ICAO to continue its assistance to developing countries which are endeavouring to improve their aeronautical telecommunications ...",

*recommends*

1 that administrations, in particular in developing countries and in countries with remote and rural areas, recognize the importance of VSAT operations to the modernization of civil aviation telecommunications systems and encourage the implementation of VSAT systems that could support both aeronautical and other communication requirements;

2 that administrations in developing countries be encouraged, to the maximum extent possible and as necessary, to expedite the authorization process to enable aeronautical communications using VSAT technology;

3 that arrangements should be made to provide for urgent service restoration or alternative routing in case of a disruption of a VSAT link associated with the aeronautical communications;

4 that administrations implementing VSAT systems in accordance with *recommends* 1 to 3 should do so in satellite networks operating in frequency bands with a primary allocation to the satellite services;

5 to invite ICAO, noting Resolution **20 (Rev.WRC-03)**, to continue its assistance to developing countries to improve their aeronautical telecommunications, including interoperability of VSAT networks, and provide guidance to developing countries on how they could best use VSAT technology for this purpose,

*requests the Secretary-General*

to bring this Recommendation to the attention of ICAO.

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Женева, 2007

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## Увод

Светска конференција о радио-комуникацијама (Женева, 2003) препоручила је, Резолуцијом 802 (**WRC-03**), ИТУ Савету да се 2007. године одржи Светска конференција о радио-комуникацијама у периоду од четири недеље.

На седници 2004. године, Савет је одлучио, Резолуцијом 1227, да ће се конференција одржати у Женеви од 22. октобра до 16. новембра 2007. године, и усвојио дневни ред конференције. Дневни ред, датуми и место су усвојени од стране потребне већине Држава чланица Уније.

Светска конференција о радио-комуникацијама (**WRC-07**) одржана је у Женеви у утврђеном периоду, где се радило на основу дневног реда усвојеног од стране Савета. Усвојена је ревизија правилника о радио-комуникацијама и пратећих прилога, које су саставни део ових Завршних Аката.

У складу са својим програмом рада, Конференцији је такође донела и друге одлуке које се сматрају неопходним и одговарајућим, укључујући преглед и ревизију постојећих Резолуција и Препорука, које су садржане у овим Завршним Актима.

Већина одредби усвојених од стране **WRC-07**, које су садржане у ревизији правилника о радио-комуникацијама из овог Увода, ступа на снагу од 1. јануара 2009. године, док ће се преостале одредбе примењивати почев од датума наведеног у Резолуцији у Члану 59 ревидираних правилника о радио-комуникацијама.

Делегати који су потписали ревизије правилника о радио-комуникацијама садржаних у овим Завршним Актима, у складу са одобрењем надлежних органа њихових земаља, изјављују да, уколико Држава чланица Уније изрази резерве у вези са применом једне или више одредаба ревидираних правилника о радио-комуникацијама, ниједна друга Држава чланица није у обавези да поштује ову одредбу, односно одредбе у својим односима са датом Државом чланицом.

---

Као потврду овога, делегати Држава чланица Међународне уније за телекомуникације наведене испод, су у име својих надлежних органа, потписали један примерак ових Завршних аката. У случају спора, француски текст је меродаван. Овај примерак се депонује у архиви Савеза. Генерални секретар ће доставити по једну оверену копију свакој Држави чланици Међународне уније за телекомуникације.

Састављено у Женеви, 16. новембар 2007

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Joanita NAMPEWO

**За Републику Узбекистан:**

Maурам KHALMURATOVA

**За Исламску Републику Пакистан:**

Mudassar HUSSAIN  
Mohammad K. NOOR

**За Републику Панаму:**

Juan A. CASTILLERO C.

**За Папуу Нову Гвинеју:**

Kila GULO-VUI

**За Републику Парагвај:**

Carmelo RUGGILO CASTRO

Miki SAITO

Luis ESCOBAR

**За Краљевину Холандију:**

Fokko BOS

Chris VAN DIEPENBEEK

**За Републику Филиппине:**

Ruel Villa CANOBAS

Pricilla F. DEMITION

**За Републику Пољску:**

Jacek LOSIK

Krzysztof SLOMCZYNSKI

**За Португал:**

Maria Luisa MENDES

Jaime A. AFONSO

**За Државу Катар:**

Abdulla AL-DOSARI

Yousuf ALKUBAISI

**За Сиријску Арапску Републику:**

Nazem BAHASAS

Nabil KISRAWI

Naseeb IMAD

Nabil EL-DEBES

Moustafa AJENEH

Mohammed HASSAN

Nizar HAMED

**За Демократску Републику Конго:**

Anaclet KABEMBA KALAMBAY

Delphin MUTEBA LUTANDA

Pierre LUNDULA DIMANDJA

**За Републику Киргистан:**

Orozobek KAIYKOV

**За Демократску Народну Републику Кореју:**

Yong Il RI

**За Словачку Републику:**

Anton SMITKA

**За Чешку Републику:**

Pavel DVORAK

**За Румунију:**

Zoltan SOMODI

**За Уједињено Краљевство Велике Британије и Северне Ирске:**

Michael GODDARD

Stephen BOND

**За Републику Руанду:**

Diogene MUDENGE

Abraham MAKUZA

Francis NGABO

**За Републику Сан Марино:**

Michele GIRI

**За Републику Сенегал:**

Makhtar FALL

Cheikh Ahmadou T. TOURE

Khalilou NIANE

Pape Cire CISSE

**За Републику Србију:**

Slobodan LAKETA

Momcilo SIMIC

Branko BERIC

Slavenko RASAJSKI

Natalija VARAGIC

Marica BUDISIN

**За Републику Сејшеле:**

George AH-THEW

**За Републику Сингапур:**

Choon Sai LIM

Yuk Min LIM

Teo JASON

**За Републику Словенију:**

Matjaz JANSKA

**За Републику Судан:**

Mustafa ABDELHAFIZ

Elfadul GALALELDIN G.

Awad KHALAF ALLA

**За Демократску Социјалистичку Републику Шри Ланку:**

R. G. H. K. RANATUNGA

**За Јужноафричку Републику:**

Lyndall F. SHOPE-MAFOLE

Rosey SEKESE

Ingrid PONI

Peter ZIMRI

**За Шведску:**

Marianne TRESCHOW

Jan-Erik LEIJERKRANS

Anders FREDERICH

**За Конфедерацију Швајцарску:**

Philippe HORISBERGER

Dirk-Oliver VON DER EMDEN

**За Републику Суринам:**

Jettie OLFF

**За Краљевину Свазиленд:**

Jabulani SIMELANE

Vusigama KHUMALO

**За Уједињену Републику Танзанију:**

John S. NKOMA

Elizabeth M. NZAGI

Joseph S. KILONGOLA

Johannes A.K. MAGESA

Charles THOMAS

Joel D. CHACHA

**За Републику Чад:**

Guirdona MOGALBAYE

**За Тајланд:**

Totsapron GETU-ADISORN

Nantakiat SUTHITHAM

Srisuda PROMMANUWAT

Nattawut ARD-PARU

Worapat PATRAM  
Puttachad SANSRIMAHACHAI  
Amporn DEELERDCHAROEN  
Monson SONGSANG  
Pranot PAJONGSILVIVAT  
Nopadol LHAOSANGDHAM  
Choosit KUPTAVIWAT  
Pongsak NGAMMITSOMBOON

**За Републику Того:**

Palouki MASSINA  
Sodeglan MAWOUKO GABA

**За Тунис:**

Mohamed BONGUI  
Lilia ESSOUSSI  
Meherzia EL OUNI

**За Турску:**

Tayfun ACARER

**За Украјину:**

Petro YATSUK  
Olena ULASENKO

**За Источну Републику Уругвај:**

Alicia FERNANDEZ

**За Боливарску Републику Венецуелу:**

Maria Dolores PENA

**За Социјалистичку Републику Вијетнам:**

Doan Quang HOAN

**За Републику Јемен:**

Abdulquader IBRAHIM  
Abdulhameed S. ALI HAIDARAH  
Abdulhafidih AL-BUTHIGI  
Abdullah M. Yeslm BIN SAAD

**За Републику Замбију:**

Patrick M. MUTIMUSHI

**За Републику Зимбабве:**

Charles M. SIBANDA

## **Завршни протокол**

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## Декларације и резервације

*У време потписивања Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), долепотписане делегације истичу следеће декларације и резервације које преузимају делгације потписнице:*

1

Оригинал: на шпанском

За Републику Парагвај:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Парагвај изјављује да за своју Владу задржава права:

- да предузме било какву акцију ако сматра да је потребно да штити своје интересе, уколико остале чланице Међународне уније за телекомуникације не успеју на било који начин да тумаче Завршна акта, Анексе, па и Правилник о радио-комуникацијама, или уколико би резервације других чланица угрозиле правилно функционисање телекомуникационих сервиса или пуна суверена права Парагваја;
- да формулише, на основу Бечке конвенције о Закону о споразумима из 1969. године, додатне декларације или резервације у вези Завршних аката у сваком тренутку који сматра одговарјућим између датума потписа и датума могуће ратификације интернационалних инструмената од којих се састоје ови Завршни акти.

2

Оригинал: на енглеском

За Исланд, Кнежевину Лихтенштајн и Норвешку:

Делегација горепомених држава чланица Европске Економске Зоне изјављују да ће горепоменуте државе чланице Европске Економске Зоне применити измене Правилник о радио-комуникацијама усвојених на овој конференцији на основу својих обавеза из Споразума којим је основана Европска Економска Зона.

3

Оригинал: на шпанском

За Источну Републику Уругвај:

Потписивањем Завршних аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Источне Републике Уругвај изјављује да за своју Владу задржава права:

- да предузме било какву акцију ако сматра да је потребно да штити своје интересе, уколико остале чланице Међународне уније за телекомуникације не успеју на било који начин да тумаче Завршна акта, Анексе, па и Правилник о радио-комуникацијама, или уколико би резервације других чланица угрозиле правилно функционисање телекомуникационих сервиса или пуна суверена права Источне Републике Уругвај;
- да формулише, на основу Бечке конвенције о Закону о споразумима из 1969. године, додатне декларације или резервације у вези Завршних аката Светске конференције о радио-комуникацијама (Женева, 2007) у сваком тренутку који сматра одговарјућим између датума потписа и датума могуће ратификације интернационалних инструмената од којих се састоје ови Завршни акти.

4

Оригинал: на енглеском

За Републику Бугарску:

Потписивањем Завршних аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Бугарске задржава права да Влада Републике Бугарске предузме акције неопходне за одбрану њених интереса уколико остале чланице Међународне уније за телекомуникације не буду поштовале одредбе Завршних аката усвојених на Конференцији или уколико би резервације осталих земаља угрозиле правилно функционисање телекомуникационих сервиса.

5

Оригинал: на енглеском

За Мијанмарску Унију:

Делегација Мијанмарске Уније на Светској конференцији о радио-комуникацијама WRC-07 задржава права да Влада Мијанмарске Уније предузме акције које сматра неопходним како би одбранила своје интересе уколико нека Чланица или Чланице Међународне уније за телекомуникације на било који начин, не поштује Завршна Акта ове Конференције и пратећих Анекса, или уколико би резервације осталих Чланица угрозиле телекомуникационе сервисе Мијанмарске Уније или нарушиле њен суверенитет.

6

Оригинал: на енглеском

За Социјалистичку Републику Вијетнам:

Потписивањем Завршних аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Социјалистичке Републике Вијетнам задржава права да Влада Социјалистичке Републике Вијетнам предузме све мере и акције које сматра неопходним како би одбранила своје интересе уколико друга Чланице Међународне уније за телекомуникације на било који начин, не поштује Завршне Акте или уколико резервације и декларације било које Чланице Уније биле штетне за функционисање телекомуникационих/информационих и комуникационих сервиса Вијетнама или нарушило фундаменталне законе и јавни ред у Вијетнаму.

Делегација Вијетнама даље изјављује да задржава права да њена Влада изврши било коју декларацију или резервацију у било које време.

7

Оригинал: на енглеском

За Републику Сингапур:

Делегација Републике Сингапур задржава права да Влада Републике Сингапур предузме све акције које сматра неопходним како би одбранила своје интересе уколико нека Чланица Међународне уније за телекомуникације на било који начин, не поштује Завршна Акта Светске конференције о радио-комуникацијама (Женева, 2007), или уколико би резервације било које Чланице Уније угрозиле телекомуникационе сервисе у Републици Сингапур, угрозиле суверенитет или условиле повећање доприноса које сноси према Унији.

Оригинал: на енглеском

За Републику Замбију:

Потписивањем Завршних аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Замбије задржава права да Влада Републике Замбије предузме све акције и мере чувања које сматра неопходним за очување националних интереса уколико нека земља Чланица Уније не би испоштовала одредбе Правилник о радио-прописима, Устав и Конвенције Међународне телекомуникационе уније и Резолуције Светске конференције о радио-комуникацијама (Женева, 2007), директно или индиректно угрозила њен суверенитет или поступила супротно Уставу, законима или прописима Републике Замбије као учесник осталих споразума и конвенција, или противно принципима других међународних Закона.

Оригинал: на енглеском

За Демократску Народну Републику Кореју:

Потписивањем Завршних аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Демократске Народне Републике Кореје задржава права да Влада Демократске Народне Републике Кореје предузме све мере које сматра неопходним да одбрани своје интересе, уколико се нека земља Чланица Уније не буде придржавала одредаба ових Завршних Аката или поступала у складу са њима, или уколико резервације других земаља угрозиле ефикасно функционисање телекомуникационих сервиса.

Оригинал: на енглеском,  
шпанском, /  
француском

За Савезну Републику Немачку, Аустрију, Белгију, Републику Бугарску, Републику Кипар, Данску, Шпанију, Републику Естонију, Финску, Француску, Грчку, Републику Мађарску, Ирску, Италију, Републику Летонију, Републику Литванију, Луксембург, Малту, Краљевину Холандију, Републику Пољску, Португал, Словачку Републику, Чешку Републику, Румунију, Уједињено Краљевство Велике Британије и Северне Ирске, Републику Словенију, Шведску:

Делегације Чланице Уније Европске уније изјављују да ће земље Чланице Европске уније применити ревизију Правилник о радио-комуникацијама, усвојене на овој Конференцији, у складу са њиховим обавезама из Споразума ЕК.

Оригинал: на шпанском

За Доминиканску Републику:

Потписивањем Завршних аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Доминиканске Републике:

- а) задржава за своју администрацију права да предузме све мере које сматра неопходним, у складу са домаћим и међународним законима, ради очувања својих интереса уколико нека Чланица Уније не испоштује Завршна акта, или преузме резервацију која може угрозити функционисање телекомуникационих сервиса у оквиру њене територије;

- b) такође, задржава право измене туђих резервација и декларација и приступа даљим резервацијама или декларацијама у време прилагања сагласности Међународној унији за телекомуникације о обавезивању ревизијом Правилника о радио-комуникацијама усвојених на Светској конференцији о радио-комуникацијама (Женева, 2007).

12

Оригинал: на шпанском

За Боливарску Републику Венецуелу:

Делегација Боливарске Републике Венецуеле задржава за своју Владу права да предузме акције које сматра неопходним ради очувања својих интереса уколико нека земља Чланица Међународне уније за телекомуникације не буде придржавала одредаба Завршних аката или уколико резервације других земаља могу бити штетне или одговорне за штетан ефекат на функционисање телекомуникационих сервиса.

13

Оригинал: на енглеском

За Републику Сан Марино:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007) , делегација Републике Сан Марино изјављује да задржава права да Влада Републике Сан Марина:

1. да предузме било какву акцију и мере које сматра неопходним уколико последице резервација других земаља Чланица угрозе радио-комуникационе сервисе Сан Марина или право да испрате уредбе Завршних Аката, Анекса или Правилника о радио-комуникацијама;
2. формулише декларације или резервације у складу са Завршним Актима Светске конференције о радио-комуникацијама (Женева, 2007) у време прилагања одговарајућих инструмената ратификација Међународној унији за телекомуникације.

14

Оригинал: на енглеском

За Републику Кенију:

Делегација Републике Кеније за WRC-07 овим објављује у име своје Владе и власти која јој је додељена:

1. да задржава права за своју Владу да предузме акције које сматра неопходним ради очувања својих интереса уколико нека од Чланица не буде поштовала одредбе Завршних Аката усвојених на овој Конференцији;
2. да Влада Републике Кеније не преузима одговорност за последице које произилазе из резервација других чланова Уније.

15

Оригинал: на енглеском

За Крањевину Бахреин:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Крањевине Бахреин задржава право за своју Владу да предузме све акције и мере које сматра неопходним да заштити своје интересе уколико држава Чланица Међународне уније за телекомуникације (МТУ) не буде у потпуности испунила или

придржавала се одредба и Резолуције Завршних Аката или уколико резервације других држава Чланица на било који начин угрозе телекомуникационе сервисе Краљевине Бахреин.

16

Оригинал: на енглеском

За Краљевину Бахреин:

Делегација Краљевине Бахреин за Светску конференцију о радио-комуникацијама (Женева, 2007), изјављује да потписивање и могућа ратификација Завршних Аката ове Конференције од стране Владе Краљевине Бахреин неће бити пуноважне за МТУ Чланицу под именом „Израел“, и ни на који начин не указује да Влада Краљевине Бахреин препознаје ову чланицу.

17

Оригинал: на енглеском

За Републику Анголу:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (WRC-07), ради алокације фреквенцијских опсега у одређеним деловима спектра, делегације Републике Ангола износи намере своје администрације да испоштује одредбе Завршних Аката ове Конференције уколико се Републици Анголи омогући суверено право да чува и заштити своје радиодифузне, телекомуникационе и друге сервисе ако нека од Чланица не буде испоштовала ревизије одредаба Правилника о радио-комуникацијама ове Конференцији, посебно нове алокације које су уведене а овој Конференцији под условом да оне неће узроковати штетну интерференцију постојећим сервисима.

18

Оригинал: на енглеском

За Републику Мозамбик:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (WRC-07) ради алокације фреквенцијских опсега у одређеним деловима спектра, делегације Републике Мозамбик износи намере своје администрације да испоштује одредбе Завршних Аката ове Конференције уколико се Републици Мозамбик омогући суверено право да чува и заштити своје радиодифузне, телекомуникационе и друге сервисе ако нека од Чланица не буде испоштовала ревизије одредаба Правилника о радио-комуникацијама ове Конференцији, посебно нове алокације које су уведене а овој Конференцији под условом да оне неће узроковати штетну интерференцију постојећим сервисима.

19

Оригинал: на француском

За Републику Габон:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама, одржаних у Женеви (Швајцарска) од 22. октобра до 16. новембра 2007. године, делегација Републике Габон задржава за своју Владу права:

1. да предузме све потребне мере да заштити своје интересе уколико одређене земље Чланице на било који начин не буду поштовале одредбе Правилника о радио-комуникацијама Међународне уније за телекомуникације или инструменте измена усвојених на Светској конференцији о радио-комуникацијама (Женева, 2007), или

уколико резервације других земаља Чланица буду такве да угрожавају правилно функционисање њених телекомуникационих сервиса;

2. да прихвати или одбије било какве финансијске последице које могу прозићи из таквих резервација;
3. да приступи додатним резервацијама које сматра неопходним док се не искористе инструменти ратификације.

20

Оригинал: на шпанском

За Шпанију:

1. Делегација Шпаније изјављује у име своје Владе да задржава право за Краљевину Шпанију, у складу са Бечком конвенцијом о Закону о споразумима од 23. маја 1969. године, да искаже резервисаност према Завршним Актима усвојених на Конференцији, док се у складу са чланом 54. о формирању Међународне уније за телекомуникације не обавезе изменама Правилника о радио-комуникацијама који су део Завршних Аката;
2. Делегација Шпаније изјављује у име Шпаније да ће се под појмом „држава“ у тексту Правилника о радио-комуникацијама, Резолуција и препорука усвојених на овој Конференцији, као субјект са правима и обавезама, подразумевати само суверене Државе.

21

Оригинал: на енглеском

За Исламску Републику Иран

У име Бога, Самилости и Милосрђа.

Потписивањем ових Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Исламске Републике Иран формално изјављује да:

1. Делегација Исламске Републике Иран задржава право за своју Владу предузема све акције које сматра неопходним за заштиту својих интереса уколико на њих буде утицала одлука усвојена на Конференцији, или уколико администрације других земаља не буду поштовале одредбе Устава и Конвенције Међународне уније за телекомуникације, или анекса или протокола и прописа, као њихових саставних елемената, или Завршних Аката ове Конференције, или уколико резервације, декларације или додатне резервације или декларације других земаља или администрације буду угрозиле ефикасно функционисање њених телекомуникационих сервиса, или нарушили пуну примену суверених права Исламске Републике Иран.
2. Делегација Исламске Републике Иран задржава права за своју Владу да изврши додатне резервације када ратификује Завршна Акта ове Конференције.

22

Оригинал: на енглеском

За Турску:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Турске задржава за своју Владу право да предузме мере које сматра неопходним како би заштитила интересе на Конференцији приликом доношења модификација, измена, брисања и додавања одлука, фуснота, табела, резолуција и препорука у Правилнику о радио-комуникацијама, уколико нека од Чланица на било који начин не

испуни одредбе Завршних Аката, Анекса и уз то и Правилника о радио-комуникацијама, и то у примени постојећих сервиса, као и у увођењу нових сервиса за свемир, терестријалних и других апликација или уколико резервације извршене од стране осталих Чланица угрозе правилно функционисање телекомуникационих сервиса.

Делегација Турске задржава за своју Владу и права да изврши додатне декларације или резервације, што може бити потребно када се прилажу инструменти ратификације Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007).

23

Оригинал: на енглеском

За Савезну Републику Нигерију

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (WRC-07), одржаних у Женеви (Швајцарска) од 22. октобра до 16. новембра 2007. године, делегација у име администрације Савезне Републике Нигерије изјављује као што следи:

- a) да, прихвата потребу за развојем радиокомуникационих сервиса и мрежа широм света, јер то подразумева унапређење одрживог развоја у интересу човечанства и околине;
- b) да, администрација савезне Републике Нигерије задржава право да предузме све акције које сматра неопходним како би заштитила интересе, а пре свега постојеће и планиране сервисе радио-комуникација и мреже уколико се нека од Чланица Уније не буде придржавала Завршних Аката ове Конференције на тај начин да то утиче на правилно функционисање система радио-комуникација, као и сервиса и мрежа.
- c) администрација Савезне Републике Нигерије задржава право да усвоји додатне декларације и резервације у време пријаве ратификације ових Завршних Аката МУТ.

24

Оригинал: на француском

За Републику Обалу Слоноваче:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), Република Обала Слоноваче изјављује:

1. да за своју Владу задржава право да предузме све мере које сматра неопходним како би заштитила своје интересе уколико нека од Чланица Међународне уније за телекомуникације на било који начин не испуни или примени одредбе Правилника о радио-комуникацијама или Устава или Конвенције Међународне уније за телекомуникације;
2. да, такође, за своју Владу задржава права примене мера које сматра неопходним уколико резервације других земаља Чланица буде угрозило функционисање сервиса радио-комуникација или суверинитет Обале Слоноваче;
3. да задржава права да изврши додатне декларације или резервације у складу са Завршним Актима Светске конференције о радио-комуникацијама (Женева, 2007), у време примене одговарајућих инструмената ратификације са Међународном унијом за телекомуникације.

Оригинал: на француском

За Републику Сенегал:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Сенегал задржава права:

1. да предузме све мере да заштити своје интересе уколико нека од Чланица на било који начин не буде поштовала одлуке донете на WRC-07 (Женева, 2007), или уколико резервације других Чланица буду такве да угрожавају функционисање сервиса радио-комуникација Републике Сенегал;
2. да прихвати или не прихвати последице одређених одлука које могу угрозити њен суверенитет.

Оригинал: на енглеском

За Јужноафричку Републику:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Јужноафричке Републике за своју Владу задржава права да предузме сваку акцију коју сматра неопходном:

1. да заштити своје интересе уколико било која Чланица Уније, на било који начин, не буде испоштовала одредбе Устава и Конвенције Међународне уније за телекомуникације, Правилника о радио-комуникацијама МУТ и Завршна Акта Светске конференције о радио-комуникацијама (Женева, 2007);
2. уколико резервације других Чланица Уније, директно или индиректно, буду утицале на функционисање телекомуникационих сервиса;
3. да заштити телекомуникационе сервисе, уколико нека Чланица Уније буде поступала у супротности са неким од услова Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), било делом или у потпуности.

Влада Јужноафричке Републике задржава права да по потреби објави додатне декларације и резервације до и укључујући тренутак ратификације Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007).

Даље, Влада Јужноафричке Републике понавља и укључује у референцама све декларације претходних светских конференција о радио-комуникацијама.

Оригинал: на француском

За Републику Того:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (WRC-07), делегација Тогоа изјављује да Република Того неће бити обавезана било којом одредбом која би угрозила суверенитет или нарушила националане законе или међународне споразуме у којима је Република Того потписница.

Додатно, Република Того неће бити у обавези да примени одредбе Завршних Аката, уколико их остале земље учеснице не буду поштовале, и задржава права да предложи измене, ако се за тим јави потреба, у складу са правилима о форми и процедури установљеној у те сврхе.

Оригинал: на енглеском

За Републику Индију:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Индије за своју Владу задржава право да предузме акције, које сматра неопходним, да заштити своје интересе, уколико би било која администрација извршила резервације и/или не буде прихватила одредбе Завршних Аката или уколико не буде испоштовала једну или више одредаба Завршних Аката, укључујући и оне који су део Правилника о радио-комуникацијама.

29

Оригинал: на енглеском

За Аустралију:

Делегација Аустралије на Светској конференцији о радио-комуникацијама 2007, овим изјављује да за своју Владу задржава право да објави декларације и резервације пре и у тренутку подношења ратификације Завршних Аката Светске конференције о радио-комуникацијама 2007, Међународне уније за телекомуникације одржане у Женеви од 22. октобра до 16. новембра 2007, у складу чланом 32Б Конвенције Међународне уније за телекомуникације (Женева, 1992) и амандмана Конференције Опумоћеника (Минијаполис, 1998).

30

Оригинал: на арапском

За Краљевину Саудијску Арабију:

Делегација Краљевства Саудијске Арабије потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), за своју Владу задржава пуно право да она предузме све акције и мере, које сматра неопходним, ради заштите својих интереса уколико нека држава Чланица Међународне уније за телекомуникације (МУТ) у потпуности не испрати одредбе и Резолуцију Завршних Аката или уколико би нека акција или резервација неке државе Чланице угрозила на било који начин телекомуникационе сервисе Краљевине Саудијске Арабије.

31

Оригинал: на шпанском

За Костарику:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Костарике:

1. изјављује да за своју Владу задржава права да предузме све мере које сматра неопходним , у складу са домаћим и међународним законима, ради заштите националних интереса уколико остале чланице не испоштују одредбе Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), или уколико резервације других земаља угрозе телекомуникационе сервисе Републике Костарике, као и њена пуна суверена права.
2. изјављује да ће Република Костарика бити обавезана одредбама Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007) само и све док се експлицитно и по прописима обавезује и подвргава испуњавању одговарајућих уставних процедура.

32

Оригинал: на енглеском

За Савезну Републику Бразил:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Бразила за своју администрацију задржава права да предузме мере које сматра неопходним, ради заштите својих интереса ако нека земља Чланица Уније не испоштује услове специфициране у Завршним Актима, или уколико резервације неке од земаља чланица буду штетне за функционисање сервиса радио-комуникација у Бразилу.

Штавише, Бразил задржава права да утврди додатне, посебне декларације или резервације у време подношења обавештења Међународној унији за телекомуникације о обавезивању на ревизију Правилника о радио-комуникацијама усвојеног на светској конференцији о радио-комуникацијама (Женева, 2007).

33

Оригинал: на енглеском

За Републику Индонезију:

У име Републике Индонезије, делегација Републике Индонезије на Светској конференцији о радио-комуникацијама WRC-07 (Женева, 2007):

- за своју Владу задржава права да предузме све акције и мере очувања које сматра неопходним за очување својих националних интереса уколико нека одредба, препорука и резолуција Светске конференције о радио-комуникацијама (Женева, 2007), директно или индиректно утиче на суверенитет или је у супротности са Уставом, законима и регулативом Републике Индонезије, као потписником других споразума и конвенција по принципима међународног права.
- на даље за своју Владу задржава права да предузме акције и мере очувања које сматра неопходним ради очувања државног интереса, уколико нека од Чланица на било који начин не би испоштовала одредбе Правилника о радио-комуникацијама, Устава и Конвенције Међународне уније за телекомуникације, или уколико би последице резервације неке Чланице угрозило телекомуникационе сервисе или условило повећање доприноса које сноси према Унији.

34

Оригинал: на енглеском

За Нови Зеланд:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Новог Зеланда за своју Владу задржава права да предузме мере које сматра неопходним за очување својих интереса уколико било која земља не буде поштовала услове прописане Завршним Актима или уколико резервације других земаља буду штетне по интересе Новог Зеланда. Додатно, Нови Зеланд задржава право да уведе додатне, посебне резервације и изјаве пре ратификације Завршних Аката.

35

Оригинал: на француском

За Републику Мали:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Мали за своју Владу задржава права да предузме мере које сматра неопходним за очување својих интереса уколико друге Чланице не буду поштовале

Завршне Акте или Анексе у оквиру њих, или уколико би резервације других земаља условиле штетну интерференцију или угрозиле правилно функционисање телекомуникационих сервиса.

36

Оригинал: на енглеском

За Јапан:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Јапана за своју Владу задржава права да предузме акције које сматра неопходним да сачува своје интересе уколико нека земља Чланица не буде поштовала захтеве Устава и Конвенције Међународне уније за телекомуникације, Правилника о радио-комуникацијама Међународне уније за телекомуникације, или Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), или уколико резервације других земаља буду на било који начин угрозиле њене интересе.

Додатно, Јапан задржава права да уведе додатне декларације или резервације пре обавештавања Међународне уније за телекомуникације која се обавезује ревизијом Правилника о радио-комуникацијама.

37

Оригинал: на енглеском

За Брунеј Дарусалам:

Делегација Брунеја Дарусалам за своју Владу задржава права да предузме све акције које сматра неопходним ради очувања својих интереса уколико било која Чланица Уније не буде поштовала измене и допуне Правилник о радио-комуникацијама Завршним Акатима Светске конференције о радио-комуникацијама (Женева, 2007), или уколико би резервације било које Чланице Уније угрозиле телекомуникационе сервисе Брунеја Дарусалам, угрозиле суверенитет или условиле повећање доприноса које сноси према Унији.

Делегација Брунеја Дарусалам за своју Владу задржава права да уведе додатне резервације које сматра неопходним до и укључујући време ратификације Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007).

38

Оригинал: на енглеском

За Монголију:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Монголије у име своје Владе изјављује:

1. да ће предузети све акције које сматра неопходним ради очувања својих интереса, а пре свега, заштите постојећих и планираних телекомуникационих мрежа, система и сервиса, уколико нека Чланица Уније не буде поштовала или уколико престане да поштује одредбе ових аката, или уколико декларације или резервације других Чланица Уније буду утицале на правилно функционисање телекомуникационих мрежа, система и сервиса.
2. Делегација Монголије за своју Владу задржава права да предузме све акције које сматра неопходним ради заштите својих интереса уколико нека од држава Чланица Уније не буде поштовала одредбе ових Завршних Аката или уколико резервације других земаља угрозе правилно функционисање њених сервиса.

3. Делегација Монголије задржава право да предузме све акције које сматра неопходним како би заштитила своје интересе и функционалност својих сервиса радио-комуникација.

39

Оригинал: на шпанском

За Мексико:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Уједињених Мексичких Држава за своју Владу задржава право:

1. да предузме све мере које сматра неопходним како би заштитила своју сувереност и интересе, и посебно, заштитила своје постојеће и планиране телекомуникационе мреже, системе и сервисе, уколико нека држава Чланица Уније не буде применила или буде занемарила одредбе садржане у овим Актима, укључујући одлуке, препоруке, резолуције и анексе, који се сматрају њиховим интергалним делом, или одредбе садржане у Уставу и Конвенцији Међународне уније за телекомуникације, или уколико правилно функционисање телекомуникационих мрежа, система или сервиса буде угрожено неком декларацијом или резервацијом било које од држава Чланица Уније;
2. да предузме све мере које сматра неопходним ради очувања својих интереса, у погледу употребе и коришћења геостационарних орбиталних позиција и одговарајућих радио-фреквенција, као и имајући у виду коришћење спектра у пружању телекомуникационих сервиса, уколико процедуре координације, обавештавања или додељивања фреквенција буду спровођене са кашњењем или буду спречаване, чиме се наноси штета земљи, било *per se* или поступањем друге државе Чланице;
3. да захтева додатне резервације, сходно Бечкој конвенцији о Закону о споразумима, у складу са овим прописима у сваком тренутку који сматра одговарајућим између датума потписивања до датума ратификације, а сходно процедурама домаћих закона; и да се не сматра обавезаним било којим одредбама ових Аката, који могу ограничити њено право да подноси било које додатне резервације, које сматра одговарајућим; и

у складу са поменути, резервације које Влада Уједињених Мексичких Држава уводи по потписивању и ратификацији Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007) и Светских Управних конференција о радио-комуникацијама, као и оне које се уводе у време потписивања и ратификације Завршних Аката Додатне Конференције Опунмоћеника (Женева, 1992), Конференције Опунмоћеника (Кјото, 1994), Конференције Опунмоћеника (Минијаполис, 1998), Конференције Опунмоћеника (Маракеш, 2002) и Конференције Опунмоћеника (Анталија, 2006), су реafirмисане и сматра се да су овде приказане, као да су поновљене у потпуности.

40

Оригинал: на енглеском

За Државу Ватикан:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Државе Ватикан изјављује да за своју Владу задржава права:

- да изврши додатне декларације и резервације у складу са Завршним Актима Светске конференције о радио-комуникацијама (Женева, 2007) у време подношења одговарајућих инструмената ратификације Међународној унији за телекомуникације.

41

Оригинал: на шпанском

За Републику Аргентину:

Потписивањем Завршних Аката WRC-07, делегација Аргентине изјављује да, имајући у виду декларације и резервације других земаља Чланица, за своју Владу задржава:

1. право да усвоји све мере које сматра неопходним да заштити своје интересе, уколико нека од Чланица Међународне уније за телекомуникације не буде поштовала Завршна Акта, Анексе, који их прате и Правилник о радио-комуникацијама;
2. право да изврши декларације и резервације сходно Завршним Актима Светске конференције о радио-комуникацијама (Женева, 2007), у време примене одговарајућих инструмената ратификације са Међународном унијом за телекомуникације.

42

Оригинал: на енглеском

За Краљевину Бутан:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Краљевине Бутан:

1. задржава права за своју Владу да предузме све акције и мере резервације које сматра неопходним ради заштите националних интереса, уколико би нека одредба, препорука и резолуција Светске конференције о радио-комуникацијама (Женева, 2007), директно или индиректно утицало на суверенитет или било у супротности са Уставом, законима и регулативом Краљевине Бутан;
2. изјављује да за своју Владу задржава право да предузме све мере које сматра неопходним ради заштите својих интереса и функционалности сервиса радио-комуникација, уколико било која Чланица Уније не би поштовала услове одређене Завршним Актима;
3. даље изјављује, да њена Влада неће прихватити одговорности за последице настале услед резервација других земаља Чланица Уније.

43

Оригинал: на шпанском

За Републику Гватемалу:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Гватемале изјављује да:

- а) задржава за своју администрацију права усвајања мера које сматра неопходним, у складу са домаћим правом и међународним законом, како би заштитила своје интересе уколико друге Чланице Уније не би узеле у обзир Завршна Акта или уколико би друге објављене резервације били штетне за функционалност телекомуникационих сервиса у оквиру своје територије;
- б) Република Гватемала даље задржава права за измене претходних резервација и декларација и да изврши додатне резервације и декларације када одлучи да Међународној унији за телекомуникације приложи своју сагласност да буде везана изменама Правилника о радио-комуникацијама усвојених на Светској конференцији о радио-комуникацијама 2007.

44

Оригинал: на руском

За Републику Белорусију:

Влада Републике Белорусије задржава право да предузме све мере које сматра неопходним како би заштитила своје интересе уколико нека држава Чланица Уније не би поштовала одредбе Завршних Аката Светске конференције о радио-комуникацијама 2007, или уколико би резервације биле извршене по потписивању Завршних Аката, или мере других земаља Чланице Уније, угрозиле ефикасно функционисање телекомуникационих сервиса у Републици Белорусији.

45

Оригинал: на енглеском

За Републику Уганду:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама 2007 (WRC-07) и имајући у виду неке изјаве земаља Чланица, делегација Републике Уганде на Светској конференцији о радио-комуникацијама, за своју Владу задржава право да предузме све мере које сматра неопходним да заштити своје легитимне интересе од одлука донетих на Конференцији.

Влада Уганде, у оквиру одредаба Међународне уније за телекомуникације и Правилника о радио-комуникацијама који је измењен током разматрања на Конференцији и садржан у Завршним Актима Светске конференције о радио-комуникацијама 2007, даље задржава права да предузме све акције које сматра неопходним како би заштитила своје интересе уколико би резервације других администрација или било којих администрација утицало на њен национални суверенитет.

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Оригинал: на француском

За Исламску Републику Мауританију:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (WRC-07) (Женева, 2007), делегација Исламске Републике Мауританије за своју Владу задржава права:

1. да предузме све мере које сматра неопходним да би заштитила своје интересе уколико било која земља Чланица Уније не буде поштовала или уколико резервације других земаља биле такве да угрожавају развој и правилно функционисање њених телекомуникационих сервиса;
2. да прихвати или не прихвати последице одређених одлука које могу имати директан штетан утицај по њен суверенитет.

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Оригинал: на руском

За Републику Јерменију, Републику Азербејџан, Републику Белорусију; Руску федерацију, Грузију, Републику Молдавију, Републику Узбекистан, Републику Киргизију, Републику Таџикистан и Украјину:

Делегације претходно наведених земаља задржавају право за своје Владе да предузму све акције које сматрају неопходним како би заштитиле своје интересе уколико нека држава Чланица Уније не би испоштовала Завршна Акта Конференције или уколико резервације извршене по потписивању Завршних Аката или друге мере које предузме било која држава Чланица Уније, угрозе правилно функционисања телекомуникационих сервиса ових земаља.

Оригинал: на француском

За Швајцарску Конфедерацију:

Делегација Швајцарске за своју Владу Конфедерације Швајцарске задржава права да примени све мере које сматра неопходним ради заштите интереса у погледу радиодифузних сервиса и осталих сервиса радио-комуникација, уколико се нека од Чланица Уније не буде придржавала обавеза које произилазе из одредаба Завршних аката Светске конференције о радио-комуникацијама (Женева, 2007), или уколико резервације или акције других земаља Чланица биле такве да угрожавају или су такве да ометају правилно функционисње поменутих сервиса у Швајцарској.

Оригинал: на енглеском

За Републику Анголу:

Светске конференције о радио-комуникацијама (WRC-07):

Побољшање макроекономске ситуације у Анголи је условило нову динамику у сектору телекомуникација условљавајући значајан раст током претходних година, повољан за јавне инвестиције и отварање нових радних места. Овај резултат проистиче из реконструкције главних транспортних телекомуникационих мрежа, које су побољшале проток саобраћаја између провинција, и такође, повећале број корисника и оператора.

Имајући у виду фундаментални значај овог сектора на развој привреде и таквим потенцијалом за даљи раст, као што је у случају Анголе, уведене су регулаторне реформе које обухватају управљање и истраживање инфраструктуре, лиценцирање и једнаке могућности.

Модернизација телекомуникационих мрежа је једна од брига Владе Анголе, која је то дефинисала и у политикама развоја као сектор приоритетног развоја, и инвестирала у либерализацију овог сектора као подстицај приватном сектору кроз државно-приватна партнерства. Остали предмети ове агенде којом се дефинишу напору у реконструкцији сектора су професионалано образовање, технички капацитети и размена технологија.

Тренутно, Ангола се може ослонити на значајан пораст броја корисника мобилне телефоније, у којој су аналогне мреже замењене дигиталним мрежама ради бољег квалитета сервиса, смањења трошкова, велике дистрибуције информационих технологија, проширење покривања руралних зона и зона у унутрашњости радио и телевизијским сигналом, ради смањења удаљености и обезбеђивања економске стабилност кроз рехабилитацију потпорне инфраструктуре у сектору.

Оригинал: на енглеском

За Малезију:

Стални представник Малезије у седишту Уједињених Нација и осталих међународних организација у Женеви, у својству заменика Шефа делегације Малезије на Светској конференцији о радио-комуникацијама (WRC-07), изјављује захвалност Генералном секретару Међународне уније за телекомуникације у Женеви, и у складу са Завршним Актама Светске конференције о радио-комуникацијама (WRC-07), одржаној у Женеви, има част да саопшти следеће резервације Малезије:

1. Влада Малезије задржава право да предузме све акције или мере очувања које сматра неопходним како би заштитила државне интересе уколико Завршни Акти састављени на Светској конференцији о радио-комуникацијама директно или индиректно утичу на суверенитет, или су у супротности са постојећим Уставом, законима и регулативом Малезије и може произилазити из било којих принципа међународног правног оквира, или уколико резервације неког Члана Уније угрожавају телекомуникационе сервисе и сервисе радио-комуникација Малезије, или условљавају повећање доприноса које Малезија сноси према Унији;
2. Влада Малезије, даље, задржава право да у случају потребе изврши резервације до тренутка и у тренутку ратификације Завршних Аката Светске конференције о радио-комуникацијама.

Стални представник Малезије у седишту Уједињених Нација и других међународних организација у Женеви, користи прилику да поново укаже на највеће поштовање генералном секретару Међународне уније за телекомуникације.

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Оригинал: на енглеском

За Републику Мађарску:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Мађарске за своју Владу задржава право да све акције које сматра неопходним како би заштитила своје интересе уколико нека држава Чланица Уније не би на неки начин примењивала или се придржавала одредаба ових Завршних Аката или уколико резервације других земаља угрожавају правилно функционисање сервиса радио-комуникација.

Делегација Републике Мађарске, даље, изјављује да за своју Владу задржава права:

- да уведе додатне изјаве или резервације у поступку примене инструмената ратификације за Завршна Акта Светске конференције о радио-комуникацијама (Женева, 2007);
- да предузме акције које сматра неопходним, ради заштите радиодифузних сервиса обухваћени GE06 Споразумом, односно заштите својих интереса и ради задовољавајуће функционисања, што може бити утврђено националном регулативом.

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Оригинал: на енглеском

За Савезну Републику Танзанију:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Савезне републике Танзаније изјављује да за своју Владу задржава права:

1. да примени све мере које сматра неопходним ради заштите својих интереса, уколико остале Чланице Међународне уније за телекомуникације на било који начин не буду поштовале одредбе Устава и Конвенције Уније, Правилник о радио-комуникацијама Уније и Завршне Акте Светске конференције о радио-комуникацијама (Женева, 2007), и пратеће анексе; и
2. да изврши додатне декларације и резервације које сматра неопходним до и укључујући тренутак ратификације Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007);

3. да предузме све мере које сматра неопходним и сврсисходним заштити и очувању националних интереса и права у области радио-комуникација, уколико резервације других администрација директно или индиректно буду утицале или штетиле њима или уколико њихове акције не буду у складу са међународним законима;
4. да прихвати или не прихвати било какве финансијске последице које могу проистећи из таквих резервација.

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Оригинал: на енглеском

За Републику Гану:

1. Делегација Гане, потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007) одржане у Женеви, Швајцарска, од 22. октобра до 16. новембра, 2007. године, за своју Владу задржава права да предузме све акције које сматра неопходним како би сачувала своје интересе, уколико нека Чланица Уније не буде поштовала одредбе Устава и Конвенције Међународне уније за телекомуникације (МУТ), Правилника о радио-комуникацијама МУТ и Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007).
2. Влада Гане задржава права на уздржаност по било којој одредби Завршних Аката које сматра некомпатибилним са уставом, законима и регулативом своје земље.

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Оригинал: на енглеском

За Републику Зимбабве:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегације Републике Зимбабве објављује да Влада Републике Зимбабве задржава права да предузме све мере које сматра неопходним како би заштитила свој суверенитет и националне интересе, уколико се регулатива било које земље примени противно суверенитету Републике Зимбабве ради правилне примене и функционисања националних и међународних телекомуникационих и мрежа радио-комуникација.

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Оригинал: на енглеском

За Републику Кипар:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегације Републике Кипар за своју Владу задржава права да предузме све мере које сматра неопходним како би заштитила своје интересе уколико нека друга држава Чланица не би испоштовала одредбе Завршних Аката или применила своје сервисе радио-комуникација у сврхе које нису установљене преамбулом Устава Међународне уније за телекомуникације. Сходно томе, Република Кипар задржава права да пружи додатне изјаве и резервације у време ратификације ових измена Правилника о радио-комуникацијама. Република Кипар неће сматрати да је обавезана изменама Правилника о радио-комуникацијама усвојених на овој конференцији, уколико посебна изјава Републике Кипар о прихватању ове обавезе није прослеђен Међународној унији за телекомуникације.

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Оригинал: на енглеском

За Републику Боцвану:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Боцване изјављује да ће се њена администрација придржавати одредаба Завршних Аката без угрожавања њеног сувереног права да предузме све мере које Влада Боцване сматра неопходним заштити своје телекомуникационе сервисе у случају штетне интерференције узроковане поменутиим сервисима неке од Чланица Уније које не буде поштовала одредбе Правилника о радио-комуникацијама који је измењен и усвојен на овој Конференцији.

Даље, делегација Боцване изјављује да за своју Владу задржава право да пружи додатне изјаве и додатну уздржаност до поступка ратификације Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007).

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Оригинал: на енглеском

За Државу Кувајт:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Државе Кувајт за своју Владу задржава права да предузме све акције и мере које сматра неопходним како би сачувала своје интересе, уколико нека држава Чланица Међународне уније за телекомуникације не буде у потпуности поштовала одредбе Резолуција Завршних Аката или поступала у складу са њима, или уколико би резервације других земаља Чланица угрозиле функционисање телекомуникационих сервиса Државе Кувајт.

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Оригинал: на енглеском

За Канаду:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Канаде за своју Владу задржава права да предузме све мере које сматра неопходним како би заштитила своје интересе уколико друга држава Чланица Уније на било који начин не би испоштовала услове прописане Завршним Актима или уколико резервације других држава Чланица буду штетне за функционисање сервиса радио-комуникација у Канади.

Даље, делегација Канаде изјављује да за своју Владу задржава права да пружи додатне изјаве и додатну уздржаност до поступка ратификације измена Правилника о радио-комуникацијама усвојених на Светској конференцији о радио-комуникацијама (Женева, 2007). Канада понавља и инкорпорира као референце све резервације и декларације извршене на светским конференцијама о радио-комуникацијама пре потписивања ових Завршних Аката.

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Оригинал: на енглеском

За Султанат Оман:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (WRC-07), делегација Султаната Оман за своју Владу задржава права:

- да предузме све акције које сматра неопходним и одговарајућим како би заштитила и обезбедила своје националне интересе, уколико било која држава Чланица Међународне уније за телекомуникације не буде у потпуности испунила одредбе и Резолуције Завршних Аката или се не буде истих придржавала или уколико резервације других

земаља Чланица буду на било који начин угрожавале телекомуникационе сервисе Султаната Оман;

- да примени измене Правилника о радио-комуникацијама које су усвојене на Конференцији у складу са својим обавезама, а сходно својим националним правилима и регулативи;
- да изврши све потребне резервације које сматра неопходним до и укључујући време ратификације Завршних Аката ове Конференције;

Додатно, делегација Омана на овој Конференцији изражава следећу уздржаност:

- Султанат Оман не подржава овлашћивање било које сателитске мреже која ће пролазити кроз њен ваздушни простор и утицати на рад постојећих и планираних сервиса.

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Оригинал: на француском

За Републику Руанду:

Потписивањем Завршних Аката светске конференције о радио-комуникацијама 2007, делегација Републике Руанде за своју Владу задржава права да предузме све мере које сматра неопходним како би заштитила своје интересе у складу са националним прописима и међународним споразумима у којима је једна од потписница Руанда, уколико нека држава Чланица Међународне уније за телекомуникације на било који начин не буде испунила одредбе Устава и Конвенција МУТ или уколико би резервације других земаља угрозиле њене интересе.

61

Оригинал: на енглеском

За Републику Катар:

Делегација државе Катар на Светској конференцији о радио-комуникацијама (WRC-07) за Владу Државе Катар задржава права да предузме све акције које сматра неопходним како би заштитила интересе Државе Катар, уколико нека држава Чланица на било који начин не буде поштовала одредбе, резолуције и препоруке садржане у Завршним Актима ове Конференције или у случају да резервације других држава буду угрожавале имплементацију или примену одредаба које су садржане у Завршним Актима.

62

Оригинал: на кинеском

За Народну Републику Кину:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Народне Републике Кине изјављује:

Кинеска делегација за своју Владу задржава право да предузме све мере које сматра неопходним како би заштитила своје интересе, уколико нека држава Чланица Међународне уније за телекомуникације на било који начин не буде поштовала или извршавала одредбе Завршних Аката или Правилника о радио-комуникацијама, или уколико резервације или декларације других држава Чланица угрожавају легитимну употребу ресурса у спектру и сателитским орбитама, као и безбедност њених сервиса радио-комуникација или правилно функционисање њених телекомуникационих сервиса или утичу на примену свих њених суверених права. Додатно, она за своју Владу задржава и права да изврши додатне резервације које сматра неопходним до и у време ратификације ових Завршних Аката.

63

Оригинал: на арапском

За Арапску Републику Сирију:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, WRC-07), делегација Арапске Републике Сирије за своју Владу задржава права да приликом депоновања одобрења поменутих интрументата:

1. Да потврди све писмене и усмене декларације, које је поднела делегација самостално или са осталим арапским делегацијама, које су присуствовале Конференцији, и своје право на додатну уздржаност на ратификацију.
2. Да предузме све мере које сматра неопходним да заштити своје интересе, посебно своје суверено право да заштити бежичне станице на својој територији од штетене интерференције.
3. Потписивање завршних аката ће се сматрати валидним само за државе Чланице Међународне уније за телекомуникације које признају Сиријску Арапску Републику.

64

Оригинал: на енглеском

За Државу Израел:

Влада Државе Израел овим не прихвата следећу одлуку у Завршним Актима Светске конференције о радио-комуникацијама Међународне уније за телекомуникације (Женева, 2007) у складу са додатком реченице „Ова алокација је на снази до 16. јуна 2015. године“ под бројем 5.136 Правилника о радио-комуникацијама и у складу са могућим проблемом који се односи на 5.136Б у којој станице које раде под условима тачке 5.136, и има право да тражи заштиту под том фуснотом, али на основу одређених тврдњи (које Израел не прихвата) може бити изложен успешној примени процедуре GE06 Споразума после 16. Јуна 2015. године.

65

Оригинал: на енглеском

За Републику Судан:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике судан за своју Владу задржава права да предузме све акције и мере које сматра неопходним како би заштитила своје националне интересе уколико нека Чланица Уније, на било који начин, не буде поштовала одредбе Устава и Конвенције Међународне уније за телекомуникације (МУТ), Правилник о радио-комуникацијама и Завршна Акта Светске конференције о радио-комуникацијама (Женева, 2007), или уколико резервације других држава Чланица на било који начин буду угрожавале телекомуникационе сервисе Републике Судан.

66

Оригинал: на енглеском

За Малту:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Малте за своју Владу задржава права да предузме акције које сматра неопходним да би заштитила своје интересе уколико нека чланица Уније не буде прихватила или поштовала одредбе Завршних Аката усвојених на Конференцији или уколико

резервације других земаља буду угрозиле правилно функционисање својих телекомуникационих сервиса.

67

Оригинал: на енглеском

За Уједињене Арапске Емирате:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Уједињених Арапских Емирата формално изјављује:

1. да делегација Уједињених Арапских Емирата за своју Владу задржава права да предузме све акције које сматра неопходним да заштити своје интересе уколико они буду угрожени одлукама донетим на овој Конференцији, или уколико нека друга земља или администрација на било који начин не буде испоштовала измене одлука Устава и Конвенције Међународне уније за телекомуникације, или анекса или протокола и прописа који су део овог документа, или Завршних Аката ове Конференције, или уколико резервације, декларације или додатне резервације и декларације других земаља или администрација угрожавају правилно и ефикасно функционисање њених телекомуникационих сервиса, или нарушавају сва суверена права Уједињених Арапских Емирата.
2. да делегација Уједињених Арапских Емирата за своју Владу задржава права да изврши додатне резервације приликом резервације Завршних Аката ове Конференције.

68

Оригинал: на енглеском

За Републику Кореју:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Кореје за своју Владу задржава права да предузме све акције које сматра неопходним како би заштитила своје интересе уколико нека држава Чланица Уније на било који начин не буде поштовала услове прописане Завршним Актима, или уколико резервације других земаља буду штетне за ефикасно функционисање њених телекомуникационих сервиса.

69

Оригинал: на енглеском

За Републику Намибију:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (WRC-07) који подразумевају фреквенцијске алокације у одређеним деловима спектра, делегација Републике Намибије истиче намере своје администрације да поштује одредбе Завршних Аката Конференције без штете по суверена права Републике Намибије да предузме све мере које сматра неопходним како би заштитила своје радиодифузне, телекомуникационе и остале сервисе у случају штетне интерференције узроковане поменутиим сервисима неке Чланице, које не поштује одредбе Правилника о радио-комуникацијама, ревидиране на овој Конференцији, посебно нове алокације утврђене на овој Конференцији под условима да не узрокује штетну интерференцију постојећим сервисима.

70

Оригинал: на енглеском

За Републику Црну Гору:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација републике Црне Горе изјављује да за своју Владу задржава права:

1. да предузме све акције и мере које сматра неопходним уколико последице резервација других држава Чланица угрозе сервисе радио-комуникација у Црној Гори или утичу на суверено право да поштује одредбе завршних аката, њихових анекса и Правилника о радио-комуникацијама;
2. да изврши декларације и резервације у складу са Завршним Актима Светске конференције о радио-комуникацијама (Женева, 2007) у време депоновања одговарајућих инструмената ратификације Међународној унији за телекомуникације.

71

Оригинал: на шпанском

За Кубу:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Кубе за своју Владу задржава право да предузме све акције које сматра неопходним како би заштитила своје интересе, уколико нека друга држава Чланица:

- не буде поштовала одредбе Завршних Аката;
- буде користила своје сервисе радио-комуникација у сврхе супротне онима које су утврђене преамбулом Устава Међународне уније за телекомуникације;
- не буде испуњавала међународне обавезе у погледу радио-комуникација или не буде поштовала Правилник о радио-комуникацијама, посебно принцип под бројем 0.4 преамбуле, или уколико би радиодифузне станице у авионима емитовале на територији Кубе без дозволе Кубе, пракса за коју је ова Конференције установила да је у супротности са Правилником о радио-комуникацијама.

Делегација Кубе инкорпорира са референцама декларације и резервације одређене за Кубу на претходним светским конференцијама о радио-комуникацијама, а посебно Декларацију 80 уведена на Конференцији Опуномоћеника (Анталија, 2006).

Делегација Кубе за своју Владу задржава права да изврши додатне декларације или резервације које могу бити неопходне до ратификације ових докумената.

72

Оригинал: на француском

За Краљевину Мароко:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Краљевине Мароко за своју Владу задржава право да предузме додатне акције које сматра неопходним ради очувања својих интереса, уколико нека држава Чланица Међународне уније за телекомуникације (МУТ) не буде у потпуности поштовала одредбе или Резолуцију Завршних Аката, или ако се не буде исте прихватила, или уколико резервације друге државе Чланице на било који начин угрожавају правилно функционисање телекомуникационих сервиса Краљевине Мароко.

73

Оригинал: на енглеском

За Папуу Нову Гвинеју:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Папуе Нове Гвинеје, у име Владе Папуе Нове Гвинеје, и светлу депонованих декларација и резервација других земаља чланица МУТ, у обавези је да за своју Владу задржи право да она предузме акције које сматра неопходним како би сачувала и одбранила своје националне интересе уколико нека држава Чланица МУТ не буде испоштовала одредбе Завршних Аката усвојених на Конференцији и на тај начин уносила штетну и/или неприхватљиву интерференцију, или уколико резервације или акције таквих држава Чланица угрозе правилно функционисање сервиса радио-комуникација и/или телекомуникационих система и сервиса који су у надлежности Владе Папуе Нове Гвинеје.

74

Оригинал: на шпанском

За Републику Колумбију

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Колумбије:

1. Изјављује да за своју Владу задржава права:
  - а) да предузме све мере које сматра неопходним, у складу са домаћом регулативом и међународним правом, како би заштитила националне интересе уколико остали чланови не би поштовали одредбе Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), или уколико би резервације представника других држава угрозиле телекомуникационе сервисе Републике Колумбије или њена суверена права;
  - б) да изврши резервације, по Бечкој конференцији и Законом о споразумима из 1969. године, у складу са Завршним Актима Светске конференције о радио-комуникацијама (Женева, 2007), у сваком тренутку од дана потписивања до могуће ратификације међународних инструмената који чине Завршна Акта.
2. Поново признаје, у целини, резервације под бројевима 40 и 79 које су извршене на Светској конференцији о радио-комуникацијама (Женева, 1979) и резервацију под бројем 41 утврђену на Светској конференцији о радио-комуникацијама (Женева, 2003), посебно у складу са новим одредбама икључених у Завршна Акта.
3. Изјављује да ће Република Колумбија инструментима садржаним у Завршним актима толико колико пристане да буде обавезана овим међународним инструментима и да буде предмет употпуњавања одговарајућих уставних процедура.
4. Изјављује да, сходно својим уставним обавезама, њена Влада не може обезбедити привремени утицај међународних инструмената који чине саставни део Завршних Аката Светске конференције о радио-комуникацијама.

75

Оригинал: на француском

За Француску:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Француске за своју Владу задржава право да уведе додатне декларације и резервације у време депоновања своји инструмената ратификације ових измена Правилника о радио-комуникацијама.

Уопштено, делегација Француске за своју Владу задржава право да предузме сваку акцију коју сматра неопходном како би заштитила своје интересе уколико било која држава

Чланица Уније не буде поштовала одредбе Завршних Аката или уколико би резервације других земаља угрозиле правилно функционисање њених телекомуникационих сервиса.

76

Оригинал: на енглеском

За Сједињене Америчке Државе:

1. Сједињене Америчке Државе упућују на Члан 32, одељак 16(2), Међународне конвенције о телекомуникацијама (Женева, 1992), измењене на Конференцији Опумоћеника (Кјото, 1994) и истиче да се у Завршним Актима Светске конференције о радио-комуникацијама (Женева, 2007), Сједињене Америчке Државе могу сматрати неопходним да се утврде додатне декларације и резервације. Сходно томе, Сједињене Америчке Државе, задржавају право да утврде додатне декларације и резервације у време депоновања ратификација ових измена Правилника о радио-комуникацијама.
2. Сједињене Америчке Државе неће сматрати да су обавезане изменама Правилника о радио-комуникацијама усвојеним на овој Конференцији без посебног обавештења Међународној унији за телекомуникације од Сједињених Америчких Држава о својој сагласности да се обавеже.
3. Сједињене Америчке Државе понављају и инкорпорирају референце свих декларација и резервација извршених на претходним светским административним конференцијама о радио комуникацијама и светским конференцијама о радио-комуникацијама.

77

Оригинал: на енглеском

За Сједињене Америчке Државе и Канаду:

Сједињене Америчке Државе и Канада истичу да ће у примени Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007) која се односи на намене опсега 450-470 MHz, подразумевати коришћење и апликација мобилних и фиксних сервиса, укључујући и примену мрежа јавне безбедности, што ће спречити примену терестријалних Међународних Мобилних Телекомуникација (ММТ).

78

Оригинал: на енглеском

За Сједињене Америчке Државе и Канаду:

Сједињене Америчке Државе и Канада упућују на фусноту број 5.394 Члана 5. Правилника о радио-комуникацијама, која се односи на употребу опсега од 2300-2390 MHz у Сједињеним Америчким Државама и опсега од 2300-2400 MHz у Канади, и истичу да ће у примени Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007) у овим опсезима, ваздухопловни мобилни системи за телеметрију имати примарну намену у односу на остале мобилне сервисе. Осим тога, у сагласности са осталим алокацијама специфицираним у фусноти под бројем 5.393 Члана 5 Правилника о радио-комуникацијама у опсегу од 2310-2360 MHz, Сједињене Америчке Државе и Канада истичу да ће у примени Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007) у опсегу 2310-2360 MHz део опсега користити радиодифузне сервисе (звук) преко сателита и додатне терестријалне радиодифузне сервисе (звук), које могу спречити примену терестријалних Међународних Мобилних Телекомуникација (ММТ).

79

Оригинал: на енглеском

За Краљевство Лесото:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Краљевине Лесото изјављује да ће њена администрација поштовати одредбе Завршних Аката без штетних ефеката на њено суверено право да предузме све мере које Влада Лесота сматра неопходним како би заштитила своје телекомуникационе сервисе у случају штетне интерференције узроковане поменутиим сервисима неке државе Чланице Уније, која не поштују одредбе Правилника о радио-комуникацијама, које су измењене и усвојене на овој Конференцији.

Делегација Краљевине Лесото даље изјављује да за своју Владу задржава право да изврши било коју резервацију приликом ратификације Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007).

80

Оригинал. на енглеском

За Савезну Републику Немачку, Државу Ватиканског Града, Републику Хрватску, Луксембург, Малту, Републику Црну Гору, Краљевину Холандију, Португал; Уједињено Краљевство Велике Британије и Северну Ирску и Турску:

Делегације претходно поменутих земаља жале што на овој Конференцији није било споразума о алокацији додатног спектра за радиодифузију на високим фреквенцијама, која би неадекватну примену опсега 4-10 MHz дату Резолуцијом 544 (WRC-03).

Ова Конференција је представљала јединствену прилику да се изађе у сусрет овој потреби на основу обимних МУТ-Р студија и прагматичних препорука које су узеле у обзир све дотичне радио сервисе.

Ове администрације задржавају право да предузму акције које сматрају неопходним, а које су доследне Правилнику о радио-комуникацијама, како би задовољили потребе својих сервиса радиодифузије на високим фреквенцијама.

81

Оригинал: на француском

За Буркину Фасо:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Буркине Фасо за своју Владу задржава права да предузме све акције које сматра неопходним како би обезбедила ефективну и ефикасну употребу радио-фреквенцијског спектра у оквиру своје територије уколико нека Чланица не буде поштовала релевантне одредбе Устава и Конвенције Међународне уније за телекомуникације.

82

Оригинал: на енглеском

За Републику Албанију, Савезну Републику Немачку, Аустрију, Републику Бугарску, Републику Кипар, Републику Хрватску, Данску, Шпанију, Републику Естонију; Финску, Француску, Грузију, Грчку, Републику Мађарску, Ирску, Исланд, Кнежевину Лихтенштајн, Републику Литванију, Луксембург, Малту, Републику Молдавију, Републику Црну Гору, Норвешку, Краљевину Холандију, Републику Пољску, Португал, Словачку републику, Чешку Републику, Уједињено Краљевство Велике Британије и Северне Ирске, Републику Србију, Републику Словенију, Шведску и Швајцарску Конфедерацију:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегације поменутих земаља формално изјављују да ће задржати декларације и резервације, које су извршиле њихове делегације потписивањем Завршних Аката претходних конференција Уније на којима су потписивани споразуми, као да су у потпуности потекле са ове светске конференције о радио-комуникацијама.

83

Оригинал: на шпанском

За Чиле:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Чилеа за своју Владу задржава права:

да предузме све акције које сматра неопходним како би заштитила своје интересе, посебно како би заштитила своје постојеће и планиране телекомуникационе мреже, системе и сервисе, уколико нека држава Чланица Уније на било који начин не буде применила одредбе садржане у Актима, укључујући одлуке, препоруке, резолуције и анексе који чине њихов интегрални део, или одредбе садржане у Уставу и Конвенцији Међународне уније за телекомуникације или уколико би правилно функционисање њених телекомуникационих мрежа, система и сервиса било угрожено из било ког разлога или било којом декларацијом или резервацијом неке од држава Чланица Уније.

84

Оригинал: на француском

За Републику Бенин:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Бенин изјављује:

1. да за своју Владу задржава права да предузме све акције које сматра неопходним како би заштитила интересе Бенина и заштитила инсталације телекомуникационих сервиса уколико би нека друга држава Чланица Уније прекршила одредбе Завршних Аката или одредбе Устава или Конвенције;
2. да њена Влада неће прихватити одговорност за последице непоштовања основног текста држава Чланица Уније.

85

Оригинал: на арапском

За Краљевину Саудијску Арабију, Краљевину Бахреин, Уједињене Арапске Емирате, Републику Ирак, Државу Кувајт, Либан, Арапску Републику Сирију и Републику Судан:

Поменуте делегације Светске конференције о радио-комуникацијама (Женева, 2007) изјављују да потписивање и могућа ратификација Завршних Аката ове Конференције њихових Влада неће бити важећа за Чланицу Уније под именом „Израел“, и ове Владе је неће препознати на било који начин.

### **Додатне декларације и резервације**

86

Оригинал: на енглеском

За Државу Израел:

1. Декларације под бројевима 16, 63 и 85 које су извршиле одређене државе Чланице у складу са Завршним Актима, у супротности је са принципима и наменама Међународне уније за телекомуникације, и стога су лишене правне ваљаности.
2. Влада Државе Израел жели да се забележи да одбија ове претходно наведене декларације, које политизују и подривају рад МУТ.
3. Уколико би нека држава Чланица која је извршила претходно наведене декларације према Израелу на такав начин да он нарушава права Израела као државе Чланице МУТ, или прекорачује дужности те државе Чланице према Израел, Држава Израел задржава своје право да са овим државама поступа на исти начин.

87

Оригинал: на енглеском

За Канаду:

Имајући у виду декларације и резервације садржане у Документу 427 Светске конференције о радио-комуникацијама Међународне уније за телекомуникације (Женева, 2007), делегација Канаде у име своје Владе задржава право да предузме све мере које сматра неопходним како би заштитила своје интересе уколико друга држава Чланица не буде поштовала одредбе Правилника о радио-комуникацијама, посебно оне које се односе на употребу радио-фреквенција и одговарајућих орбита, укључујући и геостационарне сателитске орбите.

88

Оригинал: на енглеском

За Републику Цибути:

Имајући у виду четврти сет декларације у Документу 427 Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Цибути:

- а) за своју администрацију задржава право да предузме све мере које сматра неопходним, у складу са домаћим и међународним законом, како би заштитила своје интересе уколико друга Чланица Уније не буде поштовала Завршна Акта, или унела резервације које могу угрозити функционалност телекомуникационих сервиса на њеној територији;
- б) такође, задржава права измене свих страних резервација и декларација и да приступи даљим резервацијама и декларацијама у време подношења своје сагласности Међународној унији за телекомуникације, да буде обавезана Правилником о радио-комуникацијама усвојених на Светској конференцији о радио-комуникацијама (Женева, 2007).

89

Оригинал: на енглеском

За Републику Хрватску:

Након разматрања декларација и резервација извршених од стране других држава Чланица и садржаних у Документу 427, делегација Републике Хрватске у име своје Владе, износи додатне декларације као што следи:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Хрватске за своју Владу задржава права да предузме све акције које сматра неопходним како би заштитила своје интересе уколико нека Чланица Уније не буде поштовала одредбе Завршних Аката, усвојених на Светској конференцији о радио-

комуникацијама (Женева, 2007) или уколико резервације других земаља буду угрозиле правилно функционисање сервиса електронских комуникација.

Делегација Републике Хрватске даље изјављује да ће Република Хрватска, као земља кандидат за будуће чланство у Европској унији, применити измене Правилника о радио-комуникацијама усвојене на Конференцији, али од датума приступања Европској заједници примена ових аката ће бити у складу са њеним обавезама према Споразуму ЕЗ.

90

Оригинал: на енглеском

За Арапску Републику Египат:

Имајући у виду декларације, које су извршиле државе Чланице, садржане у Документу 427, делегација Египта у име своје Владе, износи додатне декларације, као што следи:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама (WRC-07), делегација Египта за своју Владу задржава следећа права:

1. Да предузме све акције и мере које сматра неопходним како би заштитила своје интересе уколико нека држава Чланица Међународне уније за телекомуникације не буде у потпуности поштовала одредбе и Резолуције Завршних Аката, или уколико резервације неке државе Чланице на било који начин буду угрожавле телекомуникационе сервисе Египта.
2. Да изврши додатне резервације током ратификације Завршних Аката ове Конференције.

91

Оригинал: на француском

За Републику Нигер:

Имајући у виду декларације садржане у документу 427, Делегација Републике Нигер изјављује, у име своје Владе, да за касније задржава права:

- да изврши резервације у односу на Завршна Акта Светске конференције о радио-комуникацијама (Женева, 2007), сходно Бечкој конвенцији о Закону о споразумима из 1969, у свако време које сматра одговарајућим, између датума потписа и датума ратификације међународних Завршних Аката.

92

Оригинал: на енглеском

За Савезну Републику Немачку, Аустралију, Републику Бугарску, Републику Кипар, Републику Хрватску, Данску, Сједињене Америчке Државе, Француску, Грчку, Републику Мађарску, Ирску, Јапан, Републику Летонију, Кнежевину Лихтенштајн, Републику Литванију, Луксембург, Малту, Републику Маршалска Острва, Норвешку, Нови Зеланд, Краљевство Холандију, Републику Пољску, Словачку Републику, Чешку републику, Уједињено Краљевство Велике Британије и Северне Ирске, Републику Словенију, Шведску, Конфедерацију Швајцарске, Турску, Украјину:

Делегације претходно поменутих Држава, имајући у виду декларацију коју је извршила Република Колумбија (број 74), сматрају да ове тврдње не могу бити препознате на овој Конференцији, уколико се ове и сличне тврдње односе на Конференцију у Боготи од 3. децембра 1976. године које су одржале екваторијалне земље и изнеле тврдње да те земље имају суверено право на сегменте геостационарних сателитских орбита, као и сличне тврдње.

Претходно поменуте делегације би такође желеле да истакну да референце у Члану 44 Устава у делу „географска ситуација одређених земаља“ не подразумева повлашћена права над геостационарним сателитским орбитама.

93

Оригинал: на енглеском

За Турску:

Делегација Републике Турске, потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007) и након што је прочитала декларације и резервације у Документу 427, изјављује да за своју Владу задржава права да имплементира одредбе Завршних Аката само са државама Чланицама са којима има успостављене дипломатске односе.

94

Оригинал: на француском

За Републику Камерун:

Потписивањем Завршних Аката Светске конференције о радио-комуникацијама одржане у Женеви од 22. октобра 2007. до 16. октобра 2007. године, делегација Републике Камерун, пошто је утврдила декларације у Документу 427, које су друге делегације презентовале на Конференцији, изјављује:

1. да за своју Владу задржава суверена права да предузме све мере које сматра неопходним и одговарајућим како би заштитила своје интересе уколико било која држава Чланица Међународне уније за телекомуникације (МУТ) не поштује одредбе Завршних Аката.
2. да њена Влада неће прихватити одговорност, за последице резервација које су извршиле државе Чланице МУТ;
3. да њена Влада задржава права да изврши додатне резервације које сматра неопходним до тренутка ратификације.

95

Оригинал: на енглеском

За Сједињене Америчке Државе:

1. Сједињене Америчке Државе указују на декларације су изнеле различите државе Чланице, укључујући и оне под бројевима 51 и 39, којим задржавају право да предузму акције које сматрају неопходним како би заштитиле интересе у складу са применом одредаба Устава и Конвенције Међународне уније за телекомуникације (Женева, 1992), и све измене од тада. Сједињене Америчке Државе задржавају право да предузму све мере које сматрају неопходним како би заштитили интересе Америке, као одговор на такве акције.
2. Сједињене Америчке Државе, имајући у виду декларацију под бројем 71, коју је изнела делегација Кубе, позива се своја права емитовања на Куби, на одговарајућим фреквенцијама, које су ослобођене од загушења и других штетних интерференција и задржава право, у складу са постојећим сметњама и сваком додатном сметњом у будућности која потиче са Кубе, а утиче на емитовање из Сједињених Држава. Сједињене Државе, такође, као референцу укључују и целокупну додатну Декларацију број 104, која се део Завршних Аката Конференције Опумоћеника (Анталија, 2006) Међународне уније за телекомуникације.

Оригинал: на енглеском

За Републику Маршалска острва

Имајући у виду декларације и резервације садржане у Документу 427, делегација Сједињених Америчких Држава, у име Владе републике Маршалска острва, сходно Члану 31 Конвенције Међународне уније за телекомуникације (Женева, 1992), са изменама на Конференцији Опумоћеника (Кјото,1994), изјављује да за Владу Републике Маршалска острва задржава права да изврши све декларације и резервације које су у интересу Маршалских острва, уколико декларације и резервације других држава Чланица угрозе правилно функционисање телекомуникационих сервиса Републике Маршалска острва.

Оригинал: на енглеском

За Републику Филипини:

Делегација Републике Филипини, узимајући у обзир Документ 427 WRC-07, изјављује да за своју Владу задржава право да предузме сваку акцију коју сматра неопходном и одговарајућом, у складу са својим законима како би заштитила своје интересе, уколико нека Чланица или Чланице Међународне уније за телекомуникације (МТУ) не буде поштовала Завршна Акта WRC-07 и Анексе који су њихов саставни део, или уколико резервације других земаља Чланице буду угрозиле правилно функционисање телекомуникационих сервиса, сервиса радиодифузије и сервиса мрежа радио-комуникација или буду угрозиле њена суверена права.

Оригинал: на енглеском

За Републику Азербејџан:

Узимајући у обзир декларације у Документу 427, делегација Републике Азербејџан потписивањем Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), за своју Владу задржава право:

- Да предузме све мере које сматра неопходним како би заштитила своје интересе уколико друга земља Чланица Уније на било који начин не буде испунила или буде прекршила одредбе Устава и Конвенције Међународне уније за телекомуникације, или оне које су дате у резолуцијама, одлукама, препорукама, анексима и протоколима који су саставни део Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007) или уколико резервације других земаља Чланица буду штетне за правилно функционисање сервиса радио-комуникација Републике Азербејџан.
- Да предузме све мере које сматра одговарајућим како би регулисала своје тржиште телекомуникација, у складу са постојећим домаћим законима и регулаторним оквиром Азербејџана. У том погледу, радио предајници и опрема радио-комуникација у оквиру територије Републике Азербејџан, који раде без претходног уговора са Владом Азербејџана, сматраће се да раде илегално.

Оригинал: на енглеском

За Републику Летонију:

Узимајући у обзир декларације и резервације садржане у Документу 427, делегација Републике Летоније задржава у потпуности декларације и резервације које је извршила потписивањем Завршних Аката или на претходним конференцијама Уније на којима је постигла споразуме, као на Светској конференцији о радио-комуникацијама.

100

Оригинал: на енглеском

За Краљевину Камбоџу:

Узимајући у обзир декларације и резервације садржане у Документу 427 светске конференције о радио-комуникацијама (Женева, 2007), делегација Камбоџе изјављује да Влада Краљевине Камбоџе задржава права да предузме све мере које сматра неопходним како би заштитила суверенитет и национални интерес, уколико се регулатива било које земље користи противно суверенитету Краљевине Камбоџе да регулише правилну примену и функционисање националних и међународних телекомуникационих и мрежа радио-комуникација.

Делегација Камбоџе даље изјављује да за своју Владу задржава права да изврши све неопходне декларације и резервације у било које време.

101

Оригинал: на енглеском

За Републику Иран:

У име Бога, Самилости и Милосрђа.

У складу са Декларацијом број 64, делегација Исламске Републике Иран на Светској конференцији о радио-комуникацијама (Женева, 2007) изјављује да потписивање и могућа ратификација Завршних Аката Конференције од стране Владе, неће бити ваљано за државу Чланицу Уније под именом „Израел“, и на било који начин неће указивати на њено препознавање од стране Исламске Републике Иран.

102

Оригинал: на енглеском

Након узимања у обзир декларација и резервација конференције у документу 427, делегација Папуа Нове Гвинеје изјављује да за своју Владу задржава право да изврши додатне резервације које сматра неопходним до и укључујући време ратификације Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007).

103

Оригинал: на француском

За Републику Бурунди:

Узимајући у обзир декларације у Документу 427 Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Бурунди изјављује да ће њена администрација поштовати одредбе Завршних Аката уз примену сувереног права да предузме све мере које Влада Бурундија сматра неопходним како би заштитила телекомуникације сервисе у случају штетне интерференције узроковане сервисима било ког Члана Уније који не буде поштовао одредбе Правилника о радио-комуникацијама, који су ревидирани и усвојени на овој конференцији.

Делегација Републике Бурунди даље изјављује да за своју Владу задржава правода изврши декларације и резервације при ратификацији Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007).

104

Оригинал: на енглеском

За Италију:

Након извршене ревизије текста декларација у документу 427 и потписивања Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Републике Италије изјављује да за своју Владу задржава права.

1. да предузема све акције и мере које сматра неопходним уколико би последице резервације других земаља Чланица угрозиле сервисе радио-комуникација или утицале на суверено право примене Завршних Аката, њихових анекса и Правилника о радио-комуникацијама;
2. да изрази декларације и резервације у складу са Завршним Актима Светске конференције о радио-комуникацијама (Женева, 2007) у време подношења ратификације код Међународне уније за телекомуникације.

105

Оригинал: на енглеском

За Тајланд:

Након узимања у обзир свих декларација и резервација садржаних у Документу 427 и потписивању Завршних Аката Светске конференције о радио-комуникацијама (Женева, 2007), делегација Краљевине Тајланд за своју Владу задржава права да предузме све акције и мере које сматра неопходним како би заштитила своје интересе, уколико нека држава Чланица Међународне уније за телекомуникације (МУТ) не буде у потпуности испунила одредбе и Резолуције Завршних Аката или их не буде поштовала, или уколико резервације других земаља Чланица буду на било који начин угрозиле телекомуникационе сервисе Краљевине Тајланд.

106

Оригинал: на француском

За Народну Демократску Републику Алжир:

Након што је утврђена декларација исказана у Документу 427 Светске конференције о радио-комуникацијама (Женева, 2007), делегација Народне Демократске Републике Алжир за WRC-07 изјављује, у име своје Владе, и по природи њима датог опуномоћења, да за своју Владу задржава права:

1. да предузме све мере које сматра неопходним како би заштитила своје државне интересе уколико на исте буде утицале одлуке са Конференције, или уколико друге земље или администрације на било који начин не буду испоштовале одредбе инструмената измењеног Устава и Конвенције МУТ или анекса, протокола или правила која су њихов део, или Завршна Акта Конференције, или уколико резервације, декларације или додатне резервације или декларације, које су извршиле друге земље или администрације угрозе нормално функционисање телекомуникационих сервиса или угрозе пуну примену суверених права Народне Демократске Републике Алжир;
2. да не прихвати одговорност за последице резервације других Чланица Уније;

3. да изврши додатне декларације или резервације за Завршна Акта Светске конференције о радио-комуникацијама (Женева, 2007) када приступи ратификацији са Међународном унијом за телекомуникације.

## **ЧЛАНОВИ**

## ЧЛАН 2

### Номенклатура

#### Део I – Опсези фреквенција и таласних дужина

**MOD** COM6/382/1 (B20/414/1)

**2.1** Радио-фреквенцијски спектар требало би да буде подељен на девет фреквенцијских опсега, који би требало да буду означени растућим целим бројевима према следећој табели. Будући да је јединица мере за фреквенцију херц (Hz), фреквенције би требало да буду исказане:

- у килохерцима (kHz), до укључујући 3 000 kHz;
- у мегахерцима (MHz), изнад 3 MHz, до укључујући 3 000 MHz;
- у гигахерцима (GHz), изнад 3 GHz, до укључујући 3 000 GHz.

Међутим, ако придржавање овим одредбама почне да ствара озбиљне потешкоће, на пример у вези пријаве и регистрације фреквенција, листе фреквенција и сличних ствари, може да се примени оправдано одступање<sup>1</sup>.

## ЧЛАН 4

### Додела и коришћење фреквенција

#### Део I – Општа правила

**MOD** COM4/296/8 (B9/305/1) (R4/335/1)

**4.19** У неким случајевима датим у Члановима **31** и **51**, авионске станице су овлашћене да користе фреквенције у опсезима намењеним за поморску мобилну службу, у сврху комуницирања са станицама те службе (види No. **51.73**). (WRC-07)

## ЧЛАН 5

### Намена фреквенцијских опсега

#### Део IV – Табела намене фреквенцијских опсега

(Види No. **2.1**)

**MOD** COM6/227/1 (B3/224/38) (R6/410/1)

**5.14** “Европско радиодифузно подручје” ограничено је на западу западном границом Региона 1, на истоку меридијаном 40° источно од Гринича и на југу паралелом 30° север, тако да укључује северни део Саудијске Арабије и део оних земаља које захватају Медитеран у оквиру ових граница. Такође, Јерменија, Азербејџан, Грузија и они делови

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<sup>1</sup> **2.1.1** У примени Правилника о радио-комуникацијама, Биро за радио-комуникације користи следеће јединице:

kHz	за фреквенције до укључујући 28 000 kHz
MHz	за фреквенције изнад 28 000 kHz до укључујући 10 500 MHz
GHz	за фреквенције изнад 10 500 MHz.

територија Ирака, Јордана, Сирије, Турске и Украјине који леже изван ових граница такође су укључени у Европско радиодифузно подручје.

**MOD** COM5/264/1 (B6/268/1) (R3/292/1)

**5.55** *Додатна намена:* у Јерменији, Азербејџану, Руској Федерацији, Грузији, Киргистану, Таџикистану и Туркменистану, опсег 14-17 kHz такође је намењен радио-навигационој служби на примарној основи. (WRC-07)

**MOD** COM5/264/2 (B6/268/2) (R3/292/2)

**5.56** Станице служби којима су намењени опсежи 14-19.95 kHz и 20.05-70 kHz и у Региону 1 опсежи 72-84 kHz и 86-90 kHz могу да емитују еталон фреквенцију и сигнал тачног времена. Ове станице морају да буду заштићене од штетних сметњи. У Јерменији, Азербејџану, Белорусији, Бугарској, Руској Федерацији, Грузији, Казахстану, Монголији, Киргистану, Словачкој, Таџикистану, и Туркменистану, фреквенције 25 kHz и 50 kHz биће употребљене у ту сврху под истим условима. (WRC-07)

**MOD** COM4/296/57 (B9/305/2) (R4/335/2)

**110-255 kHz**

Намене службама		
Регион 1	Регион 2	Регион 3
...		
<b>130-135.7</b> ФИКСНА ПОМОРСКА МОБИЛНА 5.64 5.67	<b>130-135.7</b> ФИКСНА ПОМОРСКА МОБИЛНА 5.64	<b>130-135.7</b> ФИКСНА ПОМОРСКА МОБИЛНА РАДИО-НАВИГАЦИОНА 5.64
<b>135.7-137.8</b> ФИКСНА ПОМОРСКА МОБИЛНА Аматерска ADD 5.4C03 5.64 5.67 ADD 5.4C04	<b>135.7-137.8</b> ФИКСНА ПОМОРСКА МОБИЛНА Аматерска ADD 5.4C03 5.64	<b>135.7-137.8</b> ФИКСНА ПОМОРСКА МОБИЛНА РАДИО-НАВИГАЦИОНА Аматерска ADD 5.4C03 5.64 ADD 5.4C04

Намене службама		
Регион 1	Регион 2	Регион 3
<b>137.8-148.5</b> ФИКСНА ПОМОРСКА МОБИЛНА 5.64 5.67	<b>137.8-160</b> ФИКСНА ПОМОРСКА МОБИЛНА 5.64	<b>137.8-160</b> ФИКСНА ПОМОРСКА МОБИЛНА РАДИО-НАВИГАЦИОНА 5.64
...	...	...

**ADD** COM4/296/58 (B9/305/3) (R4/335/3)

**5.4C03** Аматерска служба која користи фреквенције у опсегу 135.7-137.8 kHz не сме да прелази максималну снагу зрачења од 1 W (e.i.r.p.) и не сме да омета радио-навигационе службе које раде у земљама наведеним у No. **5.67**. (WRC-07)

**ADD** COM4/296/59 (B9/305/4) (R4/335/4)

**5.4C04** Коришћење опсега 135.7-137.8 kHz у Алжиру, Египту, Ирану (Исламској Републици), Ираку, Либијској Арапској Џамахирији, Либану, Сиријској Арапској Републици,

Судану и Тунису ограничено је на фиксну и поморску мобилну службу. Аматерска служба у наведеним земљама не сме да користи опсег 135.7-137.8 kHz, и о томе би требало да воде рачуна земаље које одобравају такву употребу. (WRC-07)

**MOD** COM5/264/3 (B6/268/3) (R3/292/3)

**5.67** *Додатна намена:* у Монголији, Киргистану и Туркменистану, опсег 130-148.5 kHz такође је намењен радио-навигационој служби на секундарној основи. У тим земљама и између њих, ова служба би требало да има једнако право на рад. (WRC-07)

**MOD** COM5/264/4 (B6/268/4) (R3/292/4)

**5.70** *Алтернативна намена:* у Анголи, Боцвани, Бурундију, Централној Афричкој Републици, Републици Конго, Етиопији, Кенији, Лесоту, Мадагаскару, Малавију, Мозамбику, Намибији, Нигерији, Оману, Демократској Републици Конго, Руанди, Јужној Африци, Свазиленду, Танзанији, Чаду, Замбији и Зимбабвеу, опсег 200-283.5 kHz намењен је ваздухопловној радио-навигационој служби на примарној основи. (WRC-07)

**MOD** COM4/332/1 (B13/347/1) (R7/411/1)

**200-495 kHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>415-435</b> ПОМОРСКА МОБИЛНА 5.79 ВАЗДУХОПЛОВНА РАДИО- НАВИГАЦИОНА 5.72	<b>415-495</b> ПОМОРСКА МОБИЛНА 5.79 MOD 5.79A Ваздухопловна радио-навигациона 5.80	
<b>435-495</b> ПОМОРСКА МОБИЛНА 5.79 MOD 5.79A Ваздухопловна радио- навигациона 5.72 MOD 5.82	5.77 5.78 MOD 5.82	

**MOD** COM5/264/5 (B6/268/5) (R3/292/5)

**5.75** *Различите категорије служби:* у Јерменији, Азербејдану, Белорусији, Руској Федерацији, Грузији, Молдавији, Киргистану, Таџикистану, Туркменистану, Украјини и црноморској области Румуније, опсег 315-325 kHz намењен је поморској радио-навигационој служби на примарној основи према условима који важе у балтичкој области, додела фреквенција из тог опсега новим станицама у поморској или ваздухопловној радио-навигационој служби треба да је предмет претходних консултација између заинтересованих администрација. (WRC-07)

**MOD** COM6/341/1 (B14/365/1) (R7/411/2)

**5.77** *Различите категорије служби:* у Аустралији, Кини, Француским Прекоморским Територијама у Региону 3, Индији, Ирану (Исламској Републици), Јапану, Пакистану, Папуи Новој Гвинеји и Шри Ланки, опсег 415-495 kHz намењен је ваздухопловној радио-навигационој служби на примарној основи. Администрације у тим земљама треба да предузму све практичне кораке потребне да се осигура да ваздухопловне радио-навигационе станице у опсегу 435-495 kHz не ометају пријем обалским станицама сигнала са бродских станица које емитују на фреквенцијама означеним за бродске станице на светском нивоу (види No. 52.39). (WRC-07)

**MOD** COM4/332/3 (B13/347/2) (R7/411/3)

**5.79A** Кад се поставља обална станица у NAVTEX служби на фреквенцијама 490 kHz, 518 kHz и 4209.5 kHz, администрацијама се строго препоручује да координирају њене радне карактеристике према процедурама Међународне Поморске Организације (International Maritime Organization IMO) (види Резолуцију **339 (Rev.WRC-07)**). (WRC-07)

**ADD** COM4/332/4 (B13/347/3) (R7/411/4)

**5.79B** Коришћење опсега 495-505 kHz је ограничено на радио-телеграфију. (WRC-07)

**MOD** COM4/332/5 (B13/347/4) (R7/411/5)

**5.82** У поморској мобилној служби, фреквенција 490 kHz биће искључиво коришћена за емисије обалских станица за навигациона и метеоролошка упозорења и хитне поруке ка бродовима, посредством ускопојасне машинске телеграфије. Услови за коришћење фреквенције 490 kHz су прописани у Члановима 31 и 52 Правилника. При коришћењу опсега 415-495 kHz за ваздухопловну радио-навигациону службу, од Администрација се захтева да обезбеде да се не проузрокују штетне сметње на фреквенцији 490 kHz. (WRC-07)

**MOD** COM4/332/2 (B13/347/5) (R7/411/6)

**495-1 800 kHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>495-505</b>	МОБИЛНА ADD 5.79B ADD 5.4C01	
<b>505-526.5</b> ПОМОРСКА МОБИЛНА 5.79 MOD 5.79A MOD 5.84 ВАЗДУХОПЛОВНА РАДИО- НАВИГАЦИОНА	<b>505-510</b> ПОМОРСКА МОБИЛНА 5.79	<b>505-526.5</b> ПОМОРСКА МОБИЛНА 5.79 MOD 5.79A MOD 5.84 ВАЗДУХОПЛОВНА РАДИО- НАВИГАЦИОНА Ваздухопловна мобилна Копнена мобилна
	<b>510-525</b> МОБИЛНА MOD 5.79A MOD 5.84 ВАЗДУХОПЛОВНА РАДИО- НАВИГАЦИОНА	
5.72		

**SUP** COM4/332/6 (B13/347/6) (R7/411/7)

**5.83**

**ADD** COM4/332/7 (B13/347/7) (R7/411/8)

**5.4C01** Администрације које одобравају коришћење фреквенција у опсегу 495-505 kHz службама које нису поморска мобилна служба морају осигурати да нема ометања поморске мобилне службе у том опсегу нити служби у суседним опсезима, водећи рачуна о условима коришћења фреквенција 490 kHz и 518 kHz, како је прописано у Члановима **31** и **52**. (WRC-07)

**MOD** COM4/332/8 (B13/347/8) (R7/411/9)

**5.84** Услови коришћења фреквенције 518 kHz од стране поморске мобилне службе прописани су Члановима **31** и **52**. (WRC-07)

**MOD** COM5/264/6 (B6/268/6) (R3/292/6)

**5.93** *Додатна намена:* у Анголи, Јерменији, Азербејдану, Белорусији, Руској Федерацији, Грузији, Мађарској, Казахстану, Летонији, Литванији, Молдавији, Монголији, Нигерији, Узбекистану, Пољској, Киргистану, Словачкој, Чешкој Републици, Таџикистану, Чаду, Туркменистану и Украјини, опсеги 1 625-1 635 kHz, 1 800-1 810 kHz и 2 160-2 170 kHz су такође намењени фиксној и копненој мобилној служби на примарној основи, по споразуму постигнутом према Но. **9.21.** (WRC-07)

**MOD** COM5/264/7 (B6/268/7) (R3/292/7)

**5.98** *Алтернативна намена:* у Анголи, Јерменији, Азербејдану, Белорусији, Белгији, Камеруну, Демократској Републици Конго, Данској, Египту, Еритреји, Шпанији, Руској Федерацији, Грузији, Грчкој, Италији, Казахстану, Либану, Литванији, Молдавији, Сиријској Арапској Републици, Киргистану, Сомалији, Таџикистану, Тунису, Туркменистану, Турској и Украјини, опсег 1 810-1 830 kHz намењен је фиксној и мобилној, изузев ваздухопловне мобилне, служби на примарној основи. (WRC-07)

**MOD** COM5/264/8 (B6/268/8) (R3/292/8)

**5.99** *Додатна намена:* у Саудијској Арабији, Аустрији, Ираку, Либијској Арапској Џамахирији, Узбекистану, Словачкој, Румунији, Србији, Словенији, Чаду и Тогоу, опсег 1 810-1 830 kHz такође је намењен фиксној и мобилној, изузев ваздухопловне мобилне, служби на примарној основи. (WRC-07)

**MOD** COM5/264/9 (B6/268/9) (R3/292/9)

**5.102** *Алтернативна намена:* у Боливији, Чилеу, Мексику, Парагвају, Перуу и Уругвају, опсег 1 850-2 000 kHz намењен је фиксним и мобилним, изузев ваздухопловне мобилне, радио-локационим и радио-навигационим службама на примарној основи. (WRC-07)

**MOD** COM4/332/9 (B13/347/9) (R7/411/10)

**5.108** Носећа фреквенција 2182 kHz је међународна фреквенција за опасност и позивање за радио-телефонију. Услови употребе опсега 2173.5-2190.5 kHz су прописани у Члановима 31 и 52. (WRC-07)

**MOD** COM4/332/10 (B13/347/10) (R7/411/11)

**5.111** Носеће фреквенције 2182 kHz, 3023 kHz, 5680 kHz, 8364 kHz и фреквенције 121.5 MHz, 156.8 MHz и 243 MHz могу се, такође, употребити, сагласно поступцима који су на снази за земаљске радио-комуникационе службе, за операције тражења и спасавања помоћу свемирских летелица са посадом. Услови употребе ових фреквенција су прописани у Члану 31. Исто се примењује на фреквенције 10003 kHz, 14993 kHz и 19993 kHz али на свакој од ових фреквенција емисије морају да буду ограничене у опсегу од  $\pm 3$  kHz од носиоца фреквенције. (WRC-07)

**MOD** COM5/264/10 (B6/268/10) (R3/292/10)

**5.112** *Алтернативна намена:* у Данској, Малти, Србији и Шри Ланки, опсег 2 194-2 300 kHz намењен је фиксној и мобилној, изузев ваздухопловне мобилне, служби на примарној основи. (WRC-07)

**MOD** COM5/264/11 (B6/268/11) (R3/292/11)

**5.114** *Алтернативна намена:* у Данској, Ираку, Малти, и Србији, опсег 2 502-2 625 kHz намењен је фиксној и мобилној, изузев ваздухопловне мобилне, служби на примарној основи. (WRC-07)

**MOD** COM4/332/11 (B13/347/11) (R7/411/12)

**5.115** Носеће (референтне) фреквенције 3023 kHz и 5680 kHz могу се такође, употребити, сагласно поступцима који су на снази у Члану 31 за станице поморске мобилне службе ангажоване у координисаним претрагама и операцијама спасавања.

(WRC-07)

**MOD** COM5/264/12 (B6/268/12) (R3/292/12)

**5.117** *Алтернативна намена:* у Обали Слоноваче, Данској, Египту, Либерiji, Малти, Србији, Шри Ланки и Тогоу, опсег 3 155-3 200 kHz намењен је фиксним и мобилним, изузев ваздухопловне мобилне, службама на примарној основи. (WRC-07)

**MOD** COM5/264/13 (B6/268/13) (R3/292/13)

**5.119** *Додатна намена:* у Хондурасу, Мексику и Перуу, опсег 3 500-3 750 kHz је такође намењен фиксним и мобилним службама на примарној основи. (WRC-07)

**MOD** COM5/264/14 (B6/268/14) (R3/292/14)

**5.122** *Алтернативна намена:* у Боливији, Чилеу, Еквадору, Парагвају, Перуу и Уругвају, опсег 3 750-4 000 kHz намењен је фиксним и мобилним, изузев ваздухопловне мобилне, службама на примарној основи. (WRC-07)

**MOD** COM4/380/63 (B17/404/1)

**5.128** Фреквенције у опсезима 4 063-4 123 kHz и 4 130-4 438 kHz могу са изузетком користити станице фиксне службе, комуницирајући искључиво унутар граница земље у којој се налазе, средње снаге која не прелази 50 W, уз услов да не ометају поморску мобилну службу. Поред тога, у Авганистану, Аргентини, Јерменији, Азербејџану, Белорусији, Боцвани, Буркини Фасо, Централној Афричкој Републици, Кини, Руској Федерацији, Грузији, Индији, Казахстану, Малију, Нигеру, Казахстану, Таџикистану, Чаду, Туркменистану и Украјини, у опсезима 4 063-4 123 kHz, 4 130-4 133 kHz и 4 408-4 438 kHz, станице фиксне службе, средње снаге која не прелази 1 kW, могу да раде уз услов да се налазе најмање 600 km од обале и да не ометају поморску мобилну службу. (WRC-07)

**SUP** COM4/380/64 (B17/404/2)

**5.129**

**MOD** COM4/332/12 (B13/347/12) (R7/411/13)

**5.130** Услови коришћења носиоца фреквенција 4125 kHz и 6215 kHz су садржани у Члановима 31 и 52. (WRC-07)

**MOD** COM5/264/15 (B6/268/15) (R3/292/15)

**5.133** *Различите категорије служби:* у Јерменији, Азербејџану, Белорусији, Руској Федерацији, Грузији, Казахстану, Латвији, Литванији, Узбекистану, Киргистану, Таџикистану, Туркменистану и Украјини, опсег 5 130-5 250 kHz намењен је мобилној, изузев ваздухопловне мобилне, служби на примарној основи. (види No. **5.33**). (WRC-07)

**MOD** COM4/380/65 (B17/404/3)

**5.134** Коришћење опсега 5900-5950 kHz, 7300-7350 kHz, 9400-9500 kHz, 11600-11650 kHz, 12050-12100 kHz, 13570-13600 kHz, 13800-13870 kHz, 15600-15800 kHz, 17480-17550 kHz и 18900-19020 kHz за радиодифузну службу је предмет примене процедуре из Члана 12. Од администрација се захтева да користе ове опсеге у циљу увођења дигитално модулисаних емисија сагласно са одредбама Резолуције 517. (WRC-07)

**MOD** COM4/380/66 (B17/404/4)

**5.136** *Додатна намена:* Фреквенције у опсегу 5 900-5 950 kHz могу користити станице следећих служби, само за комуникацију унутар граница земље у којој се налазе: фиксна служба (у сва три Региона), копнена мобилна служба (у Региону 1), мобилна, осим ваздухопловне мобилне (R) службе (у Регионима 2 и 3), уз услов да не ометају радиодифузну службу. Кад се користе фреквенције за те службе, администрацијама се налаже да користе минималну потребну снагу и да узму у обзир сезонско коришћење фреквенција радиодифузне службе објављено у сагласности са Правилником о радио-комуникацијама. (WRC-07)

**MOD** COM5/264/16 (B6/268/16) (R3/292/16)

**5.139** *Различите категорије служби:* до 29.05.2009, у Јерменији, Азербејдану, Белорусији, Руској Федерацији, Грузији, Казахстану, Летонији, Литванији, Монголији, Узбекистану, Киргистану, Тацикистану, Туркменистану и Украјини, опсег 6 765-7 000 kHz намењен је копненој мобилној службу на примарној основи (види No. **5.33**). (WRC-07)

**MOD** COM4/380/67 (B17/404/5)

**5.143** *Додатна намена:* Фреквенције у опсегу 7 300-7 350 kHz могу користити станице фиксне службе и копнене мобилне службе, које комуницирају само унутар граница земље у којој се налазе, уз услов да не ометају радиодифузну службу. Кад се користе фреквенције за те службе, администрацијама се налаже да користе минималну потребну снагу и да узму у обзир сезонско коришћење фреквенција радиодифузне службе објављено у сагласности са Правилником о радио-комуникацијама. (WRC-07)

**MOD** COM4/332/13 (B13/347/13) (R7/411/14)

**5.145** Услови коришћења носиоца фреквенција 8291 kHz, 12290 kHz и 16420 kHz су прописани у Члановима 31 и 52. (WRC-07)

**MOD** COM4/380/68 (B17/404/6)

**5.146** *Додатна намена:* Фреквенције у опсезима 9 400-9 500 kHz, 11 600-11 650 kHz, 12 050-12 100 kHz, 15 600-15 800 kHz, 17 480-17 550 kHz и 18 900-19 020 kHz могу користити станице фиксне службе, које комуницирају само унутар граница земље у којој се налазе, уз услов да не ометају радиодифузну службу. Кад се користе фреквенције за те службе, администрацијама се налаже да користе минималну потребну снагу и да узму у обзир сезонско коришћење фреквенција радиодифузне службе објављено у сагласности са Правилником о радио-комуникацијама. (WRC-07)

**MOD** COM4/380/69 (B17/404/7)

**5.151** *Додатна намена:* Фреквенције у опсезима 13 570-13 600 kHz и 13 800-13 870 kHz могу користити станице фиксне службе и мобилне, осим ваздухопловне мобилне (R) службе, које комуницирају само унутар граница земље у којој се налазе, уз услов да не ометају радиодифузну службу. Кад се користе фреквенције за те службе, администрацијама се налаже да користе минималну потребну снагу и да узму у обзир сезонско коришћење фреквенција радиодифузног сервиса објављено у сагласности са Правилником о радио-комуникацијама. (WRC-07)

**MOD** COM5/264/17 (B6/268/17) (R3/292/17)

**5.155** *Додатна намена:* у Јерменији, Азербејдану, Белорусији, Руској Федерацији, Грузији, Казахстану, Молдавији, Монголији, Узбекистану, Киргистану, Словачкој, Тацикистану, Туркменистану и Украјини, опсег 21 850-21 870 kHz је такође намењен ваздухопловној мобилној служби (R) на примарној основи. (WRC-07)

**MOD** COM5/264/18 (B6/268/18) (R3/292/18)

**5.155A** У Јерменији, Азербејдану, Белорусији, Руској Федерацији, Грузији, Казахстану, Молдавији, Монголији, Узбекистану, Киргистану, Словачкој, Таџикистану, Туркменистану и Украјини, коришћење опсега 21 850-21 870 kHz од стране фиксне службе ограничено је одредбама служби везаних за сигурност летења авиона. (WRC-07)

**MOD** COM5/264/19 (B6/268/19) (R3/292/19)

**5.162A** *Додатна намена:* у Немачкој, Аустрији, Белгији, Босни и Херцеговини, Кини, Ватикану, Данској, Шпанији, Естонији, Руској Федерацији, Финској, Француској, Ирској, Исланду, Италији, Летонији, Македонији (Бившој Југословенској Републици), Лихтенштајну, Литванији, Луксембургу, Монаку, Црној Гори, Норвешкој, Холандији, Пољској, Португалу, Словачкој, Чешкој Републици, Великој Британији, Србији, Словенији, Шведској и Швајцарској опсег 46-68 MHz је такође намењен радио-локационој служби на секундарној основи. Ово коришћење је ограничено за радаре за мерење профила ветра у сагласности са Резолуцијом **217 (WRC-97)**. (WRC-07)

**MOD** COM5/264/20 (B6/268/20) (R3/292/20)

**5.163** *Додатна намена:* у Јерменији, Белорусији, Руској Федерацији, Грузији, Мађарској, Казахстану, Летонији, Литванији, Молдавији, Узбекистану, Киргистану, Словачкој, Чешкој Републици, Таџикистану, Туркменистану и Украјини, опсежи, 47-48.5 MHz и 56.5-58 MHz су такође намењени фиксној и копненој мобилној служби на секундарној основи. (WRC-07)

**MOD** COM5/264/21 (B6/268/21) (R3/292/21)

**5.164** *Додатна намена:* у Албанији, Немачкој, Аустрији, Белгији, Босни и Херцеговини, Боцвани, Бугарској, Обали Слоноваче, Данској, Шпанији, Естонији, Финској, Француској, Габону, Грчкој, Ирској, Израелу, Италији, Либијској Арапској Џамахирији, Јордану, Либану, Лихтенштајну, Луксембургу, Мадагаскару, Малију, Малти, Мароку, Мауританији, Монаку, Црној Гори, Нигерији, Норвешкој, Холандији, Пољској, Сиријској Арапској Републици, Румунији, Великој Британији, Србији, Словенији, Шведској, Швајцарској, Свазиленду, Чаду, Тогоу, Тунису и Турској, опсег 47-68 MHz, у Јужној Африци опсег 47-50 MHz, у Чешкој Републици опсег 66-68 MHz, и у Летонији и Литванији опсег 48.5-56.5 MHz, такође су намењени копненој мобилној служби на примарној основи. Међутим, станице копнене мобилне службе у поменутих земљама са одговарајућим додељеним опсегом у овој фусноти не смеју ометати постојеће или планиране радиодифузне станице (нити захтевати заштиту због тога) у земљама којима није додељен дотични опсег. (WRC-07)

**MOD** COM5/264/22 (B6/268/22) (R3/292/22)

**5.167** *Алтернативна намена:* у Бангладешу, Брунеј Дарусаламу, Индији, Ирану (Исламској Републици), Пакистану, Сингапуру и Тајланду, опсег 50-54 MHz намењен је фиксној, мобилној и радиодифузној служби на примарној основи. (WRC-07)

**ADD** COM5/264/23 (B6/268/23) (R3/292/23)

**5.167A** *Додатна намена:* у Индонезији, опсег 50-54 MHz је такође намењен фиксној, мобилној и радиодифузној служби на примарној основи. (WRC-07)

**SUP** COM5/264/24 (B6/268/24) (R3/292/24)

**5.174**

**MOD** COM5/264/25 (B6/268/25) (R3/292/25)

**5.175** *Алтернативна намена:* у Јерменији, Азербејдану, Белорусији, Руској Федерацији, Грузији, Казахстану, Молдавији, Узбекистану, Киргистану, Таџикистану, Туркменистану и Украјини, опсег 68-73 MHz и 76-87.5 MHz намењен је радиодифузној служби на примарној основи. У Летонији и Литванији, опсеци 68-73 MHz и 76-87.5 MHz намењени су радиодифузној и мобилној, осим ваздухопловне мобилне, служби на примарној основи. Службе којима су ови опсеци намењени у другим земљама и радиодифузна служба у земљама наведеним горе, јесу предмет споразума са заинтересованим земљама у суседству. (WRC-07)

**MOD** COM5/264/26 (B6/268/26) (R3/292/26)

**5.176** *Додатна намена:* у Аустралији, Кини, Јужној Кореји, Филипинима, Северној Кореји и Самои, опсег 68-74 MHz је такође намењен радиодифузној служби на примарној основи. (WRC-07)

**MOD** COM5/264/27 (B6/268/27) (R3/292/27)

**5.177** *Додатна намена:* у Јерменији, Азербејдану, Белорусији, Руској Федерацији, Грузији, Казахстану, Узбекистану, Киргистану, Таџикистану, Туркменистану и Украјини, опсег 73-74 MHz је такође намењен радиодифузној служби на примарној основи, по споразуму постигнутом према No. **9.21**. (WRC-07)

**MOD** COM5/264/28 (B6/268/28) (R3/292/28)

**5.179** *Додатна намена:* у Јерменији, Азербејдану, Белорусији, Кини, Руској Федерацији, Грузији, Казахстану, Литванији, Монголији, Киргистану, Словачкој, Таџикистану, Туркменистану и Украјини, опсеци 74.6-74.8 MHz и 75.2-75.4 MHz су такође намењени ваздухопловној радио-навигационој служби, на примарној основи, само за земаљске предајнике. (WRC-07)

**MOD** COM4/318/5 (B11/329/1) (R6/410/2)

**75.2-137.175 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
108-117.975	ВАЗДУХОПЛОВНА РАДИО-НАВИГАЦИОНА 5.197 MOD 5.197A	

**MOD** COM4/332/15 (B13/347/14) (R7/411/15)

**75.2-137.175 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
117.975-137	ВАЗДУХОПЛОВНА МОБИЛНА (R) 5.111 MOD 5.200 5.201 5.202	

**MOD** COM5/265/1 (B6/268/29) (R3/292/29)

**75.2-137.175 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>137-137.025</b>  MOD 5.208A 5.209 MOD 5.347A	ОПЕРАЦИЈЕ У СВЕМИРУ (свемир-Земља) МЕТЕОРОЛОШКА САТЕЛИТСКА (свемир-Земља) МОБИЛНА САТЕЛИТСКА (свемир-Земља)  ИСТРАЖИВАЊЕ СВЕМИРА (свемир-Земља) Фиксна Мобилна изузев ваздухопловне мобилне (R) 5.204 5.205 5.206 5.207 5.208	
<b>137.025-137.175</b>	ОПЕРАЦИЈЕ У СВЕМИРУ (свемир-Земља) МЕТЕОРОЛОШКА САТЕЛИТСКА (свемир-Земља) ИСТРАЖИВАЊЕ СВЕМИРА (свемир-Земља) Фиксна Мобилна сателитска (свемир-Земља) MOD 5.208A 5.209 MOD 5.347A Мобилна изузев ваздухопловне мобилне (R) 5.204 5.205 5.206 5.207 5.208	

**SUP** COM5/264/29 (B6/268/30) (R3/292/30)

**5.184**

**MOD** COM5/264/30 (B6/268/31) (R3/292/31)

**5.194** *Додатна намена:* у Азербејџану, Киргистану, Сомалији и Туркменистану, опсег 104-108 MHz је такође намењен мобилној, изузев ваздухопловне мобилне, служби на секундарној основи. (WRC-07)

**MOD** COM5/264/31 (B6/268/32) (R3/292/32)

**5.197** *Додатна намена:* у Пакистану и Сиријској Арапској Републици, опсег 108-111.975 MHz је такође намењен мобилној служби на секундарној основи, по споразуму постигнутом према Но. **9.21**. Да би се осигурало да станице ваздухопловне радио-навигационе службе не буду ометане, станице мобилне службе не смеју се пуштати у рад у наведеном опсегу докле год наведени опсег користи ваздухопловна радио-навигациона служба било које администрације што може да се види приликом примене процедуре према Но. **9.21**. (WRC-07)

**MOD** COM4/318/6 (B11/329/3) (R6/410/4)

**5.197A** *Додатна намена:* опсег 108-117.975 MHz је такође намењен ваздухопловној мобилној (R) служби на примарној основи, с ограничењем на системе који раде у сагласности са признатим међународним ваздухопловним стандардима. Такво коришћење мора бити у сагласности са Резолуцијом **413 (Rev.WRC-07)**. Ваздухопловна мобилна (R) служба може користити опсег 108-112 MHz с ограничењем на системе који се састоје од земаљских предајника и придружених пријемника, за пренос навигационих информација за подршку ваздухопловној навигацији и функцијама надзора у сагласности са признатим међународним ваздухопловним стандардима. (WRC-07)

**SUP** COM4/318/3 (B11/329/4) (R6/410/5)

**5.198**

**SUP** COM4/332/14 (B13/347/15) (R7/411/17)

**5.199**

**MOD** COM4/332/16 (B13/347/16) (R7/411/18)

**5.200** У опсегу 117.975-137 MHz, фреквенција 121.5 MHz је ваздухопловна фреквенција за случај опасности, а када је потребно и фреквенција 123.1 MHz као додатна ваздухопловној фреквенцији 121.5 MHz. Мобилне станице у поморској мобилној служби могу комуницирати на овим фреквенцијама под условима постављеним у Члану **31** у сврху безбедности и опасности са станицама у ваздухопловној служби. (WRC-07)

**SUP** COM6/341/3 (B14/365/3) (R7/411/19)

**5.203**

**SUP** COM5/264/32 (B6/268/33) (R3/292/33)

**5.203A**

**MOD** COM5/265/2 (B6/268/36) (R3/292/36)

**137.175-148 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>137.175-137.825</b>  5.347A	ОПЕРАЦИЈЕ У СВЕМИРУ (свемир-Земља) МЕТЕОРОЛОШКА САТЕЛИТСКА (свемир-Земља) МОБИЛНА САТЕЛИТСКА (свемир-Земља) MOD 5.208A 5.209 MOD  ИСТРАЖИВАЊЕ СВЕМИРА (свемир-Земља) Фиксна Мобилна изузев ваздухопловне мобилне (R) 5.204 5.205 5.206 5.207 5.208	

Намене службама		
Регион 1	Регион 2	Регион 3
<b>137.825-138</b>	ОПЕРАЦИЈЕ У СВЕМИРУ (свемир-Земља) МЕТЕОРОЛОШКА САТЕЛИТСКА (свемир-Земља) ИСТРАЖИВАЊЕ СВЕМИРА (свемир-Земља) Фиксна Мобилна сателитска (свемир-Земља) MOD 5.208A 5.209 MOD 5.347A Мобилна изузев ваздухопловне мобилне (R) 5.204 5.205 5.206 5.207 5.208	

**SUP** COM6/341/4 (B14/365/4) (R7/411/20)

**5.203B**

**MOD** COM5/264/33 (B6/268/34) (R3/292/34)

**5.204** *Различите категорије служби:* у Авганистану, Саудијској Арабији, Бахреину, Бангладешу, Брунеј Дарусаламу, Кини, Куби, Уједињеним Арапским Емиратима, Индији, Индонезији, Ирану (Исламској Републици), Ираку, Кувајту, Црној Гори, Оману, Пакистану, Филипинима, Катару, Србији, Сингапуру, Тајланду и Јемену, опсег 137-138 MHz намењен је фиксној и мобилној, осим ваздухопловне мобилне (R), служби на примарној основи (види No. **5.33**). (WRC-07)

**MOD** COM5/265/3 (B6/268/35) (R3/292/35)

**5.208A** Прликом додела свемирским станицама у мобилној сателитској служби у опсезима 137-138 MHz, 387-390 MHz и 400.15-401 MHz, администрације ће предузети све практичне кораке да заштите радио астрономску службу у опсезима 150.05-153 MHz, 322-328.6 MHz, 406.1-410 MHz и 608-614 MHz од штетних сметњи нежељених емисија. Нивои штетних сметњи на радио астрономску службу су дати у одговарајућим ITU-R Препорукама. (WRC-07)

**MOD** COM5/264/34 (B6/268/37) (R3/292/37)

**5.210** *Додатна намена:* у Италији, Чешкој Републици и Великој Британији, опсеци 138-143.6 MHz и 143.65-144 MHz су такође намењени служби истраживања свемира (свемир-Земља) на секундарној основи. (WRC-07)

**MOD** COM5/264/35 (B6/268/38) (R3/292/38)

**5.211** *Додатна намена:* у Немачкој, Саудијској Арабији, Аустрији, Бахреину, Белгији, Данској, Уједињеним Арапским Емиратима, Шпанији, Финској, Грчкој, Ирској, Израелу, Кенији, Кувајту, Македонији (Бившој Југословенској Републици), Либану, Лихтенштајну, Луксембургу, Малију, Малти, Црној Гори, Норвешкој, Холандији, Катару, Великој Британији, Србији, Словенији, Сомалији, Танзанији, Тунису и Турској, опсег 138-144 MHz је такође намењен поморској мобилној и копненој мобилној служби на примарној основи. (WRC-07)

**MOD** COM5/264/36 (B6/268/39) (R3/292/39)

**5.212** *Алтернативна намена:* у Анголи, Боцвани, Бурундију, Камеруну, Централној Афричкој Републици, Демократској Републици Конго, Габону, Гамбији, Гани, Гвинеји, Ираку, Либијској Арапској Џахаирији, Јордану, Лесоту, Либерiji, Малавију, Мозамбику, Намибији, Оману, Уганди, Сиријској Арапској Републици, Републици Конго, Руанди, Сијера Леонеу, Јужној Африци, Свазиленду, Чаду, Тогоу, Замбији и Зимбабвеу, опсег 138-144 MHz намењен је фиксној и мобилној служби на примарној основи. (WRC-07)

**MOD** COM5/264/37 (B6/268/40) (R3/292/40)

**5.214** *Додатна намена:* у Еритреји, Етиопији, Кенији, Македонији (Бившој Југословенској Републици), Малти, Црној Гори, Србији, Сомалији, Судану и Танзанији, опсег 138-144 MHz је такође намењен фиксној служби на примарној основи. (WRC-07)

**MOD** COM4/332/17 (B13/347/17) (R7/411/21)

**148-223 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>150.05-153</b> ФИКСНА МОБИЛНА изузев ваздухопловне мобилне РАДИО-АСТРОНОМСКА 5.149	<b>150.05-156.4875</b> ФИКСНА МОБИЛНА	
<b>153-154</b> ФИКСНА МОБИЛНА изузев ваздухопловне мобилне (R) Служба метеоролошке помоћи		
<b>154-156.4875</b> ФИКСНА МОБИЛНА изузев ваздухопловне мобилне (R) MOD 5.226	5.225 MOD 5.226	
<b>156.4875-156.5625</b> ПОМОРСКА МОБИЛНА (опасност и позивање via DSC) MOD 5.111 MOD 5.226 MOD 5.227	<b>156.4875-156.5625</b> ПОМОРСКА МОБИЛНА (опасност и позивање via DSC)  MOD 5.111 MOD 5.226 MOD 5.227	
<b>156.5625-156.7625</b> ФИКСНА МОБИЛНА изузев ваздухопловне мобилне (R) MOD 5.226	<b>156.5625-156.7625</b> ФИКСНА МОБИЛНА  5.225 MOD 5.226	
<b>156.7625-156.8375</b>	ПОМОРСКА МОБИЛНА (опасност и позивање) MOD 5.111 MOD 5.226	
<b>156.8375-174</b> ФИКСНА МОБИЛНА изузев ваздухопловне мобилне MOD 5.226 5.229 ADD 5.4C02	<b>156.8375-174</b> ФИКСНА МОБИЛНА  MOD 5.226 5.230 5.231 5.232 ADD 5.4C02	

**MOD** COM5/264/38 (B6/268/41) (R3/292/41)

**5.221** Станице мобилне сателитске службе у опсегу 148-149.9 MHz не смеју ометати (нити захтевати заштиту због тога) станице фиксне или мобилне службе које раде у сагласности са Планом намене фреквенцијских опсега у следећим земљама: Албанији, Алжиру, Немачкој, Саудијској Арабији, Аустралији, Аустрији, Бахреину, Бангладешу, Барбадосу, Белорусији, Белгији, Бенину, Босни и Херцеговини, Боцвани, Брунеј Дарусаламу, Бугарској, Камеруну, Кини, Кипру, Републици Конго, Јужној Кореји, Обали Слоноваче, Хрватској, Куби, Данској, Египту, Уједињеним Арапским Емиратима, Еритреји, Шпанији, Естонији, Етиопији, Руској Федерацији, Финској, Француској, Габону, Гани, Грчкој, Гвинеји, Гвинеји Бисао, Мађарској, Индији, Ирану (Исламској Републици), Ирској, Исланду, Израелу, Италији, Либијској Арапској Цамахирији, Јамајки, Јапану, Јордану, Казахстану, Кенији, Кувајту, Македонији (Бившој Југословенској Републици), Лесоту, Летонији, Либану, Лихтенштајну, Литванији, Луксембургу, Малезији, Малију, Малти, Мауританији, Молдавији, Монголији, Црној Гори, Мозамбику, Намибији, Норвешкој, Новом Зеланду, Оману, Уганди, Узбекистану, Пакистану, Панами, Папуи Новој Гвинеји, Прагвају, Холандији, Филипинима,

Пољској, Португалу, Катару, Сиријској Арапској Републици, Киргистану, Северној Кореји, Словачкој, Румунији, Великој Британији, Сенегалу, Србији, Сијера Леонеу, Сингапуру, Словенији, Шри Ланки, Јужној Африци, Шведској, Швајцарској, Свазиленду, Танзанији, Чаду, Тајланду, Тогоу, Тонги, Тринидад и Тобагоу, Тунису, Турској, Украјини, Вијетнаму, Јемену, Замбији и Зимбабвеу. (WRC-07)

**MOD** COM4/332/18 (B13/347/18) (R7/411/22)

**5.226** Фреквенција 156.8 MHz је међународна фреквенција за опасност, безбедност и позив у поморској мобилној VHF радио-телефонској служби. Услови за коришћење ове фреквенције и опсега 156.7625-156.8375 MHz садржани су у Члану **31** и Апендиксу **18**.

Фреквенција 156.525 MHz је међународна фреквенција за опасност, безбедност и позив у поморској мобилној VHF радио-телефонској служби користећи дигитално селективно позивање (DSC). Услови за коришћење ове фреквенције и опсега 156.4875-156.5625 MHz садржани су у Члану **31** и **52**, и Апендиксу **18**.

У опсезима 156-156.4875 MHz, 156.5625-156.7625 MHz, 156.8375-157.45 MHz, 160.6-160.975 MHz и 161.475-162.05 MHz, свака администрација треба дати приоритет поморској мобилној служби само на оним фреквенцијама које су додељене станицама поморске мобилне службе од те администрације (види Члан **31** и **52**, и Апендикс **18**).

Било које коришћење фреквенција у овим опсезима од стране других служби којима су намењени треба избегавати у зонама где такво коришћење може проузроковати штетне сметње поморској мобилној VHF радио-комуникационој служби.

Међутим, фреквенције 156.8 MHz и 156.525 MHz и фреквенцијски опсези у којима је приоритет дат поморској мобилној служби могу се користити на унутрашњим пловним путевима под условом да се закључи споразум између заинтересованих администрација узимајући у обзир постојеће коришћење фреквенција и постојеће споразуме. (WRC-07)

**MOD** COM4/332/19 (B13/347/19) (R7/411/23)

**5.227** *Додатна намена:* опсези 156.4875-156.5125 MHz и 156.5375-156.5625 MHz су такође намењени фиксној и копненој мобилној служби на примарној основи. Коришћење ових опсега од стране фиксне и копнене мобилне службе не сме ометати (нити захтевати заштиту због тога) поморску мобилну VHF радио-комуникациону службу. (WRC-07)

**ADD** COM4/332/20 (B13/347/20) (R7/411/24)

**5.4C02** *Додатна намена:* опсези 161.9625-161.9875 MHz и 162.0125-162.0375 MHz су такође намењени мобилној сателитској служби (Земља-свемир) на секундарној основи за пријем емисија аутоматског идентификационог система (AIS) од станица које раде у поморској-мобилној служби (види Апендикс **18**). (WRC-07)

**MOD** COM5/264/39 (B6/268/42) (R3/292/42)

**5.237** *Додатна намена:* у Републици Конго, Еритреји, Етиопији, Гамбији, Гвинеји, Либијској Арапској Џамахирији, Малавију, Малију, Сијера Леонеу, Сомалији и Чаду, опсег 174-223 MHz је такође намењен фиксној и мобилној служби на секундарној основи. (WRC-07)

**MOD** COM4/332/21 (B13/347/21) (R7/411/25)

**5.256** Фреквенцију 243 MHz користе станице објеката за спашавање као и уређаји који се користе у сврхе спашавања. (WRC-07)

**MOD** COM5/264/40 (B6/268/43) (R3/292/43)

**5.259** *Додатна намена:* у Египту, Израелу и Сиријској Арапској Републици, опсег 328.6-335.4 MHz је такође намењен мобилној служби на секундарној основи, по споразуму постигнутом према Но. **9.21**. Да би се осигурало да се не праве штетне сметње станицама ваздухопловне радио-навигационе службе, станице мобилне службе не смеју се пуштати у рад у наведеном опсегу докле год наведени опсег користи ваздухопловна радио-навигациона служба било које администрације што може да се види приликом примене процедуре према Но. **9.21**. (WRC-07)

**MOD** COM5/265/4 (B6/268/44) (R3/292/44)

**335.4-410 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
...		
<b>387-390</b>	ФИКСНА МОБИЛНА Мобилна сателитска (свемир-Земља) 5.208А 5.254 5.255 MOD 5.347А	
...		
<b>400.15-401</b>	МЕТЕОРОЛОШКА ПОМОЋНА МОБИЛНА САТЕЛИТСКА (свемир-Земља) МОБИЛНА САТЕЛИТСКА (свемир-Земља) ИСТРАЖИВАЊЕ СВЕМИРА (свемир-Земља) 5.263 Операције у свемиру (свемир-Земља) 5.262 5.264	

**MOD** COM5/264/41 (B6/268/45) (R3/292/45)

**5.262** *Додатна намена:* у Саудијској Арабији, Јерменији, Азербејџану, Бахреину, Белорусији, Боцвани, Колумбији, Коста Рики, Куби, Египту, Уједињеним Арапским Емиратима, Еквадору, Руској Федерацији, Грузији, Мађарској, Ирану (Исламској Републици), Ираку, Израелу, Јордану, Казахстану, Кувајту, Либерiji, Малезији, Молдавији, Узбекистану, Пакистану, Филипинима, Катару, Сиријској Арапској Републици, Киргистану, Румунији, Сингапуру, Сомалији, Таџикистану, Туркменистану и Украјини, опсег 400.05-401 MHz је такође намењен фиксној и мобилној служби на примарној основи. (WRC-07)

**MOD** COM4/332/22 (B13/347/22) (R7/411/26)

**5.266** Коришћење опсега 406-406.1 MHz од стране мобилне сателитске службе ограничено је на сателитске радио-фарове мале снаге за означавање места удеса (види такође Члан **31**). (WRC-07)

**MOD** COM4/394/1 (B22/416/1)

**410-460 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>450-455</b>	ФИКСНА МОБИЛНА ADD 5.XXX 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E	
<b>455-456</b> ФИКСНА МОБИЛНА ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E	<b>455-456</b> ФИКСНА МОБИЛНА ADD 5.XXX МОБИЛНА САТЕЛИТСКА (Земља-свемир) 5.286A 5.286B 5.286C  5.209	<b>455-456</b> ФИКСНА МОБИЛНА ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E
<b>456-459</b>	ФИКСНА МОБИЛНА ADD 5.XXX 5.271 5.287 5.288	
<b>459-460</b> ФИКСНА МОБИЛНА ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E	<b>459-460</b> ФИКСНА МОБИЛНА ADD 5.XXX МОБИЛНА САТЕЛИТСКА (Земља-свемир) 5.286A 5.286B 5.286C  5.209	<b>459-460</b> ФИКСНА МОБИЛНА ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E

**MOD** COM4/332/23 (B13/347/23) (R7/411/27)

**410-460 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>456-459</b>	ФИКСНА МОБИЛНА ADD 5.xxx 5.271 MOD 5.287 5.288	

**MOD** COM5/264/42 (B6/268/46) (R3/292/46)

**5.271** *Додатна намена:* у Белорусији, Кини, Индији, Киргистану и Туркменистану, опсег 420-460 MHz је такође намењен ваздухопловној радио-навигационој служби (радиовисиномери) на секундарној основи. (WRC-07)

**MOD** COM5/264/43 (B6/268/47) (R3/292/47)

**5.275** *Додатна намена:* у Хрватској, Естонији, Финској, Либијској Арапској Џамахирији, Македонији (Бившој Југословенској Републици), Црној Гори, Србији и Словенији, опсежи 430-432 MHz и 438-440 MHz су такође намењени фиксној и мобилној, осим ваздухопловне мобилне, служби на примарној основи. (WRC-07)

**MOD** COM5/264/44 (B6/268/48) (R3/292/48)

**5.276** *Додатна намена:* у Авганистану, Алжиру, Саудијској Арабији, Бахреину, Бангладешу, Брунеј Дарусаламу, Буркини Фасо, Бурундију, Египту, Уједињеним Арапским Емиратима, Еквадору, Еритреји, Етиопији, Грчкој, Гвинеји, Индији, Индонезији, Ирану (Исламској Републици), Ираку, Израелу, Италији, Либијској Арапској Џамахирији, Јордану, Кенији, Кувајту, Либану, Малезији, Малти, Нигерији, Оману, Пакистану, Филипинима,

Катару, Сиријској Арапској Републици, Северној Кореји, Сингапуру, Сомалији, Швајцарској Танзанији, Тајланду, Тогоу, Турској и Јемену, опсег 430-440 MHz је такође намењен фиксној служби на примарној основи и опсеги 430-435 MHz и 438-440 MHz су такође намењени мобилној, изузев ваздухопловне мобилне, служби на примарној основи. (WRC-07)

**MOD** COM5/264/45 (B6/268/49) (R3/292/49)

**5.277** *Додатна намена:* у Анголи, Јерменији, Азербејџану, Белорусији, Камеруну, Републици Конго, Цибутију, Руској Федерацији, Грузији, Мађарској, Израелу, Казахстану, Малију, Молдавији, Монголији, Узбекистану, Пољској, Киргистану, Словачкој, Румунији, Руанди, Таџикистану, Чаду, Туркменистану и Украјини, опсег 430-440 MHz је такође намењен фиксној служби на примарној основи. (WRC-07)

**MOD** COM5/264/46 (B6/268/50) (R3/292/50)

**5.280** У Немачкој, Аустрији, Босни и Херцеговини, Хрватској, Македонији (Бившој Југословенској Републици), Лихтенштајну, Црној Гори, Португалу, Србији, Словенији и Швајцарској, опсег 433.05-434.79 MHz (централна фреквенција 433.92 MHz) је одређен за примену у индустрији, науци и медицини (ISM). Радио-комуникационе службе која раде у овом опсегу морају да прихвате штетне сметње које могу бити проузроковане овим применама. ISM уређаји који раде у овом опсегу су дефинисани у одредбама No.15.13. (WRC-07)

**MOD** COM5/264/47 (B6/268/51) (R3/292/51)

**5.286D** *Додатна намена:* у Канади, САД-у и Панами, опсег 454-455 MHz је такође намењен мобилној сателитској служби (Земља-свемир) на примарној основи. (WRC-07)

**MOD** COM5/264/48 (B6/268/52) (R3/292/52)

**5.286E** *Додатна намена:* у Зеленортским Острвима, Непалу и Нигерији, опсеги 454-456 MHz и 459-460 MHz су такође намењени мобилној сателитској (Земља-свемир) служби на примарној основи. (WRC-07)

**MOD** COM4/394/1bis (B22/416/2)

**460-890 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>460-470</b>	ФИКСНА МОБИЛНА ADD 5.XXX Метеоролошко сателитска (свемир-Земља) MOD 5.287 5.288 5.289 5.290	

**ADD** COM4/394/2 (B22/416/3)

**5.XXX** Опсег 450-470 MHz је предвиђен за коришћење за администрације које желе да примене Међународне Мобилне Телекомуникације (ИМТ). Види Резолуцију **224 (Rev.WRC-07)**. Ово не спречава коришћење ових опсега за било коју другу примену или службу којима су додељени и не утврђује приоритет у Правилнику о радио-комуникацијама.

**MOD** COM4/332/25 (B13/347/24) (R7/411/28)

**5.287** У поморској мобилној служби, фреквенције 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz и 467.575 MHz могу се користити за комуникације између станица на палуби брода. Када је потребно, уређаји подешени за рад са каналним размаком од 12,5 kHz могу се користити за комуникације на палуби брода на додатним фреквенцијама 457.5375 MHz, 457.5625 MHz, 467.5375 MHz и 467.5625 MHz. Коришћење ових фреквенција у територијалним



**MOD** COM5/264/49 (B6/268/53) (R3/292/53)

**5.290** *Различите категорије служби:* у Авганистану, Азербејџану, Белорусији, Кини, Руској Федерацији, Јапану, Монголији, Киргистану, Словачкој, Таџикистану, Туркменистану и Украјини, опсег 460-470 МНз намењен је метеоролошкој сателитској служби (свемир-Земља) на примарној основи (види No. **5.33**), по споразуму постигнутом према No. **9.21**. (WRC-07)

**MOD** COM4/380/79 (B19/413/1)

**5.292** *Различите категорије служби:* у Мексику је опсег 470-512 МНз намењен фиксној и мобилној службама, а у Аргентини, Уругвају и Венецуели мобилној служби, на примарној основи (види No. **5.33**), по споразуму постигнутом према No. **9.21**. (WRC-07)

**MOD** (R9/425/2)

**5.293** *Различите категорије служби:* у Канади, Чилеу, Колумбији, Куби, САД-у, Гвајани, Хондурасу, Јамајки, Мексику, Панами и Перуу, намена опсега 470-512 МНз и 614-806 МНз за фиксну службу је на примарној основи (види No. **5.33**), по споразуму постигнутом према No. **9.21**. У Канади, Чилеу, Колумбији, Куби, САД-у, Гвајани, Хондурасу, Јамајки, Мексику, Панами и Перуу, намена опсега 470-512 МНз и 614-698 МНз мобилној служби је на примарној основи (види No. **5.33**), по споразуму постигнутом према No. **9.21**. У Аргентини и Еквадору, намена опсега 470-512 МНз за фиксну и мобилну службу је на примарној основи (види No. **5.33**), по споразуму постигнутом према No. **9.21**. (WRC-07)

**MOD** COM4/380/80 (B19/413/2)

**5.294** *Додатна намена:* у Саудијској Арабији, Бурундију, Камеруну, Обали Слоноваче, Египту, Етиопији, Израелу, Либијској Арапској Џамахирији, Кенији, Малавију, Сиријској Арапској Републици, Судану, Чаду и Јемену, опсег 470-582 МНз је такође намењен фиксној служби на секундарној основи. (WRC-07)

**MOD** COM4/380/81 (B19/413/3)

**5.296** *Додатна намена:* у Немачкој, Саудијској Арабији, Аустрији, Белгији, Обали Слоноваче, Данској, Египту, Шпанији, Финској, Француској, Ирској, Израелу, Италији, Либијској Арапској Џамахирији, Јордану, Литванији, Малти, Мароку, Монаку, Норвешкој, Оману, Холандији, Португалу, Сиријској Арапској Републици, Великој Британији, Шведској, Швицарској, Свазиленду и Тунису, опсег 470-790 МНз је такође намењен на секундарној основи копненој мобилној служби, намењеној за апликације везане за радиодифузију. Станице копнене мобилне службе у земљама наведеним у овој фусноти не смеју ометати постојеће или планиране станице које раде у сагласности са Табелом намене у земљама које нису наведене у овој фусноти. (WRC-07)

**MOD** COM4/380/82 (B19/413/4)

**5.297** *Додатна намена:* у Канади, Коста Рики, Куби, Ел Салвадору, САД-у, Гватемали, Гвајани, Хондурасу, Јамајки и Мексику, опсег 512-608 МНз је такође намењен фиксној и мобилној служби на примарној основи, по споразуму постигнутом према No. **9.21**. (WRC-07)

**MOD** COM4/380/83 (B19/413/5)

**5.300** *Додатна намена:* у Саудијској Арабији, Египту, Израелу, Либијској Арапској Џамахирији, Јордану, Оману, Сиријској Арапској Републици и Судану, опсег 582-790 МНз је такође намењен фиксној и мобилној изузев ваздухопловне мобилне службама на секундарној основи. (WRC-07)

**SUP** COM4/211/2 (B3/224/2)

**5.311**

**ADD** COM4/211/3 (B3/224/3)

**5.311A** За фреквенцијски опсег 620-790 MHz, види такође Резолуцију [COM4/1] (WRC-07).

**ADD** (R9/425/3)

**5.311A** За фреквенцијски опсег 620-790 MHz, види такође Резолуцију [COM4/1] (WRC-07).

**MOD** COM4/380/84 (B19/413/6)

**5.314** *Додатна намена:* у Аустрији, Италији, Молдавији, Узбекистану, Киргизији, Великој Британији и Свазиленду, опсег 790-862 MHz је такође намењен копненој мобилној служби на секундарној основи. (WRC-07)

**MOD** (R9/425/4)

**5.316** *Додатна намена:* у Немачкој, Саудијској Арабији, Босни и Херцеговини, Буркини Фасо, Камеруну, Обали Слоноваче, Хрватској, Данској, Египту, Финској, Грчкој Израелу, Либијској Арапској Џамахирији, Јордану, Кенији, Македонији (Бившој Југословенској Републици), Лихтенштајну, Малију, Монаку, Црној Гори, Норвешкој, Холандији, Португалу, Великој Британији, Сиријској Арапској Републици, Србији, Шведској и Швицарској, опсег 790-830 MHz, а такође у тим земљама плус Шпанији, Француској, Габону и Малти, опсег 830-862 MHz, намењени су мобилној изузев ваздухопловне мобилне служби на примарној основи. Наравно, станице мобилне службе у земљама споменутим у вези са одговарајућим опсегом у овој фусноти не смеју ометати (нити захтевати заштиту због тога) станице служби које раде у сагласности са Табелом намене у земљама које нису поменуте у вези са тим опсегом. Ова намена важи до 16.06.2015. (WRC-07)

**ADD** (R9/425/5)

**5.YYY** Опсег, или положај опсега, у Бангладешу, Јужној Кореји, Индији, Јапану, Новом Зеланду, Папуи Новој Гвинеји, Филипинима и Сингапуру је предвиђен за коришћење администрацијама које желе да имплементују ИМТ. Ово не спречава коришћење ових опсега за било коју другу примену или службу којима су додељени и не утврђује приоритет у Правилнику о радио-комуникацијама. (WRC-07)

**ADD** (R9/425/6)

**5.316A** *Додатна намена:* у Анголи, Бахреину, Бенину, Боцвани, Камеруну, Републици Конго, Француским Прекоморским Територијама, Гамбији, Гани, Гвинеји, Кувајту, Лесоту, Малавију, Мароку, Мауританији, Мозамбику, Намибији, Нигеру, Оману, Уганди, Пољској, Катару, Руанди, Сенегалу, Судану, Јужној Африци, Свазиленду, Танзанији, Чаду, Тогоу, Јемену, Замбији и Зимбабвеу опсег 790-862 MHz у Шпанији, Француској, Габону и Малти и у Литванији опсег 830-862 MHz и у Грузији опсег 806-862 MHz су такође намењени мобилној изузев ваздухопловне мобилне служби на примарној основи по споразуму заинтересованих администрација постигнутом према No. **9.21** и према Женева-06 Споразуму, на одговарајући начин, укључујући администрације споменуте у No. **5.312** где је сходно. Међутим, станице мобилне службе у земљама споменутим у вези са одговарајућим опсегом у овој фусноти не смеју ометати (нити захтевати заштиту због тога) станице служби које раде у сагласности са Табелом намене у земљама које нису поменуте у вези са опсегом. Ова намена важи до 16.06.2015. Додела фреквенција ове намене мобилној служби у Литванији и Пољској не сме бити коришћена без сагласности Руске Федерације. (WRC-07)

**MOD** (R9/425/7)

**5.317A** Они делови опсега 698-960 MHz у Региону 2 и опсег 790-960 MHz у Регионима 1 и 3 који су намењени мобилној служби на примарној основи предвиђени су за коришћење за администрације које желе да имплементују ИМТ. Види Резолуцију **224 (Rev.WRC-07)** и Резолуцију **[COM4/13] (WRC-07)**. Ово не спречава коришћење ових опсега за било коју другу примену или службу којима су додељени и не утврђује приоритет у Правилнику о радио-комуникацијама. (WRC-07)

**ADD** (R9/425/8)

**5.XXX** У Региону 1, намена мобилној изузев ваздухопловне мобилне службе на примарној основи у фреквенцијском опсегу 790-862 MHz треба да постане ефективна после 17.06.2015. и мора да буде предмет споразума постигнутом према No. **9.21**, а имајући обзира према ваздухопловној радио-навигацијској служби у земљама споменутим у No. **5.312**. За земље које учествују у GE06 Споразуму, коришћење станица мобилне службе је такође предмет успешне примене процедура овог Споразума. Резолуција **224 (Rev.WRC-07)** и Резолуција **[COM4/13] (Rev.WRC-07)** треба да се примене. (WRC-07)

**ADD** (R9/425/9)

**5.UUU** *Различите категорије служби:* у Бразилу, намена опсега 698-806 MHz мобилној служби је на секундарној основи (види No. **5.32**).

**SUP** COM6/382/3 (B20/414/3)

### 5.321

**MOD** COM5/264/50 (B6/268/54) (R3/292/54)

**5.323** *Додатна намена:* у Јерменији, Азербејдану, Белорусији, Бугарској, Руској Федерацији, Мађарској, Казахстану, Молдавији, Узбекистану, Пољској, Киргистану, Румунији, Таџикистану, Туркменистану и Украјини, опсег 862-960 MHz је такође намењен ваздухопловној радио-навигацијској служби на примарној основи. Ово коришћење је предмет споразума постигнутом према No. **9.21** са заинтересованим администрацијама и ограничено је за радио-фарове на тлу у раду од 27.10.1997. до краја њиховог трајања. (WRC-07)

**MOD** COM4/318/8 (B11/329/5) (R6/410/6)

### 890-1 300 MHz

Намене службама		
Регион 1	Регион 2	Регион 3
<b>960-1 164</b>	ВАЗДУХОПЛОВНА РАДИО-НАВИГАЦИЈСКА 5.328 ВАЗДУХОПЛОВНА МОБИЛНА (R) ADD 5.4B06	

**MOD** COM6/341/5 (B14/365/5) (R7/411/30)

**5.328A** Станице радио-навигацијској сателитској служби у опсегу 1 164-1 215 MHz морају да раде у складу са одредбама из Резолуције **609 (Rev.WRC-07)** и не могу захтевати заштиту због станица ваздухопловне радио-навигацијске службе у опсегу 960-1 215 MHz. No. **5.43A** се не примењује. Одредбе из No. **21.18** треба да се примене. (WRC-07)

**MOD** COM5/216/1 (B3/224/4)

**5.328B** Коришћење опсега 1 164-1 300 MHz, 1 559-1 610 MHz и 5 010-5 030 MHz од стране система и мрежа радио-навигацијске сателитске службе за које је комплетну координацију или одговарајуће обавештење примио Биро за радио-комуникације после 1.01.2005. подлеже

примени одредаба из Nos. **9.12**, **9.12A** и **9.13**. Резолуција **610 (WRC-03)** треба такође да се примени; међутим, у случају мрежа и система радио-навигационе сателитске службе (свемир-свемир), Резолуција **610 (WRC-03)** се примењује само на предајне свемирске станице. У сагласности са No. **5.329A**, за системе и мреже радио-навигацијске сателитске службе (свемир-свемир) у опсезима 1 215-1 300 MHz и 1 559-1 610 MHz, одредбе из Nos. **9.7**, **9.12**, **9.12A** и **9.13** примењују се само ако се води рачуна о другим системима и мрежама радио-навигацијске сателитске службе (свемир-свемир). (WRC-07)

**MOD** COM5/216/2 (B3/224/5)

**5.329A** Коришћење система радио-навигацијске сателитске службе (свемир-свемир) који раде у опсезима 1 215-1 300 MHz и 1 559-1 610 MHz нема интенцију да омогући примене сигурносне службе, и не сме да намеће било каква додатна ограничења системима радио-навигацијске сателитске службе (свемир-Земља) или другим службама које раде у сагласности са Табелом намене фреквенцијских опсега. (WRC-07)

**MOD** COM5/264/51 (B6/268/55) (R3/292/55)

**5.331** *Додатна намена:* у Алжиру, Немачкој, Саудијској Арабији, Аустралији, Аустрији, Бахреину, Белорусији, Белгији, Бенину, Босни и Херцеговини, Бразилу, Буркини Фасо, Бурундију, Камеруну, Кини, Јужној Кореји, Хрватској, Данској Египту, Уједињеним Арапским Емиратима, Естонији, Руској Федерацији, Финској, Француској, Гани, Грчкој, Гвинеји, Екваторијалној Гвинеји, Мађарској, Индији, Индонезији, Ирану (Исламској Републици), Ираку, Ирској, Израелу, Јордану, Кенији, Кувајту, Македонији (Бившој Југословенској Републици), Лесоту, Латвији, Либану, Лихтенштајну, Литванији, Луксембургу, Мадагаскару, Малију, Мауританији, Црној Гори, Нигерији, Норвешкој, Оману, Холандији, Пољској, Португалу, Катару, Сиријској Арапској Републици, Северној Кореји, Словачкој, Великој Британији, Србији, Словенији, Сомалији, Судану, Шри Ланки, Јужној Африци, Шведској, Швајцарској, Тајланду, Тогоу, Турској, Венецуели и Вијетнаму, опсег 1 215-1 300 MHz је такође намењен радио-навигацијској служби на примарној основи. У Канади и САД-у, опсег 1 240-1 300 MHz је такође намењен радио-навигацијској служби, и коришћење за радио-навигацијску службу треба да буде ограничено на ваздухопловно радио-навигацијску службу. (WRC-07)

**ADD** COM4/318/9 (B11/329/6) (R6/410/7)

**5.4B06** Коришћење опсега 960-1 164 MHz од стране ваздухопловне мобилне (R) службе ограничено је на системе који раде у сагласности са признатим међународним ваздухопловним стандардима. Таква употреба мора бити у сагласности са Резолуцијом [COM4/5] (WRC-07). (WRC-07)

**MOD COM5/372/1 (B15/396/1)**

**1 300-1 525 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>1 350-1 400</b> ФИКСНА МОБИЛНА РАДИО-ЛОКАЦИЈСКА 5.149 5.338 5.339 ADD 5.BA03	<b>1 350-1 400</b> РАДИО-ЛОКАЦИЈСКА ADD 5.BA03  5.149 5.334 5.339	
<b>1 400-1 427</b>	ИСТРАЖИВАЊЕ ЗЕМЉЕ САТЕЛИТОМ (пасивно) РАДИО-АСТРОНОМСКА ИСТРАЖИВАЊЕ СВЕМИРА (пасивно) 5.340 5.341	
<b>1 427-1 429</b>	СВЕМИРСКЕ ОПЕРАЦИЈЕ (Земља-свемир) ФИКСНА МОБИЛНА осим ваздухопловне мобилне 5.341 ADD 5.BA03	
<b>1 429-1 452</b> ФИКСНА МОБИЛНА осим ваздухопловне мобилне 5.341 5.342 ADD 5.BA03	<b>1 429-1 452</b> ФИКСНА МОБИЛНА 5.343  5.341 ADD 5.BA03	

**MOD COM6/341/6 (B14/365/6) (R7/411/31)**

**1 300-1 525 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>1 452-1 492</b> ФИКСНА МОБИЛНА осим ваздухопловне мобилне РАДИОДИФУЗНА 5.345 РАДИОДИФУЗНА САТЕЛИТСКА 5.345 5.347A 5.341 5.342	<b>1 452-1 492</b> ФИКСНА МОБИЛНА 5.343 РАДИОДИФУЗНА 5.345 РАДИОДИФУЗНА САТЕЛИТСКА 5.345 5.347A  5.341 5.344	

**MOD COM4/332/75 (B13/347/26) (R7/411/32)**

**1 300-1 525 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>1 518-1 525</b> ФИКСНА МОБИЛНА осим ваздухопловне мобилне МОБИЛНА САТЕЛИТСКА (свемир-Земља) 5.348 5.348A 5.348B MOD 5.351A 5.341 5.342	<b>1 518-1 525</b> ФИКСНА МОБИЛНА 5.343 МОБИЛНА САТЕЛИТСКА (свемир-Земља) 5.348 5.348A 5.348B MOD 5.351A  5.341 5.344	<b>1 518-1 525</b> ФИКСНА МОБИЛНА МОБИЛНА САТЕЛИТСКА (свемир-Земља) 5.348 5.348A 5.348B MOD 5.351A  5.341

**MOD** COM5/264/52 (B6/268/56) (R3/292/56)

**5.338** У Монголији, Киргистану, Словачкој, Чешкој Републици и Туркменистану, постојеће инсталације радио-навигацијске службе могу да наставе с радом у опсегу 1 350-1 400 MHz. (WRC-07)

**SUP** COM5/173/5 (B1/196/3) (R1/221/2)

**5.339A**

**SUP** COM6/341/7 (B14/365/7) (R7/411/33)

**5.347**

**MOD** COM5/265/6 (B6/268/57) (R3/292/57)

**5.347A** У опсезима:

137-138 MHz,  
387-390 MHz,  
400.15-401 MHz,  
1 452-1 492 MHz,  
1 525-1 559 MHz,  
1 559-1 610 MHz,  
1 613.8-1 626.5 MHz,  
2 655-2 670 MHz,  
2 670-2 690 MHz,  
21.4-22 GHz,

Резолуција **739 (Rev.WRC-07)** се примењује. (WRC-07)

**SUP** COM4/332/76 (B13/347/27) (R7/411/34)

**5.348C**

**MOD** COM5/265/5 (B6/268/58) (R3/292/58)

**1 525-1 610 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>1 559-1 610</b>	ВАЗДУХОПЛОВНА РАДИО-НАВИГАЦИЈСКА РАДИО-НАВИГАЦИЈСКА-САТЕЛИТСКА (свемир -Земља) (свемир - свемир) 5.328В 5.329А MOD 5.347А 5.341 5.362В 5.362С 5.363	

**MOD** COM5/264/53 (B6/268/59) (R3/292/59)

**5.349** *Различите категорије служби:* у Саудијској Арабији, Азербејџану, Бахреину, Камеруну, Египту, Француској, Ирану (Исламској Републици), Ираку, Израелу, Казахстану, Кувајту, Македонији (Бившој Југословенској Републици), Мароку, Катару, Сиријској Арапској Републици, Киргистану, Туркменистану и Јемenu, опсег 1 525-1 530 MHz намењен је мобилној изузев ваздухопловне мобилне служби на примарној основи (види No. **5.33**). (WRC-07)

**MOD** COM4/332/77 (B13/347/28) (R7/411/35)

**5.351A** За коришћење опсега 1 518-1 544 MHz, 1 545-1 559 MHz, 1 610-1 626.5 MHz, 1 626.5-1 645.5 MHz, 1 646.5-1 660.5 MHz, 1 668-1 675 MHz, 1 980-2 010 MHz, 2 170-2 200 MHz,

2 483.5-2 500 MHz, 2 500-2 520 MHz и 2 670-2 690 MHz за мобилну сателитску службу, види Резолуцију **212 (Rev.WRC-07)** и **225 (Rev.WRC-07)**. (WRC-07)

**MOD** COM5/264/54 (B6/268/60) (R3/292/60)

**5.359** *Додатна намена:* у Немачкој, Саудијској Арабији, Јерменији, Аустрији, Азербејџану, Белорусији, Бенину, Бугарској, Камеруну, Шпанији, Руској Федерацији, Француској, Габону, Грузији, Грчкој, Гвинеји, Гвинеји-Бисао, Либијској Арапској Џамахирији, Јордану, Казахстану, Кувајту, Либану, Литванији, Мауританији, Молдавији, Уганди, Узбекистану, Пакистану, Пољској, Сиријској Арапској Републици, Киргистану, Северној Кореји, Румунији, Свазиленду, Таџикистану, Танзанији, Тунису, Туркменистану и Украјини, опсези 1 550-1 559 MHz, 1 610-1 645.5 MHz и 1 646.5-1 660 MHz су такође намењени фиксној служби на примарној основи. Од администрација се захтева да предузму све практичне кораке да се избегне постављање нових станица фиксне службе у тим опсезима. (WRC-07)

**MOD** COM6/341/8 (B14/365/8) (R7/411/36)

**5.362B** *Додатна намена:* Опсег 1 559-1 610 MHz је такође намењен фиксној служби на примарној основи до 1.01.2009. у Алжиру, Саудијској Арабији, Камеруну, Либијској Арапској Џамахирији, Јордану, Малију, Мауританији, Сиријској Арапској Републици и Тунису. После тог датума, фиксна служба може да настави рад на секундарној основи до 1.01.2015. када ова намена неће више важити. Опсег 1 559-1 610 MHz је такође намењен фиксној служби на секундарној основи у Алжиру, Немачкој, Јерменији, Азербејџану, Белорусији, Бенину, Бугарској, Шпанији, Руској Федерацији, Француској, Габону, Грузији, Гвинеји, Гвинеји Бисао, Казахстану, Литванији, Молдавији, Нигерији, Уганди, Узбекистану, Пакистану, Пољској, Киргистану, Северној Кореји, Румунији, Сенегалу, Свазиленду, Таџикистану, Танзанији, Туркменистану и Украјини до 1.01.2015., када ова намена неће више важити. Од администрација се захтева да предузму све практичне кораке да заштите радио-навигациону сателитску службу и ваздухопловну радио-навигациону службу и да не одобравају нове доделе фреквенција фиксној служби у том опсегу. (WRC-07)

**MOD** COM5/264/55 (B6/268/61) (R3/292/61)

**5.362C** *Додатна намена:* у Републици Конго, Египту, Еритреји, Ираку, Израелу, Јордану, Малти, Катару, Сиријској Арапској Републици, Сомалији, Судану, Чаду, Тогоу и Јемену, опсег 1 559-1 610 MHz је такође намењен фиксној служби на секундарној основи до 1.01.2015., када ова намена више неће важити. Од администрација се захтева да предузму све практичне кораке да се заштити радио-навигацијска сателитска служба и да се не одобравају нове доделе фреквенција системима фиксне службе у том опсегу. (WRC-07)

**SUP** COM5/173/3 (B1/196/4) (R1/221/3)

**5.363**

**MOD** COM4/332/78 (B13/347/29) (R7/411/37)

**1 660-1 710 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>1 668-1 668.4</b>	МОБИЛНА САТЕЛИТСКА (Земља-свемир) MOD 5.351A MOD 5.379B 5.379C РАДИО-АСТРОНОМСКА ИСТРАЖИВАЊЕ СВЕМИРА (пасивно) Фиксна Мобилна осим ваздухопловне мобилне 5.149 5.341 5.379 5.379A	
<b>1 668.4-1 670</b>	МЕТЕОРОЛОШКА ПОМОЋНА ФИКСНА МОБИЛНА изузев ваздухопловне мобилне МОБИЛНА САТЕЛИТСКА (Земља-свемир) MOD 5.351A MOD 5.379B 5.379C РАДИО-АСТРОНОМСКА 5.149 5.341 MOD 5.379D 5.379E	
<b>1 670-1 675</b>	МЕТЕОРОЛОШКА ПОМОЋНА ФИКСНА МЕТЕОРОЛОШКА САТЕЛИТСКА (свемир-Земља) МОБИЛНА 5.380 МОБИЛНА САТЕЛИТСКА (Земља-свемир) MOD 5.351A MOD 5.379B 5.341 MOD 5.379D 5.379E 5.380A	

**MOD** COM5/230/3 (B4/234/3) (R3/292/63)

**5.379B** Коришћење опсега 1 668-1 675 MHz од стране мобилне сателитске службе подлеже координацији према Но. **9.11А**. У опсегу 1 668-1 668.4 MHz, Резолуција [COM5/1] (**WRC-07**) треба да се примени. (WRC-07)

**MOD** COM5/230/4 (B4/234/4) (R3/292/64)

**5.379D** Заједнички рад мобилне сателитске службе и фиксне и мобилне службе, у опсегу 1668-1675 MHz је на основу регулативе садржане у Резолуцији **744 (Rev.WRC-07)**. (WRC-07)

**SUP** COM5/230/5 (B4/234/5) (R3/292/65)

**5.380**

**MOD** COM6/382/4 (B20/414/4)

**5.380А** У опсегу 1670-1675 MHz станице у мобилној сателитској служби неће ометати нити ограничавати развој, постојећим земаљским станицама у метеоролошкој сателитској служби које су нотификоване пре 1.01.2004. Свака нова додела поменутих земаљским станицама у том опсегу такође мора да буде заштићена од ометања од станица мобилне сателитске службе. (WRC-07)

**MOD** COM5/264/56 (B6/268/62) (R3/292/66)

**5.382** *Различите категорије службе:* у Саудијској Арабији, Јерменији, Азербејџану, Бахреину, Белорусији, Републици Конго, Египту, Уједињенин Арапским Емиратима, Еритреји, Етиопији, Руској Федерацији, Гвунеји, Ираку, Израелу, Јордану, Казахстану, Кувајту, Македонији (Бившој Југословенској Републици), Либану, Мауританији, Молдавији, Монголији, Оману, Узбекистану, Пољској, Катару, Сиријској Арапској Републици, Киргистану, Србији, Сомалији, Таџикистану, Танзанији, Туркменистану, Украјини и Јемену,

намена опсега 1 690-1 700 MHz фиксној и мобилној осим ваздухопловне мобилне службама је на примарној основи (види No. **5.33**), и у Северној Кореји, намена опсега 1 690-1 700 MHz је на примарној основи (види No. **5.33**) и мобилној изузев ваздухопловне мобилне службе на секундарној основи. (WRC-07)

**MOD** COM5/230/2 (B4/234/2) (R3/292/67)

**1 710-2 170 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>1 710-1 930</b>	ФИКСНА МОБИЛНА 5.384A 5.388A 5.388B 5.149 5.341 5.385 5.386 5.387 5.388	

**MOD** COM4/332/81 (B13/347/30) (R7/411/39) (R8/424/1)

**5.384A** Опсези, или делови опсега 1 710-1 885 MHz, 2 300-2 400 MHz и 2 500-2 690 MHz су одређени за коришћење за администрације које желе да примене систем Међународних мобилних телекомуникација (ИМТ) у складу са Резолуцијом **223 (Rev.WRC-07)**. Ово не спречава коришћење ових опсега за било коју другу примену или службу којима су додељени и не утврђује приоритет по Правилнику о радио-комуникацијама. (WRC-07).

**MOD** COM5/264/57 (B6/268/63) (R3/292/68)

**5.387** *Додатна намена:* у Белорусији, Грузији, Казахстану, Монголији, Киргистану, Словачкој, Румунији, Таџикистану и Туркменистану, опсег 1 770-1 790 MHz је такође намењен метеоролошкој сателитској служби на примарној основи, по споразуму постигнутом према No. **9.21**. (WRC-07)

**MOD** COM6/382/5 (B20/414/5)

**1 710-2 170 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>2 010-2 025</b> ФИКСНА МОБИЛНА 5.388A 5.388B  5.388	<b>2 010-2 025</b> ФИКСНА МОБИЛНА МОБИЛНА САТЕЛИТСКА (Земља-свемир)  5.388 5.389C 5.389E	<b>2 010-2 025</b> ФИКСНА МОБИЛНА 5.388A 5.388B  5.388
...		
<b>2 160-2 170</b> ФИКСНА МОБИЛНА 5.388A 5.388B  5.388 5.392A	<b>2 160-2 170</b> ФИКСНА МОБИЛНА МОБИЛНА САТЕЛИТСКА (свемир-Земља)  5.388 5.389C 5.389E	<b>2 160-2 170</b> ФИКСНА МОБИЛНА 5.388A 5.388B  5.388

**MOD** COM6/382/6 (B20/414/6)

**5.389A** Коришћење опсега 1 980-2 010 MHz и 2 170-2 200 MHz од стране мобилне сателитске службе подлеже координацији према No. **9.11A** и одредбама Резолуције **716 (Rev.WRC-2000)**. (WRC-07)

**MOD** COM6/382/7 (B20/414/7)

**5.389C** Коришћење опсега 2010-2025 MHz и 2 160-2 170 MHz у Региону 2 од стране мобилне сателитске службе подлеже координацији према No. **9.11A** и одредбама Резолуције **716 (Rev.WRC-2000)**. (WRC-07)

**SUP** COM6/382/8 (B20/414/8)

**5.390**

**SUP** COM6/341/10 (B14/365/10) (R7/411/40)

**5.392A**

**MOD** COM5/264/60 (B6/268/64) (R8/424/3)

**2 170-2 520 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>2 300-2 450</b> ФИКСНА МОБИЛНА Аматерска Радио-локацијска 5.150 5.282 MOD 5.384A 5.395	<b>2 300-2 450</b> ФИКСНА МОБИЛНА РАДИО-ЛОКАЦИЈСКА Аматерска 5.150 5.282 MOD 5.393 MOD 5.394 5.396	
<b>2 450-2 483.5</b> ФИКСНА МОБИЛНА Радио-локацијска 5.150 5.397	<b>2 450-2 483.5</b> ФИКСНА МОБИЛНА РАДИО-ЛОКАЦИЈСКА 5.150	

**MOD** COM4/392/1 (B19/413/7)

**2 170-2 520 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>2 500-2 520</b> ФИКСНА MOD 5.410 МОБИЛНА изузев ваздухопловне мобилне 5.384A  5.405 5.412	<b>2 500-2 520</b> ФИКСНА MOD 5.410 ФИКСНА САТЕЛИТСКА (свемир-Земља) 5.415 МОБИЛНА изузев ваздухопловне мобилне 5.384A  5.404	<b>2 500-2 520</b> ФИКСНА MOD 5.410 ФИКСНА САТЕЛИТСКА (свемир-Земља) 5.415 МОБИЛНА изузев ваздухопловне мобилне 5.384A МОБИЛНА САТЕЛИТСКА (свемир-Земља) 5.351A ADD 5.4A01 ADD 5.414 5.404 5.407 5.415A

**MOD** COM5/264/58 (B6/268/65) (R8/424/4)

**5.393** *Додатна намена:* у Канади, САД-у, Индији и Мексику, опсег 2 310-2 360 MHz је такође намењен радиодифузној сателитској служби (звук) и комплементарној земаљској радиодифузној служби (звук) на примарној основи. Таква употреба ограничена је на дигитално емитовање звука у радиодифузији и подлеже одредбама Резолуције **528 (Rev.WRC-03)**, са изузетком *одлучује* 3 с обзиром на ограничење код радиодифузних сателитских система у горњих 25 MHz. (WRC-07)

**MOD** COM5/264/59 (B6/268/66) (R8/424/5)

**5.394** У САД-у, коришћење опсега 2 300-2 390 MHz од стране мобилне службе за телеметрију има приоритет у односу на друга коришћења мобилне службе. У Канади, коришћење опсега 2 360-2 400 MHz ваздухопловне мобилне службе за телеметрију има приоритет у односу на друга коришћења мобилне службе. (WRC-07)

**MOD** COM4/392/4 (B19/413/8)

**5.403** По споразуму постигнутом према No. **9.21**, опсег 2 520-2 535 MHz може такође да се користи за мобилну сателитску (свемир-Земља) изузев ваздухопловне мобилне сателитске службу за рад ограничен унутар националних граница. Одредбама из No. **9.11A** треба да се примене. (WRC-07)

**SUP** COM4/392/5 (B19/413/9)

#### 5.409

**MOD** COM4/392/6 (B19/413/10)

**5.410** Опсег 2 500-2 690 MHz може да се користи за системе који користе тропосферско расипање у Региону 1, по споразуму постигнутом према No. **9.21**. Од администрација се захтева да предузму све практичне кораке да се избегне развој нових система у том опсегу који користе тропосферско расипање. Код планирања нових радио-релејних веза у том опсегу који користе тропосферско расипање, морају се предузети све потребне мере да се избегне усмеравање антена ових линкова према орбити геостационарних сателита. (WRC-07)

**SUP** COM4/392/7 (B19/413/11)

#### 5.411

**MOD** COM5/264/61 (B6/268/67) (R3/292/69)

**5.412** *Додатна намена:* у Азербејдану, Киргистану и Туркменистану, опсег 2 500-2 690 MHz намењен је фиксној и мобилној изузев ваздухопловне мобилне службама на примарној основи. (WRC-07)

**MOD** COM4/392/8 (B19/413/12)

**5.414** Намена фреквенцијског опсега 2 500-2 520 MHz за мобилну сателитску службу (свемир-Земља) подлеже координацији према No. **9.11A**. (WRC-07)

**MOD** COM4/392/9 (B19/413/13)

**5.415** Коришћење опсега 2 500-2 690 MHz у Региону 2 и 2 500-2 535 MHz и 2 655-2 690 MHz у Региону 3 од стране фиксне сателитске службе ограничено је на националне и регионалне системе, по споразуму постигнутом према No. **9.21**, обраћајући нарочито пажњу на радиодифузну сателитску службу у Региону 1. (WRC-07)

**ADD** COM4/392/3 (B19/413/14)

**5.4A01** У Јапану и Индији, коришћење опсега 2 500-2 520 MHz и 2 520-2 535 MHz, према No. **5.403**, од стране сателитских мрежа у мобилној сателитској служби (свемир-Земља) ограничено је на рад унутар националних граница, и предмет су примене процедуре према No. **9.11A**. Следеће (pfd) вредности морају да се узму као праг за координацију према No. **9.11A**, за све услове и све методе модулације, у области од 1 000 km око територије администрације које имају нотификоване мобилне сателитске мреже:

-136 dB(W/(m <sup>2</sup> · MHz))	за	0° ≤ θ ≤ 5°
-136 + 0.55 (θ - 5) dB(W/(m <sup>2</sup> · MHz))	за	5° < θ ≤ 25°
-125 dB(W/(m <sup>2</sup> · MHz))	за	25° < θ ≤ 90°

где је  $\theta$  упадни угао (у степенима) радио-фреквенцијског таласа у односу на хоризонталну раван. Изван те области примењује се Табела 21-4 Члана 21. Надаље, прагови координације у Табели 5-2 Анекса 1 Апендикса 5 Правилника о радио-комуникацијама (издање од 2004.), у вези са одговарајућим одредбама из Члана 9 и 11 заједно са No. 9.11А, морају да се примењују на системе за које је комплетна информација о нотификацији примљена у Биро за радио-комуникације до 14.07.2007. и да је уведено у употребу до тог датума. (WRC-07)

**MOD** COM4/392/2 (B19/413/15)

**2 520-2 700 MHz**

<b>Намене службама</b>		
<b>Регион 1</b>	<b>Регион 2</b>	<b>Регион 3</b>
<b>2 520-2 655</b> ФИКСНА MOD 5.410 МОБИЛНА изузев ваздухопловне мобилне 5.384А РАДИОДИФУЗНА САТЕЛИТСКА 5.413 MOD 5.416      5.339 5.405 5.412 5.417C 5.417D 5.418B 5.418C	<b>2 520-2 655</b> ФИКСНА MOD 5.410 ФИКСНА САТЕЛИТСКА (свемир Земља) 5.415 МОБИЛНА изузев ваздухопловне мобилне 5.384А РАДИОДИФУЗНА САТЕЛИТСКА 5.413 MOD 5.416      5.339 5.417C 5.417D 5.418B 5.418C	<b>2 520-2 535</b> ФИКСНА MOD 5.410 ФИКСНА САТЕЛИТСКА (свемир Земља) 5.415 МОБИЛНА изузев ваздухопловне мобилне 5.384А РАДИОДИФУЗНА САТЕЛИТСКА 5.413 MOD 5.416 5.403 5.415A ADD 5.4A01
		<b>2 535-2 655</b> ФИКСНА MOD 5.410 МОБИЛНА изузев ваздухопловне мобилне 5.384А РАДИОДИФУЗНА САТЕЛИТСКА 5.413 MOD 5.416 5.339 5.417A 5.417B 5.417C 5.417D MOD 5.418 5.418A 5.418B 5.418C
<b>2 655-2 670</b> ФИКСНА MOD 5.410 МОБИЛНА изузев ваздухопловне мобилне 5.384А РАДИОДИФУЗНА САТЕЛИТСКА 5.347А 5.413 MOD 5.416 Истраживање земље сателитом (пасивно) РАДИО-АСТРОНОМСКА Истраживање свемира (пасивно)	<b>2 655-2 670</b> ФИКСНА MOD 5.410 ФИКСНА САТЕЛИТСКА (Земља-свемир) (свемир- Земља) 5.347А 5.415 МОБИЛНА изузев ваздухопловне мобилне 5.384А РАДИОДИФУЗНА САТЕЛИТСКА 5.347А 5.413 MOD 5.416 Истраживање земље сателитом (пасивно) РАДИО-АСТРОНОМСКА Истраживање свемира (пасивно)	<b>2 655-2 670</b> ФИКСНА MOD 5.410 ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.415 МОБИЛНА изузев ваздухопловне мобилне 5.384А РАДИОДИФУЗНА САТЕЛИТСКА 5.347А 5.413 MOD 5.416 Истраживање земље сателитом (пасивно) РАДИО-АСТРОНОМСКА Истраживање свемира (пасивно)
5.149 5.412	5.149	5.149 5.420

Намене службама		
Регион 1	Регион 2	Регион 3
<b>2 670-2 690</b> ФИКСНА MOD 5.410 МОБИЛНА изузев ваздухопловне мобилне 5.384А Истраживање земље сателитом (пасивно) РАДИО-АСТРОНОМСКА Истраживање свемира (пасивно)  5.149 5.412	<b>2 670-2 690</b> ФИКСНА MOD 5.410 ФИКСНА САТЕЛИТСКА (Земља-свемир)(свемир Земља) 5.347А 5.415 МОБИЛНА изузев ваздухопловне мобилне 5.384А Истраживање земље сателитом (пасивно) РАДИО-АСТРОНОМСКА Истраживање свемира (пасивно)  5.149	<b>2 670-2 690</b> ФИКСНА MOD 5.410 ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.415 МОБИЛНА изузев ваздухопловне мобилне 5.384А МОБИЛНА САТЕЛИТСКА (Земља-свемир) 5.351А ADD 5.419 Истраживање земље сателитом (пасивно) РАДИО-АСТРОНОМСКА Истраживање свемира (пасивно)  5.149

**MOD** COM4/392/10 (B19/413/16)

**5.416** Коришћење спектра 2520-2670 MHz од стране радио-дифузне сателитске службе ограничено је на националне и регионалне системе за заједнички пријем, по споразуму постигнутом према No. **9.21**. Администрације су дужне да за тај опсег примењују одредбе из No. **9.19** у њиховим билатералним и мултилатералним преговорима. (WRC-07)

**MOD** COM4/392/11 (B19/413/17)

**5.418** *Додатна намена:* у Јужној Кореји, Индији, Јапану, Пакистану и Тајланду, опсег 2535-2655 MHz је такође намењен радио-дифузној сателитској служби (звук) и комплементарној земаљској радиодифузној служби на примарној основи. Ова употреба је ограничена на дигитално емитовање звука у радиодифузији и подлеже одредбама Резолуције **528 (Rev.WRC-03)**. Одредбе из No. **5.416** и Табеле **21-4** Члана **21**, не примењују се на ову додатну намену. Коришћење не-геостационарних сателитских система у радио-дифузној сателитској служби (звук) је предмет Резолуције **539 (Rev.WRC-03)**. Геостационарни системи радио-дифузне сателитске службе (звук) за које су комплетне Апендикс 4 информације о координацији примљене после 1.06.2005, ограничени су на системе за национално покривање.

Снага густине флукса на Земљиној површини коју производе емисије са геостационарне свемирске станице радио-дифузне сателитске службе (звук) у опсегу 2630-2655 MHz, и за коју су комплетне Апендикс 4 информације о координацији примљене након 1.06.2005., не смеју да прекорачују следеће границе за било које услове и било које методе модулације:

$$\begin{aligned}
 & -130 \text{ dB(W/(m}^2 \cdot \text{MHz))} && \text{за } 0^\circ \leq \theta \leq 5^\circ \\
 & -130 + 0.4 (\theta - 5) \text{ dB(W/(m}^2 \cdot \text{MHz))} && \text{за } 5^\circ < \theta \leq 25^\circ \\
 & -122 \text{ dB(W/(m}^2 \cdot \text{MHz))} && \text{за } 25^\circ < \theta \leq 90^\circ
 \end{aligned}$$

где је  $\theta$  упадни угао (у степенима) радио-фреквенцијског таласа у односу на хоризонталну раван. Ове границе могу да буду превазиђене на територији сваке земље чија администрација на то пристане. Као изузетак у случају горњих граница,  $\text{pfd}$  вредност од  $-122 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  мора бити узета као праг за координацију према No. **9.11** у области 1500 km око територије администрације која има нотификован систем радио-дифузне сателитске (звук) службе.

Поред тога, администрација излистана у овој одредби не сме да има истовремено две преклапајуће доделе фреквенција, једну по овој одредби и другу према No. **5.416** за системе за које су комплетне Апендикс 4 информације о координацији примљене након 1.06.2005. (WRC-07)

**MOD** COM4/392/12 (B19/413/18)

**5.419** Приликом увођења система мобилне сателитске службе у опсегу 2 670-2 690 MHz, администрације треба да подзму све потребне кораке да заштите сателитске системе који раде у том опсегу од пре 3.03.1992. Координација мобилних сателитских система у том опсегу мора бити у сагласности са No. **9.11A**. (WRC-07)

**MOD** COM4/392/13 (B19/413/19)

**5.420** Опсег 2 655-2 670 MHz може такође да буде коришћен за мобилну сателитску (Земља-свемир) осим ваздухопловне мобилне службу за рад унутар националних граница, по споразуму постигнутом према No. **9.21**. Примењује се координација према No. **9.11A**. (WRC-07)

**SUP** COM4/392/14 (B19/413/20)

#### **5.420A**

**MOD** COM5/264/62 (B6/268/68) (R3/292/70)

**5.422** *Додатна намена:* у Саудијској Арабији, Јерменији, Азербејџану, Бахреину, Белорусији, Брунеј Дарусаламу, Републици Конго, Обали Слоноваче, Куби, Египту, Уједињеним Арапским Емиратима, Еритреји, Етиопији, Габону, Грузији, Гвинеји, Гвинеји Бисао, Ирану (Исламској Републици), Ираку, Израелу, Јордану, Кувајту, Либану, Мауританији, Молдавији, Монголији, Црној Гори, Нигерији, Оману, Пакистану, Филипинима, Катару, Сиријској Арапској Републици, Киргистану, Демократској Републици Конго, Румунији, Сомалији, Тацикистану, Тунису, Туркменистану, Украјини и Јемену, опсег 2 690-2 700 MHz је такође намењен фиксној и мобилној изузев ваздухопловне мобилне службама на примарној основи. Таква употреба је ограничена на уређаје који су у раду после 1.01.1985. (WRC-07)

MOD (R9/424/10)

2 700-4 800 MHz

Намене службама		
Регион 1	Регион 2	Регион 3
<b>3 400-3 600</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) Мобилна ADD 5.AAA Радио-локацијска  5.431	<b>3 400-3 500</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) Аматерска Мобилна ADD 5.ZZZРадио-локацијска 5.433  5.282 5.432	<b>3 400-3 500</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) Аматерска Мобилна ADD 5.BBB ADD 5.AAA1 Радио-локацијска 5.433 5.282 .432
	<b>3 500-3 700</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) МОБИЛНА изузев ваздухопловне мобилне Радио-локацијска 5.433  5.435	<b>3 500-3 600</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) МОБИЛНА изузев ваздухопловне мобилне ADD 5.CCC Радио-локацијска 5.433 5.435
<b>3 600-4 200</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) Мобилна		<b>3 600-3 700</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) МОБИЛНА изузев ваздухопловне мобилне Радио-локацијска 3 5.435
	<b>3 700-4 200</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) МОБИЛНА изузев ваздухопловне мобилне	<b>3 700-4 200</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) МОБИЛНА изузев ваздухопловне мобилне

MOD COM4/296/1 (B9/305/5) (R4/335/5)

2 700-4 800 MHz

Намене службама		
Регион 1	Регион 2	Регион 3
<b>4 400-4 500</b>	ФИКСНА МОБИЛНА ADD 5.4B01	
<b>4 500-4 800</b>	ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) МОБИЛНА ADD 5.4B01	

**ADD** COM4/296/4 (B9/305/6) (R4/335/6)

**5.4B01** У Региону 2 (осим Бразила, Кубе, Француских Прекоморских Територија, Гватемале, Парагваја, Уругваја и Венецуеле), и у Аустралији, опсег 4 400-4 940 MHz могу да користе авионске станице за ваздухопловну мобилну телеметрију за тестирање лета (види Но. **1.83**). Такво коришћење мора бити у складу са Резолуцијом [**COM4/2**] (**WRC-07**) и не сме ометати (нити захтевати заштиту због тога) фиксну сателитску и фиксну службу. Такво коришћење не спречава коришћење ових опсега за друге примене у мобилној служби или за друге службе којима су ти опсежи намењени на ко-примарној основи и не утврђује приоритет у Правилнику о радио-комуникацијама. (WRC-07)

**MOD** COM5/264/63 (B6/268/69) (R3/292/71)

**5.428** *Додатна намена:* у Азербејџану, Монголији, Киргистану, Румунији и Туркменистану, опсег 3 100-3 300 MHz је такође намењен радио-навигацијској служби на примарној основи. (WRC-07)

**MOD** COM5/264/64 (B6/268/70) (R3/292/72)

**5.429** *Додатна намена:* у Саудијској Арабији, Бахреину, Бангладешу, Брунеј Дарусаламу, Кини, Републици Конго, Јужној Кореји, Обали Слоноваче, Уједињеним Арапским Емиратима, Индији, Индонезији, Ирану (Исламској Републици), Ираку, Израелу, Либијској Арапској Џамахирији, Јапану, Јордану, Кенији, Кувајту, Либану, Малезији, Оману, Уганди, Пакистану, Катару, Сиријској Арапској Републици, Северној Кореји и Јемену, опсег 3 300-3 400 MHz је такође намењен фиксној и мобилној служби на примарној основи. Земље које захватају Медитеран не смеју да захтевају заштиту за њихове фиксну и мобилну службу због радио-локацијске службе. (WRC-07)

**MOD** COM5/264/65 (B6/268/71) (R3/292/73)

**5.430** *Додатна намена:* у Азербејџану, Монголији, Киргистану, Румунији и Туркменистану, опсег 3 300-3 400 MHz је такође намењен радио-навигацијској служби на примарној основи. (WRC-07)

**ADD** (R9/424/12)

**5.AAA** *Различите категорије служби:* у Албанији, Алжиру, Немачкој, Андори, Саудијској Арабији, Аустрији, Азербејџану, Бахреину, Белгији, Бенину, Босни и Херцеговини, Боцвани, Бугарској, Буркини Фасо, Камеруну, Кипру, Ватикану, Обали Слоноваче, Хрватској, Данској, Француским Прекоморским Територијама у Региону 1, Египту, Шпанији, Естонији, Финској, Француској, Габону, Грузији, Грчкој, Гвинеји, Мађарској, Ирској, Исланду, Израелу, Италији, Јордану, Кувајту, Лесоту, Латвији, Македонији, Лихтенштајну, Литванији, Малавију, Малти, Мароку, Мауританији, Молдавији, Монаку, Монголији, Црној Гори, Мозамбику, Намибији, Нигеру, Норвешкој, Оману, Холандији, Пољској, Португалу, Катару, Сиријској Арапској Републици, Конгу, Словачкој, Чешкој Републици, Рунубији, Великој Британији, Сан Марину, Сенегалу, Србији, Сијера Леонеу, Словенији, Јужној Африци, Шведској, Швицарској, Свазиленду, Тогоу, Чаду, Тунису, Турској, Украјини, Замбији и Зимбабвеу, опсег 3 400-3 600 MHz намењен је мобилној изузев ваздухопловне мобилне служби на примарној основи по споразуму постигнутом према Но. **9.21** са другим администрацијама и предвиђен је за Међународне Мобилне Телекомуникације (ИМТ). Ово коришћење не спречава употребу тог опсега од стране служби којима је намењен и не утврђује приоритет у Правилнику о радио-комуникацијама. У фази координације одредбе из Nos. **9.17** и **9.18** такође се примењују. Пре него што нека администрација уведе у употребу неку (базну или мобилну) станицу мобилног сервиса у том

опсегу, мора осигурати да снага густине флуksа (pfd) произведена на 3m изнад земље не прелази границу  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  за више од 20 процената времена на граници са територијом било које друге администрације. Та граница може да се превазиђе на територији било које земље чија је администрација на то пристала. Да би се осигурало да је pfd limit постигнут на територији било које администрације, треба да се ураде прорачуни и верификација, узимајући у обзир све релевантне информације, уз обострани пристанак обе администрације (администрације надлежне за земаљске станице и администрације надлежне за Земљине станице), уз асистенцију Бироа за радио-комуникације ако се захтева. У случају да нема споразума, прорачуне и верификацију за pfd урадиће Биро за радио-комуникације, узимајући у обзир горе наведене информације. Станице мобилне службе у опсегу 3 400-3 600 MHz не смеју захтевати већу заштиту због свемирских станица од оне која је установљена у Табели **21-4** Правилника о радио-комуникацијама (издање од 2004.). Ова немена важи од 17.11.2010. (WRC-07)

**ADD** (R9/424/13)

**5.AAA1** У Јужној Кореји, Јапану и Пакистану, опсег 3 400-3 500 MHz предвиђен је за Међународне Мобилне Телекомуникације (ИМТ). Ово не спречава коришћење ових опсега за било коју другу примену или службу којима су додељени и не утврђује приоритет у Правилнику о радио-комуникацијама. У фази координације Препоруке из Nos. **9.17** и **9.18** се такође примењују. Пре него што нека администрација уведе у употребу неку (базну или мобилну) станицу мобилног сервиса у том опсегу, мора осигурати да снага густине флуksа (pfd) произведена на 3 m изнад земље не прелази вредност  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  за више од 20 процената времена на граници са територијом било које друге администрације. Та граница може да се превазиђе на територији било које земље чија је администрација на то пристала. Да би се осигурало да је pfd limit постигнут на територији било које администрације, треба да се ураде прорачуни и верификација, узимајући у обзир све релевантне информације, уз обострани пристанак обе администрације (администрације надлежне за земаљске станице и администрације надлежне за Земљине станице), уз асистенцију Бироа за радио-комуникације ако се захтева. У случају да нема споразума, прорачуне и верификацију за pfd урадиће Биро за радио-комуникације, узимајући у обзир горе наведене информације. Станице мобилне службе у опсегу 3 400-3 600 MHz не смеју захтевати већу заштиту због свемирских станица од оне која је установљена у Табели **21-4** Правилника о радио-комуникацијама (издање од 2004.). (WRC-07)

**ADD** (R9/424/14)

**5.BBB** *Различите категорије служби:* у Бангладешу, Кини, Индији, Ирану (Исламској Републици), Новом Зеланду, Сингапуру и Француским Прекоморским Територијама у Региону 3, опсег 3 400-3 500 MHz намењен је мобилној изузев ваздухопловне мобилне служби на примарној основи, по споразуму постигнутом према No. **9.21** са другим администрацијама и предвиђен је за Међународне Мобилне Телекомуникације (ИМТ). Ово не спречава употребу тог опсега од стране служби којима је намењен и не утврђује приоритет у Правилнику о радио-комуникацијама. У фази координације Препоруке из Nos. **9.17** и **9.18** такође се примењују. Пре него што нека администрација уведе у употребу неку (базну или мобилну) станицу мобилног сервиса у том опсегу, мора осигурати да снага густине флуksа (pfd) произведена на 3 m изнад земље не прелази границу  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  за више од 20 процената времена на граници са територијом било које друге администрације. Та граница може да се превазиђе на територији било које земље чија је администрација на то пристала. Да би се осигурало да је pfd limit постигнут на територији било које администрације, треба да се ураде прорачуни и верификација, узимајући у обзир све релевантне информације, уз обострани пристанак обе администрације (администрације надлежне за земаљске станице и

администрације надлежне за Земљине станице), уз асистенцију Бироа за радио-комуникације ако се захтева. У случају да нема споразума, прорачуне и верификацију за pfd урадиће Биро за радио-комуникације, узимајући у обзир горе наведене информације. Станице мобилне службе у опсегу 3 400-3 600 MHz не смеју захтевати већу заштиту због свемирских станица од оне која је установљена у Табели **21-4** Правилника о радио-комуникацијама (издање од 2004.). (WRC-07)

**ADD** (R9/424/15)

**5.CCC** У Бангладешу, Кини, Републици Кореји, Индији, Ирану (Исламској Републици), Јапану, Новом Зеланду, Пакистану и Француским Прекоморским Територијама у Региону 3, опсег 3 500-3 600 MHz је предвиђен за Међународне Мобилне Телекомуникације (ИМТ). Ово не спречава употребу тог опсега од стране служби којима је намењен и не утврђује приоритет у Правилнику о радио-комуникацијама. У фази координације Препоруке из Nos. **9.17** и **9.18** такође се примењују. Пре него што нека администрација уведе у употребу неку (базну или мобилну) станицу мобилног сервиса у том опсегу, мора осигурати да снага густине флукса (pfd) произведена на 3 m изнад земље не прелази границу  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  за више од 20 процената времена на граници са територијом било које друге администрације. Та граница може да се превазиђе на територији било које земље чија је администрација на то пристала. Да би се осигурало да је pfd limit постигнут на територији било које администрације, треба да се ураде прорачуни и верификација, узимајући у обзир све релевантне информације, уз обострани пристанак обе администрације (администрације надлежне за земаљске станице и администрације надлежне за Земљине станице), уз асистенцију Бироа за радио-комуникације ако се захтева. У случају да нема споразума, прорачуне и верификацију за pfd урадиће Биро за радио-комуникације, узимајући у обзир горе наведене информације. Станице мобилне службе у опсегу 3 400-3 600 MHz не смеју захтевати већу заштиту због свемирских станица од оне која је установљена у Табели **21-4** Правилника о радио-комуникацијама (издање од 2004.). (WRC-07)

**ADD** (R9/424/16)

**5.ZZZ** *Различите категорије служби:* у Аргентини, Бразилу, Чилеу, Коста Рики, Куби, Доминиканској Републици, Ел Салвадору, Гватемали, Мексику, Парагвају, Суринаму, Уругвају, Венецуели и Француским Прекоморским Територијама у Региону 2, опсег 3 400-3 500 MHz намењен је мобилној, изузев ваздухопловне мобилне служби на примарној основи, по споразуму постигнутом према No. **9.21**. Станице мобилне службе у опсегу 3 400-3 500 MHz не смеју захтевати већу заштиту због свемирских станица од оне која је установљена у Табели **21-4** Правилника о радио-комуникацијама (издање од 2004.). (WRC-07)

**MOD** COM4/296/5 (B9/305/8) (R4/335/8)

**5.442** У опсезима 4 825-4 835 MHz и 4 950-4 990 MHz, намена ваздухопловне службе ограничена је на мобилну изузев ваздухопловне мобилне службу. У Региону 2 (изузев Бразила, Кубе, Гватемале, Парагваја, Уругваја и Венецуеле), и у Аустралији, опсег 4 825-4 835 MHz такође је намењен ваздухопловној мобилној служби, уз ограничење на ваздухопловну мобилну телеметрију за тестирање лета од авионских станица. Таква употреба мора бити у складу са Резолуцијом [COM4/2] (WRC-07) и не сме да омета фиксну службу. (WRC-07)

**MOD** COM4/380/4 (B17/404/11)

**5.444** Опсег 5 030-5 150 MHz користи се за рад међународног стандардног система за прецизно слетање и приземљење (систем микроталасног слетања). У опсегу 5 030-5 091 MHz, захтеви за овај систем имају предност у односу на остале кориснике овог опсега. При

коришћењу опсега 5 091-5 150 MHz, примењује се No. 5.444A и Резолуција 114 Rev. WRC-03). (WRC-07)

**MOD** PLEN/420/1

**5.444** Опсег 5 030-5 150 MHz користи се за рад међународног стандардног система за прецизно слетање и приземљење (систем микроталасног слетања). Захтеви за овај систем имају предност у односу на остале кориснике овог опсега. При коришћењу овог опсега, примењује се No. 5.444A и Резолуција 114 Rev. WRC-03). (WRC-03)

**MOD** PLEN/420/2

**5.444A** *Додатна намена:* опсег 5 091-5 150 MHz такође је намењен фиксној сателитској служби (Земља-свемир) на примарној основи. Ова намена је ограничена на спојне везе не-геостационарних мобилних сателитских система у мобилној сателитској служби и подлеже поступку координације према No. 9.11A.

У опсегу 5 091-5 150 MHz, примењују се следећи услови:

- пре 1.01.2018., коришћење опсега 5 091-5 150 MHz за спојне везе не-геостационарних мобилних сателитских система у мобилној сателитској служби вршиће се сагласно са Резолуцијом **114 (Rev.WRC-03)**;
- пре 1.01.2018., постојећи и планирани захтеви међународног система за стандарде за ваздухопловну радио-навигацијску службу који се не налазе у опсегу 5 000-5 091 MHz, имаће предност у коришћењу овог опсега;
- после 1.01.2012., неће се вршити нове доделе Земљиним станицама које обезбеђују спојне везе не-геостационарним мобилним сателитским системима ;
- после 1.01.2018., фиксна сателитска служба постаће секундарна у односу на ваздухопловну навигацијску службу. (WRC-03)

**MOD** COM4/380/5 (B17/404/12)

**5.444A** *Додатна намена:* опсег 5 091-5 150 MHz намењен је такође фиксној сателитској служби (Земља-свемир) на примарној основи. Ова намена је ограничена на спојне везе не-геостационарних мобилних сателитских система у мобилној сателитској служби и подлеже координацији према No. **9.11A**.

У опсегу 5 091-5 150 MHz, важе такође следећи услови:

- пре 1.01.2018., коришћење опсега 5 091-5 150 MHz за спојне везе не-геостационарних сателитских система у мобилној сателитској служби вршиће се сагласно Резолуцији **114 (Rev.WRC-03)**;
- после 1.01.2012., неће се вршити нове доделе Земљиним станицама које обезбеђују спојне везе не-геостационарним мобилним сателитским системима;
- после 1.01.2018., фиксна сателитска служба постаће секундарна у односу на ваздухопловну навигацијску службу. (WRC-07)

**ADD** COM4/380/6 (B17/404/13)

**5.4B03** Коришћење опсега 5 091-5 150 MHz од стране ваздухопловне мобилне службе ограничено је на:

- системе који раде у ваздухопловној мобилној (R) служби и сагласно са међународним ваздухопловним стандардима, само за примене на земљи на

аеродромима. Таква употреба мора бити у сагласности са Резолуцијом [COM4/4] (WRC-07);

- ваздухопловне телеметријске емисије од авионских станица (види No. 1.83) у сагласности са Резолуцијом [COM4/7] (WRC-07);
- ваздухопловне сигурносне емисије. Таква употреба мора бити сагласна са Резолуцијом [COM4/8] (WRC-07). (WRC-07)

**ADD** COM4/380/7 (B17/404/14)

**5.4B04** *Додатна намена:* у Региону 1 (изузев у Алжиру, Саудијској Арабији, Бахреину, Египту, Уједињеним Арапским Емиратима, Јордану, Кувајту, Либану, Мароку, Оману, Катару, Сиријској Арапској Републици, Судану и Тунису) и у Бразилу, опсег 5 150-5 250 MHz је такође намењен ваздухопловној мобилној служби на примарној основи, само за ваздухопловне телеметријске емисије од авионских станица (види No. 1.83), у сагласности са Резолуцијом [COM4/7] (WRC-07). Такве станице не могу захтевати заштиту због других станица које раде у сагласности са Чланом 5. No. 5.43A се не примењује. (WRC-07)

**MOD** COM4/380/8 (B17/404/15)

**5.446A** Коришћење опсега 5 150-5 350 MHz и 5 470-5 725 MHz од стране станица мобилне изузев ваздухопловне мобилне службе мора бити у складу са Резолуцијом 229 (WRC-03). (WRC-07)

**MOD** COM5/264/66 (B6/268/72) (R3/292/74)

**5.447** *Додатна намена:* у Обали Слоноваче, Израелу, Либану, Пакистану, Сиријској Арапској Републици и Тунису, опсег 5 150-5 250 MHz је такође намењен мобилној служби на примарној основи, по споразуму постигнутом према No. 9.21. У том случају, Препоруке из Резолуције 229 (WRC-03) се не примењују. (WRC-07)

**MOD** COM5/264/67 (B6/268/73) (R3/292/75)

**5.447E** *Додатна намена:* Опсег 5 250-5 350 MHz је такође намењен фиксној служби на примарној основи у следећим земљама у Региону 3: Аустралији, Јужној Кореји, Индији, Индонезији, Ирану (Исламској Републици), Јапану, Малезији, Папуи Новој Гвинеји, Филипинима, Северној Кореји, Шри Ланки, Тајланду и Вијетнаму. Коришћење тог опсега од стране фиксне службе предвиђено је за фиксне бежичне приступне системе и мора бити усаглашено са Препоруком ITU-R F.1613. Поред тога, фиксна служба не може захтевати заштиту због радиодетерминацијске службе, службе истраживања Земље сателитом (активно) и службе истраживања свемира (активно), али одредбе из No. 5.43A се не примењују на фиксну службу узимајући у обзир службу истраживања Земље сателитом (активно) и службу истраживања свемира (активно). Након имплементације фиксних бежичних приступних система у фиксној служби са заштитом од постојећих радиодетерминацијских система, будуће имплементације радиодетерминацијске службе не би више требало да намећу строжију заштиту фиксним бежичним приступним системима. (WRC-07)

**MOD** COM4/296/2 (B9/305/7) (R4/335/7)

**4 800-5 570 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
4 800-4 990	ФИКСНА МОБИЛНА MOD 5.442 ADD 5.4B01 Радио-астрономска 5.149 5.339 5.443	

**MOD** COM4/380/1 (B17/404/8)

**4 800-5 570 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>5 030-5 091</b>	ВАЗДУХОПЛОВНА РАДИО-НАВИГАЦИЈСКА 5.367 MOD 5.444	

**MOD** COM4/380/2 (B17/404/9)

**4 800-5 570 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>5 091-5 150</b>	ВАЗДУХОПЛОВНА РАДИО-НАВИГАЦИЈСКА ВАЗДУХОПЛОВНА МОБИЛНА ADD 5.4B03 5.367 MOD 5.444 MOD 5.444A	

**MOD** COM4/380/3 (B17/404/10)

**4 800-5 570 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>5 150-5 250</b>	ВАЗДУХОПЛОВНА РАДИО-НАВИГАЦИЈСКА ФИКСНА САТЕЛИТСКА (Земља -свемир) 5.447A МОБИЛНА изузев ваздухопловне мобилне MOD 5.446A 5.446B 5.446 5.447 5.447B 5.447C ADD 5.4B04	

**MOD** COM5/264/68 (B6/268/74) (R3/292/76)

**5.454** *Различите категорије служби:* у Азербејдану, Руској Федерацији, Грузији, Монголији, Киргистану, Таџикистану и Туркменистану, намена опсега 5 670-5 725 MHz за службу истраживања свемира је на примарној основи (види No. **5.33**). (WRC-07)

**MOD** COM5/264/69 (B6/268/75) (R3/292/77)

**5.455** *Додатна намена:* у Јерменији, Азербејдану, Белорусији, Куби, Руској Федерацији, Грузији, Мађарској, Казахстану, Молдавији, Монголији, Узбекистану, Киргистану, Таџикистану, Туркменистану и Украјини, опсег 5 670-5 850 MHz је такође намењен фиксној служби на примарној основи. (WRC-07)

**MOD** COM4/296/3 (B9/305/9) (R4/335/9)

**5 570-7 250 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>5 925-6 700</b>	ФИКСНА ФИКСНА САТЕЛИТСКА (Земља -свемир) 5.457A 5.457B МОБИЛНА ADD 5.4B02 5.149 5.440 5.458	

**ADD** COM4/296/6 (B9/305/10) (R4/335/10)

**5.4B02** У Региону 2 (изузев Бразила, Кубе, Француских Прекоморских Територија, Гватемале, Парагваја, Уругваја и Венецуеле), опсег 5 925-6 700 MHz може бити коришћен за ваздухопловну мобилну телеметрију за тестирање лета од авионских станица (види No. **1.83**).

Такво коришћење мора бити у сагласности са Резолуцијом [COM4/2] (WRC-07) и не сме да омета, нити да захтева заштиту због њих, фиксну сателитску и фиксну службу. Такво коришћење не спречава коришћење ових опсега за примене од стране других мобилних служби или других служби којима су намењени ови опсеги на ко-примарној основи и не утврђује приоритет у Правилнику о радио-комуникацијама.  
(WRC-07)

**MOD** (COM4/272/1) (B7/283/1) (R4/335/11)

**8 500-10 000 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
9 000-9 200	ВАЗДУХОПЛОВНА РАДИО-НАВИГАЦИЈСКА 5.337 РАДИО-ЛОКАЦИЈСКА MOD 5.471 ADD 5.475A	
9 200-9 300	РАДИО-ЛОКАЦИЈСКА ПОМОРСКА РАДИО-НАВИГАЦИЈСКА 5.472 5.473 5.474	

**MOD** COM4/332/83 (B13/347/32) (R7/411/43)

**8 500-10 000 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
9 300-9 500	РАДИО-НАВИГАЦИЈСКА 5.476 ИСТРАЖИВАЊЕ ЗЕМЉЕ САТЕЛИТОМ (активно) ИСТРАЖИВАЊЕ СВЕМИРА (активно) РАДИО-ЛОКАЦИЈСКА 5.427 5.474 MOD 5.475 ADD 5.475B MOD 5.476A ADD 5.4B07	
9 500-9 800	ИСТРАЖИВАЊЕ ЗЕМЉЕ САТЕЛИТОМ (активно) РАДИО-ЛОКАЦИЈСКА РАДИО-НАВИГАЦИЈСКА ИСТРАЖИВАЊЕ СВЕМИРА (активно) MOD 5.476A	

**MOD** (COM4/272/2) (B7/283/3) (R4/335/13)

**5.475** Коришћење опсега 9300-9500 MHz за ваздухопловну радио-навигацијску службу ограничено је на авионске временске радаре и радаре на тлу. Поред тога, радарске станице радио-фарова на тлу у ваздухопловној радио-навигацијској служби дозвољене су у опсегу 9300-9320 MHz, под условом да не ометају поморску радио-навигацијску службу. (WRC-07)

**ADD** (COM4/272/3) (B7/283/4) (R4/335/14)

**5.475A** У опсегу 9 000-9 200 MHz, станице радио-локацијске службе не смеју да ометају (нити захтевају заштиту због њих) системе наведене у No. **5.337** који раде у ваздухопловној радио-навигацијској служби или радарске системе поморске радио-навигацијске службе који раде у том опсегу на примарној основи у земљама наведеним у No. **5.471**. (WRC-07)

**MOD** COM4/417/1

**8 500-10 000 MHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>9 800-9 900</b>	РАДИО-ЛОКАЦИЈСКА Истраживање Земље сателитом (активно) Истраживање свемира (активно) Фиксна 5.477 5.478 ADD 5.xyz ADD 5.xyy	

**MOD** COM4/417/2

<b>9 900-10 000</b>	РАДИО-ЛОКАЦИЈСКА Фиксна 5.477 5.478 5.479	
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**MOD** (COM4/272/5) (B7/283/2) (R4/335/12)

**5.471** *Додатна намена:* у Алжиру, Немачкој, Бахреину, Белгији, Кини, Египту, Уједињеним Арапским Емиратима, Француској, Грчкој, Индонезији, Ирану (Исламској Републици), Либијској Арапској Џамахирији, Холандији, Катару и Судану, опсежи 8 825-8 850 MHz и 9 000-9 200 MHz су такође намењени поморској радио-навигацијској служби на примарној основи, само за обалне радаре. (WRC-07)

**MOD** COM5/264/71 (B6/268/77) (R3/292/79)

**5.473** *Додатна намена:* у Јерменији, Аустрији, Азербејџану, Белорусији, Куби, Руској Федерацији, Грузији, Мађарској, Монголији, Узбекистану, Пољској, Киргистану, Румунији, Таџикистану, Туркменистану и Украјини, опсежи 8 850-9 000 MHz и 9 200-9 300 MHz су такође намењени радио-навигацијској служби на примарној основи. (WRC-07)

**ADD** (COM4/272/4) (B7/283/5) (R4/335/15)

**5.475B** У опсегу 9 300-9 500 MHz, станице које раде у радио-локацијској служби не смеју ометати, нити захтевати заштиту због, радара који раде у радио-навигацијској служби у сагласности са Правилником о радио-комуникацијама. Радари на тлу који се користе за метеоролошке сврхе имају предност над осталим радио-локацијским уређајима. (WRC-07)

**SUP** COM6/341/12 (B14/365/12) (R7/411/44)

**5.476**

**MOD** COM4/332/84 (B13/347/33) (R7/411/45)

**5.476A** У опсегу 9 300-9 800 MHz, станице службе истраживања Земље сателитом (активно) и службе истраживања свемира (активно) не смеју ометати, нити тражити заштиту због њих, станице радио-навигацијске службе и радио-локацијске службе. (WRC-07)

**ADD** COM4/332/85 (B13/347/34) (R7/411/46)

**5.4B07** Коришћење опсега 9 300-9 500 MHz од стране службе истраживања Земље сателитом (активно) и службе истраживања свемира (активно) ограничено је на системе којима је потребна ширина опсега већа од 300 MHz што не може да буде у потпуности задовољено унутар 9 500-9 800 MHz опсега. (WRC-07)

**MOD** COM5/264/72 (B6/268/78) (R3/292/80)

**5.477** *Различите категорије служби:* у Алжиру, Саудијској Арабији, Бахреину, Бангладешу, Брунеј Дарусаламу, Камеруну, Египту, Уједињеним Арапским Емиратима, Еритреји, Етиопији, Гвајани, Индији, Индонезији, Ирану (Исламској Републици), Ираку, Јамајки, Јапану, Јордану, Кувајту, Либану, Либерији, Малезији, Нигерији, Оману, Пакистану, Катару, Сиријској Арапској Републици, Северној Кореји, Сингапуру, Сомалији, Судану, Тринидаду и Тобагоу, и Јемену, намена опсега 9 800-10 000 MHz фиксној служби је на примарној основи (види No. **5.33**). (WRC-07)

**MOD** COM5/264/73 (B6/268/79) (R3/292/81)

**5.478** *Додатна намена:* у Азербејдану, Монголији, Киргистану, Румунији, Туркменистану и Украјини, опсег 9 800-10 000 MHz је такође намењен радио-навигацијској служби на примарној основи. (WRC-07)

**ADD** COM4/417/3

**5.xyz** Коришћење опсега 9 800-9 900 MHz од стране службе истраживања Земље сателитом (активно) и службе истраживања свемира (активно) ограничено је на системе којима је потребна ширина опсега већа од 500 MHz што не може бити у потпуности задовољено у 9 300-9 800 MHz опсегу.

**ADD** COM4/417/4

**5.xyy** У опсегу 9 800-9 900 MHz, станице службе истраживања Земље сателитом (активно) и службе истраживања свемира (активно) не смеју ометати, нити тражити заштиту због њих, станице фиксне службе којима је овај опсег намењен на секундарној основи.

**MOD** COM5/264/74 (B6/268/80) (R3/292/82)

**5.480** *Додатна намена:* у Аргентини, Бразилу, Чилеу, Коста Рики, Куби, Ел Салвадору, Еквадору, Гватемали, Хондурасу Мексикку, Парагвају, Холандским Антилима, Перуу и Уругвају, опсег 10-10.45 GHz је такође намењен фиксној и мобилној службама на примарној основи. У Венецуели, опсег 10-10.45 GHz је такође намењен фиксној служби на примарној основи. (WRC-07)

**MOD** COM5/264/75 (B6/268/81) (R3/292/83)

**5.481** *Додатна намена:* у Немачкој, Анголи, Бразилу, Кини, Коста Рики, Обали Слоноваче, Ел Салвадору, Еквадору, Шпанији, Гватемали, Мађарској, Јапану, Кенији, Мароку, Нигерији, Оману, Узбекистану, Парагвају, Перуу, Северној Кореји, Румунији, Танзанији, Тајланду и Уругвају, опсег 10.45-10.5 GHz је такође намењен фиксној и мобилној службама на примарној основи. (WRC-07)

**MOD** COM5/373/1 (B15/396/2)

#### 10-11.7 GHz

Намене службама		
Регион 1	Регион 2	Регион 3
<b>10.6-10.68</b>	ИСТРАЖИВАЊЕ ЗЕМЉЕ САТЕЛИТОМ (пасивно) ФИКСНА МОБИЛНА изузев ваздухопловне мобилне РАДИО АСТРОНОМСКА ИСТРАЖИВАЊЕ СВЕМИРА (пасивно) Радио-локацијска 5.149 MOD 5.482 ADD 5.BA01	

**MOD** COM5/373/2 (B15/396/3)

**5.482** У опсегу 10.6-10.68 GHz, снага коју предају антени станица фиксне и мобилне изузев ваздухопловне мобилне службе не сме превазићи –3 dBW. Ово ограничење може да буде превазиђено, по споразуму постигнутом према No. **9.21**. Међутим, у Алжиру, Саудијској Арабији, Јерменији, Азербејџану, Бахреину, Бангладешу, Белорусији, Египту, Уједињеним Арапским Емиратима, Грузији, Индији, Индонезији, Ирану (Исламској Републици), Ираку, Јордану, Либијској Арапској Џамахирији, Казахстану, Кувајту, Либану, Мароку, Мауританији, Молдавији, Нигерији, Оману, Узбекистану, Пакистану, Филипинима, Катару, Сиријској Арапској Републици, Киргистану, Сингапуру, Таџикистану, Тунису, Туркменистану и Виетнаму, ова ограничења на фиксну и мобилну изузев ваздухопловне мобилне службе се не примењују. (WRC-07)

**ADD** COM5/373/3 (B15/396/4)

**5.BA01** За дељење опсега 10.6-10.68 GHz између службе истраживања Земље сателитом (пасивно) и фиксне и мобилне изузев ваздухопловне мобилне службе, Резолуција [**COM5/5**] (**WRC-07**) се примењује. (WRC-07)

**MOD** COM5/264/76 (B6/268/82) (R3/292/84)

**5.483** *Додатна намена:* у Саудијској Арабији, Јерменији, Азербејџану, Бахреину, Белорусији, Кини, Колумбији, Републици Кореји, Коста Рики, Египту, Уједињеним Арапским Емиратима, Грузији, Ирану (Исламској Републици), Ираку, Израелу, Јордану, Казахстану, Кувајту, Либану, Монголији, Катару, Киргистану, Северној Кореји, Румунији, Таџикистану, Туркменистану и Јемену, опсег 10.68-10.7 GHz је такође намењен фиксној и мобилној изузев ваздухопловне мобилне службама на примарној основи. Таква употреба је ограничена на уређаје који су у раду после 1.01.1985. (WRC-07)

**MOD** COM5/264/77 (B6/268/83) (R3/292/85)

**5.495** *Додатна намена:* у Босни и Херцеговини, Француској, Грчкој, Лихтенштајну, Монаку, Црној Гори, Уганди, Румунији, Србији, Швицарској, Танзанији и Тунису, опсег 12.5-12.75 GHz је такође намењен фиксној и мобилној, изузев ваздухопловне мобилне службама на секундарној основи. (WRC-07)

**MOD** COM5/264/78 (B6/268/84) (R3/292/86)

**5.501** *Додатна намена:* у Азербејџану, Мађарској, Јапану, Монголији, Киргистану, Румунији и Туркменистану, опсег 13.4-14 GHz је такође намењен радио-навигацијској служби на примарној основи. (WRC-07)

**MOD** COM5/264/79 (B6/268/85) (R3/292/87)

**5.505** *Додатна намена:* у Алжиру, Анголи, Саудијској Арабији, Бахреину, Боцвани, Брунеј Дарусаламу, Камеруну, Кини, Републици Конго, Јужној Кореји, Египту, Уједињеним Арапским Емиратима, Габону, Гвинеји, Индији, Индонезији, Ирану (Исламској Републици), Ираку, Израелу, Јапану, Јордану, Кувајту, Лесоту, Либану, Малезији, Малију, Мароку, Мауританији, Оману, Пакистану, Филипинима, Катару, Сиријској Арапској Републици, Северној Кореји, Сингапуру, Сомалији, Судану, Свазиленду, Танзанији, Чаду, Вијетнаму и Јемену, опсег 14-14.3 GHz је такође намењен фиксној служби на примарној основи. (WRC-07)

**MOD** COM5/264/80 (B6/268/86) (R3/292/88)

**5.508** *Додатна намена:* у Немачкој, Босни и Херцеговини, Француској, Италији, Либијској Арапској Џамахирији, Македонији (Бившој Југословенској Републици) и Великој Британији, опсег 14.25-14.3 GHz је такође намењен фиксној служби на примарној основи. (WRC-07)

**SUP** COM5/173/2 (B1/196/6) (R1/221/5)

**5.509**

**MOD** COM5/264/81 (B6/268/87) (R3/292/89)

**5.511** *Додатна намена:* у Саудијској Арабији, Бахреину, Босни и Херцеговини, Камеруну, Египту, Уједињеним Арапским Емиратима, Гвинеји, Ирану (Исламској Републици), Ираку, Израелу, Либијској Арапској Џамахирији, Кувајту, Либану, Пакистану, Катару, Сиријској Арапској Републици и Сомалији, опсег 15.35-15.4 GHz је такође намењен фиксној и мобилној службама на секундарној основи. (WRC-07)

**MOD** COM5/264/82 (B6/268/88) (R3/292/90)

**5.512** *Додатна намена:* у Алжиру, Анголи, Саудијској Арабији, Аустрији, Бахреину, Бангладешу, Брунеј Дарусаламу, Камеруну, Републици Конго, Коста Рики, Египту, Ел Салвадору, Уједињеним Арапским Емиратима, Еритреји, Финској, Гватемали, Индији, Индонезији, Ирану (Исламској Републици), Либијској Арапској Џамахирији, Јордану, Кенији, Кувајту, Либану, Малезији, Малију, Мароку, Мауританији, Црној Гори, Мозамбику, Непалу, Никарагви, Оману, Пакистану, Катару, Сиријској Арапској Републици, Србији, Сингапуру, Сомалији, Судану, Свазиленду, Танзанији, Чаду, Тогоу и Јемену, опсег 15.7-17.3 GHz је такође намењен фиксној и мобилној службама на примарној основи. (WRC-07)

**MOD** COM5/287/1 (B8/293/1) (R4/335/17)

**15.4-18.4 GHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>17.3-17.7</b> ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.516 (свемир-Земља) 5.516А 5.516В Радио-локацијска 5.514	<b>17.3-17.7</b> ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.516 РАДИОДИФУЗНА САТЕЛИТСКА Радио-локацијска 5.514 5.515	<b>17.3-17.7</b> ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.516 Радио-локацијска 5.514
<b>17.7-18.1</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) 5.484А (Земља-свемир) 5.516 МОБИЛНА	<b>17.7-17.8</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) MOD 5.517 (Земља-свемир) 5.516 РАДИОДИФУЗНА САТЕЛИТСКА Мобилна 5.515 <b>17.8-18.1</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) 5.484А (Земља-свемир) 5.516 МОБИЛНА MOD 5.519	<b>17.7-18.1</b> ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) 5.484А (Земља-свемир) 5.516 МОБИЛНА
<b>18.1-18.4</b>	ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) 5.484А 5.516В (Земља-свемир) 5.520 МОБИЛНА MOD 5.519 5.521	

**MOD** COM5/264/83 (B6/268/89) (R3/292/91)

**5.514** *Додатна намена:* у Алжиру, Анголи, Саудијској Арабији, Бахреину, Бангладешу, Камеруну, Коста Рики, Ел Салвадору, Уједињеним Арапским Емиратима, Гватемали, Индији, Ирану (Исламској Републици), Ираку, Израелу, Италији, Либијској Арапској Цамахирији, Јапану, Јордану, Кувајту, Литванији, Непалу, Никарагви, Нигерији, Оману, Узбекистану, Пакистану, Катару, Киргистану и Судану, опсег 17.3-17.7 GHz је такође намењен фиксној и мобилној службама на секундарној основи.. Морају се применити ограничења снаге из Nos. **21.3** и **21.5**. (WRC-07)

**MOD** COM5/287/2 (B8/293/2) (R4/335/18)

**5.517** У Региону 2, коришћење фиксне сателитске (свемир-Земља) службе у опсегу 17.7-17.8 GHz не сме ометати ( нити захтевати заштиту због тога ) доделе у радио-дифузној сателитској служби која ради у складу са Правилником о радио-комуникацијама. (WRC-07)

**SUP** COM5/287/3 (B8/293/3) (R4/335/19)

**5.518**

**MOD** COM5/287/4 (B8/293/4) (R4/335/20)

**5.519** *Додатна намена:* опсежи 18.0-18.3 GHz у Региону 2 и 18.1-18.4 GHz у Регионима 1 и 3 такође су намењени метеоролошкој сателитској служби (свемир-Земља) на примарној основи. Њихово коришћење је ограничено на геостационарне сателите. (WRC-07)

**MOD** COM5/264/84 (B6/268/90) (R3/292/92)

**5.524** *Додатна намена:* у Авганистану, Алжиру, Анголи, Саудијској Арабији, Бахреину, Брунеј Дарусаламу, Камеруну, Кини, Републици Конго, Коста Рики, Египту, Уједињеним Арапским Емиратима, Габону, Гватемали, Гвинеји, Индији, Ирану (Исламској Републици), Ираку, Израелу, Јапану, Јордану, Кувајту, Либану, Малезији, Малију, Мароку, Мауританији, Непалу, Нигерији, Оману, Пакистану, Филипинима, Катару, Сиријској Арапској Републици, Демократској Републици Конго, Северној Кореји, Сингапуру, Сомалији, Судану, Танзанији, Чаду, Тогоу и Тунису, опсег 19.7-21.2 GHz је такође намењен фиксној и мобилној службама на примарној основи. Ово додатно коришћење не сме постављати никаква ограничења на снагу густине флуksа свемирске станице у фиксној сателитској служби у опсегу 19.7-21.2 GHz и свемирске станице у мобилној сателитској служби у опсегу 19.7-20.2 GHz где је намена за мобилну сателитску службу на примарној основи за овај други опсег. (WRC-07)

**MOD** COM6/341/13 (B14/365/13) (R7/411/47)

**5.530** У Регионима 1 и 3, коришћење опсега 21.4-22 GHz од стране радио-дифузне сателитске службе подлеже одрдама Резолуције **525 (Rev.WRC-07)**. (WRC-07)

**MOD** COM5/372/2 (B15/396/5)

**22-24.75 GHz**

Намене службама		
Регион 1	Регион 2	Регион 3
22.55-23.55	ФИКСНА МЕЋУСАТЕЛИТСКА ADD 5.BA03 МОБИЛНА 5.149	
23.55-23.6	ФИКСНА МОБИЛНА	
23.6-24	ИСТРАЖИВАЊЕ ЗЕМЉЕ САТЕЛИТОМ (пасивно) РАДИО-АСТРОНОМСКА ИСТРАЖИВАЊЕ СВЕМИРА (пасивно) 5.340	

**MOD** COM5/372/3 (B15/396/6)

**29.9-34.2 GHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>30-31</b>	ФИКСНА САТЕЛИТСКА (Земља-свемир) ADD 5.BA03 МОБИЛНА САТЕЛИТСКА (Земља-свемир) Стандард фреквенције и сателитски сигнал тачног времена (свемир-Земља) 5.542	
<b>31-31.3</b>	ФИКСНА 5.543A ADD 5.BA03 МОБИЛНА Стандард фреквенције и сателитски сигнал тачног времена (свемир-Земља) Истраживање свемира 5.544 5.545 5.149	
<b>31.3-31.5</b>	ИСТРАЖИВАЊЕ ЗЕМЉЕ САТЕЛИТОМ (пасивно) РАДИО-АСТРОНОМСКА ИСТРАЖИВАЊЕ СВЕМИРА (пасивно) 5.340	

**ADD** COM5/372/6 (B15/396/11)

**5.BA03** У опсезима 1 350-1 400 MHz, 1 427-1 429 MHz, 1 429-1 452 MHz, 22.55-23.55 GHz, 30-31 GHz, 31-31.3 GHz, 49.7-50.2 GHz, 50.4-50.9 GHz и 51.4-52.6 GHz, Резолуција [COM5/4] (WRC-07) се примењује. (WRC-07)

**MOD** COM5/373/6 (B15/396/7)

**34.2-40 GHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>36-37</b>	ИСТРАЖИВАЊЕ ЗЕМЉЕ САТЕЛИТОМ (пасивно) ФИКСНА МОБИЛНА ИСТРАЖИВАЊЕ СВЕМИРА (пасивно) 5.149 ADD 5.BA02	

**ADD** COM5/373/7 (B15/396/8)

**5.BA02** За дељење опсега 36-37 GHz између службе истраживања Земље сателитом (пасивно) и фиксне и мобилне служби, Резолуција [COM5/6] (WRC-07) се примењује. (WRC-07)

**MOD** COM5/264/85 (B6/268/91) (R3/292/93)

**5.536B** У Немачкој, Саудијској Арабији, Аустрији, Белгији, Бразилу, Бугарској, Кини, Јужној Кореји, Данској, Египту, Уједињеним Арапским Емиратима, Шпанији, Естонији, Финској, Француској, Мађарској, Индији, Ирану (Исламској Републици), Ирској, Израелу, Италији, Либијској Арапској Цамахирији, Јордану, Кенији, Кувајту, Либану, Лихтенштајну, Литванији, Молдавији, Норвешкој, Оману, Уганди, Пакистану, Филипинима, Пољској, Португалу, Сиријској Арапској Републици, Северној Кореји, Словачкој, Чешкој Републици, Румунији, Великој Британији, Сингапуру, Шведској, Швицарској, Танзанији, Турској, Вијетнаму и Зимбабвеу, Земљине станице које раде у служби истраживања Земље сателитом у опсегу 25.5-27 GHz не смеју захтевати заштиту због, нити ограничавати коришћење и постављање, станица фиксне и мобилне служби. (WRC-07)

**MOD** COM5/284/1 (B8/293/5) (R4/335/21)

**5.537A** У Бутану, Камеруну, Јужној Кореји, Руској Федерацији, Индији, Индонезији, Ирану (Исламској Републици), Јапану, Казахстану, Лесоту, Малезији, Малдивима, Монголији, Мајнамару, Узбекистану, Пакистану, Филипинима, Киргистану, Северној Кореји, Шри Ланки, Тајланду и Вијетнаму, намена фиксне службе у опсегу 27.9-28.2 GHz може такође бири коришћена за станице на платформама на великим висинама (HAPS) унутар територије тих држава. Такво коришћење HAPS-а од 300 MHz од намене за фиксну службу у горенаведеним земљама ограничено је даље на рад у HAPS–земља смеру и не сме ометати нити захтевати заштиту због других типова система фиксне службе или других ко-примарних служби. Надаље, HAPS не сме да ограничава развој тих других служби. Види Резолуцију **145 (Rev.WRC-07)**. (WRC-07)

**MOD** COM5/216/3 (B3/224/6)

**5.538** *Додатна намена:* опсежи 27.500-27.501 GHz и 29.999-30.000 GHz су такођер намењени фиксној сателитској (свемир-Земља) служби на примарној основи за емисије радио-фарова, који су предвиђени за контролу снаге узлазне везе. Такве емисије (свемир-Земља) не смеју да превазиђу е.и.р. од +10 dBW у смеру суседног сателита на геостационарној сателитској орбити. (WRC-07)

**MOD** COM5/264/86 (B6/268/92) (R3/292/94)

**5.542** *Додатна намена:* у Алжиру, Саудијској Арабији, Бахреину, Брунеј Дарусаламу, Камеруну, Кини, Републици Конго, Египту, Уједињеним Арапским Емиратима, Еритреји, Етиопији, Гвинеји, Индији, Ирану (Исламској Републици), Ираку, Јапану, Јордану, Кувајту, Либану, Малезији, Малију, Мароку, Мауританији, Непалу, Пакистану, Филипинима, Катару, Сиријској Арапској Републици, Северној Кореји, Сомалији, Судану, Шри Ланки и Чаду, опсег 29.5-31 GHz је такође намењен фиксној и мобилној службама на секундарној основи. Ограничења снаге специфицирана у Nos. **21.3** и **21.5** треба да се примене. (WRC-07)

**MOD** COM5/284/2 (B8/293/6) (R4/335/22)

**5.543A** У Бутану, Камеруну, Јужној Кореји, Руској Федерацији, Индији, Индонезији, Ирану (Исламској Републици), Јапану, Казахстану, Лесоту, Малезији, Малдивима, Монголији, Мајнамару, Узбекистану, Пакистану, Филипинима, Киргистану, Северној Кореји, Шри Ланки, Тајланду и Вијетнаму, намена фиксној служби у опсегу 31-31.3 GHz може такође бити коришћена за станице на платформама на великим висинама (HAPS) у смеру земља-HAPS. Коришћење опсега 31-31.3 GHz од стране система који употребљавају HAPS ограничено је на територију горенаведених земаља и не сме ометати нити захтевати заштиту због других типова система фиксне службе, система мобилне службе и система који раде према No. **5.545**. Надаље, HAPS не сме да ограничава развој тих служби. Системи који користе HAPS у опсегу 31-31.3 GHz не смеју ометати станице радио-астрономске службе која има примарну намену у опсегу 31.3-31.8 GHz, узимајући у обзир критериј заштите дат у Препоруци ITU-R RA.769. Да би се осигурала заштита сателитске пасивне службе, ниво густине нежељене снаге једне HAPS антене на земљи у опсегу 31.3-31.8 GHz мора бити ограничен на -106 dB(W/MHz) у условима чистог неба и може бити повећан до -100 dB(W/MHz) у кишним условима због слабљења узрокованог кишом, омогућујући да ефективни утицај на пасивни сателит не превазилази утицај у условима чистог неба. Види Резолуцију **145 (Rev.WRC-07)**. (WRC-07)

**MOD** COM5/264/87 (B6/268/93) (R3/292/95)

**5.545** *Различите категорије служби:* у Јерменији, Грузији, Монголији, Киргистану, Таџикистану и Туркменистану, намена опсега 31-31.3 GHz служби истраживања свемира је на примарној основи (види No. **5.33**). (WRC-07)

**MOD** COM5/372/5 (B15/396/10)

**51.4-55.78 GHz**

Намене службама		
Регион 1	Регион 2	Регион 3
51.4-52.6	ФИКСНА ADD 5.BA03 МОБИЛНА 5.547 5.556	

**MOD** COM5/264/88 (B6/268/94) (R3/292/96)

**5.546** *Различите категорије служби:* у Саудијској Арабији, Јерменији, Азербејдану, Белорусији, Египту, Уједињеним Арапским Емиратима, Шпанији, Естонији, Руској Федерацији, Грузији, Мађарској, Ирану (Исламској Републици), Израелу, Јордану, Либану, Молдавији, Монголији, Узбекистану, Пољској, Сиријској Арапској Републици, Киргистану, Румунији, Великој Британији, Јужној Африци, Таџикистану, Туркменистану и Турској, намена опсега 31.5-31.8 GHz фиксној и мобилној изузев ваздухопловне мобилне службама је на примарној основи (види No. **5.33**). (WRC-07)

**MOD** COM6/382/9 (B20/414/9)

**5.547** Опсеги 31.8-33.4 GHz, 37-40 GHz, 40.5-43.5 GHz, 51.4-52.6 GHz, 55.78-59 GHz и 64-66 GHz су доступни за примене за фиксне службе велике густине (видети Резолуцију **75 (WRC-2000)**). Администрације треба да узму ово у обзир када разматрају регулаторне одредбе у вези са овим опсезима. Због могућности развијања примена за фиксне службе велике густине у опсезима 39.5-40 GHz и 40.5-42 GHz (види No. **5.516Ba**), администрације треба да узму у обзир могућности ограничења за примене у фиксној служби велике густине, на одговарајући начин. (WRC-07)

**MOD** COM5/264/89 (B6/268/95) (R3/292/97)

**5.550** *Различите категорије служби:* у Јерменији, Азербејдану, Белорусији, Руској Федерацији, Грузији, Монголији, Киргистану, Таџикистану и Туркменистану, намена опсега 34.7-35.2 GHz служби истраживања свемира је на примарној основи (види No. **5.33**). (WRC-07)

**MOD** COM6/341/14 (B14/365/14) (R7/411/48)

**5.551H** Еквивалентна снага густине флуksа (epfd) која је произведена, у опсегу 42.5-43.5GHz од свих свемирских станица у било ком не-геостационарном сателитском систему у фиксној сателитској служби (свемир-Земља) или у радио-дифузној сателитској служби (свемир-Земља) која ради у опсегу 42-42.5 GHz неће превазилазити следеће вредности на месту радио-астрономских станица за више од 2% времена:

–230 dB(W/m<sup>2</sup>) у 1 GHz и -246 dB(W/m<sup>2</sup>) у било којих 500 kHz опсега 42.5-43.5 GHz на локацији било које радио-астрономска станица регистрована на појединачном тањирастом телескопу (single-dish телескоп); и

–209 dB(W/m<sup>2</sup>) у било којих 500 kHz опсега 42.5-43.5 GHz на локацији било које радио-астрономске станице регистроване као врло дуга основна линија интерферометарске станице.

Ове epfd вредности биће процењене користећи методологију дату у Препоруци ITU-R S. 1586 и препоручени модел антене са максималним добитком антене у радио-астрономској служби дате у Препоруци ITU-R RA.1631 и примењиваће се преко целог неба и за елевационе углове веће од минималног радног угла  $\theta_{min}$  радио-телескопа (за кога ће дефинисана вредност од 5° бити усвојена у недостатку нотификоване информације).

Ове вредности ће се примењивати у било којој радио-астрономској станици:

- која је била у функцији пре 5.05.2009 и нотификована је у Биро за радио-комуникације пре 4. јануара 2004. године; или

- која је била нотификована пре дана пријема комплетног Апендикса 4 информације о координацији или нотификацији, за одговарајуће свемирске станице чија је употреба ограничена.

Друге радио-астрономске станице нотификоване после ових датума морају тражити уговоре са администрацијама које имају овлашћене свемирске станице. У Региону 2, Резолуција **743 (WRC-03)** се примењује. Ограничења у овој фусноти могу бити превазиђена на локацији радио-астрономске станице било које земље чија се администрација сложи. (WRC-07)

**MOD COM5/372/4 (B15/396/9)**

**47.5-51.4 GHz**

Намене службама		
Регион 1	Регион 2	Регион 3
<b>47.5-47.9</b> ФИКСНА ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.552 (свемир-Земља) 5.516В 5.554А МОБИЛНА	<b>47.5-47.9</b> ФИКСНА ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.552 МОБИЛНА	
<b>47.9-48.2</b>	ФИКСНА ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.552 МОБИЛНА 5.552А	
<b>48.2-48.54</b> ФИКСНА ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.552 (свемир-Земља) 5.516В 5.554А 5.555В МОБИЛНА	<b>48.2-50.2</b> ФИКСНА ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.516В 5.552 ADD 5.ВА03 МОБИЛНА  5.149 5.340 5.555	
<b>48.54-49.44</b> ФИКСНА ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.552 МОБИЛНА 5.149 5.340 5.555		
<b>49.44-50.2</b> ФИКСНА ФИКСНА САТЕЛИТСКА (Земља-свемир) 5.552 ADD 5.ВА03 (свемир-Земља) 5.516В 5.554А 5.555В МОБИЛНА		
<b>50.2-50.4</b>	ИСТРАЖИВАЊЕ ЗЕМЉЕ САТЕЛИТОМ (пасивно) ИСТРАЖИВАЊЕ СВЕМИРА (пасивно) 5.340	
<b>50.4-51.4</b>	ФИКСНА ФИКСНА САТЕЛИТСКА (Земља-свемир) ADD 5.ВА03 МОБИЛНА Мобилна сателитска (Земља-свемир)	

**MOD COM5/284/3 (B8/293/7) (R4/335/23)**

**5.552А** Намена фиксној служби у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz је предвиђена за коришћење станица на платформи на великој висини. Коришћење опсега 47.2-47.5 GHz и 47.9-48.2 GHz подлеже примени одредби које су садржане у Резолуцији **122 (Rev. WRC-07)**.

(WRC-07)

**MOD** COM6/341/15 (B14/365/15) (R7/411/49)

**66-81 GHz**

Намене службама		
Регион 1	Регион 2	Регион 3
74-76	ФИКСНА ФИКСНА САТЕЛИТСКА (свемир-Земља) МОБИЛНА РАДИОДИФУЗНА РАДИОДИФУЗНА САТЕЛИТСКА Истраживање свемира (свемир-Земља) 5.561	

**SUP** COM6/341/16 (B14/365/16) (R7/411/50)

**5.559A**

**ЧЛАН 9**

**Процедура за вршење координације са или добијања сагласности од других администрација<sup>1, 2, 3, 4, 5, 6, 7, 8</sup> (WRC-07)**

**Секција I – Напредне публикације или информације о сателитским мрежама или сателитским системима**

**9.2B**

**MOD** COM5/308/1 (B10/326/1) (R6/410/8)

<sup>10</sup> **9.2B.1** Ако уплате нису примљене у складу са одредбама Одлуке Савета 482, са изменама и допунама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања дотичне администрације. Биро ће информисати све администрације о таквој акцији, и да мрежа специфицирана у дотичној публикацији неће више бити узимана у разматрање од Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горепоменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**Секција II – Процедура за извршавање координације<sup>12, 13</sup>**

**Под-Секција IIА – Потреба и захтев за координацијом**

**MOD** COM5/216/5 (B3/224/8) (R2/266/1)

**9.14** *i)* за емитујућу свемирску станицу сателитске мреже за коју је захтев за координацијом укључен у фусноту Табеле намене фреквенција позивајући се на ову одредбу или на **9.11A** у односу на пријемне станице земаљских служби где је праг вредности пређен; (WRC-07)

**9.38**

**MOD** COM5/308/2 (B10/326/2) (R6/410/9)

<sup>22</sup> **9.38.1** Ако уплате нису примљене у складу са одредбама Одлуке Савета 482, са изменама и допунама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања дотичне администрације. Биро ће информисати све администрације о таквој акцији, и да мрежа специфицирана у

дотичној публикацији неће више бити узимана у разматрање од Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горепоменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**MOD** COM5/287/5 (B8/293/8) (R4/335/24)

**9.41** Следећи потврду од BR IFIC која се односи на захтеве за координацијом под Nos. **9.7 до 9.7B**, администрација која верује да је могла бити укључена у захтев или иницирајућа администрација која верује да нека администрација идентификована под No. **9.36** у складу са одредбама No. **9.7** (GSO/GSO) (ставке 1) до 8) колоне фреквенцијског опсега), No. **9.7A** (GSO Земљина станица /не-GSO систем) или No. **9.7B** (не-GSO систем/GSO Земљина станица) Табеле 5-1 Додатка **5** не би требала да буде укључена у захтев, треба, унутар четири месеца од датума публикавања релевантне BR IFIC, информисати иницирајућу администрацију или идентификовану администрацију, по потреби, и Биро, дајући своје техничке разлоге за такав поступак, и треба захтевати да њено име буде укључено или да име идентификоване администрације буде искључено, према потреби. (WRC-07)

**MOD** COM5/308/3 (B10/326/3) (R6/410/10)

## ЧЛАН 11

**Обавештавање и записивање фреквенцијских додела**<sup>1, 2, 3, 4, 5, 6, ADD 6bis</sup> (WRC-07)

**ADD** COM5/308/4 (B10/326/4) (R6/410/11)

<sup>6bis</sup> **A.11.6** Ако уплате нису примљене у складу са одредбама Одлуке Савета 482, са изменама и допунама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију специфицирану у Nos. **11.28** и **11.43** и одговарајућих ставки у Главном регистру под Nos. **11.36, 11.37, 11.38, 11.39, 11.41, 11.43B** или **11.43C**, по потреби, након информисања заинтересованих администрација. Биро треба да информише све администрације о таквој акцији и да ставке публиковане у дотичној публикацији не треба више да буду узимане у обзир од стране Бироа и других администрација и да било која поново поднесена обавест треба да буде сматрана новом обавести. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горепоменутом Одлуком Савета 482 осим ако је уплата већ примљена.. Види такође Резолуцију **905 (WRC-07)**. (WRC-07)

## Секција I – Обавештења

**SUP** COM5/344/1 (B14/365/17) (R7/411/51)

### 11.3A

**MOD** COM5/379/1 (B16/401/1)

**11.9** Слична обавештења треба да буду рађена за фреквенцијску доделу за пријемну Земљину станицу или свемирску станицу, или за пријемну станицу на платформи на великим висинама у фиксној служби користећи опсеге споменуте у Nos. **5.543A** и **5.552A** или копнене станице за пријем од мобилних станица, када: (WRC-07)

**MOD** COM5/307/1 (B11/329/7) (R6/410/12)

**11.15** Када обавештава о фреквенцијској додели, администрација<sup>7</sup> треба да пружи релевантне карактеристике излистане у Додатку **4**. (WRC-07)

**MOD** COM5/284/4 (B8/293/9) (R4/335/25)

**11.26** Обавештења која се односе на доделе за станице на платформама на великим висинама у фиксној служби у опсезима идентификованим у одредбама **5.537A**, **5.543A** и **5.552A** треба да стигну у Биро не раније од пет година пре него што се додела да на коришћење. (WRC-07)

## **Секција II – Испитивање обавештења и записивање фреквенцијских намена у Главни регистар**

**MOD** COM5/379/2 (B16/401/2)

**11.43A** Обавештење о измени у карактеристикама неке доделе која је већ записана, како је специфицирано у Додатку **4**, треба бити испитано од стране Бироа под Nos. **11.31** до **11.34**, по могућности. Било која измена карактеристика неке доделе која је записана и потврђена за давање на коришћење треба бити дата на коришћење унутар пет година од дана обавештења о модификацији. Свака промена карактеристика неке доделе која је записана али није још дата на коришћење треба да буде дата на коришћење унутар периода датог за то у No. **11.44**. (WRC-07)

**MOD** COM5/379/3 (B16/401/3)

**11.46** У примени одредаба овог Члана, било које поново поднето обавештење које је примио Биро више од шест месеци након датума када је Биро вратио оригинално обавештење треба да се сматра новим обавештењем са новим датумом пријема. За фреквенцијске доделе свемирској станици, уколико нови датум пријема таквог обавештења не одговара периоду специфицираном у No. **11.44.1** или No. **11.43A**, по могућности, обавештење треба бити враћено обавештавајућој администрацији у случају No. **11.44.1**, и обавештење треба да буде испитано као ново обавештење о промени у карактеристикама неке доделе већ записане са новим датумом пријема у случају No. **11.43A**. (WRC-07)

**MOD** COM5/216/7 (B3/224/10) (R2/266/2)

**11.47** Све фреквенцијске доделе за које су обавештења била дата пре него што су дате на коришћење треба да се унесу привремено у Главни регистар. Било која фреквенцијска додела свемирској станици привремено записана под овом одредбом треба се дати на коришћење не касније од краја периода датог под No. **11.44**. Било која друга фреквенцијска додела привремено записана под том одредбом треба бити дата на коришћење до датума специфицираног у обавештењу, или до краја продуженог периода датом под No. **11.45**, ко што се може десити. Осим ако је Биро био обавештен од обавештавајуће администрације о давању на коришћење доделе, треба, не касније од петнаест дана пре, или од датума обавештења о давању на коришћење, у случају Земљине станице, или краја регулаторног периода установљеног под No. **11.44** или No. **11.45**, по потреби, послати подсетник захтевајући потврду да је додела дата на коришћење унутар тог регулаторног периода. Ако Биро не прими ту потврду унутар тридесет дана након датума обавештења о давању на коришћење, у случају Земљине станице, или периода датог под No. **11.44** или No. **11.45**, као што се може десити, треба да се поништи та ставка у Главном регистру. Биро треба, међутим, обавестити заинтересовану администрацију пре предузимања такве акције. (WRC-07)

## ЧЛАН 15

### Интерфејси

#### Секција I – Интерфејс од радио станица

**MOD** COM4/211/10 (B3/224/11) (R2/266/3)

**15.8** § 4 Посебна бригу треба посветити да се избегне интерференција на фреквенцијама за случај несреће и безбедности, оних које се односе на несрећу и безбедност идентификованих у Члану **31** и онима који се односе на безбедност и регуларност лета идентификованим у Додатку **27**. (WRC-07)

#### Секција VI – Процедура у случају штетне сметње

**MOD** COM4/211/11 (B3/224/12) (R2/266/4)

**15.28** § 20 Признајући да емисије на фреквенцијама за несреће и безбедност и фреквенцијама коришћеним за безбедност и регуларност лета (види Члан **31** и Додатак **27**) захтевају апсолутну међународну заштиту и да елиминација штетних сметњи таквим системима јесте императив, администрације се обавезују да ће одмах деловати кад им пажњу привуче било која таква штетна сметња. (WRC-07)

## ЧЛАН 16

### Међународно надгледање

**MOD** COM6/341/17 (B14/365/18) (R7/411/52)

**16.2** Међународни систем надгледања обухвата само оне надгледајуће станице које су администрације тако назвале у информацији послатој Генералном секретару у складу са Резолуцијом ITU-R 23-1 и Препоруком ITU-R SM.1139. Те станице могу бити вођене од администрација или, у складу са ауторизацијом одобреном од одговарајуће администрације, од стране јавних или приватних фирми, од стране заједничке службе за надгледање установљене од две или више земаља, или од неке међународне организације. (WRC-07)

## ЧЛАН 19

### Идентификација станица

#### Секција II – Намена међународне серије и додела позивних знакова

**MOD** COM4/332/181 (B14/365/19) (R7/411/53)

**19.30** 2) Како потреба расте, бродске станице и бродске земаљске станице на које се одредбе из Поглавља **IX** примењују, и обалне станице, и обалне земаљске станице, или друге станице које нису на броду а способне да комуницирају са тим бродским станицама, треба да имају додељене идентитете поморске мобилне службе у складу са Секцијом VI овог Члана. (WRC-07)

**MOD** COM4/332/89 (B13/347/35) (R7/411/54)

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<sup>2</sup> **19.36.1** Ни у ком случају не сме једна администрација тражити више MIDs него што је укупан број њихових бродских станица о којима је обавештен ИТУ подељено са 1 000, плус један. Администрације треба све да покушају да поново употребе Идентификације поморске мобилне службе (MMSI) додељене из ранијих MID ресурса, који постају редувантни након што бродови не буду више у њиховом националном бродском регистру. Такви бројеви требали би се сматрати слободним за поновну доделу након што су одсутни најмање две сукцесивне едисије Листе V ИТУ публикација службе. Администрације које траже додатне MID ресурсе морају задовољавати критеријуме обавештења за све претходне доделе, у складу са No. **20.16**. Ти критерији се примењују само на MMSIs у основној категорији и на све MIDs додељене администрацији. (WRC-07)

**MOD** COM4/332/90 (B13/347/36) (R7/411/55)

**19.38** § 19 1) Свака администрација треба да одабере позивне знакове из међународне серије намењене или добијене за то; и треба да обавести о тој информацији Генералног секретара заједно са информацијом која треба да се појави у Листама I, IV, V. Та обавештења не укључују позивне знакове додељене аматерским и експерименталним станицама. (WRC-07)

### Секција III – Формирање позивних знакова

**MOD** COM4/211/12 (B3/224/13) (R2/266/5)

**19.55** § 24 1)

- два карактера и два слова, *или*
- два карактера, два слова и једна бројка (осим 0 или 1), *или*
- два карактера (да друго буде слово) и четири бројке (осим 0 или 1 у случајевима где оне одмах следе иза слова), *или*
- два карактера и једно слово и четири бројке (осим 0 или 1 у случајевима где оне одмах следе иза слова). (WRC-07)

**SUP** COM4/211/13 (B3/224/14) (R2/266/6)

**19.56**

**ADD** COM4/211/14 (B3/224/15) (R2/266/7)

**19.68.1** У случају пола серије (на пр. када су прва два карактера намењена више него једној Држави чланици), прва три карактера су потребна за идентификацију националности. У таквим случајевима, позивни знак треба да се састоји од три карактера након којих следи једна бројка и групе не веће од три карактера, од којих задњи треба да буде бројка. (WRC-07)

### Секција IV – Идентификација станица које користе радиотелефонију

**MOD** COM4/332/91 (B13/347/37) (R7/411/56)

**19.73** § 33 1) *Обалне станице*

- позивни знак (види No. **19.52**); *или*
- географско име места као што се појављује у Листи обалних станица и Станица специјалне службе, након чега најбоље да следи реч RADIO или нека друга одговарајућа индикација. (WRC-07)

**MOD** COM4/211/15 (B3/224/16) (R2/266/8)

**19.76** 4) *Станице радиофарова за означавање места удеса*

Кад се користе говорне емисије:

- име и/или позивни знак матичног брода коме радиофар припада. (WRC-07)

#### **Секција V – Селективни позивни бројеви у поморској мобилној служби**

**MOD** COM4/332/92 (B13/347/38) (R7/411/57)

**19.83** § 36 Када станице у поморској мобилној служби користе уређаје за селективни позив у складу са Препорукама ИТУ-Р М.476-5 и ИТУ-Р М.625-3, њихови позивни бројеви треба да су додељени од стране одговорне администрације у складу са одредбама ниже. (WRC-07)

**MOD** COM4/332/93 (B13/347/39) (R7/411/58)

**19.92** § 38 1) У случајевима када су селективни позивни бројеви за бродске станице и идентификациони бројеви за обалне станице потребни за коришћење у поморској мобилној служби, селективни позивни бројеви и идентификациони бројеви треба да су добијени од Генералног секретара на захтев. Након обавештења од неке администрације о увођењу селективног позива за коришћење у поморској мобилној служби: (WRC-07)

**MOD** COM4/332/94 (B13/347/40) (R7/411/59)

**19.96A** 3) Петоцифрени селективни позивни бројеви бродске станице треба да су додељени за опрему за ускопојасну машинску телеграфију (NBDP) (како је описано у Препорукама ИТУ-Р М.476-5). (WRC-07)

**MOD** COM4/332/182 (B14/365/20) (R7/411/60)

#### **Секција VI – Идентитети поморске мобилне службе** (WRC-07)

**MOD** COM4/332/183 (B14/365/21) (R7/411/61)

**19.99** § 39 Када станица<sup>5</sup> која ради у поморској мобилној служби или поморској мобилној сателитској служби има потребу да користи идентитете поморске мобилне службе, одговорна администрација треба да додели идентитет станици у складу са одредбама описаним у Анексима 1 до 5 Препоруке ИТУ-Р М.585-4. У складу са No. **20.16**, администрације треба да обавесте Биро за радио-комуникације одмах чим доделе идентитете поморске мобилне службе. (WRC-07)

**MOD** COM4/332/184 (B14/365/22) (R7/411/62)

**19.100** § 40 1) Идентитети поморске мобилне службе се формирају од серије од девет цифара које се емитују радио путем да би се једнозначно идентификовале бродске станице, бродске земљине станице, обалне станице, обалне Земљине станице, и друге станице које нису на бродовима које раде у поморској мобилној служби или поморској мобилној сателитској служби, и групним позивима. (WRC-07)

**MOD** COM4/332/185 (B14/365/23) (R7/411/63)

**19.102** 3) Типови идентитета поморске мобилне службе требају бити како је описано у Анексима 1 до 5 Препорука ИТУ-Р М.585-4. (WRC-07)

**SUP** COM4/332/186 (B14/365/24) (R7/411/64)

**19.103 to 19.107**

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<sup>5</sup> **19.99.1** In this Section a reference to a ship station or a coast station may include the respective earth stations.

**MOD** COM4/332/187 (B14/365/25) (R7/411/65)

**19.108A** § 41 Поморске идентификационе бројке M<sub>1</sub>I<sub>2</sub>D<sub>3</sub> јесу интегрални део идентитета поморске мобилне службе и означавају географско подручје администрације одговорне за тако идентификовану станицу. (WRC-07)

**MOD** COM4/332/188 (B14/365/26) (R7/411/66)

**19.110** C – Идентификације поморске мобилне службе (WRC-07)

**MOD** COM4/332/189 (B14/365/27) (R7/411/67)

**19.111** § 43 1) Администрације треба да следе Анексе 1 до 5 Препоруке ITU-R M.585-4 која се тиче доделе и коришћења идентитета поморске мобилне службе. (WRC-07)

**MOD** COM4/332/190 (B14/365/28) (R7/411/68)

**19.112** 2) Администрације би требале: (WRC-07)

**MOD** COM4/332/191 (B14/365/29) (R7/411/69)

**19.113** a) да ураде оптимално коришћење могућности формирања идентитета од једног MID који им је намењен; (WRC-07)

**MOD** COM4/332/192 (B14/365/30) (R7/411/70)

**19.114** b) да посвете посебну бригу у додели идентитета бродској станици са шест значајних бројки (на пр. имајући идентитете са три нуле на крају), које би требало да се доделе само бродским станицама за које има резона да се очекује да захтевају такав један идентитет за аутоматски приступ на глобалној основи јавним комутационим мрежама, посебно за мобилне сателитске системе прихваћене да се користе у GMDSS на или пре 1.2.2002., докле год ти системи одржавају MMSI као део њихове шеме нумерисања. (WRC-07)

**SUP** COM4/332/193 (B14/365/31) (R7/411/71)

**19.115 to 19.126**

## ЧЛАН 20

### Публикације службе и он-лајн информациони системи (WRC-07)

#### Секција I – Наслови и садржај публикација службе (WRC-07)

**MOD** COM4/296/9 (B9/305/11) (R4/335/26)

**20.1** § 1 Следеће публикације треба да су издане од стране генералног секретара. Као што налажу околности и као одговор на индивидуалне захтеве администрација, публиковане информације треба такође да су доступне у различитим форматима и одговарајућим начинима. (WRC-07)

**MOD** COM4/296/10 (B9/305/12) (R4/335/27)

**20.5** b) фреквенције прописане овом Регулацивом за заједничко коришћење неких служби; (WRC-07)

**MOD** COM4/296/11 (B9/305/13) (R4/335/28)

**20.7** § 3 *Листа IV – Листа Обалних станица и станица специјалних служби.* (WRC-07)

**MOD** COM4/296/12 (B9/305/14) (R4/335/29)

**20.8** § 4 *Листа V – Листа Бродских станица и Доделе идентитета Поморске мобилне службе.* (WRC-07)

**SUP** COM4/296/13 (B9/305/15) (R4/335/30)

**20.9 и 20.10**

**ADD** COM4/296/14 (B9/305/16) (R4/335/31)

**Секција II – Он-лајн информациони системи** (WRC-07)

**ADD** COM4/296/15 (B9/305/17) (R4/335/32)

**20.14A** Биро за радио-комуникације је направио додатне следеће он-лајн информационе систем(е):

ITU Поморски мобилни систем за приступ и преузимање података (MARS). (WRC-07)

**MOD** COM4/296/16 (B9/305/18) (R4/335/33)

**Секција III – Припреме и допуне публикација службе и он-лајн информационих система** (WRC-07)

**MOD** COM4/296/17 (B9/305/19) (R4/335/34)

**20.15** § 11 Форму, садржај и периодичност сваке публикације треба да установи Биро за радио-комуникације у консултацијама са заинтересованим администрацијама и међународним организацијама. Сличне консултације треба да буду рађене у вези поморских он-лајн информацијских система. (WRC-07)

**MOD** COM4/296/18 (B9/305/20) (R4/335/35)

**20.16** § 12 Администрације треба да предузму све потребне мере да одмах обавесте Биро за радио-комуникације о било којим изменама у радним информацијама садржаним у Листама IV и V, у погледу важности те информације, посебно у вези безбедности. У случају података публикованих у Листи V, која је такође направљена доступном он-лајн користећи MARS, администрације требају да саопште те промене најмање једном месечно. У случају других публикација, администрације треба да саопште промене информација садржаних у њима што пре је могуће. (WRC-07)

**ADD** COM4/296/19 (B9/305/21) (R4/335/36)

**20.16A** Имена администрација које су пропустиле да обавесте Биро за радио-комуникације о променама радних информација садржаних у Листама IV и V требају бити публикована у тим Листама.

Биро за радио-комуникације ће периодично захтевати од администрација да поново потврде информације публиковане у Листама IV и V. Ако никаква информација не стигне у Биро за радио-комуникације за два сукцесивна издања Листа IV и V, информације које више не вреде треба избрисати. Биро за радио-комуникације треба наравно да информише заинтересовану администрацију пре предузимања такве мере. (WRC-07)

## ЧЛАН 21

### Земаљске и свемирске службе које деле фреквенцијски опсег изнад 1 GHz

#### Секција II – Ограничења снаге за земаљске станице

MOD COM5/307/2 (B11/329/8) (R6/410/13)

ТАБЕЛА 21-2 (WRC-07)

Фреквенцијски опсег	Служба	Границе специфициране у Nos.
1 427-1 429 MHz 1 610-1 645.5 MHz (No. <b>5.359</b> ) 1 646.5-1 660 MHz (No. <b>5.359</b> ) 1 980-2 010 MHz 2 010-2 025 MHz (Регион 2) 2 025-2 110 MHz 2 200-2 290 MHz 2 655-2 670 MHz <sup>5</sup> (Региони 2 и 3) 2 670-2 690 MHz 5 670-5 725 MHz (Nos. <b>5.453</b> и <b>5.455</b> ) 5 725-5 755 MHz <sup>5</sup> (Регион 1 земље излистане у Nos. <b>5.451</b> , <b>5.453</b> and <b>5.455</b> ) 5 755-5 850 MHz <sup>5</sup> (Регион 1 земље излистане у Nos. <b>5.451</b> , <b>5.453</b> , <b>5.455</b> and <b>5.456</b> ) 5 850-7 075 MHz 7 145-7 235 MHz* 7 900-8 400 MHz	Фиксна сателитска Метеоролошка сателитска Истраживање свемира Свемирске операције Сателитско истраживање Земље Мобилна сателитска	<b>21.2, 21.3, 21.4</b> и <b>21.5</b>

ТАБЕЛА 21-2 (крај) (WRC-07)

Фреквенцијски опсег	Служба	Ограничење специфицирано у Nos.
10.7-11.7 GHz <sup>5</sup> (Регион 1) 12.5-12.75 GHz <sup>5</sup> (Nos. <b>5.494</b> и <b>5.496</b> ) 12.7-12.75 GHz <sup>5</sup> (Регион 2) 12.75-13.25 GHz 13.75-14 GHz (Nos. <b>5.499</b> и <b>5.500</b> ) 14.0-14.25 GHz (No. <b>5.505</b> ) 14.25-14.3 GHz (Nos. <b>5.505</b> , <b>5.508</b> и <b>5.509</b> ) 14.3-14.4 GHz <sup>5</sup> (Региони 1 и 3) 14.4-14.5 GHz 14.5-14.8 GHz	Фиксна сателитска	<b>21.2, 21.3</b> и <b>21.5</b>
17.7-18.4 GHz 18.6-18.8 GHz 19.3-19.7 GHz 22.55-23.55 GHz 24.45-24.75 GHz (Региони 1 и 3) 24.75-25.25 GHz (Регион 3) 25.25-29.5 GHz	Фиксна сателитска Сателитско истраживање Земље Истраживање свемира Међу сателитска	<b>21.2, 21.3, 21.5</b> и <b>21.5A</b>

\* For this frequency band only the limits of Nos. **21.3** and **21.5** apply.

<sup>5</sup> **21.6.1** The equality of right to operate when a band of frequencies is allocated in different Regions to different services of the same category is established in No. **4.8**. Therefore any limits concerning inter-Regional interference which may appear in ITU-R Recommendations should, as far as practicable, be observed by administrations.

**Секција V – Границе снаге густине флукса од свемирских станица**

**MOD** COM4/392/15 (B19/413/21)

TABLE 21-4 (WRC-07)

Фреквенцијски опсег	Служба*	Граница у dB(W/m <sup>2</sup> ) за упадне углове (δ) изнад хоризонталне равни			Референтна ширина опсега
		0°-5°	5°-25°	25°-90°	
...					
2 500-2 690 MHz 2 520-2 670 MHz 2 500-2 516.5 MHz (No. 5.404) 2 500-2 520 MHz 2 520-2 535 MHz (No. 5.403)	Фиксна сателитска Радиодифузна сателитска Радиодетерминацијска сателитска Мобилна сателитска Мобилна сателитска (осим ваздухопловне мобилне сателитске)	-136 <sup>21</sup>	-136 + 11/20(δ - 5) <sup>21</sup>	-125 <sup>21</sup>	1 MHz
...					

<sup>21</sup> **21.16.19** Резолуција [COM4/12] (WRC-07) треба да се примени. (WRC-07)

**MOD** COM5/344/2 (B14/365/32) (R7/411/72)

ТАБЕЛА 21-4 (наставка) (WRC-07)

Фреквенцијски опсег	Служба*	Граница у dB(W/m <sup>2</sup> ) за упадне углове (δ) изнад хоризонталне равни			Референтна ширина опсега	
		0°-5°	5°-25°	25°-90°		
...						
17.7-19.3 GHz <sup>7,8</sup>	Фиксна сателитска (свемир-земља) Метеоролошка сателитска (свемир-Земља)	-115 <sup>13,21</sup> or -115 - X <sup>12</sup>	-115 + 0.5(δ - 5) <sup>13,21</sup> or -115 - X + ((10 + X)/20)(δ - 5) <sup>12</sup>		-105 <sup>13,21</sup> or -105 <sup>12</sup>	1 MHz
17.7-19.3 GHz <sup>7,8</sup>	Фиксна сателитска (свемир-Земља)	0°-3°	3°-12°	12°-25°	-105 <sup>22</sup>	1 MHz
		-120 <sup>22</sup>	-120 + (8/9)(δ - 3) <sup>22</sup>	-112 + (7/13)(δ - 12) <sup>22</sup>		
19.3-19.7 GHz	Фиксна сателитска (свемир-Земља)	0°-3°	3°-12°	12°-25°	-105 <sup>22</sup>	1 MHz
		-120 <sup>22</sup>	-120 + (8/9)(δ - 3) <sup>22</sup>	-112 + (7/13)(δ - 12) <sup>22</sup>		
19.3-19.7 GHz 22.55-23.55 GHz 24.45-24.75 GHz 25.25-27.5 GHz 27.500-27.501 GHz	Фиксна сателитска (свемир-Земља) Сателитско истраживање земље (свемир-Земља) Међу сателитска Истраживање свемира (свемир-Земља)	0°-5°	5°-25°		-105 <sup>21</sup>	1 MHz
		-115 <sup>21</sup>	-115 + 0.5(δ - 5) <sup>21</sup>			
...						

**ADD** COM5/344/3 (B14/365/33) (R7/411/73)

<sup>21</sup> **21.16.x** Те границе такође се примењују на свемирске станице фиксне сателитске службе које користе јако нагнуте орбите којима је висина апогеја већа од 18 000 км и нагнутост орбите између 35° и 145° у опсегу 17.7-19.7 GHz на који се Резилуција примењује **147** (WRC-07). (WRC-07)

**ADD** COM5/344/4 (B14/365/34) (R7/411/74)

<sup>22</sup> **21.16.y** Те границе такође се примењују на све свемирске станице фиксне сателитске службе које користе јако нагнуте орбите којима је висина апогеја већа од 18 000 км и нагнутост орбите између 35° и 145° у опсегу 17.7-19.7 GHz које нису покривене Резолуцијом [COM5/3] (WRC-07), и за које је комплетна информација координације или обавештења, по потреби, примљена у Бироу за радио-комуникације после 16.11.2007. (WRC-07)

## ЧЛАН 22

### Свемирске службе<sup>1</sup>

#### Секција II – Контрола интерференције геостационарних сателитских системима

**MOD** COM5/379/4 (B16/401/4)

**22.2** § 2 1) Не-геостационарни сателитски системи не треба да узрокују неприхватљиве сметње и не могу, осим ако је другачије специфицирано у овој Регулативи, тражити заштиту због геостационарних сателитских мрежа у фиксној сателитској служби и радиодифузне сателитске службе која ради у складу са овом Регулативом. No. **5.43A** се не примењује у том случају. (WRC-07)

**MOD** COM6/341/18 (B14/365/35) (R7/411/75)

ТАБЕЛА 22-1D (WRC-07)

Ограничења  $epfd_{\downarrow}$  израчене од антена не-геостационарних сателитских система у фиксној сателитској служби у неким фреквенцијским опсезима у 30 cm, 45 cm, 60 cm, 90 cm, 120 cm, 180 cm, 240 cm and 300 cm антена радиодифузне сателитске службе<sup>6, 9, 10, 11</sup>

Фреквенцијск и опсег (GHz)	$epfd_{\downarrow}$ (dB(W/m <sup>2</sup> ))	Процент времена за које $epfd_{\downarrow}$ не сме да буде превазиђен	Референтна ширина опсега (kHz)	Референтни промер антене и референтни дијаграм зрачења <sup>MOD 12</sup>
11.7-12.5 у Региону 1; 11.7-12.2 ии 12.5-12.75 у Региону 3; 12.2-12.7 у Региону 2	-165.841	0	40	30 cm Препорука ITU-R ВО.1443-2, Анекс 1
	-165.541	25		
	-164.041	96		
	-158.6	98.857		
	-158.6	99.429		
	-158.33	99.429		
	-158.33	100		
	-175.441	0		
	-172.441	66		
-169.441	97.75	40	45 cm Препорука ITU-R ВО.1443-2, Анекс1	
	-164			99.357
	-160.75			99.809
	-160			99.986
	-160			100
	-176.441			0
-173.191	97.8	40	60 cm Препорука ITU-R ВО.1443-2, Анекс 1	
	-167.75			99.371
	-162			99.886
	-161			99.943
	-160.2			99.971
	-160			99.997
	-160			100
	-160			100

**MOD COM6/341/19 (B14/365/36) (R7/411/76)**

<sup>12</sup> **22.5C.11** За ову Табелу, референтни дијаграм из Анекса 1 Препоруке ITU-R ВО.1443-2 треба бити коришћен само за прорачун интерференције од не-геостационарних сателитских система у фиксној сателитској служби ка геостационарним сателитским системима у радиодифузној сателитској служби. (WRC-07)

**MOD COM6/341/19bis (B14/365/37) (R7/411/77)**

ТАБЕЛА 22-1D (пај) (WRC-07)

Фреквенцијск и опсег (GHz)	$epfd_{\downarrow}$ (dB(W/m <sup>2</sup> ))	Процент времена за које $epfd_{\downarrow}$ не сме да буде превазиђен	Референтна ширина опсега (kHz)	Референтни промер антене и референтни дијаграм зрачења <sup>MOD 12</sup>
11.7-12.5 у Региону 1; 11.7-12.2 и 12.5-12.75 у Региону 3; 12.2-12.7 у Региону 2	-178.94	0	40	90 cm Препорука ITU-R ВО.1443-2, Анекс 1
	-178.44	33		
	-176.44	98		
	-171	99.429		
	-165.5	99.714		
	-163	99.857		
	-161	99.943		
	-160	99.991		
	-160	100		
	-182.44	0	40	120 cm Препорука ITU-R ВО.1443-2, Анекс 1
	-180.69	90		
	-179.19	98.9		
	-178.44	98.9		
	-174.94	99.5		
	-173.75	99.68		
	-173	99.68		
	-169.5	99.85		
	-167.8	99.915		
	-164	99.94		
	-161.9	99.97		
	-161	99.99		
	-160.4	99.998		
	-160	100		
	-184.941	0	40	180 cm Препорука ITU-R ВО.1443-2, Анекс 1
	-184.101	33		
	-181.691	98.5		
	-176.25	99.571		
	-163.25	99.946		
	-161.5	99.974		
	-160.35	99.993		
	-160	99.999		
	-160	100		
	-187.441	0	40	240 cm Препорука ITU-R ВО.1443-2, Анекс 1
	-186.341	33		
	-183.441	99.25		
	-178	99.786		
	-164.4	99.957		
	-161.9	99.983		
	-160.5	99.994		
	-160	99.999		
	-160	100		

	-191.941	0	40	300 cm
	-189.441	33		Препорука ИТУ-Р
	-185.941	99.5		ВО.1443-2,
	-180.5	99.857		Анекс 1
	-173	99.914		
	-167	99.951		
	-162	99.983		
	-160	99.991		
	-160	100		

**Секција VI – Границе снаге изван осе на Земљиним станицама геостационарне сателитске мреже у фиксној сателитској служби<sup>33, 34</sup> (WRC-2000)**

**MOD** COM6/341/20 (B14/365/38) (R7/411/78)

**22.36** Свемирске станице које раде у фреквенцијском опсегу 29.5-30 GHz требало би да буду пројектоване на такав начин да 90% њихових вршних нивоа е.и.р. густине изван главне осе не прелази вредности дате у No. **22.32**. Даље студије су потребне да се одреди опсег угла изван главне осе над којима би то прекорачење могло бити дозвољено, водећи рачуна о нивоу интерференције према суседним сателитима. Статистичко процесирање вршне е.и.р. густине изван главне осе требало би да буде рађено користећи метод дат у најновијој верзији Препоруке ИТУ-Р S.732. (WRC-07)

**ЧЛАН 28**

**Радиодетерминацијске службе**

**Секција I – Генералне одредбе**

**MOD** COM4/332/95 (B13/347/41) (R7/411/79)

**28.3** § 3 Администрације треба да обавесте Биро о карактеристикама сваке радиодетерминацијске станице за пружање услуга међународне вредности поморској мобилној служби и, ако се покаже неопходно, свакој станици или групи станица, секторима у којима су добивене информације нормално веродостојне. Та информација је публикована у Листи Обалских станица и Станица специјалне службе (Листа IV), и Биро треба да буде обавештен о било којој промени трајне природе. (WRC-07)

**ЧЛАН 30**

**Генералне одредбе**

**Секција I – Увод**

**MOD** COM4/211/16 (B3/224/18) (R2/266/10)

**30.1** § 1 Ово Поглавље садржи одредбе за радно коришћење глобалног поморског система за случај несреће и безбедност (GMDSS), чији функционални захтеви, елементи система и захтеви ношења опреме су прописани у Међународној Конвенцији о Сигурности живота на мору (SOLAS), 1974, уз допуне. Ово Поглавље такође садржи одредбе за иницирање комуникација несреће, хитноће и безбедности путем радиотелефоније на фреквенцији 156.8 MHz (VHF канал 16). (WRC-07)

**Секција II – Поморске одредбе**

**MOD** COM4/211/17 (B3/224/19) (R2/266/11)

**30.4** § 4 Одредбе специфициране у овом Поглављу обавезне су у поморској мобилној служби и поморској мобилној сателитској служби за све станице које користе

фреквенције и технике прописане за функције наведене у овом тексту (види такође No. 30.5). (WRC-07)

### Секција III – Ваздухопловне одредбе

**ADD** COM4/211/18 (B3/224/20) (R2/266/12)

**30.11bis** Ваздухоплов, кад води операције претраге и спасавања, може такође да користи опрему за рад за дигитално селективно позивање (DSC) на VHF DSC фреквенцији 156.525 MHz, и опрему аутоматског идентификационог система (AIS) на AIS фреквенцијама 161.975 MHz и 162.025 MHz. (WRC-07)

## ЧЛАН 31

### Фреквенције за глобални поморски систем за несреће и безбедност (GMDSS)

#### Секција I – Генерално

**MOD** COM4/296/20 (B9/305/22) (R4/335/37)

**31.1** § 1 Фреквенције које се користе за емисије информација несреће и сигурности под GMDSS садржане су у Додатку 15. Као додатак фреквенцијама излистаних у Додатку 15, бродске станице и обалске станице требало би да користе друге одговарајуће фреквенције за емисије безбедносних порука и генералних радио-комуникација ка и од обалских радио система и мрежа. (WRC-07)

**MOD** COM4/296/21 (B9/305/23) (R4/335/38)

**31.2** § 2 Било која емисија која узрокује штетне сметње комуникацијама несреће и безбедности на било којим дискретним фреквенцијама идентификованим у Додатку 15 забрањена је. (WRC-07)

#### Секција III – Мотрење

**MOD** COM4/332/96 (B13/347/42) (R7/411/80)

**31.13** § 6 Оне обалске станице које подразумевају одговорности надгледања у GMDSS треба да одржавају мотрење уз аутоматско дигитално селективно позивање на фреквенцијама и периодима времена како је индиковано у информацији публикованој у Листи Обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/296/22 (B9/305/24) (R4/335/39)

**31.17** § 8 1) Бродске станице, када су тако опремљене, трбају, док су на мору, да одржавају мотрење уз аутоматско дигитално селективно позивање на одговарајућим фреквенцијама за несрећу и безбедносне позиве у фреквенцијским опсезима у којима раде. Бродске станице, које су тако опремљене, требају такође да одржавају мотрење на одговарајуће фреквенције за аутоматски пријем емисија метеоролошких и навигационих упозорења и осталих ургентних информација бродовима. (WRC-07)

**MOD** COM4/296/23 (B9/305/25) (R4/335/40)

**31.18** 2) Бродске станице у складу са одредбама овог Поглавља требале би, где је практично, да одржавају мотрење на фреквенцији 156.800 MHz (VHF канал 16). (WRC-07)

**MOD** COM4/332/97 (B13/347/43) (R7/411/81)

## ЧЛАН 32

### Радне процедуре за комуникације у случају несреће у глобалном поморском систему за безбедност и случај несреће (GMDSS)

#### Секција I – Генерално

**MOD** COM4/332/98 (B13/347/44) (R7/411/82)

**32.1** § 1 Комуникације за случај несреће ослањају се на коришћење земаљских MF, HF и VHF радио-комуникација и комуникација које користе сателитске технике. Комуникације за случај несреће треба да имају апсолутан приоритет над свим другим емисијама. Следећи термини се примењују:

- a) Упозорење о несрећи је дигитални селективни позив (DSC) који користи формат позива у случају несреће, у опсезима који се користе за земаљске радио-комуникације, или формат поруке у случају несреће, у ком случају преноси се преко свемирских станица.
- b) Позив у случају несреће је иницијално гласовна или текстовна процедура.
- c) Порука у случају несреће је следећа гласовна или текстовна процедура.
- d) Пренос упозорења на несрећу је DSC емисија у име неке друге станице.
- e) Пренос упозорења на несрећу је почетна гласовна или текстовна процедура за станицу која се не налази у несрећи. (WRC-07)

**MOD** COM4/332/99 (B13/347/45) (R7/411/83)

**32.2** § 2 1) Упозорење о несрећи треба да се пошаље преко сателита или са апсолутним приоритетом код комуникационих канала опште намене, на ексклузивним фреквенцијама резервисаним за сателитски EPIRBs у смеру Земља-свемир или на фреквенцијама за случај несреће и безбедности пројектованих у MF, HF и VHF опсезима за дигитално селективно позивање (види Додатак 15). (WRC-07)

**ADD** COM4/332/100 (B13/347/46) (R7/411/84)

**32.2bis** Позив у случају несреће треба бити послат на фреквенцијама за случај несреће и безбедности пројектованих у MF, HF и VHF опсезима за радиотелефонију. (WRC-07)

**MOD** COM4/332/101 (B13/347/47) (R7/411/85)

**32.3** 2) Упозорење о несрећи или позив и следеће поруке требају бити послате само под ауторитетом особе одговорне за брод, ваздухоплов или друго возило које носи мобилну станицу или мобилну Земљину станицу. (WRC-07)

**MOD** COM4/332/102 (B13/347/48) (R7/411/86)

**32.4** § 3 Све станице које приме упозорење о несрећи или позив послат на фреквенцијама за случај несреће и безбедности у MF, HF и VHF опсезима треба да одмах обуставе све емисије способне да интерферирају са прометом у несрећи и припреме се за наредни позив у несрећи. (WRC-07)

**MOD** COM4/332/103 (B13/347/49) (R7/411/87)

**32.5** § 4 Упозорење о несрећи или пренос упозорења на несрећу користећи DSC требале би да користе техничке структуре и садржај утврђен у најновијој верзији Препорука ИТУ-Р М.493 и ИТУ-Р М.541. (WRC-07)

**MOD** COM4/332/104 (B13/347/50) (R7/411/88)

**32.5A** § 4A Свака администрација треба да осигура да подесни аранжмани буду направљени за додељивање и регистрацију идентитета које користе бродови који учествују у GMDSS, и треба да учине информације за регистрацију доступне координационим центрима за спасавање 24-часа дневно, 7-дана недељно. Кад је потребно, администрације требају одмах обавестити одговорне организације о додацима, брисањима и другим променама у тим доделама (види Nos. **19.39**, **19.96** и **19.99**). Поднесене регистрационе информације треба да су у складу са Резолуцијом **340 (WRC-97)**. (WRC-07)

**MOD** COM4/332/105 (B13/347/51) (R7/411/89)

**32.5B** § 4B Свака GMDSS опрема на броду која је способна да пренесе координате позиције као део упозорења на несрећу и која нема интегрални електронски системски пријемник за фиксирање позиције треба да буде преспојена на посебни навигациони пријемник, ако је такав инсталисан, да те информације прибави аутоматски. (WRC-07)

**MOD** COM4/332/106 (B13/347/52) (R7/411/90)

## **Секција II – Упозоравање о несрећи и позивање у случају несреће** (WRC-07)

**32.8** *A – Генерално*

**MOD** COM4/332/107 (B13/347/53) (R7/411/91)

**32.9** § 7 1) Емисија упозорења о несрећи или позив у случају несреће показује да мобилној јединици<sup>2</sup> или особи<sup>3</sup> прети озбиљна и непосредна опасност и потребна је што бржа помоћ. (WRC-07)

**MOD** COM4/332/108 (B13/347/54) (R7/411/92)

**32.10A** § 7A Упозорење на опасност је погрешно ако је емитовано без икакве индикације да је мобилна јединица или особа била у несрећи и захтевала што бржу помоћ (види No. **32.9**). Администрације које приме погрешно упозорење за несрећу треба да извести о том прекршају у складу са Секцијом V Члана **15**, ако то упозорење:

- a) емитовано је намерно;
- b) није поништено у складу са No. **32.53A** и Резолуцију **349 (Rev.WRC-07)**;
- c) не може бити верификовано као резултат или грешке на броду код мотрења одговарајуће фреквенције у складу са Nos. **31.16** до **31.20**, или изостанка одговора на позиве од ауторизованог спасилачког ауторитета;
- d) било је поновљено; или
- e) емитовано је користећи погрешан идентитет.

Администрације које приме такав један извештај треба да предузму потребне кораке да се осигура да се прекршај не понови. Никаква акција не би нормално требала да се предузме против било ког брода или морнара због извештавања или поништавања погрешног упозорења о несрећи. (WRC-07)

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<sup>2</sup> **32.9.1** Mobile unit: a ship, aircraft or other vehicle.

<sup>3</sup> **32.9.2** In this Article, where the case is of a person in distress, the application of the procedures may require adaptation to meet the needs of the particular circumstances.

**ADD** COM4/332/109 (B13/347/55) (R7/411/93)

**32.10B** Администрације треба да предузму практичне и неопходне кораке да осигурају да се избегну погрешна упозорења о несрећи, укључујући она послата омашком. (WRC-07)

**MOD** COM4/332/110 (B13/347/56) (R7/411/94)

**32.11** *B – Емисије упозорења о несрећи или позиви у случају несреће* (WRC-07)

B1 – Емисије упозорења о несрећи или позиви у случају несреће од бродских станица или бродских Земљиних станица  
(WRC-07)

**MOD** COM4/332/111 (B13/347/57) (R7/411/95)

**32.12** § 8 Брод-копно упозорења о несрећи или позиви у случају несреће користе се да упозоре координацијске центре за спасавање путем обалских станица или обалских Земљиних станица да је брод у невољи. Та упозорења базирају се на коришћењу емисија преко сателита (од бродске Земљине станице или сателитске EPIRB) и земаљских служби (од бродских станица и EPIRBs). (WRC-07)

**MOD** COM4/332/112 (B13/347/58) (R7/411/96)

**32.13** § 9 1) Брод-брод упозорење о несрећи користи се да се упозоре други бродови у близини о броду у невољи и базирани су на дигиталном селективном позивању у VHF и MF опсезима. Додатно, HF опсег може да се користи. (WRC-07)

**ADD** COM4/332/113 (B13/347/59) (R7/411/97)

**32.13A** 2) бродске станице опремљене за процедуре дигиталног селективног позивања могу да емитују позиве у случају несреће и поруке у случају несреће након којих одмах следи упозорење о несрећи да би се привукла пажња од што више станица. (WRC-07)

**ADD** COM4/332/114 (B13/347/60) (R7/411/98)

**32.13B** 3) Бродске станице које нису опремљене за процедуре дигиталног селективног позивања треба, где је практично, да иницирају комуникације у случају несреће емитујући радиотелефонски позив и поруку у случају несреће на фреквенцијама 156.8 MHz (VHF канал 16). (WRC-07)

**ADD** COM4/332/115 (B13/347/61) (R7/411/99)

**32.13Bbis** § 7B 1) радиотелефонски сигнал у случају несреће састоји се од речи MAYDAY изговорене као француски израз “m'aider”. (WRC-07)

**ADD** COM4/332/116 (B13/347/62) (R7/411/100)

**32.13C** § 9A 1) Позив у случају несреће послат на фреквенцији 156.8 MHz (VHF канал 16) треба да има следећи облик:

- сигнал у случају несреће MAYDAY, изречен три пута;
- речи THIS IS;
- име пловила у несрећи, изговорено три пута;
- позивни знак или друга идентификација;
- MMSI (ако је почетно упозорење послато путем DSC). (WRC-07)

**ADD** COM4/332/117 (B13/347/63) (R7/411/101)

**32.13D** 2) Порука у случају несреће којој следи позив у случају несреће требала би да има следећи облик:

- сигнал у случају несреће MAYDAY;
- име пловила у невољи;
- позивни знак или друга идентификација;
- MMSI (ако је почетно упозорење послато путем DSC);
- позиција, дата као географска дужина и ширина, или ако географска дужина и ширина нису познате или ако нема времена, нешто у вези оријентира, познате географске локације;
- природа несреће;
- врста потребне помоћи;
- било која друга корисна информација. (WRC-07)

**ADD** COM4/332/118 (B13/347/64) (R7/411/102)

**32.13E** § 9B DSC процедуре користе комбинацију аутоматизованих функција и ручне интервенције да генеришу одговарајући формат позива у случају несреће у најновијој верзији Препоруке ИТУ-R М.541. Упозорење у случају несреће послато путем DSC састоји се од једног или више покушаја упозорења у случају несреће у којима је формат поруке емитован тако да идентификује станицу у невољи, дајући њену задњу забележену позицију и, ако је унесено, природу несреће. У MF и HF опсезима, покушаји упозорења у случају несреће могу бити послати као покушај на једној фреквенцији или покушај на више фреквенција на највише шест фреквенција у минути. У VHF опсезима, само једнофреквенцијски покушаји позива се користе. Упозорење у случају несреће понављаће се аутоматски у нерегуларним интервалима, у размаку од по неколико минута, док се не прими потврда пријема послата користећи DSC. (WRC-07)

**MOD** COM4/332/119 (B13/347/65) (R7/411/103)

B2 – Прослеђивање емисије упозорења копно-брод у случају несреће или прослеђивање позива у случају несреће (WRC-07)

**MOD** COM4/332/120 (B13/347/66) (R7/411/104)

**32.14** § 10 1) Станица или координацијски центар који прими упозорење или позив у случају несреће и поруку у случају несреће треба да иницира емисију прослеђивања позива од копна на бродова адресирану, по могућности, свим бродовима, одабраној групи бродова, или одређеном броду, путем сателита или земаљских средстава. (WRC-07)

**MOD** COM4/332/121 (B13/347/67) (R7/411/105)

**32.15** 2) Прослеђивање упозорења у случају несреће и позива у случају несреће треба да садрже идентификацију мобилне јединице у невољи, њену позицију и све остале информације које би могле олакшати спасавање. (WRC-07)

**MOD** COM4/332/122 (B13/347/68) (R7/411/106)

B3 – Емисије прослеђивања упозорења у случају несреће или позива у случају несреће од станице која сама није у невољи (WRC-07)

**MOD** COM4/332/123 (B13/347/69) (R7/411/107)

**32.16** § 11 Станица у мобилној или мобилној сателитској служби која установи да је нека мобилна јединица у невољи (на пример, помоћу радио позива или посматрања), треба да иницира и емитује прослеђивање упозорења у случају несреће или прослеђивање позива у случају несреће за рачун мобилне јединице у невољи када се утврди било која од следећих околности: (WRC-07)

**MOD** COM4/332/124 (B13/347/70) (R7/411/108)

**32.17** a) код примања упозорења или позива у случају несреће који није потврђен од обалске станице или другог пловила у року од пет минута (види такође Nos. **32.29A** и **32.31**); (WRC-07)

**MOD** COM4/332/125 (B13/347/71) (R7/411/109)

**32.18** b) кад се установи да је мобилна јединица у невољи иначе неспособна да учествује у комуникацијама у случају несреће, ако власник или друга особа одговорна за мобилну јединицу изван невоље сматра да је даља помоћ неопходна. (WRC-07)

**MOD** COM4/332/126 (B13/347/72) (R7/411/110)

**32.19** § 12 1) Прослеђивање у случају несреће за рачун мобилне јединице у невољи треба бити слато у облику који одговара околностима (види Nos. **32.19A** до **32.19D**) користећи или прослеђивање позива у случају несреће путем радиотелефоније (види Nos. **32.19D** и **32.19E**), или индивидуално адресирано упозорење у случају несреће користећи DSC (види No. **32.19B**), или приоритетну поруку у случају несреће путем бродске Земљине станица. (WRC-07)

**ADD** COM4/332/127 (B13/347/73) (R7/411/111)

**32.19A** 2) Станица која емитује прослеђивање упозорења или позива у случају несреће у складу са Nos. **32.16** до **32.18** треба да назначи да сама није у невољи. (WRC-07)

**ADD** COM4/332/128 (B13/347/74) (R7/411/112)

**32.19B** 3) Прослеђивање упозорења у случају несреће послато од DSC требало би да користи формат позива, који може да се нађе у најновијој верзији Препорука ITU-R M.493 и ITU-R M.541, и требало би најпре да буде адресирано на индивидуалну обалску станицу или координацијски центар за спашавање<sup>new1</sup>. (WRC-07)

**ADD** COM4/332/129 (B13/347/75) (R7/411/113)

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<sup>new1</sup> **32.19B.1** Пловила која врше прослеђивање упозорења или позива у случају несреће требало би да осигурају да подесна обалска станица или координацијски центар за спашавање буду информисани о свим. (WRC-07)

**ADD** COM4/332/130 (B13/347/76) (R7/411/114)

**32.19C** 4) Међутим, један брод не треба да емитује прослеђивање упозорења у случају несреће свим бродовима користећи дигитално селективно позивање на VHF или MF фреквенцијама за несрећу након примања упозорења у случају несреће послатог користећи дигитално селективно позивање од брода у невољи. (WRC-07)

**ADD** COM4/332/131 (B13/347/77) (R7/411/115)

**32.19D** 5) Кад се одржава слушно надзирање на обали и веродостојна комуникација брод-обала може бити успостављена путем радиотелефоније, прослеђивање позива у случају несреће се шаље путем радиотелефоније и адресира на релевантну обалску станицу или координацијски центар за спасавање<sup>new2</sup> на одговарајућој фреквенцији. (WRC-07)

**ADD** COM4/332/132 (B13/347/78) (R7/411/116)

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<sup>new2</sup> **32.19D.1** Пловила која врше прослеђивање позива у случају несреће требало би да осигурају да подесна обалска станица и координацијски центар за спасавање буду информисани о свим пријашњим размењеним комуникацијама у случају несреће. (WRC-07)

**ADD** COM4/332/133 (B13/347/79) (R7/411/117)

**32.19E** 6) Да прослеђивање позива у случају несреће послатог путем радиотелефоније требало би да има следећи облик:

- сигнал у случају несреће MAYDAY RELAY, изговорен три пута;
- ALL STATIONS или име обалске станице, по потреби, изговорено три пута;
- речи THIS IS;
- име станице која прослеђује, изговорено три пута;
- позивни знак или друга идентификација прослеђујуће станице;
- MMSI (ако је почетно упозорење било послато користећи DSC) прослеђујуће станице (пловило није у невољи). (WRC-07)

**ADD** COM4/332/134 (B13/347/80) (R7/411/118)

**32.19F** 7) Иза овог позива треба да следи порука у случају несреће која треба, што пре је могуће, поновити информацију садржану у у оригиналном упозорењу у случају несреће<sup>new3</sup> или поруци у случају несреће. (WRC-07)

**ADD** COM4/332/135 (B13/347/81) (R7/411/119)

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<sup>new3</sup> **32.19F.1** Ако станица у невољи не може да буде идентификована, тада ће бити неопходно послати оригиналну поруку такође, користећи, на пример, речи као “Неидентификовано пловило” што се односи на мобилну јединицу у невољи. (WRC-07)

**ADD** COM4/332/136 (B13/347/82) (R7/411/120)

**32.19G** 8) Кад се не одржава слушно надзирање на обали, или постоје друге потешкоће у успостављању веродостојне брод-обала комуникације путем радиотелефоније, нека одговарајућа обалска станица или координацијски центар за спасавање може да се контактира путем слања индивидуалног прослеђивања упозорења у случају несреће користећи DSC, адресирано искључиво на ту станицу и користећи одговарајући формат позива. (WRC-07)

**ADD** COM4/332/137 (B13/347/83) (R7/411/121)

**32.19H** 9) У случају континуираног неуспеха да се контактира обалска станица или координацијски центар за спасавање директно, било би добро послати прослеђени позив

у случају несреће путем радиотелефоније адресирано на све бродове, или на све бродове у одређеном географском подручју. Види такође No. **32.19C**. (WRC-07)

**MOD** COM4/332/138 (B13/347/84) (R7/411/122)

**32.20** C – Пријем и потврда упозорења и позива у случају несреће (WRC-07)

C1 – Процедура за потврду пријема позива или упозорења у случају несреће (WRC-07)

**MOD** COM4/332/139 (B13/347/85) (R7/411/123)

**32.21** § 13 1) Потврда пријема упозорења у случају несреће, укључујући и прослеђивање упозорења у случају несреће, треба да се врши на начин који одговара методу емитовања упозорења и унутар временске скале одговарајућој улози станице у пријему упозорења. Потврда путем сателита треба одмах да буде послата. (WRC-07)

**ADD** COM4/332/140 (B13/347/86) (R7/411/124)

**32.21A** 2) Код потврђивања пријема упозорења у случају несреће послатог путем DSC<sup>new4</sup>, потврда у земаљским службама треба да се врши путем DSC, радиотелефоније или ускопојасне машинске телеграфије како одговара околностима, на придруженој фреквенцији за случај несреће и безбедности у истом опсегу у којем је упозорење о несрећи примљено, узимајући у обзир смернице дате у најновијим верзијама Препорука ITU-R M.493 и ITU-R M.541. (WRC-07)

**ADD** COM4/332/141 (B13/347/87) (R7/411/125)

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<sup>new4</sup> **32.21A.1** Да се осигура да нема непотребног кашњења пре него што власти на обали постану свесни несреће, потврда путем DSC на упозорење у случају несреће послата путем DSC треба нормално да буде урађена само путем обалске станице или координацијског центра за спашавање. Потврда путем DSC ће поништити свако будуће аутоматско понављање упозорења о несрећи које користи DSC. (WRC-07)

**ADD** COM4/332/142 (B13/347/88) (R7/411/126)

**32.21B** Потврда путем DSC упозорења о несрећи послатог путем DSC адресирана на станице поморске мобилне службе треба бити адресирана на све станице<sup>new4</sup>. (WRC-07)

**SUP** COM4/332/143 (B13/347/89) (R7/411/127)

## **32.22**

**MOD** COM4/332/144 (B13/347/90) (R7/411/128)

**32.23** § 15 1) Када се потврђује путем радиотелефоније пријем упозорења или позива у несрећи од бродске станице или бродске Земљине станице, потврда би требала да има следећи облик:

- сигнал несреће MAYDAY;
- име и позивни знак, или MMSI или друга идентификација станице која шаље потврду у случају несреће;
- речи THIS IS;
- име или позивни знак или друга идентификација станице која потврђује пријем;
- реч RECEIVED;
- сигнал несреће MAYDAY. (WRC-07)

**MOD** COM4/332/145 (B13/347/91) (R7/411/129)

**32.24** 2) Приликом потврђивања пријем упозорења у случају несреће од бродске станице користећи ускопојасну машинску телеграфију, потврда би требала да има следећи облик:

- сигнал несреће MAYDAY;
- позивни знак или друга идентификација станице која шаље упозорење у случају несреће;
- реч DE;
- позивни знак или друга идентификација станице која потврђује пријем упозорења у случају несреће;
- сигнал RRR;
- сигнал у случају несреће MAYDAY. (WRC-07)

**SUP** COM4/332/146 (B13/347/92) (R7/411/130)

**32.25**

**MOD** COM4/332/147 (B13/347/93) (R7/411/131)

C2 – Пријем и потврда од обалне станице, обалне земљине станице или координацијског центра за спашавање (WRC-07)

**MOD** COM4/332/148 (B13/347/94) (R7/411/132)

**32.26** § 17 Обалске станице или одговарајуће обалске Земљине станице код пријема упозорења у случају несреће или позива у случају несреће треба да осигурају да буде прослеђен што пре је могуће координацијском центру за спашавање. Поред тога, пријем упозорења у случају несреће или позива у случају несреће треба да буде потврђен што пре је могуће од обалске станице, или координацијском центру за спашавање путем обалске станице или одговарајуће обалске Земљине станице. Копно-брод прослеђивање упозорења у случају несреће или прослеђивање позива у случају несреће (види Nos. **32.14** и **32.15**) треба такође да буде рађено када метод пријема гарантује емитовање упозорења за бродове или када околности инцидента несреће указују да је даља помоћ неопходна. (WRC-07)

**MOD** COM4/332/149 (B13/347/95) (R7/411/133)

**32.27** § 18 Обалска станица која користи DSC да потврди упозорење у случају несреће треба да емитује потврду на фреквенцији за позив у случају несреће на којој је упозорење у случају несреће примљено и требало би да га адресира на све бродове. Потврда треба да садржи идентификацију брода чије се упозорење у случају несреће потврђује. (WRC-07)

**MOD** COM4/332/150 (B13/347/96) (R7/411/134)

C3 – Пријем и потврда од стране бродске станице или бродске Земљине станице (WRC-07)

**MOD** COM4/332/151 (B13/347/97) (R7/411/135)

**32.28** § 19 1) Бродска или бродска Земљина станица код пријема упозорења у случају несреће или позива у случају несреће треба што пре је могуће да информише главног или особу одговорну за брод о садржају упозорења у случају несреће. (WRC-07)

**MOD** COM4/332/152 (B13/347/98) (R7/411/136)

**32.29** 2) У подручјима где су поуздане комуникације са једном или више обалских станица изводљиве, бродске станице приликом пријема упозорења у случају несреће или позива у случају несреће од другог пловила могле би одложити потврђивање за неки краћи интервал тако да обалска станица може да потврди пријем као прва инстанца. (WRC-07)

**ADD** COM4/332/153 (B13/347/99) (R7/411/137)

**32.29A** 3) Бродске станице код пријема позива у случају несреће послатог радиотелефонијом на фреквенцији 156.8 MHz (VHF канал 16) треба, ако позив није потврђен од неке обалске станице или другог пловила у року од пет минута, треба да потврде пријем пловилу у невољи и употребе било које расположиво средство да проследи позив у случају несреће одговарајућој обалској станици или обалској Земљиној станици (види такође Nos. **32.16** to **32.19F**). (WRC-07)

**MOD** COM4/332/154 (B13/347/100) (R7/411/138)

**32.30** § 20 1) Бродске станице које раде у подручјима где поуздане комуникације са једном или више обалских станица нису изводљиве које приме упозорење у случају несреће или позив од бродске станице која је засигурно у њиховом суседству, требају што пре је могуће и ако су одговарајуће опремљене, потврдити пријем пловилу у невољи и информисати координацијски центар за спашавање путем обалске станице или обалске Земљине станице (види такође Nos. **32.16** to **32.19H**). (WRC-07)

**MOD** COM4/332/155 (B13/347/101) (R7/411/139)

**32.31** 2) Међутим да би се избегло слање неопходних или конфузних емисија за одговор, бродска станица, која може да се налази значајно удаљена од инцидента, кад прими неко HF упозорење у случају несреће, не треба да га потврди али треба да прегледа одредбе Nos. **32.36** to **32.38**, и треба, ако упозорење у случају несреће није потврђено од старане неке обалске станице у року од пет минута, да проследи упозорење у случају несреће, али само ка одговарајућој обалској станици или обалској Земљској станици (види такође Nos. **32.16** to **32.19H**). (WRC-07)

**MOD** COM4/332/156 (B13/347/102) (R7/411/140)

**32.32** § 21 Бродска станица која потврђује упозорења у случају несреће послатог користећи DSC требала би, у сагласности са No. **32.29** или No. **32.30**: (WRC-07)

**MOD** COM4/332/157 (B13/347/103) (R7/411/141)

**32.33** a) у првом реду да потврди пријем упозорења у случају несреће користећи радиотелефонију на фреквенцијама за пренос у случају несреће и безбедности и у опсегу који се користи за упозоравање, водећи рачуна о било којим инструкцијама које може бити издато обалској станици која је одговарила; (WRC-07)

**ADD** COM4/332/158 (B13/347/104) (R7/411/142)

**32.34A** § 21A Међутим, осим ако није инструисана да тако уради од обалске станице или координацијског центра за спашавање, бродска станица може једино да пошаље потврду користећи DSC у случају да:

- a) никаква потврда путем DSC од обалске станице није примећена; и
- b) никаква друга комуникација путем радиотелефоније или ускопојасне машинске телеграфије ка или од пловила у невољи није примећена; и

- c) прошло је најмање пет минута и упозорење у случају несреће користећи DSC је поновљено (види No. **32.21A.1**). (WRC-07)

**MOD** COM4/332/159 (B13/347/105) (R7/411/143)

**32.35** § 22 Бродска станица код пријема копно-брод прослеђивања упозорења у случају несреће или прослеђивања позива у случају несреће (види No. **32.14**) требала би да успостави комуникацију према упутствима и пружи такву помоћ на одговарајући начин и према захтевима. (WRC-07)

**MOD** COM4/332/160 (B13/347/106) (R7/411/144)

**32.37** § 23 Приликом пријема упозорења у случају несреће или позива у случају несреће, бродске станице и обалске станице треба да успоставе мотрење фреквенције на радиотелефонски пренос за случају несреће и безбедности придружене фреквенцији за случају несреће и безбедности на којој је упозорење у случају несреће примљено. (WRC-07)

**MOD** COM4/332/161 (B13/347/107) (R7/411/145)

**32.38** § 24 Обалске станице и бродске станице са опремом за ускопојану машинску телеграфију треба да успоставе мотрење на фреквенцију ускопојане машинске телеграфије придружену упозорењу у случају несреће ако оно указује да ускопојана машинска телеграфија треба да се користи за наредне комуникације у несрећи. Ако је практично, оне би додатно требале да успоставе мотрење на фреквенцију радиотелефоније придружену фреквенцији упозорења у случају несреће. (WRC-07)

### Секција III – Саобраћај у случају несреће

**SUP** COM4/332/162 (B13/347/108) (R7/411/146)

#### 32.41

**MOD** COM4/332/163 (B13/347/109) (R7/411/147)

**32.45** § 28 1) координациони центар за спасавање одговоран за контролу операција претраге и спасавања треба такође да координира саобраћај у случају несреће који се односи на инцидент или могу да именују другу станицу да то уради. (WRC-07)

**MOD** COM4/332/164 (B13/347/110) (R7/411/148)

**32.51** § 31 Кад је саобраћај у случају несреће завршен на фреквенцијама које су коришћене за саобраћај у случају несреће, станица која контролише операције претраге и спасавања треба да иницира поруку за емисије на тим фреквенцијама које показују да је саобраћај у случају несреће завршен. (WRC-07)

**MOD** COM4/332/165 (B13/347/111) (R7/411/149)

**32.52** § 32 1) У радиотелефонији, порука из No. **32.51** требало би да се састоји од:

- сигнала несреће MAYDAY;
- позива “ALL STATIONS”, изговорена три пута;
- речи THIS IS;
- име станице која шаље ту поруку, изговорене три пута;
- позивни знак или друга идентификација станице која шаље поруку;
- време предаје поруке;
- MMSI (ако је почетно упозорење послато користећи DSC), име и позивни знак мобилне станице која је у невољи;

- речи SEELONCE FEENEE изговорене као Француске речи “silence fini”. (WRC-07)

**ADD** COM4/332/166 (B13/347/112) (R7/411/150)

**32.53A** *Поништавање погрешног упозорења у случају несреће* (WRC-07)

**ADD** COM4/332/167 (B13/347/113) (R7/411/151)

**32.53B** Станица која емитује погрешно упозорење за случај несреће треба да поништи ту емисију. (WRC-07)

**ADD** COM4/332/168 (B13/347/114) (R7/411/152)

**32.53C** Погрешно DSC упозорење треба да буде поништено користећи DSC, ако DSC опрема може то да омогући. Поништавање би требало бити у сагласности са најновијом верзијом Препоруке ИТУ-R М.493. У свим случајевима, поништавање такође треба бити емитовано путем радиотелефоније у складу са **32.53E**. (WRC-07)

**ADD** COM4/332/169 (B13/347/115) (R7/411/153)

**32.53D** Погрешан позив у случају несреће треба бити поништен користећи радиотелефонију у складу са процедуром у **32.53E**. (WRC-07)

**ADD** COM4/332/170 (B13/347/116) (R7/411/154)

**32.53E** Погрешне емисије у случају несреће требају бити поништене усмено на придруженој фреквенцији за случај несреће и безбедност у истом опсегу на којем је емисија у случају несреће емитована, користећи следећу процедуру:

- позив “ALL STATIONS” , изговорен три пута;
- речи THIS IS;
- име пловила, изговорено три пута;
- позивни знак или друга идентификација;
- MMSI (ако је почетно упозорење послато користећи DSC);
- PLEASE CANCEL MY DISTRESS ALERT OF време у UTC.

Посматрајте исти опсег на којем је погрешна емисија за случају несреће послата и одговорите на било које комуникације које се тичу исправне емисије за случај несреће. (WRC-07)

**MOD** COM4/332/171 (B13/347/117) (R7/411/155)

**32.63** 3) Лоцирани сигнали могу бити емитовани на следећим фреквенцијским опсезима:

117.975-137 MHz;

156-174 MHz;

406-406.1 MHz; и

9200-9500 MHz. (WRC-07)

**SUP** COM4/332/172 (B13/347/118) (R7/411/156)

**32.64**

## ЧЛАН 33

### Радне процедуре за комуникације за ванредне ситуације и безбедност у глобалном поморском систему за случај несреће и безбедност (GMDSS)

#### Секција I – Генерално

**MOD** COM4/332/26 (B13/347/119) (R7/411/157)

**33.1** § 1 1) Комуникације за ванредне ситуације и безбедност укључују: (WRC-07)

**ADD** COM4/332/27 (B13/347/120) (R7/411/158)

**33.7A** 2) Комуникације за ванредне ситуације треба да имају приоритет у односу на све друге комуникације, изузев несреће. (WRC-07)

**ADD** COM4/332/28 (B13/347/121) (R7/411/159)

**33.7B** 3) Комуникације безбедности треба да имају приоритет у односу на све друге комуникације, изузев несреће и за ванредних ситуација . (WRC-07)

#### Секција II – Комуникације за ванредне ситуације

**ADD** COM4/332/29 (B13/347/122) (R7/411/160)

**33.XX** Примењују се следећи термини:

a) Најава ванредне ситуације је дигитални селективни позив који користи позивну форму ванредне ситуације<sup>1</sup>, у опсегу који користе земаљске радиокомуникације, или формат поруке за ванредне ситуације, у ком случају се прослеђује кроз свемирске станице.

b) Позив у ванредној ситуацији је почетна гласовна или текстуална процедура.

c) Порука у ванредној ситуацији је следећа гласовна или текстуална процедура. (WRC-07)

**ADD** COM4/332/31 (B13/347/123) (R7/411/161)

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<sup>1</sup> **33.XX.1** Формат позива у ванредној ситуацији и поруке у ванредној ситуацији требале би бити сагласне са релевантним ИТУ-Р Препорукама. (WRC-07)

**MOD** COM4/332/30 (B13/347/124) (R7/411/162)

**33.8** § 2 У земаљском систему, комуникације у ванредној ситуацији састоје се од најаве, емитовања користећи дигитално селективно позивање, затим позива у ванредној ситуацији и порука емитована користећи радиотелефонију, ускопојасну машинску телеграфију или податке. Најава поруке у ванредној ситуацији треба да буде послата на једној или више позивних фреквенција за случај несреће и безбедност специфираним у Секцији I Члана **31** користећи или дигитално селективно позивање и позивни формат за ванредну ситуацију, или ако није доступно, процедуре радиотелефоније и сигнал ванредне ситуације. Најаве које користе дигитално селективно позивање требало би да користе техничку структуру и садржај постављен у најновијој верзији Препорука ИТУ-Р М.493 и ИТУ-Р М.541. Одвојена најавна није потребна ако се порука у ванредној ситуацији емитује путем поморске мобилне сателитске службе. (WRC-07)

**ADD** COM4/332/32 (B13/347/125) (R7/411/163)

**33.8A** 2) Бродске станице које нису опремљене за процедуре дигиталног селективног позивања могу да најаве неки позив у ванредној ситуацији и поруку емитујући

сигнал ванредне ситуације путем радиотелефоније на фреквенцији 156.8 MHz (канал 16), водећи рачуна да друге станице изван VHF распона можда не приме најаву. (WRC-07)

**ADD** COM4/332/33 (B13/347/126) (R7/411/164)

**33.8B** 3) У поморској мобилној служби, комуникације у ванредној ситуацији могу бити адресиране или на све станице или на одређену станицу. Кад се користе технике дигиталног селективног позивања, најаву ванредне ситуације треба да показује која ће фреквенција да се користи за слање следеће поруке и, у случају поруке свима станицама, треба користити “All Ships” формат. (WRC-07)

**ADD** COM4/332/34 (B13/347/127) (R7/411/165)

**33.8C** 4) Најава ванредне ситуације од обалске станице може такође бити усмерена групи пловила или пловилима у дефинисаном географском подручју. (WRC-07)

**MOD** COM4/332/35 (B13/347/128) (R7/411/166)

**33.9** § 3 1) Најава ванредне ситуације и порука треба да се емитује на једној или више фреквенција за случај несреће и безбедносни саобраћај специфицирано у Секцији I Члана 31. (WRC-07)

**ADD** COM4/332/36 (B13/347/129) (R7/411/167)

**33.9A** 2) Међутим, у поморској мобилној служби, порука ванредне ситуације треба да се емитује на радној фреквенцији:

- a) у случају дугачке поруке или медицинског позива; *или*
- b) у подручјима интензивног саобраћаја када се порука понавља.

Индикација у том смислу треба да је укључена у најаву ванредне ситуације или позив. (WRC-07)

**ADD** COM4/332/37 (B13/347/130) (R7/411/168)

**33.9B** 3) У поморској мобилној сателитској служби, посебна најаву ванредне ситуације или позив не треба да се ради пре слања поруке ванредне ситуације. Међутим, ако је доступно, подешен одговарајући приоритетни приступ мрежи требао би бити коришћен за слање те поруке. (WRC-07)

**MOD** COM4/332/38 (B13/347/131) (R7/411/169)

**33.11** § 5 1) Формат позива ванредне ситуације и сигнал ванредне ситуације показују да позивајућа станица има врло хитну поруку да емитује узимајући у обзир сигурност мобилне јединице или особе. (WRC-07)

**ADD** COM4/332/39 (B13/347/132) (R7/411/170)

**33.11A** 2) Комуникације које се тичу медицинског савета могу да претходе сигналу ванредне ситуације. Мобилне станице које захтевају медицински савет могу да га добију путем било које копнене станице приказане у Листи Обалских станица и Станица специјалне службе. (WRC-07)

**ADD** COM4/332/40 (B13/347/133) (R7/411/171)

**33.11B** 3) Код комуникације ванредне ситуације за подршку операцијама претраге и спасавања не треба да претходи сигнал ванредне ситуације. (WRC-07)

**MOD** COM4/332/41 (B13/347/134) (R7/411/172)

**33.12** § 6 1) Позив ванредне ситуације требао би да се састоји од:

- сигнала ванредне ситуације PAN PAN, изговореног три пута;
- имена позивне станице или “all stations”, изговорено три пута;
- речи THIS IS;
- име станице која емитује поруку ванредне ситуације , изговорено три пута;
- позивни знак или било која друга идентификација;
- MMSI (ако је почетна најава послата користећи DSC),

следи порука ванредне ситуације или следе детаљи канала који ће да се користи за поруку у случају када се користи радни канал.

У радиотелефонији, на селектованој радној фреквенцији, позив и порука за ванредне ситуације састоји се од:

- сигнал ванредне ситуације PAN PAN, изговорен три пута;
- име позивне станице или “all stations”, изговорено три пута;
- речи THIS IS;
- име станице која емитује поруку ванредне ситуације , изговорено три пута;
- позивни знак или било која друга идентификација;
- MMSI (ако је почетна најава послата користећи DSC);
- текст поруке ванредне ситуације . (WRC-07)

**MOD** COM4/332/42 (B13/347/135) (R7/411/173)

**33.14** § 7 1) Формат позива ванредне ситуације или сигнал ванредне ситуације треба да буде послат само овлашћењем особе одговорне за брод, ваздухоплов или друго возило које носи мобилну станицу или мобилну земаљску станицу. (WRC-07)

**ADD** COM4/332/43 (B13/347/136) (R7/411/174)

**33.15A** § 7A 1) Бродске станице код примања најаве ванредне ситуације или позива адресираног свим станицама не треба да врше потврду. (WRC-07)

**ADD** COM4/332/44 (B13/347/137) (R7/411/175)

**33.15B** 2) Бродске станице код примања најаве ванредне ситуације или позива неке хитне поруке треба да прате фреквенцију или канал назначен за поруку најмање пет минута. Ако на крају петоминутног периода праћења не прими се ни једна порука ванредне ситуације , обалска станица би требала, ако је могуће бити обавештена о недостајућој поруци. Након тога, нормалан рад може бити настављен. (WRC-07)

**ADD** COM4/332/45 (B13/347/138) (R7/411/176)

**33.15C** 3) Обалске и бродске станице које су у вези на другим фреквенцијама од оних које се користе за емисије сигнала ванредне ситуације или поруке која следи могу да наставе свој нормални рад без прекида, показујући да порука ванредне ситуације није адресирана на њих нити емитована свим станицама. (WRC-07)

**MOD** COM4/332/46 (B13/347/139) (R7/411/177)

**33.16** § 8 Када су позив најаве ванредне ситуације и порука емитовани према више од једне станице и акција се више не тражи, поништавање ванредне ситуације би требало бити послато од станице одговорне за емисију.

Поништавање ванредне ситуације требало би да се састоји од:

- сигнала ванредне ситуације PAN PAN, изговореног три пута;
- “all stations”, изговорено три пута;
- речи THIS IS;
- имена станице која емитује поруку ванредне ситуације , изговорено три пута;
- позивни знак или било која друга идентификација;
- MMSI (ако је почетна најава послата користећи DSC);
- PLEASE CANCEL URGENCY MESSAGE OF време у UTC. (WRC-07)

### Секција III – Медицински транспорти

**MOD** COM4/332/47 (B13/347/140) (R7/411/178)

**33.20** § 11 1) За потребе најаве и индикације медицинских транспорта који су заштићени горе поменутим Конвенцијама, процедуре Секције II овог члана се користе. Позив ванредне ситуације треба да се настави додавањем једне речи MEDICAL у ускопојасној машинској телеграфији, додавањем јединствене речи MAY-DEE-CAL изговорене као Француски “médical”, у радиотелефонији. (WRC-07)

**ADD** COM4/332/48 (B13/347/141) (R7/411/179)

**33.20A** 2) Када се користе технике дигиталног селективног позива, најава ванредне ситуације на одговарајућим DSC за случај несреће и сигурности треба увек бити адресирано на све станице на VHF и у специфичним географским подручјима на MF и HF и треба да назначе “Medical transport” у складу са најновијим верзијама Препорука ITU-R M.493 и ITU-R M.541. (WRC-07)

**ADD** COM4/332/49 (B13/347/142) (R7/411/180)

**33.20B** 3) Медицински транспорти могу да користе једну или више фреквенција за случај несреће или безбедносни саобраћај специфицирано у Секцији I Члана 31 у сврху самоидентификације и да успоставе комуникацију. Чим постане практично, комуникације треба да буду пренесене на неку одговарајућу радну фреквенцију. (WRC-07)

**MOD** COM4/332/50 (B13/347/143) (R7/411/181)

**33.21** § 12 Коришћење сигнала описано у Nos. 33.20 и 33.20A показује да порука која следи тиче се заштићеног медицинског транспорта. Порука треба да пренесе следеће податке: (WRC-07)

**SUP** COM4/332/51 (B13/347/144) (R7/411/182)

**33.28**

**SUP** COM4/332/52 (B13/347/145) (R7/411/183)

**33.29**

### Секција IV – Комуникације безбедности

**ADD** COM4/332/53 (B13/347/146) (R7/411/184)

**33.YY** § 1 Следећи изрази се примењују:

- a) безбедносна најава је дигитално селективно позивање коришћењем формата позива безбедносни у опсезима коришћеним за земаљске

радиокомуникације или за формат безбедносне поруке, у којем случају он је прослеђен путем свемирских станица;

- b) позив безбедности је почетна гласовна или текстовна процедура;
- c) порука безбедности је следећа гласовна или текстовна процедура. (WRC-07)

**MOD** COM4/332/54 (B13/347/147) (R7/411/185)

**33.31** § 15 1) У земаљском систему, комуникације безбедности састоје се од најаве безбедности, емитоване коришћењем дигиталног селективног позивања, након којег следи безбедносни позив и порука емитовано коришћењем радиотелефоније, ускопојасне машинске телеграфије или податке. Најава безбедносне поруке треба бити урађена на једној или више фреквенција за случај несреће и безбедносно позивање специфициран у Секцији I Члана 31 коришћењем или технике дигиталног селективног позивања и формат позива безбедности, или процедуре радиотелефоније и сигнал сигурности. (WRC-07)

**MOD** COM4/332/55 (B13/347/148) (R7/411/186)

**33.31A** 2) Међутим, да се избегне непотребно оптерећивање фреквенција за случај несреће и безбедносно позивање специфицираним за коришћење са техникама дигиталног селективног позивања:

- a) безбедносне поруке емитоване од стране обалских станица у складу са раније утврђеним распоредом не би требале да буду најављиване техникама дигиталног селективног позивања;
- b) безбедносне поруке које се једино тичу пловила који плове у суседству требале би бити најављиване коришћењем процедура радиотелефоније. (WRC-07)

**ADD** COM4/332/56 (B13/347/149) (R7/411/187)

**33.31B** 3) Поред тога, бродске станице које нису опремљене за процедуре дигиталног селективног позивања могу да најаве безбедносну поруку емитовањем безбедносног позива путем радиотелефоније. У таквим случајевима најавна треба да се уради коришћењем фреквенције 156.8 MHz (VHF канал 16), истовремено водећи рачуна да друге станице изван VHF распона не смеју да приме ту најаву. (WRC-07)

**ADD** COM4/332/57 (B13/347/150) (R7/411/188)

**33.31C** 4) У поморској мобилној служби, безбедносне поруке требају генерално бити адресиране на све станице. У неким случајевима, међутим, оне могу бити адресиране на одређену станицу. Кад се користе технике дигиталног селективног позивања, безбедносне најаве треба да показују која фреквенција ће да се користи за слање следеће поруке и, у случају поруке свим станицама, треба користити “All Ships” формат. (WRC-07)

**MOD** COM4/332/58 (B13/347/151) (R7/411/189)

**33.32** § 16 1) У поморској мобилној служби, безбедносна порука треба, где је практично, бити емитована на радној фреквенцији у истом опсегу или опсезима као оне коришћене за безбедносну најаву или позив. Подесна индикација тог ефекта требала би бити стављена на крај безбедносног позива. У случају да ни једна друга опција није практична, безбедносна порука може бити послата путем радиотелефоније на фреквенцији 156.8 MHz (VHF канал 16). (WRC-07)

**ADD** COM4/332/59 (B13/347/152) (R7/411/190)

**33.32A** 2) У поморској мобилној сателитској служби, одвојена безбедносна најава или позив не треба да се ради пре слања безбедносне поруке. Међутим, ако је могуће, одговарајуће подешавање за приоритетан приступ мрежи требало би да се користи за слање те поруке. (WRC-07)

**MOD** COM4/332/60 (B13/347/153) (R7/411/191)

**33.34** § 18 1) Формат безбедносног позива или безбедносни сигнал показује да позивајућа станица има једно важно навигационо или метеоролошко упозорење да емитује. (WRC-07)

**ADD** COM4/332/61 (B13/347/154) (R7/411/192)

**33.34A** 2) Поруке од бродских станица које садрже информације које се тичу присуства циклона треба емитовати, са најмањим могућим закашњењем, другим мобилним станицама у суседству и одговарајућим ауторитетима путем обалске станице, или путем координационог центра за спашавање путем обалске станице или одговарајуће обалске земаљске станице. Овим емисијама треба да претходи безбедносна најава или позив. (WRC-07)

**ADD** COM4/332/62 (B13/347/155) (R7/411/193)

**33.34B** 3) Поруке од бродских станица које садрже информације о присуству опасних санити, опасних олупина, или друге непосредне опасности поморској навигацији, треба емитовати што пре је могуће другим бродовима у суседству, и одговарајућим ауторитетима путем обалске станице, или координационог центра за спашавање преко обалске станице или одговарајуће обалске земаљске станице. Тим емитовањима треба да претходи безбедносна најава или позив. (WRC-07)

**MOD** COM4/332/63 (B13/347/156) (R7/411/194)

**33.35** § 19 1) Комплетан безбедносни позив требало би да се састоји од:

- безбедносног сигнала SÉCURITÉ, изговореног три пута;
- имена позивне станице или “all stations”, изговорено три пута;
- речи THIS IS;
- имена станице која емитује безбедносну поруку, изговореног три пута;
- позивни знак или нека друга идентификација;
- MMSI (ако је почетна најава послата коришћењем DSC),

након чега следи безбедносна порука или детаљи канала који ће да се користи за поруку у случају где ће да се употреби радни канал.

У радиотелефонији, на селектованој радној фреквенцији, безбедносни позив или порука требало би да се састоји од:

- безбедносног сигнала SÉCURITÉ, изговореног три пута;
- имена позивне станице или “all stations”, изговорено три пута;
- речи THIS IS;
- имена станице која емитује безбедносну поруку, изговореног три пута;
- позивни знак или нека друга идентификација;
- MMSI (ако је почетна најава послата коришћењем DSC);
- текста безбедносне поруке. (WRC-07)

**ADD** COM4/332/64 (B13/347/157) (R7/411/195)

**33.38A** § 20bis 1) Бродске станице код примања безбедносне најаве коришћењем техника дигиталног селективног позивања и “All Ships” формата, или на други начин адресирано на све станице, не треба да шаљу потврду. (WRC-07)

**ADD** COM4/332/65 (B13/347/158) (R7/411/196)

**33.38B** 2) Бродске станице код примања безбедносне најаве или безбедносног позива и поруке треба да прате фреквенцију или канал наведен за поруку и треба да слушају док не буде сигурно да порука ни у ком случају није за њих. Не треба да врше никакву емисију која би могла да интерферира са поруком. (WRC-07)

**MOD** COM4/332/66 (B13/347/159) (R7/411/197)

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<sup>1</sup> **33.V.1** Поморска безбедносна информација укључује навигациона и метеоролошка упозорења, метеоролошке прогнозе и друге хитне поруке које се односе на безбедност емитоване од обалских станица или обалских Земаљских станица. (WRC-07)

**SUP** COM4/332/67 (B13/347/160) (R7/411/198)

**33.39A**

**SUP** COM4/332/68 (B13/347/161) (R7/411/199)

**33.39B**

**SUP** COM4/332/69 (B13/347/162) (R7/411/200)

**33.40**

**MOD** COM4/332/70 (B13/347/163) (R7/411/201)

**Секција VII – Коришћење других фреквенција за безбедност** (WRC-07)

**MOD** COM4/332/71 (B13/347/164) (R7/411/202)

**33.53** § 28 Радиокомуникације у безбедносне сврхе које се тичу комуникација извештавања за бродове, комуникација које се односе на навигацију, кретања и потреба бродова и поруке од посматрања времена могу бити вођене на било којој одговарајућој комуникационој фреквенцији, укључујући оне које се користе за јавно дописивање. У земаљским системима, опсези 415-535 kHz (види Члан **52**), 1 606.5-4 000 kHz (види Члан **52**), 4 000-27 500 kHz (види Члан **17**), и 156-174 MHz (види Члан **18**) се користе за ту функцију. У поморској мобилној сателитској служби, фреквенције у опсезима 1 530-1 544 MHz и 1 626.5-1 645.5 MHz користе се за ту функцију као и за узбуњивање у случају несреће (види No. **32.2**). (WRC-07)

**SUP** COM4/332/72 (B13/347/165) (R7/411/203)

**33.54**

**SUP** COM4/332/73 (B13/347/166) (R7/411/204)

**33.55**

## ЧЛАН 34

### Сигнали узбуњивања у глобалном поморском систему за случај несреће и безбедности (GMDSS)

#### Секција I – Радио-фар за означавање места удеса (EPIRB) и сателитски EPIRB сигнали

**MOD** COM4/296/24 (B9/305/26) (R4/335/41)

**34.1** § 1 Сигнал радио-фара за означавање места удеса у опсегу 406-406.1 MHz треба да буде у сагласности са Препоруком ИТУ-Р М.633-3. (WRC-07)

## ЧЛАН 41

### Комуникације са станицама у поморским службама

**MOD** COM4/296/25 (B9/305/27) (R4/335/42)

**41.1** станице на авиону могу да комуницирају, за случај несреће, и за јавно дописивање<sup>1</sup>, са станицама поморске мобилне или поморских мобилних сателитских служби. За те сврхе, оне треба да су сагласне са релевантним одредбама Поглавља VII и Поглавља IX, Чланова 51 (Секција III), 53, 54, 55, 57 и 58 (види такође Nos. 4.19, 4.20 и 43.4). (WRC-07)

## ЧЛАН 47

### Операторски сертификати

#### Секција I – Генералне одредбе

**MOD** COM4/380/13 (B17/404/16)

**47.2** § 1 1) Сервис сваке бродске радиотелефонске станице, бродске земаљске станице и бродске станице које користе фреквенције и технике за GMDSS, како је прописано у Поглављу VII, треба да буде под контролом оператора имаоца сертификата који је издат и признат од власти којој је станица подређена. Под условом да је станица тако контролисана, друге особе поред имаоца сертификата могу користити опрему. (WRC-07)

**SUP** COM4/380/14 (B17/404/17)

**47.6 to 47.8**

**MOD** COM4/380/15 (B17/404/18)

**47.18** § 5 1) Свака администрација мора да одреди услове под којима особљу које има сертификате специфициране у Секцији II могу бити додељени сертификати спецификовани у Nos. 47.20 to 47.23B. (WRC-07)

**ADD** COM4/380/16 (B17/404/19)

**47.18A** 2) Свака администрација може да одреди услове под којима особље које има сертификате за опрему која ради са не-GMDSS фреквенцијама и техникама могу бити додељени сертификати спецификовани у Nos. 47.26 и 47.27. (WRC-07)

#### Секција II – Категорије операторских сертификата

**ADD** COM4/380/17 (B17/404/20)

*A – GMDSS сертификати*

**MOD** COM4/380/18 (B17/404/21)

**47.19** § 6 1) Постоји шест категорија сертификата, показаних у опадајућем реду захтева, за особље бродских станица и бродских земаљских станица које користе фреквенције и технике прописане у Поглављу **VII**. Један оператор који задовољава захтеве сертификата аутоматски задовољава све захтеве сертификата нижег реда. (WRC-07)

**ADD** COM4/380/19 (B17/404/22)

**47.23A** e) Сертификат дугог домета (за не-SOLAS пловила). (WRC-07)

**ADD** COM4/380/20 (B17/404/23)

**47.23B** f) Сертификат кратког домета (за не-SOLAS пловила). (WRC-07)

**ADD** COM4/380/21 (B17/404/24)

*B – Не-GMDSS сертификати*

**Секција III – Услови издавања сертификата**

**MOD** COM4/380/22 (B17/404/25)

**47.25** § 7 1) Постоји шест категорија сертификата. Постојећи сертификати категорија излистаних у Но. **47.26** смеју да наставе да се користе за сврхе за које су били издани. (WRC-07)

**SUP** COM4/380/26 (B17/404/27)

**Секција IV – Квалификације за службу<sup>1</sup>** (WRC-03)

**MOD** COM4/380/23 (B17/404/28)

**47.26** § 8 Следећи поморски радио операторски сертификати још вреде:

- 1 Радиокомуникациони операторски генерални сертификат.
- 2 Радиотелеграфски операторски сертификат прве класе.
- 3 Радиотелеграфски операторски сертификат друге класе.
- 4 Радиотелеграфски операторски специјални сертификат.
- 5 Радиотелеграфски операторски генерални сертификат.
- 6 Ограничени радиотелефонски операторски сертификат. (WRC-07)

**MOD** COM4/380/24 (B17/404/29)

**47.27** § 9 Захтеви за сертификате из ове секције, за које кандидати морају показати доказ техничког и професионалног знања и квалификације, приказани су у Табели **47-1**. (WRC-07)

ТАБЕЛА 47-1

**Захтеви за радиоелектронски и операторски сертификати**

**ADD** COM4/380/25 (B17/404/26)

NOTE 2 – Услови за издавање Сертификата дугог и кратког домета садржани су у Резолуцији **343 (WRC-97)**. (WRC-07)

**SUP** COM4/380/27 (B17/404/30)

**47.28 to 47.29**

## ЧЛАН 50

### Радно време станица

**MOD** COM4/380/70 (B17/404/31)

**50.4** 2) О времену службе треба да се обавести Биро за радиокомуникације, који ће да информацију публикује у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/380/71 (B17/404/32)

**50.5** § 4 Обалске станице чија служба није стална не треба да престају да раде пре завршетка свих операција које су настале од позива у случају несреће или од сигнала ванредне ситуације или безбедности. (WRC-07)

**SUP** COM4/380/72 (B17/404/33)

**50.6 to 50.9**

## ЧЛАН 51

### Услови које треба посматрати у поморској служби

#### Секција I – Поморска мобилна служба

**SUP** COM4/296/26 (B9/305/28) (R4/335/43)

**51.8 to 51.23**

**MOD** COM4/380/28 (B17/404/34)

**51.35** *b)* емисије слања или примања класе F1B или J2B на неком међународном позивном каналу (спецификовано у Препоруци ITU-R M.541-9) у свим HF поморским мобилним опсезима неопходним за њихову службу; (WRC-07)

**MOD** COM4/296/27 (B9/305/29) (R4/335/44)

**51.53** *a)* емисије слања класе J3E на фреквенцији носиоца 2 182 kHz и емисије примања класе J3E на фреквенцији носиоца 2 182 kHz, осим за такву опрему као из No. **51.56**; (WRC-07)

**MOD** COM4/296/28 (B9/305/30) (R4/335/45)

**51.58** § 23 Све бродске станице опремљене радиотелефонијом за рад у ауторизованим опсезима између 4 000 kHz и 27 500 kHz и које нису сагласне са одредбама Поглавља VII требале би да могу да шаљу и примају на фреквенцијама носиоца 4 125 kHz и 6 215 kHz. Међутим, све бродске станице које су сагласне са одредбама Поглавља VII требале би да могу да шаљу и примају на фреквенцијама носиоца пројектованим у Члану 31 саобраћај у случају несреће и безбедности за радиотелефонију за фреквенцијске опсеге у којима раде. (WRC-07)

#### Секција III – станице на авиону које комуницирају са станицама поморске мобилне службе и поморске мобилне сателитске службе

**MOD** COM6/341/21 (B14/365/39) (R7/411/206)

**51.71** § 28 У случају комуникације између станица на авиону и станица поморске мобилне службе, радиотелефонско позивање може бити обновљено као што је специфицирано у најновијој верзији Препоруке ITU-R M.1171 и радиотелеграфско позивање може бити обновљено после интервала од пет минута, упркос процедури садржаној у најновијој верзији Препоруке ITU-R M.1170. (WRC-07)

**MOD** COM4/296/29 (B9/305/31) (R4/335/46)

**51.79** 2) Фреквенција 156.3 MHz може бити коришћена од станица на авиону за безбедносне сврхе. Она такође може бити коришћена за комуникацију између бродских станица и станица на авиону ангажованих у координисаним операцијама претраге и спасавања (види Додатак **15**). (WRC-07)

**MOD** COM4/296/30 (B9/305/32) (R4/335/47)

**51.80** 3) Фреквенција 156.8 MHz може бити коришћена од станица на авиону само у сврхе безбедности (види Додатак **15**). (WRC-07)

## ЧЛАН 52

### Специјална правила која се односе на коришћење фреквенција

**SUP** COM4/296/31 (B9/305/33) (R4/335/48)

#### Секција II

**SUP** COM4/296/32 (B9/305/34) (R4/335/49)

#### 52.16 to 52.93

#### Секција III – Коришћење фреквенција за ускопојасну машинску телеграфију

**MOD** COM4/380/29 (B17/404/35)

**52.95** § 44 Фреквенције додељене обалским станицама за ускопојасну машинску телеграфију треба да су наведене у Листи обалских станица и Станица специјалне службе (Листа IV). Та Листа треба такође да показује било коју другу корисну информацију која се тиче службе у којој ради свака обалска станица. (WRC-07)

**MOD** COM4/296/33 (B9/305/35) (R4/335/50)

**52.101** 2) Ускопојасна машинска телеграфија је забрањена у опсегу 2170-2194 kHz осим, како је омогућено у додатку **15** и Резолуцији [COM4/3] (WRC-07). (WRC-07)

#### Секција IV – Коришћење фреквенција за дигитално селективно позивање

**MOD** COM4/380/30 (B17/404/36)

**52.112** § 51 Карактеристике опреме дигиталног селективног позивања треба да су у складу са Препоруком ИТУ-R М.541-9 и треба да су у складу са најновијом верзијом Препоруке ИТУ-R М. 493. (WRC-07)

**MOD** COM4/380/31 (B17/404/37)

**52.113** § 52 Фреквенције на којима обалске станице пружају услуге коришћењем техника дигиталног селективног позивања треба да су наведене у Листи обалских станица и Станица специјалне службе (Листа IV), која треба да такође пружи остале корисне информације које се тичу таквих услуга. (WRC-07)

**MOD** COM4/380/32 (B17/404/38)

**52.122** § 59 1) Обалска станица која пружа услугу међународне јавне кореспонденције коришћењем техника дигиталног селективног позивања унутар опсега између 415 kHz и 526.5 kHz требала би, за време њених радних сати, да одржава аутоматско мотрење на дигитално селективно позивање на одговарајућим националним и интернационалним позивајућим фреквенцијама. Радни сати и фреквенције треба да су наведени у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/380/33 (B17/404/39)

**52.137** § 63 Фреквенције које се користе за емитовање потврде требају нормално да буду фреквенција у пару са фреквенцијом коришћеном за примљени позив, како је наведено у Листи обалских станица и Станица специјалне службе (Листа IV) (види такође No. **52.113**).  
(WRC-07)

**MOD** COM4/380/34 (B17/404/40)

**52.139** 2) Обалска станица која пружа услугу међународне јавне кореспонденције коришћењем техника дигиталног селективног позивања у опсезима између 1 606.5 kHz и 4 000 kHz требала би, за време њених радних сати, да одржава аутоматско мотрење на дигитално селективно позивање на одговарајућим националним и међународним позивајућим фреквенцијама. Радни сати и фреквенције треба да су наведени у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/380/35 (B17/404/41)

**52.148** b) према одредбама No. **52.149**, једна од фреквенција дигиталног селективног позивања. (WRC-07)

**MOD** COM4/380/36 (B17/404/42)

**52.149** 2) Међународне фреквенције дигиталног селективног позивања треба да буду као што је наведено у Препоруци ITU-R M.541-9 и могу бити коришћене од било које бродске станице. Да би се смањила интерференција на тим фреквенцијама, оне треба да се користе кад позивање не може да се врши на фреквенцијама додељеним на националном нивоу. (WRC-07)

**MOD** COM4/380/37 (B17/404/43)

**52.152** b) према одредбама No. **52.153**, једна од међународних фреквенција дигиталног селективног позивања. (WRC-07)

**MOD** COM4/380/38 (B17/404/44)

**52.153** 2) Међународне фреквенције дигиталног селективног позивања треба да буду као што је наведено у Препоруци ITU-R M.541-9 и треба да буду додељене свакој обалској станици. Да би се смањила интерференција на тим фреквенцијама, оне би могле генерално да се користе од стране обалских станица за позивање бродова других националности, или у случајевима када није познато на којим фреквенцијама дигиталног селективног позивања унутар дотичног опсега бродске станице врше мотрење. (WRC-07)

**MOD** COM4/380/39 (B17/404/45)

**52.155** 2) Обалска станица која пружа услугу међународне јавне кореспонденције коришћењем техника дигиталног селективног позивања унутар опсега између 4 000 kHz и 27 500 kHz требало би, за време њених радних сати, да одржава аутоматско мотрење на дигитално селективно позивање како је наведено у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/380/40 (B17/404/46)

**52.159** § 71 1) Фреквенција 156.525 MHz је међународна фреквенција у поморској мобилној служби која се користи за случај несреће, ванредне ситуације, сигурности и техника дигиталног селективног позивања (види Nos. **33.8** и **33.31** и Додатка **15**). (WRC-07)

**MOD** COM4/380/41 (B17/404/47)

**52.161** § 72 Информације које се тичу мотрења путем аутоматског дигиталног селективног позивања на фреквенцији 156.525 MHz од стране обалских станица треба да буду дате у Листи обалских станица и Станица специјалне службе (Листа IV) (види такође No. **31.13**). (WRC-07)

#### **Секција VI – коришћење фреквенција за радиотелефонију**

**MOD** COM4/380/42 (B17/404/48)

**52.180** § 84 Фреквенције емисија (и пријем кад су те фреквенције у пару као што је дуплекс у радиотелефонији) додељене свакој обалској станици треба да су назначене у Листи обалских станица и Станица специјалне службе (Листа IV). Та Листа треба такође да показује било коју другу корисну информацију која се тиче службе у којој ради свака обалска станица. (WRC-07)

**MOD** COM4/296/34 (B9/305/36) (R4/335/51)

**52.183** § 86 1) Осим ако није специфицирано другачије у Правилнику о радиокомуникацијама (види Nos. **51.53**, **52.188**, **52.189** и **52.199**), класа емисије за коришћење у опсезима између 1 606.5 kHz и 4 000 kHz треба да је J3E. (WRC-07)

**MOD** COM4/380/43 (B17/404/49)

**52.187** 3) Нормалан мод рада за сваку обалску станицу треба бити назначен у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/380/44 (B17/404/50)

**52.188** 4) Емисије у опсезима 2 170-2 173.5 kHz и 2 190.5-2 194 kHz са носећом фреквенцијом 2 170.5 kHz и носећом фреквенцијом 2 191 kHz, редом, јесу ограничене на емисије класе J3E и ограничене су на вршну снагу обвојнице 400 W. (WRC-07)

**MOD** COM4/296/35 (B9/305/37) (R4/335/52)

**52.189** § 87 1) Фреквенција 2 182 kHz<sup>2</sup> је једна међународна фреквенција за случај несреће за радиотелефонију (види Додатак **15** и Резолуцију [**COM4/3**] (**WRC-07**)). (WRC-07)

**MOD** COM4/380/45 (B17/404/51)

**52.200** 4) Једна од фреквенција коју обалске станице треба да имају доступну за коришћење (види No. **52.197**) одштампана је масним словима у Листи обалских станица и Станица специјалне службе (Листа IV) да покаже да је она нормална радна фреквенција станица. Суплементарне фреквенције, ако су додељене, приказане су на уобичајени начин. (WRC-07)

**SUP** COM4/296/36 (B9/305/38) (R4/335/53)

**52.209**

**MOD** COM4/380/46 (B17/404/52)

**52.212** – где је постројење отворено за бродове свих националности на основу напомене против сваке дотичне фреквенције у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/380/47 (B17/404/53)

**52.218** 2) Нормалан начин рада сваке обалске станице назначен је у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/296/37 (B9/305/39) (R4/335/54)

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<sup>4</sup> **52.221.2** Фреквенције носиоца 4 125 kHz и 6 215 kHz такође су ауторизоване за заједничко коришћење од стране обалских и бродских станица за радиотелефонију с једним бочним опсегом на бази симплекса у сврхе позива и одговора, омогућајући да вршна снага обвојнице таквих станица не прелази 1 kW. Коришћење тих фреквенција за радне сврхе није дозвољена (види такође No. **52.221.1**). (WRC-07)

**SUP** COM4/380/48 (B17/404/54)

<sup>6</sup> **52.222.1**

**MOD** COM4/380/49 (B17/404/55)

**52.223** § 98 Радно време обалских станица отворено за јавну кореспонденцију и фреквенција или фреквенције на које се одржава мотрење треба да су назначене у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/296/38 (B9/305/40) (R4/335/55)

**52.231** § 101 1) Фреквенција 156.8 MHz је међународна фреквенција за саобраћај у случају несреће и за позивање путем радиотелефоније код коришћења фреквенција у ауторизованим опсезима између 156 MHz и 174 MHz. Класа емисије која се користи за радиотелефонију на фреквенцији 156.8 MHz треба бити G3E (како је специфицирано у Препоруци ITU-R M.489-2). (WRC-07)

**SUP** COM4/380/50 (B17/404/56)

**52.235**

**MOD** COM4/380/51 (B17/404/57)

**52.236** 3) Сваки од канала назначених у Додатку **18** за јавну кореспонденцију може бити коришћен као позивајући канал ако нека администрација тако жели. Такво коришћење треба бити назначено у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**ADD** COM4/296/39 (B9/305/41) (R4/335/56)

**52.241A** 10) Фреквенција 156.525 MHz је међународна фреквенција за случај несреће, безбедности и позивања за поморску мобилну VHF радиотелефонску службу која користи DSC кад употребљава фреквенције у ауторизованим опсезима између 156 MHz и 174 MHz. (WRC-07)

**ADD** COM4/296/40 (B9/305/42) (R4/335/57)

**52.241B** 11) Све емисије у опсегу 156.4875-156.5625 MHz способне да узрокују штетне сметње ауторизованим емисијама станица поморске мобилне службе на 156.525 MHz јесу забрањене. (WRC-07)

**ADD** COM4/296/41 (B9/305/43) (R4/335/58)

**52.241C** 12) За олакшање пријема позива у случају несреће и саобраћаја у случају несреће, све емисије на 156.525 MHz треба држати на минимуму. (WRC-07)

**MOD** COM4/296/42 (B9/305/44) (R4/335/59)

**52.242** § 102 1) Обалска станица отворена за услугу међународну јавну кореспонденцију требала би, за време њених радних сати, да одржава аутоматско мотрење на

пријемну фреквенцију или фреквенције наведене у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/380/52 (B17/404/58)

**52.247** § 103 Обалска станица на раду у пристанишној служби у подручју где се 156.8 MHz користи за случај несреће, ванредне ситуације или безбедности треба, за време њених радних сати, одржавати додатно мотрење на 156.6 MHz или неку другу пристанишну радну фреквенцију назначену масним словима у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

**MOD** COM4/380/53 (B17/404/59)

**52.248** § 104 Обалска станица у служби кретања бродова у подручју где се 156.8 MHz користи за случај несреће, ванредне ситуације или безбедности треба, за време њених радних сати, одржавати додатно мотрење на фреквенције кретања бродова назначене масним словима у Листи обалских станица и Станица специјалне службе (Листа IV). (WRC-07)

## ЧЛАН 54

### Селективно позивање

**MOD** COM4/332/174 (B13/347/168) (R7/411/207)

**54.2** 2) Селективно позивање се врши коришћењем система дигиталног селективног позивања који треба бити у сагласности са Препоруком ITU-R M.541-9, и требао би бити у складу са најновијом верзијом Препоруке ITU-R M.493. (WRC-07)

## ЧЛАН 55

### Морзеова радиотелеграфија

**MOD** COM4/332/175 (B13/347/169) (R7/411/208)

**55.1** Процедура која се препоручује за вођење комуникација путем Морзеовог радиотелеграфа детаљно је дата у најновијој верзији Препоруке ITU-R M.1170. (WRC-07)

## ЧЛАН 56

### Ускопојасна машинска телеграфија

**MOD** COM4/380/54 (B17/404/60)

**56.2** § 2 Процедура специфицирана у Препоруци ITU-R M.492-6 треба да се примени осим у случају несреће, ванредне ситуације или безбедности, у ком случају алтернативне или нестандартне процедуре могу да се користе. (WRC-07)

**MOD** COM4/332/176 (B13/347/170) (R7/411/209)

**56.6** § 5 Услуга сваке станице отворене за јавну кореспонденцију треба да буде назначена у Листи обалских станица и Станица специјалне службе (Листа IV) и у Листи обалских станица и Доделе идентитета станицама специјалне службе (Листа V), заједно са информацијама о наплати. (WRC-07)

## ЧЛАН 57

### Радиотелефонија

**MOD** COM4/296/43 (B9/305/45) (R4/335/60)

**57.1** § 1 Процедуре дате детаљно у Препоруци ИТУ-Р М.1171 требају бити доступне станицама радиотелефоније, осим у случају несреће, ванредне ситуације или безбедности. (WRC-07)

**MOD** COM4/296/44 (B9/305/46) (R4/335/61)

**57.8** § 4 Позивање, и припремање сигнала за слање, не треба бити дуже од једног минута када се врши на фреквенцији носиоца 2 182 kHz или на 156.8 MHz, осим у случајевима несреће, ванредне ситуације или безбедности. (WRC-07)

**MOD** PLEN/423/1

## ЧЛАН 59

### Ступање на снагу и привремене примене Правилника о радиокомуникацијама (WRC-2000)

**59.1** Ова регулатива, која је комплементарна са одредбама Статута и Конвенције Међународне телекомуникационе уније, и будући да је ревидирана и садржана у Финалним актима WRC-95, WRC-97, WRC-2000, WRC-03, и WRC-07, треба да се примени, сходно Члану 54 Статута, на следећој основи. (WRC-07)

**59.2** Одредбе ове Регулative, како су ревидиране на WRC-95, које се тичу нових или модификованих фреквенцијских намена (укључујући све нове и модификоване услове који се примењују на постојеће намене) и с тим у вези одредбе Чланова S21\* и S22\*, и Члана S4\*, за привремену примену од 1.1.1997.

**59.3** Остале одредбе ове Регулative, како је ревидирано на WRC-95 и WRC-97, за привремену примену од 1.1.1999, са следећим изузецима: (WRC-2000)

**59.4** – ревидиране одредбе за које су дрги датуми почетка примене прдвиђени у Резолуцијама:

**49 (WRC-97), 51 (WRC-97), 52 (WRC-97)\*\* , 54 (WRC-97)\*\* ,  
130 (WRC-97)\*\* , 533 (WRC-97), 534 (WRC-97)\*\* и 538 (WRC-97)\*\* .**

**59.5** Остале одредбе ове Регулative, како је ревидирано на WRC-2000, треба да ступе на снагу 1.1.2002., са следећим изузецима: (WRC-2000)

**59.6** – ревидиране одредбе за које су дрги датуми почетка примене прдвиђени у Резолуцијама :

**49 (Rev.WRC-2000), 51 (Rev.WRC-2000), 53 (Rev.WRC-2000)\*\*\* ,  
55 (WRC-2000), 56 (WRC-2000), 58 (WRC-2000), 59 (WRC-2000)\*\*\* ,  
77 (WRC-2000)\*\*\* , 84 (WRC-2000)\*\*\* , 122 (Rev.WRC-2000),  
128 (Rev.WRC-2000)\*\*\* , 533 (Rev.WRC-2000), 539 (WRC-2000),**

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\* *Додатак Секретаријата:* У погледу промена у шеми нумерације, ове референце сада одговарају Члановима 21 и 22, и Прилогу 4.

\*\* *Додатак Секретаријата:* Ова Резолуција је укинута на WRC-2000.

\*\*\* *Додатак Секретаријата:* Ова Резолуција је укинута на WRC-03.

**540 (WRC-2000)\*\*\*, 541 (WRC-2000)\*\*\*, 542 (WRC-2000)\*\*\*,  
604 (WRC-2000)\*\*\* и 605 (WRC-2000)\*\*\*. (WRC-2000)**

**59.7**           Остале одредбе ове Регулативе, како је ревидирано на WRC-03, треба да ступе на снагу 1.1.2005., са следећим изузецима: (WRC-03)

**59.8**           –       ревидиране одредбе за које су дрги датуми почетка примене предвиђени у Резолуцијама:

**56 (Rev.WRC-03)\*\*\*\*, 85 (WRC-03), 87 (WRC-03)\*\*\*\*, 96 (WRC-03)\*\*\*\*,  
122 (Rev.WRC-03), 142 (WRC-03), 145 (WRC-03), 146 (WRC-03)\*\*\*\*,  
221 (Rev.WRC-03), 413 (WRC-03), 539 (Rev.WRC-03), 546 (WRC-03),  
743 (WRC-03) и 902 (WRC-03). (WRC-07)**

**ADD**

**59.9**           Остале одредбе ове Регулативе, како је ревидирано на WRC-07, треба да ступе на снагу 1.1.2009., са следећим изузецима: (WRC-07)

**ADD**

**59.10**          –       ревидиране одредбе за које су дрги датуми почетка примене предвиђени у Резолуцијама:

**55 (Rev.WRC-07), 97 (WRC-07), 149 (WRC-07), 355 (WRC-07) и 905  
(WRC-07). (WRC-07)**

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\*\*\*\* *Додатак Секретаријата:* Ова Резолуција је укинута на WRC-07.

## **ДОДАЦИ**

**MOD** COM6/382/10 (B20/414/10)

## ДОДАТАК 1

### Класификације емисија и неопходних ширина опсега

(Види Члан 2)

§ 1 1) ...

2) Формуле и примери емисија назначених у складу са овим Додатком дате су у Препоруци ITU-R SM.1138-1. Следећи примери могу бити дати у другим ITU-R Препорукама. Ови примери могу такође бити публиковани у Предговору за Међународну листу фреквенција.

#### Секција I – Неопходне ширине опсега

§ 2 1) ...

2) ...

3) ...

3.1) коришћење формуле и примера неопходних ширина опсега и назначаване одговарајућих емисија дато у Препоруци ITU-R SM.1138-1;

**MOD** COM6/398/1 (B21/415/1)

### ДОДАТАК 4 (Rev.WRC-07)

## Консолидована листа и табеле карактеристика за коришћење у применама процедура Поглавља III

1 Материјал овога додатка је подељен у два дела: један који се тиче података и њиховог коришћења за земаљске радиокомуникационе службе и другог који се тиче података и њиховог коришћења у свемирским радиокомуникационим службама.

2 Оба дела садрже листу карактеристика и табелу која назначавача коришћење сваке од карактеристика у специфичним околностима.

*Анекс 1:* Карактеристике станица у земаљским службама

*Анекс 2:* Карактеристике сателитских мрежа, земаљских станица или радиоастрономских станица.

**SUP** COM6/398/2 (B21/415/2)

### АНЕКС 1А

#### Листа карактеристика станица у земаљским службама<sup>1</sup>

**SUP** COM6/398/3 (B21/415/3)

### АНЕКС 1В

#### Табела карактеристика која треба да се поднесе за станице у земаљским службама (WRC-2000)

**ADD** COM6/398/4 (B21/415/4)

### АНЕКС 1

#### Карактеристике станица у земаљским службама<sup>1</sup>

У применама Додатка 4 има много случајева када захтеви података укључују коришћење стандардних симбола у поднесцима за Биро за радиокомуникације. Ти стандардни симболи могу да се нађу у “Предговору за BR Међународни циркулар за информације о фреквенцијама” (BR IFIC) (Земаљске службе). У Табелама, то се једноставно назива “Предговор”. Такође додатне информације могу да се нађу у упутствима публикованим на интернет сајту Бироа.

#### Кључ за симболе коришћено у Анексу 1

X	Обавезна информација
+	Обавезно под условима специфицираним у колони 3
O	Опциона информација
C	Обавезно ако се користи као основ за остваривање координације са другом администрацијом
	Податак није примењив на одговарајућу обавест

<sup>1</sup> Биро за радиокомуникације ће развити и осавременјавати форму обавештења како би у потпуности биле испуњене законске одредбе овог додатка и доноше одлука у вези будућих конференција. Додатне информације за ставке наведене у овом Анексу уз објашњење симбола налази се у предговору да Међународни фреквенцијске расподеле.

### Читање Додатка 4 Табеле 1 и 2

Правила за повезивање знака и текста базирају се на називима колона у табели покривајући специфичне процедуре, службе и фреквенцијске опсеге.

1 Ако било који податак има ознаку “+”, то показује да је податак подложен обавезном захтеву под специфичним условима. Ако ти услови нису задовољени, одговарајући податак није применљив осим ако је другачије специфицирано. Ти услови су излистани након имена податка и нормално су презентовани како је приказано ниже.

2 “Захтевано” без референце на назив колоне користи се у случају да придружени услов је важећи за сваку примењиву колону.

1.5.2	1B	Референтна фреквенција, како је дефинисана у Члану 1 Захтевано ако је анvelopa модулације асиметрична	+	+	1B
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“У случају да”, након чега следи референца на назив колоне, користи се, како је ниже показано, када су придружени услови различити за индивидуалне колоне, или индикација није иста дуж свих примењивих колона.

6.1	6A	Природа службе, коришћењем симбола за Предговор У случају предајне станице, захтевано за све службе, осим радиодифузне службе	+	X	6A
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3 Поднаслов лимитира домет процедура, служби или фреквенцијских опсега примењивих под називом колоне у Табели. До примене даљих специфичних услова, подаци груписани под тим поднасловом имају једно “X” ако је кондиционална природа приказана у поднаслову.

1.4.4		<b>За доделе у опсезима и службама одређеним једино Geneva 06 Регионалним споразума</b>			
1.4.4.4		Код доделе дигиталне радиодифузије	X		

### Фусноте на Табеле 1 и 2

1 Најновија верзија Препорука ITU-R SF.675 требало би да се користи до обима примењивог у рачунању максимума густине снаге по Hz.

ТАБЕЛА 1

Карактеристике земаљских служби

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Обавештење у вези са							
			Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
1		<b>ГЕНЕРАЛНЕ ИНФОРМАЦИЈЕ И ФРЕКВЕНЦИЈСКЕ КАРАКТЕРИСТИКЕ</b>								
1.1	B	симбол обавештавајуће администрације (види Предговор)	X	X	X	X	X	X	X	B
1.2	[D]	код одредбе у Правилнику о радиокомуникацијама под којим је обавештење поднесено	X	X	X	X	X	X	X	[D]
1.3		индикатор поновног подношења У случају VHF/UHF радиодифузне станице, или типичне предајне станице, потребно за доделу према GE06 Регионалном споразуму ако је обавештење поново поднесено у примени Члана 11  У случају предајне станице, или пријемне копнене станице, потребно за доделу према GE06 Регионалном споразуму или Nos. 9.16, 9.18 или 9.19 ако је обавештење поново поднесено у примени Члана 11	+		+	+	+			

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
1.4		<b>Идентификационе информације доделе и алотмента</b>								
1.4.1	SYNC	идентификациони симболи за синхронизовану, или једнофреквенцијску, мрежу У случају VHF/UHF радиодифузне станице, потребно за дигиталну радиодифузну доделу у синхронизованој или једнофреквенцијској мрежи према GE06 Регионалном споразуму У случају LF/MF радиодифузне станице, потребно за дигиталну радиодифузну доделу у синхронизованој или једнофреквенцијској мрежи	+	+						SYNC
1.4.2		Јединствени идентификациони код дат од администрације за доделу или алотмент Потребно за доделе према GE06 Регионалном споразуму, и опционално за доделе које нису предмет овог Споразума	+	0	+	+	+	0		
1.4.3		<b>За доделе у опсезима и службе вођене једино по Geneva 06 Регионалном Споразуму</b>								
1.4.3.1		јединствени идентификациони код дат од администрације за придружени алотмент Потребно за дигиталну радиодифузну доделу везано за алотмент, или конвертован из алотмента, у оквиру GE06 План	+							
1.4.3.2		јединствени идентификациони код дат од администрације за ставку дигиталног радиодифузног Плана за који § 5.1.3 GE06 Споразума треба да се примени Потребно ако најављена додела треба да ради под маском ставке дигиталног радиодифузног Плана у складу са § 5.1.3 GE06 Регионалног споразума	+		+	+				
1.4.3.3		Код ставке дигиталног радиодифузног плана који означава категорију ставке Плана којој додела припада	X							
1.4.3.4		код дигиталне радиодифузне доделе	X							

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1.5		<b>Фреквенцијске информације</b>								
1.5.1	1A	додељена фреквенција, дефинисано у Члану 1 У случају предајне станице, потребно за све службе, осим за адаптивне системе у фиксној или мобилној служби који раде у опсезима између 300 kHz и 28 MHz (види Резолуцију 729 (Rev.WRC-07)) У случају HF радиодифузне станице под Чланом 12, потребно ако ни један од пожељних опсега нити референтних фреквенција није дат	X	X	+	X	X		+	1A
1.5.2	1B	референтна фреквенција, дефинисано у Члану 1 Потребно ако је модулациона анVELOпа асиметрична			+	+	+		+	1B
1.5.3	1G	алтернативна фреквенција							O	1G
1.5.4	1X	број канала предложеног или намењеног канала Потребно за подношење у складу са Nos. 25/1.1.1, 25/1.1.2 или 25/1.25 Додатка 25 ако није тражена помоћ Бироа под No. 25/1.3.1 Додатка 25						+		1X
1.5.5	1Y	број канала предложеног алтернативног канала						O		1Y
1.5.6	1Z	број канала од канала који треба да се замени Потребно ако администрација треба да замени свој постојећи намењени канал						+		1Z
1.5.7	1AA	доња граница обима употребљивих фреквенција унутар којег носиоц и ширина опсега емисије ће да се одреди Потребно за адаптивне системе у фиксној и мобилној служби који раде у опсезима између 300 kHz и 28 MHz (види такође Резолуцију 729 (Rev.WRC-07))			+					1AA

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
1.5.7bis	[1a]	горња граница обима употребљивих фреквенција унутар којег носиоц и ширина опсега емисије ће да се одреди  Потребно за адаптивне системе у фиксној и мобилној служби који раде у опсезима између 300 kHz и 28 MHz (види такође Резолуцију 729 (Rev.WRC-07))			+					
1.5.8	1C	пожељан опсег, у MHz  У случају алотмента Поморске мобилне службе, потребно ако је тражена помоћ Бироа под No. 25/1.3.1 Додатка 25  У случају HF радиодифузне станице под чланом 12, потребан за обавештења ако је помоћ затражена у складу са No. 7.6						+	+	1C
1.5.9		<b>За дигиталну радиодифузију (осим додела према § 5.1.3 GE06 Регионалног споразума)</b>								
1.5.9.1	1E1[β]	фреквенцијски офсет, у kHz  Потребно за доделу према GE06 регионалном споразуму ако је центар фреквенције емисије офсет од додељене фреквенције, и опционалан за доделе које не подлежу овом Споразуму	+							1E1[β]
1.5.10	1E	<b>За аналогну телевизијску радиодифузију</b>								
1.5.10.1	1E	фреквенцијски офсет визуалног носиоца, у мултиплима од 1/12 линијске фреквенције дотичног телевизијског система, изражен бројем (позитван или негативан)  Потребно ако фреквенцијски офсет визуалног носиоца у kHz, (1E1) није дат за доделе према ST61, GE89 или GE06 Регионалног споразума	+							1E

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
1.5.10.2	1E1	фреквенцијски офсет визуалног носиоца, у kHz, изражен бројем (позитван или негативан)  Потребно ако фреквенцијски офсет визуалног носиоца, у мултиплима од 1/12 линијске фреквенције (1E) није дат за доделе према ST61, GE89 или GE06 Регионалних споразума	+							1E1
1.5.10.3		<b>За случај када је фреквенцијски офсет звучног носиоца различит од фреквенцијског офсета визуалног носиоца</b>								
1.5.10.3.1	1E[α]	фреквенцијски офсет звучног носиоца, у мултиплима од 1/12 линијске фреквенције дотичног телевизијског система, изражен бројем (позитван или негативан)  Потребно ако фреквенцијски офсет звучног носиоца, у kHz, (1E[α]) није дат за доделе према ST61, GE89 или GE06 Регионалних споразума	+							1E[α]
1.5.10.3.2	1E1[α]	фреквенцијски офсет звучног носиоца, у kHz, изражен бројем (позитван или негативан)  Потребно ако фреквенцијски офсет звучног носиоца, у мултиплима од 1/12 линијске фреквенције (1E[α]) није дата за доделе према ST61, GE89 или GE06 Регионалних споразума	+							1E1[α]
2		<b>ДАТУМ РАДА</b>								
2.1	2C	датум (стварни или предвиђен, према потреби) стављања фреквенцијске доделе (нове или модификоване) у употребу	X	X	X	X	X	X		2C

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
2.2		датум завршетка рада фреквенцијске доделе У случају VHF/UHF радиодифузне станице, потребно, у примени Члана 11, када је рад неке доделе ограничен на специфичан период времена под § 4.1.5.4 GE06 Регионалног споразума У случају предајне станице, пријемне копнене станице, или типичне предајне станице, потребно, у примени Члана 11, када је нека додела ограничена на специфични период времена под § 4.2.5.5 GE06 Регионалног споразума	+		+	+	+			
2.3		код сезоне рада							X	
2.4	10CA	датум почетка емитовања							X	10CA
2.5	10CB	датум завршетка емитовања							X	10CB
2.6	10CC	радни дани за емитовање за време HFBC распореда							X	10CC
3		<b>ПОЗИВНИ ЗНАК И ИНДЕНТИФИКАЦИЈА СТАНИЦЕ</b>								
3.1	3A[1]	позивни знак коришћен у складу са Чланом 19 У случају емитујуће станице, у фиксној служби испод 28 MHz, мобилној служби, служби метеоролошке помоћи, или служби стандардне фреквенције и сигнала времена, у примени Члана 11, потребно ако идентификација станице (3A[2]) није дата	O	O	+				O	3A[1]
3.2	3A[2]	инентификација станице коришћена у складу са Чланом 19 У случају емитујуће станице, у фиксној служби испод 28 MHz, мобилној служби, служби метеоролошке помоћи, или служби стандардне фреквенције и сигнала времена, у примени Члана 11, потребно ако позивни знак (3A[1]) није дат	O	O	+				O	3A[2]

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
4		<b>ЛОКАЦИЈА ПРЕДАЈНИХ АНТЕНА</b>								
4.1	4А	име локалитета по коме је предајна станица позната или у коме је смештена	X	X	X					4А
4.2	4АА	име локалитета планиране обалске станице Потребно за подношења у складу са No. 25/1.1.1 Додатка 25						+		
4.3	4В	код географског подручја у коме је предајна станица смештена (види Предговор)	X	X	X					4В
4.4	4С	Географске координате места предајника Географска дужина и ширина дају се у степенима, минутима и секундама	X	X	X					4С
4.5	4СА	Географске координате планиране обалске станице Географска дужина и ширина дају се у степенима, минутима и секундама Потребно за подношења у складу са No. 25/1.1.1 Додатка 25						+		
4.6		HFBC код места ПРИМЕДБА – Код је додељен од стране Бироа пре почетка процедуре Члана 12 и представља локацију станице, њено географско подручје и географске координате							X	

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
4.7		<b>За подручје у којем ради предајна станица</b>								
4.7.1	4C[α]	географске координате центра кружне зоне, у којој мобилне предајне станице придружене пријемним копненим станицама, или типичне предајне станице раде Географска дужина и ширина дају се у степенима, минутима и секундама У случају пријемне копнене станице, потребно: – за поморску радионавигациону службу; и – за друге службе ако код географског подручја или стандардно дефинисаног подручја (4E) није дат У случају типичне предајне станице, потребно ако географско подручје или стандардно дефинисано подручје (4E) није дато				+	+			4C[α]
4.7.2	4D	Номинални радијус, у km, кружне зоне, у којој мобилне предајне станице придружене пријемним копненим станицама, или типичне предајне станице раде У случају пријемне копнене станице, потребно: – за поморску радионавигациону службу; и – за друге службе ако код географског подручја или стандардно дефинисаног подручја (4E) није дат У случају типичне емитујуће станице, потребно ако географско подручје или стандардно дефинисано подручје (4E) није дато				+	+			4D

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
4.7.3	4E	код географског подручја или стандардног дефинисаног подручја (види Предговор) ПРИМЕДБА – Стандардно дефинисано подручје за пријемну копнену станицу у поморској мобилној служби може бити поморска зона. Стандардно дефинисано подручје за поморски мобилни фреквенцијски алотмент јесте подручје алотмента У случају пријемне копнене станице, за све службе, осим поморске радионавигационе службе, потребно ако кружна зона (4C[α] и 4D) није дата У случају типичне предајне станице, потребно ако кружна зона (4C[α] и 4D) није дата				+	+	X		4E
4.8	4G	проводност земље Потребно за доделу према GE75 Регионалном споразуму		+						4G
5		<b>ЛОКАЦИЈА ПРИЈЕМНИХ АНТЕНА</b>								
5.1	5A	име локалитета по коме је пријемна станица позната или у коме је смештена У случају предајне станице, потребне за једну придружену пријемну станицу у фиксној служби ако географске координате дате пријемне зоне (5C[α]) нису дате			+	X				5A
5.2	5B	код географског подручја у коме је предајна станица смештена (види Предговор) У случају предајне станице, потребне за једну придружену пријемну станицу у фиксној служби ако географске координате дате пријемне зоне (5C[α]) нису дате			+	X				5B
5.3	5C	географске координате места пријемне станице Географска дужина и ширина дају се у степенима, минутама и секундама У случају предајне станице, потребне за једну придружену пријемну станицу у фиксној служби ако географске координате дате пријемне зоне (5C[α]) нису дате			+	X				5C

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
5.4		<b>За подручје у којем ради пријемна станица</b>								
5.4.1	5C[a]	географске координате дате зоне пријема Минимум од 3 географске координате се дају. Све географске координате (географска дужина и ширина) дају се у степенима, минутима и секундама За једну придружену пријемну станицу у фиксној служби, потребно ако име локалитета (5A), географско подручје (5B) и географске координате (5C) нису дате За све службе, осим где је додела према GE06 Споразуму, потребно ако нити кружно подручје (5E и 5F) нити географско подручје или стандардно подручје пријема (5D) није дато			+					5C[a]
5.4.2	5D	код географског подручја или стандардно дефинисаног подручја пријема (види Предговор) ПРИМЕДБА – Стандардно дефинисано подручје предајне станице може бити презентовано путем поморске зоне или ваздухопловне зоне. Стандардно дефинисано подручје алотмента поморске мобилне службе је поморска зона. Стандардно дефинисано подручје једне HF радиодифузне станице према Члану 12 је представљено CIRAF зоном У случају предајне станице, осим предајне станице у фиксној служби, поморској радионавигационој служби, ваздухопловној мобилној служби према GE85-MM-R1 Регионалног споразума или поморске мобилне службе према GE85-MM-R1 Регионалног споразума, потребно ако нити кружно подручје (5E и 5F) нити географске координате дате зоне пријема (5C[a]) нису дате			+			X	X	5D

Колона No.	Идентификатор ставке	<p style="text-align: center;">Обавештење у вези са</p> <p style="text-align: center;">Опис податка и захтеви</p>	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
5.4.3	5E	<p>географске координате центра кружног пријемног подручја</p> <p>Географска дужина и ширина дају се у степенима, минутима и секундама</p> <p>Потребно:</p> <ul style="list-style-type: none"> <li>- за поморску радионавигациону службу, ваздухопловну радионавигациону службу према GE85-MM-R1 Регионалног споразума или поморску мобилну службу према GE85-MM-R1 Регионалног споразума; и</li> <li>- за све службе, осим фиксне службе, ако нити географско подручје или стандардно дефинисано подручје пријема (5D) нити географске координате дате зоне пријема (5C[α]) нису дате</li> </ul>			+					5E
5.4.4	5F	<p>радијус, у km, кружног подручја пријема</p> <p>Потребно:</p> <ul style="list-style-type: none"> <li>- за поморску радионавигациону службу, ваздухопловну радионавигациону службу према GE85-MM-R1 Регионалног споразума или поморску мобилну службу према GE85-MM-R1 Регионалног споразума; и</li> <li>- за све службе, осим фиксне службе, ако нити географско подручје или стандардно дефинисано подручје пријема (5D) нити географске координате дате зоне пријема (5C[α]) нису дате</li> </ul>			+					5F
5.5	5G	<p>Максимална дужина круга, у km, за не-кружна пријемна подручја</p> <p>Станице само у HF опсезима</p>			0			0		5G

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6		<b>КЛАСА СТАНИЦЕ И ПРИРОДА СЛУЖБЕ</b>								
6.1	6A	класа станице, користећи симболе из Предговора	X	X	X	X	X	X	X	6A
6.2	6B	природа службе, користећи симболе из Предговора У случају предајне станице, потребно за све службе, осим радиодифузне службе			+	X	X	X		6B
7		<b>КЛАСЕ ЕМИСИЈА И НЕОПХОДНА ШИРИНА ОПСЕГА</b> (у складу са Чланом 2 и Додатка 1)								
7.1	7A	класа емисије У случају VHF/UHF радиодифузне станице, потребне за доделе према § 5.1.3 GE06 Регионалног споразума	+	X	X	X	X	X		7A
7.2	7A[α]	неопходна ширина опсега У случају VHF/UHF радиодифузне станице, потребно за аналогне звучне радиодифузне доделе и за доделе према § 5.1.3 GE06 Регионалног споразума	+	X	X	X	X	X	X	7A[α]
7.3		<b>Карактеристике система</b>								
7.3.1	7A1	код за опис фреквенцијске стабилности (РЕЛАКСИРАНО, НОРМАЛНО или ПРЕЦИЗНО) Потребно за аналогну телевизијску радиодифузију	+							7A1
7.3.2	7AA	код типа модулације Тип модулације означава коришћење DSB, SSB или сваке нове модулационе технике препоручене од ITU-R							X	7AA

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7.3.3	7B[α]	“RJ 81 класа” (А, В или С) Потребно за RJ 81 Регионалног споразума		+						7B[α]
7.3.4	7B1	протекциони однос суседног канала dB Потребно за GE75 Регионалног споразума		+						7B1
7.3.5		системски код ПРИМЕДБА – Код идентификује категорију система којем станица припада и стога њене безбедносне потребе У VHF опсегу два кода су потребна за заштиту од T-DAB и DVB-T У UHF опсегу само један код је потребан за заштиту од DVB-T Потребно за доделу према GE06 Регионалном споразуму			+	+	+			
7.3.6	7C1	код који идентификује телевизијски систем (види Предговор) Потребно за телевизијске радиодифузне доделе, осим додела према § 5.1.3 GE06 Регионалног споразума	+							7C1
7.3.7	7C2	код за систем у боји (види Предговор) Потребно за аналогну телевизијску радиодифузију	+							7C2

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсезу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
7.3.8	7D	код за звучни радиодифузни систем емисије (види Предговор) ПРИМЕДБА – За LF/MF системе, сигнал може да се састоји од аналогне или дигиталне модулације или података или неке комбинације од тога: последњи случај се назива хибридном модулацијом У случају VHF/UHF радиодифузне станице, потребно за звучне радиодифузне доделе, осим додела према GE06 Регионалног споразума У случају LF/MF радиодифузне станице, потребно за доделу са дигиталном или хибридном модулацијом	+	+						7D
7.3.9		<b>За GE06 Регионални споразум (осим обавештења према § 5.1.3 GE06 Регионалног Споразума)</b>								
7.3.9.1		референтна планирана конфигурација (види Предговор) Потребно за дигиталну звучну радиодифузију	+							
7.3.9.2		тип маске спектра	X							
7.3.9.3		пријемни начин (види Предговор) Потребно за дигиталну телевизијску радиодифузију	+							
7.3.10		<b>За фиксну службу у опсезима који се деле са свемирским службама и било којим примењивим типом модулације</b>								
7.3.10.1	7E	фреквенцијска девијација од врха до врха, у MHz			C					7E
7.3.10.2	7F	прелазна фреквенција, у kHz, таласног облика код расипања енергије			C					7F

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8		<b>КАРАКТЕРИСТИКЕ СНАГЕ</b>								
8.1	8	симболи (X, Y или Z, по потреби) који описују тип снаге (види Члан 1) који одговара класи емисије	X	X	X	X	X	X	X	8
8.2	8A	снага испоручена антенској предајној линији, у kW		X					X	8A
8.3	8A[α]	снага испоручена антени, у dBW У случају предајне станице, потребно за доделу: – у опсезима испод 28 MHz, у свим службама осим радионавигационе службе; или – у опсезима изнад 28 MHz дељено са свемирским службама; или – у опсезима изнад 28 MHz где нема дељења са свемирским службама: – у ваздухопловној мобилној служби, служба метеоролошке помоћи; или – у свим другим службама, ако израчена снага није достављена У случају пријемне копнене станице, потребно ако придружена израчена снага емитујуће станице није достављена У случају типичне предајне станице, потребно ако израчена снага није достављена			+	+	+	X		8A[α]
8.4	8AB	максимална густина снаге <sup>1</sup> (dB(W/Hz)) за сваки тип носиоца у просеку распоређено за најгори случај опсега 4 kHz за носиоце испод 15 GHz, или у просеку распоређено на најгори 1 MHz опсег за носиоце изнад 15 GHz, испоручено антенској предајној линији За фиксну службу у опсезима који се деле са свемирским службама			C					8AB

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
8.5		<p>максимална густина снаге (dB(W/Hz)) у просеку распоређено на најгори 4 kHz опсег, израчуната за максималну ефективну израчену снагу</p> <p>ПРИМЕДБА – За пријемну копнену станицу, максимална густина снаге односи се на придружену предајну станицу</p> <p>У случају VHF/UHF радиодифузне станице, потребно за доделе према § 5.1.3 GE06 Регионалног споразума</p> <p>У случају предајне станице, пријемна копнене станице, или типичне предајне станице, потребно за доделе према GE06 Регионалног споразума</p>	+		+	+	+			
8.6	8B	<p>израчена снага, у dBW, у једној од форми описаних у Nos. <b>1.161</b> до <b>1.163</b></p> <p>ПРИМЕДБА – Када адаптивни системи у фиксној и мобилној служби који раде у опсезима између 300 kHz и 28 MHz (види такође Резолуцију 729 (Rev.WRC-07)) користе аутоматску контролу снаге, израчена снага укључује ниво снаге ниво контроле снаге излистане под 8BA</p> <p>За доделе у свим службама и фреквенцијским опсезима, осим доделама према GE06 Регионалног споразума, потребно ако је снага испоручена антени (8A[α]), или максимално појачање (9G), није дато</p> <p>За доделу према GE06 Регионалног споразума, потребно ако снага достављена антени (8A[α]) није дата</p>			+	+	+			8B
8.7	8BA	<p>опсег контроле снаге, у dB</p> <p>Потребно за адаптивне системе у фиксној и мобилној служби који раде у опсезима између 300 kHz и 28 MHz (види такође Резолуцију 729 (Rev.WRC-07)), ако је аутоматска контрола снаге коришћена</p>			+					8BA

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8.8	8BH	максимална ефективна израчена снага, у dBW, хоризонтално поларизоване компоненте Потребно за хоризонталну и мешовиту поларизацију	+							8BH
8.9	8BV	максимална ефективна израчена снага, у dBW, вертикално поларизоване компоненте Потребно за вертикалну и мешовиту поларизацију	+							8BV
8.10		максимална ефективна израчена снага, у dBW, у равни дефинисаној нагибом снопа угла За дигиталну радиодифузну доделу у UHF опсегу само према GE06 Регионалном споразуму	O							
8.11	8D	однос снаге визуелног/звучног носиоца, у dB Потребно за аналогну телевизијску радиодифузију	+							8D
8.12	9L	максимална ефективна израчена снага монопола, у dB(kW) Потребно за GE75 Регионални споразум		+						9L
8.13		<b>За RJ81 и RJ88 Регионалне споразуме</b>								
8.13.1	9I	вредност зрачења Производ г.т.с. карактеристичне снаге поља у хоризонталној равни и квадратни корен снаге		X						9I
8.13.2	9IA	вредности зрачења на централном правцу зрачења, у mV/m на 1 km Потребно за дијаграм зрачења антене типа "M" (види 9O)		+						9IA

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8.13.3	9P	вредност специјалног квадратурног фактора, у mV/m на 1 km ПРИМЕДБА – Специјални квадратурни фактор може бити коришћен са дијаграмом зрачења антене типа “M” или “E” да замени нормални проширени квадратурни фактор кад су специјалне мере предузете да се осигура стабилност дијаграма зрачења		O						9P
9		<b>АНТЕНСКЕ КАРАКТЕРИСТИКЕ</b>								
9.1		<b>За преносну и пријемну антену</b>								
9.1.1	9	индикатор показује да ли је антена усмерена (D) или неусмерена (ND) У случају пријемне копнене станице, потребне за доделу према GE06 Регионалном споразуму	X		X	+		X	X	9
9.1.2	9D	код за тип поларизације (види Предлог) у случају предајне станице, потребно за доделу: – у фиксној служби у опсезима који се деле са свемирским службама; или – према GE06 Регионалном споразуму У случају пријемне копнене станице, потребно за доделу према GE06 Регионалном споразуму	X		+	+				9D

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9.1.3	9E	<p>висина антене изнад нивоа земље, у метрима</p> <p>У случају VHF/UHF радиодифузне станице, потребно за ST61, GE84, GE89, или GE06 Регионалних споразума, и опционално за доделе које нису предмет ових Споразума</p> <p>У случају предајне станице, потребно за доделу:</p> <ul style="list-style-type: none"> <li>- у опсезима који се деле са свемирским службама; или</li> <li>- према GE06 Регионалном споразуму</li> </ul> <p>У случају пријемне копнене станице, потребно за доделу према GE06 Регионалном споразуму</p>	+		+	+				9E
9.2		<b>За усмерену предајну или пријемну антену</b>								
9.2.1	9C	<p>тотална угаона ширина зрачења главне латице (ширине снопа) мерено хоризонтално у равни која садржи смер максималног зрачења, у ступњевима, унутар којег снага израчена у било ком смеру не пада више од 3 dB испод снаге израчене у смеру максималног зрачења</p> <p>У случају предајне станице, потребно за све доделе, осим додела према GE06 Регионалног споразума где је опционално</p> <p>У случају пријемне копнене станице, за доделу једино према GE06 Регионалног споразума</p>			+	O		X		9C
9.2.2		<p>антенско појачање према хоризонту</p> <p>За доделу само према GE06 Регионалног споразума</p>			O	O				
9.2.3	9K	<p>најнижа укупна температура шума пријемног система, у келвинима</p> <p>За придружену пријемну антену у фиксној служби која ради у опсезима који се деле једини са свемирским службама</p>			C					9K

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9.3		<b>За предајну антену</b>								
9.3.1	9EA	висина места изнад нивоа мора, у метрима У случају VHF/UHF радиодифузне станице, потребно за доделе према ST61, GE84, GE89, или GE06 Регионалних споразума, и опционално за доделе које не попадају под Споразум У случају предајне станице, потребно за доделу: – у фиксној и мобилној служби у опсезима који се деле са свемирским службама; или – према GE06 Регионалном споразуму	+		+					9EA
9.3.2	9EB	максимална ефективна висина антене, у метрима, изнад просечне висине тла између 3 и 15 km од предајне антене У случају предајне станице, потребно за доделу према GE06 Регионалном споразуму	X		+					9EB
9.3.3	9EC	ефективна висина антене, у метрима, изнад средње висине земље између 3 и 15 km од предајне антене, на 36 различитих азимута у 10° интервалима (на.пр. 0°, 10°, ..., 350°), мерено у хоризонталној равни Северно у смеру казаљке на сату У случају VHF/UHF радиодифузне станице, потребно за доделу према ST61, GE84, GE89 или GE06 Регионалних споразума У случају предајне станице, потребно за доделу према GE06 Регионалном споразуму	+		+					9EC

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9.3.4	9G	<p>максимално појачање антене (изотропно, релативно краткој вертикалној антени или релативно према полуталасном диполу, по могућности) преносне антене (види No. 1.160)</p> <p>За усмерену антену, појачање је у смеру максималног зрачења</p> <p>У случају предајне станице, или типичне предајне станице:</p> <ul style="list-style-type: none"> <li>– за све фреквенцијске опсеге и службе, осим додела према GE06 Регионалном споразуму, потребно ако је антена: <ul style="list-style-type: none"> <li>– усмерена, укључујући где антенски сноп ротира или се помиче; или</li> <li>– не-усмерена и снага антене (8A[α]) или израчена снага (8B) није дата</li> </ul> </li> <li>– за намену према GE06 Регионалног споразума потребно ако израчена снага (8B) није дата</li> </ul> <p>У случају поморске мобилне фреквенцијске намене, потребне ако је антена усмерена, укључујући када антенски сноп ротира или се помиче</p>			+		+	+		9G
9.3.5		пројектована фреквенција предајне антене							X	
9.3.6		<p>угао нагиба снопа, у степенима</p> <p>Угао нагиба снопа се мери од хоризонталне равни према земљи и предзнак угла је негативан</p> <p>ПРИМЕДБА – У неким радиодифузним дефиницијама, угао може да има обрнути предзнак</p> <p>За дигиталну радиодифузну доделу у UHF опсегу једино према GE06 Регионалном споразума</p>	O							
9.3.7	9J	измерени дијаграм зрачења антене, референтни дијаграм зрачења или симболи у стандардним референцама за коришћење у координацији			O				X	9J

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9.4	9AB	<b>За усмерену предајну антену где антенички сноп ротира или се помиче</b>								9AB
9.4.1	9AB[α]	почетни азимут за распон радних углова за главни сноп антеничке осе, мерено у хоризонталној равни од Севера у смеру казаљке на сату			X			X		9AB[α]
9.4.2	9AB[β]	крајњи азимут за распон радних углова за главни сноп антеничке осе, мерено у хоризонталној равни од Севера у смеру казаљке на сату			X			X		9AB[β]
9.5		<b>За усмерену предајну антену где антенички сноп не ротира и не помиче се</b>								
9.5.1	9A	азимут максималног зрачења предајне антене, мерено у хоризонталној равни од севера у смеру казаљке на сату			X			X	X	9A
9.5.2	9B	елевациони угао максималне усмерености, у степенима Потребно за доделу у опсезима који се деле са свемирским службама			+					9B
9.5.3	9R	угао скретања мерен између правца максималне радијације и смера нескренуте радијације							X	9R
9.5.4	9NH	вредност појачања хоризонтално поларизоване компоненте, на 36 различитих азимута у 10° интервалима (на.пр. 0°, 10°, ..., 350°), мерено у хоризонталној равни Северно у смеру казаљке на сату, у односу на максималну ефективну израчену снагу ове компоненте, у dB  За све доделе, осим дигиталних радиодифузних додела према GE06 Регионалног споразума и радиодифузних додела према § 5.1.3 GE06 Регионалном споразуму, потребно ако је поларизација хоризонтална или мешовита	+							9NH

Колона No.	Идентификатор ставке	<p style="text-align: center;">Обавештење у вези са</p> <p style="text-align: center;">Опис податка и захтеви</p>	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
9.5.5	9NV	<p>вредност појачања вертикално поларизоване компоненте, на 36 различитих азимута у 10° интервалима (на пр. 0°, 10°, ..., 350°), мерено у хоризонталној равни Северно у смеру казаљке на сату, у односу на максималну ефективну израчену снагу ове компоненте, у dB</p> <p>За све доделе, осим дигиталних радиодифузних додела према GE06 Регионалног споразума и радиодифузних додела према § 5.1.3 GE06 Регионалног споразума, потребно ако је поларизација хоризонтална или мешовита</p>	+							9NV
9.5.6		<p>вредност појачања хоризонтално поларизоване компоненте у хоризонталној равни, нормализованој на 0 dB, на 36 различитих азимута у 10° интервалима (на пр. 0°, 10°, ..., 350°), мерено у хоризонталној равни Северно у смеру казаљке на сату, у односу на максималну ефективну израчену снагу ове компоненте, у dB</p> <p>У случају VHF/UHF радиодифузне станице, за дигиталну радиодифузну доделу према GE06 Регионалног споразума и додели према § 5.1.3 GE06 Регионалног споразума, потребно ако је поларизација хоризонтална или мешовита</p> <p>У случају предајне станице, за доделу према § 5.1.3 GE06 Регионалног споразума, потребно ако је поларизација хоризонтална или мешовита</p>	+		+					
9.5.7		<p>вредност појачања вертикално поларизоване компоненте у хоризонталној равни, нормализованој на 0 dB, на 36 различитих азимута у 10° интервалима (на пр. 0°, 10°, ..., 350°), мерено у хоризонталној равни Северно у смеру казаљке на сату, у односу на максималну ефективну израчену снагу ове компоненте, у dB</p> <p>У случају VHF/UHF радиодифузне станице, за дигиталну радиодифузну доделу према GE06 Регионалног споразума и додели према § 5.1.3 GE06 Регионалног споразума, потребно ако је поларизација вертикална или мешовита</p> <p>У случају предајне станице, за доделу према § 5.1.3 GE06 Регионалног споразума, потребно ако је поларизација вертикална или мешовита</p>	+		+					

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
9.6	9Q	симбол за идентификацију типа антене Тип А – обична вертикална антена Тип В – усмерена или кружна (omnidirectional) антена сложене конструкције		X						9Q
9.7		<b>За антену типа А (обична вертикална антена)</b>								
9.7.1	9E[α]	физичка дужина у метрима предајне антене Потребно за GE75 Регионални споразум		+						9E[α]
9.7.2	9F	електрична дужина предајне антене, у степенима Потребно за RJ81 или RJ88 Регионалних споразума		+						9F
9.8		<b>За станицу према GE75 Регионалном споразуму са антеном типа В (усмерена антена, или кружна (omnidirectional) антена сложене конструкције)</b>								
9.8.1	9GH	антенско појачање, у dB, у хоризонталној равни, на 36 различитих азимута у 10° интервалима (на пр. 0°, 10°, ..., 350°), мерено у хоризонталној равни Северно у смеру казаљке на сату		X						9GH
9.8.2	9GV	антенско појачање, у dB, у вертикалној равни, на 36 различитих азимута у 10° интервалима (на пр. 0°, 10°, ..., 350°), мерено у хоризонталној равни Северно у смеру казаљке на сату, и на десет различитих елевација у 10° интервалима (на пр. 0°, 10°, ..., 90°) мерено у вертикалној равни ПРИМЕДБА – Ако администрације имају потешкоће у давању ове информације, могу дати препоруку за било коју другу информацију која може бити од помоћи (на пр. ITU-R Препорука, дијаграм зрачења антене) Потребно за доделу за коришћење у ноћном раду		+						9GV

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне колнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
9.9		<b>За станице према RJ81 или RJ88 Регионалних споразума са антеном типа В (усмерена антена, или кружна (omnidirectional) антена сложене конструкције)</b>								
9.9.1	9O	симбол који идентификује тип дијаграма зрачења антене (Т, М, или Е)		X						9O
9.9.2		<b>За дијаграм зрачења антене типа М</b>								
9.9.2.1	9NA	серијски број појачања описано ставкама 9IA, 9AA и 9CA		X						9NA
9.9.2.2	9AA	централни азимут појачања (центар распона) у степенима		X						9AA
9.9.2.3	9CA	тотални распон појачања, у степенима		X						9CA
9.9.3		<b>За сваки торањ антене типа В из RJ81 или RJ88 Регионалних споразума</b>								
9.9.3.1	9T1	серијски број сваког од антенских торњева чије карактеристике су описане у ставкама 9T2 до 9T8		X						9T1
9.9.3.2	9T8	симбол за структуру антенског торња		X						9T8
9.9.3.3	9T7	електричка висина, у степенима, дотичног антенског торња Потребно ако антенски торањ није попуњен нити секционални (види 9.9.4)		+						9T7
9.9.3.4	9T2	однос поља антенског торња и поља референтног антенског торња Потребно ако се антена састоји из два или више торњева		+						9T2
9.9.3.5	9T3	позитивна или негативна фазна разлика у пољу антенског торња у односу на поље референтног антенског торња, у степенима Потребно ако се антена састоји из два или више торњева		+						9T3

Колона No.	Идентификатор ставке	Обавештење у вези са Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
9.9.3.6	9T4	електрички размак антенског торња од референтне тачке, у степенима Потребно ако се антена састоји из два или више торњева		+						9T4
9.9.3.7	9T5	угаона оријентација антенског торња од референтне тачке, у степенима (у смеру казаљке на сату) од Севера Потребно ако се антена састоји из два или више торњева		+						9T5
9.9.4		<b>За сваки торањ антене типа В који је попуњен или секционалан у складу са Регионалном административном MF радиодифузном конференцијом (Регион 2) Rio de Janeiro, Споразуми 1981 или 1988</b>								
9.9.4.1	9T9A	опис попуњеног или секционалног антенског торња		X						9T9A
9.9.4.2	9T9B	опис попуњеног или секционалног антенског торња Потребно ако је симбол структуре антенског торња (9T8) 1, 2, 5, 6, 7, 8 или 9		+						9T9B
9.9.4.3	9T9C	опис попуњеног или секционалног антенског торња Потребно ако је симбол структуре антенског торња (9T8) 2, 5, 7 или 8		+						9T9C
9.9.4.4	9T9D	опис попуњеног или секционалног антенског торња Потребно ако је симбол структуре антенског торња (9T8) 2, 5 или 8		+						9T9D
10		<b>РАДНИ ЧАСОВИ</b>								
10.1	10B	регуларни часови рада (у часовима и минутима од ... до ...) фреквенцијске доделе, у UTC	X	O	X	X	X	X	X	10B
10.2	10B[α]	код периода локалног рада (види Предговор)		X						10B[α]
10.3	10D	процењени часови највећег саобраћаја						X		10D

Колона No.	Идентификатор ставке	Обавештење у вези са Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
10.4	10E	процењени дневни волумен саобраћаја						X		10E
11		<b>КООРДИНАЦИЈА И СПОРАЗУМ</b>								
11.1	11	симбол сваке администрације са којом је координација успешно остварена Потребно ако је координација неопходна и постигнута је према релевантним одредбама Правилника о радиокомуникацијама	+	O	+	+	O	+		11
11.2		декларација обавештавајуће администрације да су сви услови везани за примедбу у потпуности задовољени за уписивање поднесене доделе у MIFR Потребно за догиталну радиодифузну доделу према § 5.1.2 GE06 Регионалног споразума	+							
11.3		потписани пристанак од обавештавајуће администрације да поднесена додела за уписивање у MIFR неће узроковати неприхватљиву интерференцију и да неће тражити заштиту због тога Потребно за доделе према § 5.1.8 GE06 Регионалног споразума	+							
11.4		потписани пристанак од обавештавајуће администрације да поднесена додела за уписивање у MIFR неће узроковати неприхватљиву интерференцију и да неће тражити заштиту због тога Потребно за доделе према § 5.1.8 GE06 Регионалног споразума			+	+	+			
12		<b>УПРАВЉАЧКА АДМИНИСТРАЦИЈА ИЛИ АГЕНЦИЈА</b>								
12.1	12A	симбол управљачке агенције	O	O	O	O	O		O	12A

Колона No.	Идентификатор ставке	Обавештење у вези са  Опис податка и захтеви	Радиодифузне (звук и телевизија) станице у VHF/UHF опсегу до 960 MHz, за примену No. 11.2 и No. 9.21	Радиодифузне (звук) станице у LF/MF опсезима, за примену No. 11.2	Предајне станице (осим радиодифузних станица у планираним LF/MF опсезима, у HF опсезима руковођено Чланом 12, и у VHF/UHF опсезима до 960 MHz), за примену No. 11.2 и No. 9.21	Пријемне копнене станице, за примену No. 11.9 и No. 9.21	Типичне предајне станице, за примену No. 11.17	Поморска мобилна фреквенцијска намена, за примену модификације плана под Додатком 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Радиодифузне станице у HF опсезима, за примену No. 12.16	Идентификатор ставке
12.2	12B	симбол адресе администрације одговорне за станицу и којој треба слати саопштење о хитним стварима које се тичу интерфејса, квалитет емисија и питања која се односе на техничке операције склопа (види Члан 15, такође Предговор)  У случају VHF/UHF радиодифузне станице, предајне станице, или пријемне копнене станице, потребно за примену Члана 11	+	X	+	+	X		X	12B
13		<b>ПРИМЕДБЕ</b>								
13.1	13C	Примедбе за помоћ Бироу у процесирању обавештења	0	0	0	0	0	0	0	13C

ADD COM6/398/5 (B21/415/5)

ТАБЕЛА 2

Карактеристике фреквенцијских додела за станице на високој платформи (HAPS) у земаљским службама

Ставке у Додатку	<i>1 - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ ЗА HAPS</i>	Пријемна станица у опсезима изданим у No. 5.388A за примене No. 11.2	Пријемна станица у опсезима изданим у No. 5.388A за примене of No. 11.9	Пријемна станица у опсезима изданим у Nos. 5.537A и 5.552A за примену No. 11.2	Пријемна станица у опсезима изданим у Nos. 5.543A и 5.552A за примену No. 11.9
	<b>ГЕНЕРАЛНЕ ИНФОРМАЦИЈЕ</b>				
1.B	симбол обавештавајуће администрације (види Предговор)	X	X	X	X
1.[D]	код одредбе у Правилнику о радиокомуникацијама под којим је обавест поднесена	X	X	X	X
1.[α]	јединствени идентификатор дат од администрације станице	X	X	X	X
	<b>ЛОКАЦИЈА СТАНИЦЕ</b>				
1.4.a	име под којим је станица позната	X	X	X	X
1.4.b	код географског подручја, изнад којег је станица лоцирана (види Предговор)	X	X	X	X
1.4.c	номиналне географске координате станице Географска дужина и ширина су дате у степенима, минутима и секундама	X	X	X	X
1.4.[α]	номинална висина станице просечно изнад површине мора, у метрима	X	X	X	X
1.4.[β]	<b>Толеранције локације станице</b>				
1.4.[β].1.a	планирани лимит толеранције географске ширине северно, користећи d.m.s јединице	X	X	X	X
1.4.[β].1.b	планирани лимит толеранције географске ширине јужно, користећи d.m.s јединице	X	X	X	X
1.4.[β].2.a	планирани лимит толеранције географске дужине источно, користећи d.m.s јединице	X	X	X	X
1.4.[β].2.b	планирани лимит толеранције географске дужине западно, користећи d.m.s јединице	X	X	X	X
1.4.[β].3	планирана толеранција висине, у метрима	X	X	X	X
1.[7]	<b>САГЛАСНОСТ СА ТЕХНИЧКИМ ИЛИ РАДНИМ ОГРАНИЧЕЊИМА</b>				
1.[7].b	сагласност да HAPS не прелази pfd изван опсега $-165 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ на Земљиној површини у опсезима 2 160-2 200 MHz у Региону 2 и 2 170-2 200 MHz у Регионима 1 и 3 (види Резолуцију <b>221 (Rev.WRC-07)</b> )	X			
1.[7].c	сагласност да HAPS не прелази pfd изван опсега $-165 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ за упадне углове ( $\theta$ ) мање од $5^\circ$ изнад хоризонталне равни, $-165 + 1.75 (\theta - 5) \text{ dB(W/(m}^2 \cdot \text{MHz))}$ за упадне углове између $5^\circ$ и $25^\circ$ и $-130 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ за упадне углове између $25^\circ$ и $90^\circ$ (види Резолуцију <b>221 (Rev.WRC-07)</b> )	X			

Ставке у Додатку	<p align="center"><b>1 – ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ ЗА NAPS</b></p>	Предајна станица у опсезима излистаним у No. 5.388A за примене No. 11.2	Пријемна станица у опсезима излистаним у No. 5.388A за примене of No. 11.9	Предајна станица у опсезима излистаним у Nos. 5.537A и 5.552A за примену No. 11.2	Пријемна станица у опсезима излистаним у Nos. 5.543A и 5.552A за примене No. 11.9
1.[7].d	сагласност да нежељена густина снаге у антени NAPS Земаљске станице у опсегу 31.3-31.8 GHz не треба да прелази –106 dB(W/MHz) под условима чистог неба и –100 dB(W/MHz) под кишним условима (види Резолуцију <b>145 (Rev.WRC-07)</b> ) Потребно у опсегу 31-31.3 GHz				+
1.[7].e	сагласност да максимална густина снаге у једној типичној NAPS антени Земаљске станице у Покривању урбаног подручја (UAC) не треба да пређе 6.4 dB(W/MHz) за елевационе углове антене Земаљске станице веће од 30° и мање или једнаке 90° (види Резолуцију <b>122 (Rev.WRC-07)</b> ) Потребно у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz				+
1.[7].f	сагласност да максимална густина снаге у једној типичној NAPS антени Земаљске станице у Покривању урбаног подручја (UAC) не треба да пређе 22.57 dB(W/MHz) за елевационе углове антене Земаљске станице веће од 15° и мање или једнаке 90° (види Резолуцију <b>122 (Rev.WRC-07)</b> ) Потребно у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz				+
1.[7].g	сагласност да максимална густина снаге у једној типичној NAPS антени Земаљске станице у Покривању руралног подручја (RAC) не треба да пређе 28 dB(W/MHz) за елевационе углове антене Земаљске станице веће од 5° и мање или једнаке 15° (види Резолуцију <b>122 (Rev.WRC-07)</b> ) Потребно у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz				+
1.[7].h	сагласност да раздвајајућа даљина између подножја NAPS и радио астрономске станице која ради у опсегу 48.94-49.04 GHz унутар територије друге администрације треба да буде већа од 50 km (види Резолуцију <b>122 (Rev.WRC-07)</b> ) Потребно у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz			+	
1.11	<b>КООРДИНАЦИЈА И СПОРАЗУМ</b>				
1.11.a	симбол сваке администрације са којом је координација била успешно изведена, укључујући где је споразум превазишао лимите прописане у Правилнику у радиокомуникацијама Потребно ако је координација неопходна и добијена у складу са релевантним одредбама Правилника о радиокомуникацијама	+	+	+	+
	<b>РАДНА АДМИНИСТРАЦИЈА ИЛИ АГЕНЦИЈА</b>				
1.12.a	симбол радне агенције	O	O	O	O
1.12.b	симбол за адресу администрације одговорне за станицу и којој саопштење о хитним стварима треба да се пошаље у погледу интерфејса, квалитета емисија и питања која се односе на технички рад веза (види Члан 15)	X	X	X	X
	<b>НАПОМЕНЕ</b>				
1.13.c	Напомене за помоћ Бироу у процесирању обавештења	O	O	O	O

Ставке у Додатку	<b>2 - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА СЕ ОБЕЗБЕДЕ ЗА СВАКИ ИНДИВИДУАЛНИ ИЛИ КОМПОЗИТНИ NAPS АНТЕНСКИ СНОП</b>	Предајна станица у описима излистаним у No. 5.388A за примене No. 11.2	Пријемна станица у описима излистаним у No. 5.388A за примене of No. 11.9	Предајна станица у описима излистаним у Nos. 5.537A и 5.552A за примену No. 11.2	Пријемна станица у описима излистаним у Nos. 5.543A и 5.552A за примене No. 11.9
	<b>ИНДЕНТИФИКАЦИЈА И СМЕР NAPS АНТЕНСКОГ СНОПА</b>				
2.1.a	означавање NAPS антенског снопа	X	X	X	X
2.1.b	Индикатор који показује да ли је антенски сноп, под 2.1.a, фиксан или је окрећући и /или реконфигурабилан	X	X	X	X
2.1.c	Индикатор који показује да ли NAPS антена следи сервисно подручје	X		X	
2.1.d	индикатор који показује да ли је антенски сноп индивидуалан или коопозитни сноп	X	X	X	X
	<b>АНТЕНСКЕ КАРАКТЕРИСТИКЕ</b>				
2.9.g	максимално крос-поларно изотропско појачање	X	X	X	X
2.9.j	измерени дијаграм зрачења антене, референтни дијаграм зрачења или у стандардним референцама за коришћење за координацију	X	X		
2.9.[a]	<p>крос-поларне контуре антенског појачања нацртаног на мапи површине Земље, пожељно у радијалној пројекцији од NAPS-a на раван нормално на осу од центра Земље према NAPS-у</p> <p>NAPS контуре антенског појачања треба да су нацртане као линије једнаког изотропског појачања, релативно максималном антенском појачању, када је било која од тих контура лоцирана или потпуно или делимично изван територије обавештавајуће администрације</p> <p>Контуре антенског појачања треба да укључе ефекте планиране толеранције географске дужине и ширине, планирану висинску толеранцију и подешену тачност антене, узимајући у обзир кретање видокруга NAPS антена око ефективног подручја видокруга.</p>	X	X	X	X

Ставке у Додатку	<p align="center"><b>3 - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА СЕ ОБЕЗБЕДЕ ЗА СВАКУ ФРЕКВЕНЦИЈСКУ ДОДЕЛУ ЗА СВАКИ ИНДИВИДУАЛНИ ИЛИ КОМПОЗИТНИ НАРС АНТЕНСКИ СНОП</b></p>	Предајна станица у опсезима излистаним у No. 5.388A за примене No. 11.2	Пријемна станица у опсезима излистаним у No. 5.388A за примене of No. 11.9	Предајна станица у опсезима излистаним у Nos. 5.537A и 5.552A за примену No. 11.2	Пријемна станица у опсезима излистаним у Nos. 5.543A и 5.552A за примену No. 11.9
	<b>ДОДЕЉЕНА ФРЕКВЕНЦИЈА</b>				
3.1.a	додељена фреквенција, дефинисана у No. <b>1.148</b>	X	X	X	X
3.1.b	референтна фреквенција, како је дефинисана у Члану 1 Потребно ако је модулациона анvelopa асиметрична	+	+	+	+
	<b>ДАТУМ РАДА</b>				
3.2.c	датум (актуалан или предвиђен, према потреби) од доношења фреквенцијске доделе (нове или модификоване) за коришћење	X	X	X	X
	<b>ЛОКАЦИЈА ПРИДРУЖЕНИХ АНТЕНА</b>				
	<b>За подручје у којем придружене предајне /пријемне земаљске станице раде</b>				
3.5.c.[α]	географске координате дате зоне Минимум од шест географских координата се захтева, у степенима, минутима и секундама ПРИМЕДБА – За фиксну службу у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz географске координате су дате за сваки од UAC, SAC и ако је могуће RAC (види најновију верзију Препоруке ITU-R F.1500) Потребно ако нити кружно подручје (3.5.e и 3.5.f) нити географско подручје (3.5.d) није дато	+	+	+	+
3.5.d	код географског подручја (види Предговор) ПРИМЕДБА – За фиксну службу у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz одвојена географска подручја су дата за сваки од UAC, SAC и ако је могуће RAC (види најновију верзију Препоруке ITU-R F.1500) Потребно ако нити кружно подручје (3.5.e and 3.5.f) нити географске координате дате зоне (3.5.c.[α]) није дато	+	+	+	+
3.5.e	Географске координате центра кружног подручја у којем придружене земаљске станице раде Географска дужина и ширина дате су у степенима, минутима и секундама ПРИМЕДБА – За фиксну службу у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz различити центри кружног подручја могу бити дати за UAC, SAC и ако је могуће RAC (види најновију верзију Препоруке ITU-R F.1500) Потребно ако нити географско подручје (3.5.d) нити географске координате дате зоне (3.5.c.[α]) није дато	+	+	+	+
3.5.f	радијус, у km, кружног подручја ПРИМЕДБА – За фиксну службу у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz посебан радијус се даје за сваки од UAC, SAC и ако је могуће RAC (види најновију верзију Препорука ITU-R F.1500) Потребно ако нити географско подручје нити географске координате (3.5.d) дате зоне (3.5.c.[α]) није дато	+	+	+	+
	<b>КЛАСА СТАНИЦЕ И ПРИРОДА СЛУЖБЕ</b>				
3.6.a	класа станице, користећи симболе из Предговора	X	X	X	X
3.6.b	Природа службе, користећи симболе из Предговора	X	X	X	X

Ставке у Додатку	3 - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА СЕ ОБЕЗБЕДЕ ЗА СВАКУ ФРЕКВЕНЦИЈСКУ ДОДЕЛУ ЗА СВАКИ ИНДИВИДУАЛНИ ИЛИ КОМПОЗИТНИ NAPS АНТЕНСКИ СНОП	Предајна станица у опсезима излистаним у No. 5.388A за примене No. 11.2	Пријемна станица у опсезима излистаним у No. 5.388A за примене of No. 11.9	Предајна станица у опсезима излистаним у Nos. 5.537A и 5.552A за примену No. 11.2	Пријемна станица у опсезима излистаним у Nos. 5.543A и 5.552A за примену No. 11.9
	<b>КЛАСА ЕМИСИЈА И НЕОПХОДНА ШИРИНА ОПСЕГА</b> (у складу са чланом 2 и Додатком 1)				
3.7.a	класа емисије	X	X	X	X
3.7.b	потребна ширина опсега	X	X	X	X
	<b>КАРАКТЕРИСТИКЕ СНАГЕ ЕМИСИЈА</b>				
3.8.[a]	симбол (X, Y или Z, по могућности) који описује тип снаге (види Члан 1) који одговара класи емисије	X	X	X	X
3.8.a.[a]	снага напајања антене, у dBW, укључујући ниво контроле снаге у 3.8.B.A ПРИМЕДБА – За пријемни NAPS, снага напајања антене односи се на придружену предајну земаљску станицу	X		X	X
3.8AB[a]	максимална густина снаге <sup>1</sup> у просеку за најгори 1 MHz опсег за антену	X		X	
3.8.B.A	распон контроле снаге, у dB ПРИМЕДБА – За пријемни NAPS, контрола снаге се односи на њено коришћење од стране придружених предајних земаљских станица У случају пријемне NAPS, потребне у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz	X			+
	<b>ПОЛАРИЗАЦИЈА И ТЕМПЕРАТУРА ШУМА ПРИЈЕМНОГ СИСТЕМА</b>				
3.9.a	код за тип поларизације (види Предговор)	X	X	X	X
3.9.j	референтни дијаграм зрачења придружене земаљске станице Потребно у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz			+	+
3.9.k	најмања температура шума пријемног система целокупно, у келвинима, у односу на излаз пријемне антене		X		X
	<b>САТИ РАДА</b>				
3.10.b	регуларни сати рада (у сатима и минутима од ... до ...) фреквенцијске доделе, у UTC	X	X	X	X

MOD COM6/398/6 (B21/415/6)

## АНЕКС 2

### Карактеристике сателитских мрежа, земаљских станица или радио астрономских станица<sup>2</sup> (Rev.WRC-07)

#### Информације које се односе на податке излистане у следећим Табелама

У многим случајевима потребе за подацима укључују коришћење стандардних симбола у поднесцима Бироу за радиокомуникације. Ти стандардни симболи могу да се нађу у “Предговору за BR IFIC (Свемирске службе), ITU-R интернет страници и Свемирским Радиокомуникационим станицама на DVD-ROM. (У Табели, назива се једноставно “Предговор”.) Информације које се односе на одредбе о подацима такође могу да се нађу у ITU-R Препорукама, на пример, информације о маски података могу да се нађу у најновијој верзији Препоруке ITU-R S.1503, и најновија верзија Препоруке ITU-R SM.1413 омогућује генералну информацију која се односи на подношење података.

#### Кључ за симболе коришћене у Табелама А, В, С и D

X	Обавезна информација
+	Обавезно под условима специфицираним у колони 2
O	Опционална информација
C	Обавезно ако се користи као база за остваривање координације са другом администрацијом
	Ставка података није примењива за одговарајуће обавештење

#### Читање Табела Додатка 4

Правила за придруживање знака тексту базирана су на називима колоне Табела покривајући специфичне процедуре и специфичне службе.

1 Ако било која ставка података има неки придружен услов, тада она има “+”.

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A.6.c	ако је постигнут споразум, код који се односи на одредбу (види Предговор)	+	A.6.c
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C.8.f.1	Номинални еквивалент свемирској станици изотропска израчена снага (e.i.r.p.) на оси снопа Потребно само за везу свемир-свемир	+	C.8.f.1
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2 Подаци груписани под заједничким поднасловом који ограничава распон процедура, сервиса или фреквенцијских опсега има “X” као условна природа се приказује у поднаслову наслова.

A.4.b.5	За свемирске станице које раде у фреквенцијском опсегу према одредбама Nos. 9.11A, 9.12 или 9.12A, елементи података за правилно карактерисање орбиталне статистике не-геостационарног сателитског система:		A.4.b.5
A.4.b.5.a	Десно узлажење узлазног чвора ( $\Omega_j$ ) за $j$ -ту орбиталну раван, мерено противно казаљки на сату у екваторијалној равни из смера пролећне равнодневнице до тачке где сателит ради свој Југ-Север прелаз екваторијалне равни ( $0^\circ \leq \Omega_j < 360^\circ$ )	X	A.4.b.5.a


3 “У случају да”, након чега следи референца на назив колоне, користи се како је приказано ниже када су придружени услови другачији за појединачне колоне, или ако индикација није иста уздуж свих примењивих колоне.

A.3.a	За симбол радне администрације или агенције (види Предговор) која је у радној контроли свемирске станице, земаљске станице или радио астрономске станице У случају Додатка 30B, потребно само за обавештење под Чланом 8	X	+	A.3.a
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**Фусноте на Табеле А, В, С и D**

- 1 Не захтева се за координацију под No. 9.7A.
- 2 Најновија верзија Препоруке ITU-R SF.675 требало би да се користи у мери у којој је примењива у рачунању максималне густине снаге по Hz. За носиоце испод 15 GHz, густина снаге је упросечена за најгори 4 kHz опсег. За носиоце на или изнад 15 GHz, густина снаге је упросечена за 1 MHz опсег. У случају додела са ширином опсега мањом од назначеног просечног опсега, максимална густина се рачуна као да је додела заузела просечну ширину опсега.

Табела карактеристика за подношење за свемирске и радио астрономске службе (Rev.WRC-07)

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.1	<b>ИНДЕНТИТЕТ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b>										A.1	
A.1.a	идентитет сателитске мреже	X	X	X	X	X		X	X	X	A.1.a	
A.1.b	идентификација снопа У случају Додатка 30 или 30А, потребно за модификацију, избацивање и обвештење о додели у Плану У случају Додатка 30В, потребно за мрежу насталу од Плана алотмента							+	+	+	A.1.b	
A.1.e	<b>Идентификација земаљске станице или радио астрономске станице:</b>										A.1.e	
A.1.e.1	тип земаљске станице (специфичне или типичне)						X				A.1.e.1	
A.1.e.2	име станице						X				A.1.e.2	X
A.1.e.3	<b>За специфичну земаљску станицу или радиоастрономску станицу:</b>										A.1.e.3	
A.1.e.3.a	земаља или географско подручје у којој је станица лоцирана, коришћењем симбола из Предговора						X				A.1.e.3.a	X

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.1.e.3.b	географске координате сваког места предајне или пријемне антене које чине станицу (географска ширина и дужина у степенима и минутима) За специфичну земаљску станицу, секунде треба да су дате ако се координацијско подручје земаљске станице преклапа са територијом друге администрације						X				A.1.e.3.b	X
A.1.f	<b>Симбол администрација и међувладине организације:</b>										A.1.f	
A.1.f.1	симбол обавештавајуће администрације (види Предговор)	X	X	X	X	X	X	X	X	X	A.1.f.1	X
A.1.f.2	ако је обавештење поднесено у име групе администрација, симбол сваке администрације у групи, које су поднеле информацију о сателитској мрежи (види Предговор)	+	+	+	+	+		+	+	+	A.1.f.2	
A.1.f.3	ако је обавештење поднесено у име међувладине сателитске организације, симбол те организације (види Предговор)	+	+	+	+	+		+	+	+	A.1.f.3	
A.1.g	Не користи се										A.1.g]	
A.1.g.1	Не користи се										A.1.g.1	
A.1.g.2	Не користи се									+	A.1.g.2	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30Б)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30Б (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.2	<p align="center"><b>ДАТУМ СТАВЉАЊА У УПОТРЕБУ</b></p>										A.2	
A.2.a	<p>датум (стварни или предвиђени) стављања фреквенцијске доделе (нове или модификоване) у употребу</p> <p>Датум стављања у употребу означава датум у којем фреквенцијска додела је стављена у регуларни рад* да омогући публиковану Радиокомуникациону службу са техничким параметрима у оквиру техничких карактеристика из обавештења Бироу</p>	X	X	X	X	X	X	X	X	X	A.2.a	
	<p>Кад год се додела промени у било којој од њених основних карактеристика (осим у случају промене под А.1.а, датум који се одреди треба бити онај од задње промене (актуалне или предвиђене, по потреби)</p> <p>* У току даљег проучавања од ITU-R-а о примењивости термина “регуларан рад” за не-геостационарне сателитске мреже, услови регуларног рада треба да су ограничени на геостационарне сателитске мреже</p>											
A.2.b	<p>за свемирску станицу, период важности фреквенцијских додела (види Резолуцију 4 (Rev.WRC-03))</p>	X	X	X	X	X					A.2.b	

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатка 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
А.2.с	датум (стварни или предвиђени, по потреби) од којег пријем фреквенцијског опсега почиње или од којег свака од основних карактеристика је модификована										А.2.с	X
А.3	<b>УПРАВЉАЧКА АДМИНИСТРАЦИЈА ИЛИ АГЕНЦИЈА</b>										А.3	
А.3.а	симбол за управљачку администрацију или агенцију (види Предговор) која има радну контролу свемирске станице, земаљске станице или радиоастрономске станице  У случају Додатка <b>30В</b> , потребно једино за обавештење под Чланом 8			X	X	X	X	X	X	+	А.3.а	X

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.3.b	<p>симбол адресе администрације (види Предговор) којој треба послати саопштење о хитним стварима у односу на интерфејс, квалитет емисија и питања која се односе на технички рад мреже или станице (види Члан 15)</p> <p>У случају Додатка 30В, потребно само за обавештење под Чланом 8</p>			X	X	X	X	X	X	+	A.3.b	X
A.4	<p align="center"><b>ОРБИТАЛНЕ ИНФОРМАЦИЈЕ</b></p>										A.4	
A.4.a	<p align="center"><b>За свемирску станицу на геостационарном сателиту:</b></p>										A.4.a	
A.4.a.1	<p align="center">номинална географска дужина орбите геостационарног сателита (GSO)</p>	X			X			X	X	X	A.4.a.1	
A.4.a.2	<p align="center"><b>Орбиталне толеранције</b></p>											
A.4.a.2.a	<p align="center">планирани лимит толеранције географске дужине источно</p>				X			X	X	X	A.4.a.2.a	
A.4.a.2.b	<p align="center">планирани лимит толеранције географске дужине западно</p>				X			X	X	X	A.4.a.2.b	
A.4.a.2.c	<p align="center">планирани нагиб скретања</p>				X					X	A.4.a.2.c	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.4.a.4	Не користи се										A.4.a.4	
A.4.a.4.a	Не користи се										A.4.a.4.a	
A.4.a.4.b	Не користи се										A.4.a.4.b	
A.4.b	<b>За свемирске станице на не-геостационарним сателитима:</b>										A.4.b	
A.4.b.1	број орбиталних равни			X		X					A.4.b.1	
A.4.b.2	код референтног тела		X	X		X					A.4.b.2	
A.4.b.3	<b>За свемирске станице на не-геостационарним системима фиксне сателитске службе које раде у опсегу 3 400-4 200 MHz:</b>										A.4.b.3	
A.4.b.3.a	максимални број свемирских станица ( $N_N$ ) у не-геостационарном сателитском систему које истовремено емитују на ко-фреквенцијској основи у фиксној сателитској служби у Северној Хемисфери			X		X					A.4.b.3.a	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.4.b.3.b	максимални број свемирских станица ( $N_N$ ) у не-геостационарном сателитском систему које истовремено емитују на ко-фреквенцијској основи у фиксној сателитској служби у Јужној Хемисфери			X		X					A.4.b.3.b	
A.4.b.4	<b>За сваку орбиталну раван, где је Земља референтно тело:</b>										A.4.b.4	
A.4.b.4.a	угао инклинације ( $i_j$ ) орбиталне равни у односу на земаљску екваторијалну раван ( $0^\circ \leq i_j < 180^\circ$ )			X		X					A.4.b.4.a	
A.4.b.4.b	број сателита у орбиталној равни			X		X					A.4.b.4.b	
A.4.b.4.c	период			X		X					A.4.b.4.c	
A.4.b.4.d	висина у километрима апогеја свемирске станице			X		X					A.4.b.4.d	
A.4.b.4.e	висина у километрима перигеја свемирске станице			X		X					A.4.b.4.e	
A.4.b.5	<b>За свемирске станице које раде у фреквенцијском опсегу према одредбама Nos. 9.11А, 9.12 или 9.12А, елементи података који прецизно карактеришу орбиталну статистику не-геостационарног сателитског система:</b>										A.4.b.5	
A.4.b.5.a	Десно узлажење узлазног чвора ( $\Omega_j$ ) за $j$ -ту орбиталну раван, мерено противно казаљки на сату у екваторијалној равни из смера пролећне равнодневнице до тачке где сателит ради свој Југ-					X					A.4.b.5.a	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
	Север прелаз екваторијалне равни ( $0^\circ \leq \Omega_j < 360^\circ$ )											
A.4.b.5.b	Иницијални фазни угао ( $\omega_i$ ) $i$ -тог сателита у његовој орбиталној равни у референтно време $t = 0$ , мерено од тачке узлазног чвора ( $0^\circ \leq \omega_i < 360^\circ$ )					<b>X</b>					A.4.b.5.b	
A.4.b.5.c	аргумент перигеја ( $\omega_p$ ), мерен у орбиталној равни, у смеру кретања, од узлазног чвора до перигеја ( $0^\circ \leq \omega_p < 360^\circ$ )					<b>X</b>					A.4.b.5.c	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.4.b.6	<p><b>За свемирске станице које раде у фреквенцијском опсегу према Nos. 22.5C, 22.5D или 22.5F, елементи података за прецизно карактерисање орбиталног рада не-геостационарних сателитских система:</b></p>										A.4.b.6	
A.4.b.6.a	<p align="center"><b>За сваки распон висина:</b></p>										A.4.b.6.a	
A.4.b.6.a.1	максималан број не-геостационарних сателита који емитују са преклапајућим фреквенцијама ка датим локацијама					X					A.4.b.6.a.1	
A.4.b.6.a.2	придružени старт висинског распона					X					A.4.b.6.a.2	
A.4.b.6.a.3	придružени крај висинског распона					X					A.4.b.6.a.3	
A.4.b.6.b	минимална висина свемирске станице изнад површине Земље са које било који сателит емитује					X					A.4.b.6.b	
A.4.b.6.c	индикатор који показује да ли свемирска станица користи подешавање станице за одржавање поновљеног кружење изнад исте линије на Земљи					X					A.4.b.6.c	
A.4.b.6.d	ако свемирска станица користи подешавање станице за одржавање поновљеног кружења изнад исте линије на Земљи, време у секундама потребно да се успостави њихова почетна позиција, на пр. такво да сви сателити буду на истој позицији у односу на Земљу и један другог					+					A.4.b.6.d	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.4.b.6.e	индикатор који показује да ли свемирска станица би требала да буде моделирана са специфичном брзином прецесије узлазног чвора орбите уместо $J_2$ термина					X					A.4.b.6.e	
A.4.b.6.f	ако се свемирска станица моделује са специфичном брзином прецесије узлазног чвора орбите уместо $J_2$ термина, брзина прецесије у степенима/дану, мерено противно смеру казаљке на сату у екваторијалној равни					+					A.4.b.6.f	
A.4.b.6.g	географска дужина узлазног чвора ( $\theta_j$ ) за $j$ -ту орбиталну раван, мерено противно казаљки на сату у екваторијалној равни од Гринича до тачке где сателитска орбита ради свој Југ-Север прелаз екваторијалне равни ( $0^\circ \leq \theta_j < 360^\circ$ ) <i>Напомена</i> – За израчунавање ерfd референца на тачку на Земљи се користи и стога “географска дужина узлазног чвора” је потребна. Сви сателити у констелацији морају користити исто референтно време					X					A.4.b.6.g	
A.4.b.6.h	време (дан:месец:година) када је сателит на локацији дефинисаној географском дужином узлазног чвора ( $\theta_j$ ), (види Примедбу под A.4.b.6.g)					X					A.4.b.6.h	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2A Додатака 30 или 30A)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30A или 30B)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30A (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30B (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.4.b.6.i	време (сати:минуте) када је сателит на локацији дефинисаној географском дужином узлазног чвора ( $\theta$ ), (види Примедбу под A.4.b.6.g)					X					A.4.b.6.i	
A.4.b.6.j	толеранција географске дужине географске дужине узлазног чвора					X					A.4.b.6.j	
A.4.b.7	<b>За свемирске станице које раде у фреквенцијском опсегу према Nos. 22.5C, 22.5D или 22.5F, елементи података који прецизно карактеришу перформансе не-геостационарног сателитског система:</b>										A.4.b.7	
A.4.b.7.a	максимални број не-геостационарних сателита који примају истовремено са преклапајућим фреквенцијама од придружених земаљских станица у оквиру дате хелије					X					A.4.b.7.a	
A.4.b.7.b	просечан број придружених земаљских станица са преклапајућим фреквенцијама по квадратном километру унутар хелије					X					A.4.b.7.b	
A.4.b.7.c	просечна удаљеност, у километрима, између ко-фреквенцијских хелија					X					A.4.b.7.c	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.4.b.7.d	<b>За искључену зону око геостационарне сателитске орбите:</b>									A.4.b.7.d		
A.4.b.7.d.1	тип зоне (базиран на топоцентричном углу, сателитски базираном углу или другој методи успостављања искључене зоне)					X				A.4.b.7.d.1		
A.4.b.7.d.2	ако је зона базирана на топоцентричном углу или сателитски базираном углу, ширина зоне у степенима					+				A.4.b.7.d.2		
A.4.b.7.d.3	ако се користи неки алтернативни метод за успостављање искључене зоне, детаљан опис механизма избегавања					+				A.4.b.7.d.3		
A.4.c	<b>За земаљску станицу:</b>									A.4.c		
A.4.c.1	идентитет придружене свемирске станице са којом треба да се успостави комуникација						X			A.4.c.1		
A.4.c.2	ако комуникација треба да се успостави са геостационарном свемирском станицом, њена орбитална позиција						+			A.4.c.2		

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.5	<b>КООРДИНАЦИЈЕ</b>										A.5	
A.5.a.1	симбол било које администрације (види Предговор) са којом је координација успешно остварена Потребно једино у случају обавештења				+	+	+ <sup>1</sup>				A.5.a.1	
A.5.a.2	симбол било које међувладине организације (види Предговор) са којом је координација успешно остварена Потребно једино у случају обавештења				+	+	+ <sup>1</sup>				A.5.a.2	
A.5.b.1	симбол било које администрације (види Предговор) са којом је координација тражена али није завршена				0	0	0				A.5.b.1	
A.5.b.2	симбол било које међувладине организације (види Предговор) са којом је координација тражена али није остварена				0	0					A.5.b.2	
A.5.c	припадни код одредбе (види Предговор) под којим је координација тражена или, ако или A.5.a.1 (и A.5.a.2) или A.5.b.1 (и A.5.b.2) је поднесено				+	+	+ <sup>1</sup>				A.5.c	

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.6	<b>СПОРАЗУМИ</b>										A.6	
A.6.a	ако је могуће, симбол било које администрације или администрације која репрезентује групу администрација (види Предговор) са којом је споразум постигнут, укључујући случајеве када споразум превазилази лимите прописан у тој Регулативи				+	+	+ <sup>1</sup>	+	+	+	A.6.a	
A.6.b	ако је могуће, симбол било које међувладине организације (види Предговор) са којом је споразум постигнут, укључујући случајеве када споразум превазилази лимите прописан у тој Регулативи				+	+	+ <sup>1</sup>	+	+	+	A.6.b	
A.6.c	ако је споразум постигнут, припадни код провизије (види Предговор)				+	+	+ <sup>1</sup>	+	+	+	A.6.c	
A.7	<b>СПЕЦИФИЧНЕ КАРАКТЕРИСТИКЕ МЕСТА ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b>										A.7	
A.7.a.1	хоризонт елевационог угла, у степенима, за сваки азимут око сваке земаљске станице						+ <sup>1</sup>				A.7.a.1	
A.7.a.2	удаљеност, у километрима, од земаљске станице према хоризонту за сваки азимут око земаљске станице						0				A.7.a.2	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.7.b.1	<p>планирани минимални угао елевације антенске осе главног снопа, у степенима, од хоризонталне равни</p> <p>За одређивање минималног угла елевације земаљске станице, посебну позорност требало би посветити могућем раду у нагнутој орбити придружене геостационарне свемирске станице</p> <p>У случају земаљске станице, потребно за рад геостационарних сателита</p>						+ <sup>1</sup>				A.7.b.1	X
A.7.b.2 A.7.c.1	<p>планирани максимални угао елевације антенске осе главног снопа, у степенима, од хоризонталне равни</p> <p>почетни смер планираног распона радних азимутних углова за антенску осу главног снопа, у степенима, у смеру казаљке на сату Северно</p> <p>За одређивање почетног азимута земаљске станице, посебну позорност требало би посветити могућем раду у нагнутој орбити придружене геостационарне свемирске станице</p> <p>У случају земаљске станице, потребно за рад геостационарних сателита</p>						+ <sup>1</sup>				A.7.b.2 A.7.c.1	X X

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2A Додатака 30 или 30A)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30A или 30B)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30A (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30B (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.7.c.2	<p>крајњи смер планираног распона радних азимутних углова за антенску осу главног снопа, у степенима, у смеру казаљке на сату Северно</p> <p>За одређивање крајњег азимута земаљске станице, посебну позорност требало би посветити могућем раду у нагнутој орбити придружене геостационарне свемирске станице</p> <p>У случају земаљске станице, потребно за рад геостационарних сателита</p>						+ <sup>1</sup>				A.7.c.2	X
A.7.d	<p>висина, у метрима, антене просечно изнад површине мора</p>						+ <sup>1</sup>				A.7.d	
A.7.e	<p>минимални угао елевације антенске осе главног снопа, у степенима, од хоризонталне равни за сваки азимут око Земаљске станице</p> <p>Потребно за земаљске станице које раде са не-геостационарним свемирским станицама</p>						+				A.7.e	
A.7.f	<p>дијаметар антене, у метрима</p> <p>Потребно за земаљске станице фиксне сателитске службе које раде у фреквенцијском опсегу 13.75-14 GHz</p>						+ <sup>1</sup>				A.7.f	
A.8	<p><b>Не користи се</b></p>										A.8	
A.9	<p><b>Не користи се</b></p>										A.9	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.10	<p align="center"><b>ДИЈАГРАМИ КООРДИНАЦИОНОГ ПОДРУЧЈА ЗЕМАЉСКЕ СТАНИЦЕ</b></p>										A.10	
A.10.a	<p>дијаграми би требали да буду нацртани у одговарајућој размери, показујући, за пренос и пријем, локацију земаљске станице и њена придружена координациона подручја, или координационо подручје у односу на сервисно подручје у којој намерава да ради мобилна Земљина станица</p> <p align="center">Потребно једино за обавештење</p>						+				A.10.a	
A.11	<p align="center"><b>РЕГУЛАРНИ САТИ РАДА</b></p>										A.11	
A.11.a	почетно време UTC							X	X		A.11.a	
A.11.b	крајње време UTC							X	X		A.11.b	
A.12	<p align="center"><b>РАСПОН АУТОМАТСКЕ КОНТРОЛЕ ПОЈАЧАЊА, У dB</b></p>										A.12	
A.13	<p align="center"><b>РЕФЕРЕНЦЕ НА ПУБЛИКОВАНЕ СПЕЦИЈАЛНЕ СЕКЦИЈЕ БИРОовог МЕЂУНАРОДНОГ ЦИРКУЛАРА ФРЕКВЕНЦИЈСКИХ ИНФОРМАЦИЈА (види Предговор)</b></p>										A.13	
A.13.a	референца и број напредних публикованих				X	X	X				A.13.a	

	<p>Ставке у Додатку</p>
<p>информација у складу са No. <b>9.1</b></p>	<p><b><i>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</i></b></p>
	<p>Напредна публикација геостационарне сателитске мреже</p>
	<p>Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9</p>
	<p>Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9</p>
	<p>Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатка 30 или 30А)</p>
	<p>Обавештење или координација о геостационарној сателитској мрежи</p>
	<p>Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)</p>
	<p>Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)</p>
	<p>Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)</p>
	<p>Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)</p>
	<p>Ставке у Додатку</p>
	<p>Радиоастрономија</p>

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатка 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.13.b	<p>референца и број захтева за координацију у складу са No. <b>9.6</b></p> <p>У складу са обавештењем о Земљиној станици, референца на Специјалну секцију придружене сателитске мреже треба да се пружи</p> <p>У случају обавештења о Земљиној станици координисаној под No. <b>9.7А</b>, број координисане Специјалне секције те земаљске станице треба да се пружи</p>				<b>X</b>	<b>X</b>	<b>X</b>				A.13.b	
A.13.c	референца и број информације у складу са Чланом 4 Додатка <b>30</b>							<b>X</b>			A.13.c	
A.13.d	референца и број информације у складу са Чланом 4 Додатка <b>30А</b>								<b>X</b>		A.13.d	
A.13.e	референца и број информације у складу са Чланом 6 Додатка <b>30В</b>						<b>X</b>			<b>X</b>	A.13.e	
<b>A.14</b>	<b>ЗА СТАНИЦЕ КОЈЕ РАДЕ У ФРЕКВЕНЦИЈСКОМ ОПСЕГУ ПРЕМА Nos. 22.5C, 22.5D ИЛИ 22.5F: СПЕКТРАЛНЕ МАСКЕ</b>										<b>A.14</b>	
A.14.a	<b>За сваку e.i.g.p. маску коришћену од не-геостационарне свемирске станице:</b>										A.14.a	

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.14.a.1	идентификациони код маске					X					A.14.a.1	
A.14.a.2	најмања фреквенција за коју маска вреди					X					A.14.a.2	
A.14.a.3	највећа фреквенција за коју маска вреди					X					A.14.a.3	
A.14.a.4	узорак маске дефинисан у смислу снаге у референтној ширини опсега за серију углова изван осе у односу на специфицирану референтну тачку					X					A.14.a.4	
A.14.b	<b>За сваку придружену земаљску станицу е.г.р. маску:</b>										A.14.b	
A.14.b.1	идентификациони код маске					X					A.14.b.1	
A.14.b.2	најмања фреквенција за коју маска вреди					X					A.14.b.2	
A.14.b.3	највећа фреквенција за коју маска вреди					X					A.14.b.3	
A.14.b.4	минимални угао елевације на којем било која придружена Земљина станица може да емитује ка не-геостационарном сателиту					X					A.14.b.4	
A.14.b.5	минимални раздвајајући угао између лука геостационарне сателитске орбите и придружене осе главног снопа земаљске станице на којој придружена Земљина станица може да емитује према не-геостационарном сателиту					X					A.14.b.5	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.14.b.6	узорак маске дефинисан у смислу снаге у референтној ширини опсега за серију углова изван осе у односу на специфицирану референтну тачку					X					A.14.b.6	
A.14.c	<p><b>За сваки pfd маске коришћен од не-геостационарне свемирске станице:</b></p> <p><i>Примедба – pfd маска свемирске станице дефинише се помоћу максималне густине флукса снаге који генерише било која свемирска станица у интерферирајућем не-геостационарном сателитском систему како се види из било које тачке на површини Земље</i></p>										A.14.c	
A.14.c.1	идентификациони код маске					X					A.14.c.1	
A.14.c.2	најмања фреквенција за коју маска вреди					X					A.14.c.2	
A.14.c.3	највећа фреквенција за коју маска вреди					X					A.14.c.3	
A.14.c.4	тип маске					X					A.14.c.4	
A.14.c.5	узорак маске снаге густине флукса дефинисан у три димензије					X					A.14.c.5	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.15	<p align="center"><b>ОБАВЕЗА У ВЕЗИ УСКЛАЂЕНОСТИ СА ДОДАТНОМ РАДНОМ ЕКВИВАЛЕНТНОМ СНАГОМ ГУСТИНЕ ФЛУКСА, <math>epfd_{\downarrow}</math>, ОГРАНИЧЕЊА</b></p>										A.15	
A.15.a	<p>обавеза да ће поднесени захтеви за систем задовољити додатне радне <math>epfd_{\downarrow}</math> лимите који су специфицирани у Табели <b>22-4A1</b> под No. <b>22.5I</b></p> <p>Потребно само за не-геостационарне сателитске системе који раде у фиксној сателитској служби у опсезима 10.7-11.7 GHz (у свим Регионима), 11.7-12.2 GHz (Регион 2), 12.2-12.5 GHz (Регион 3), и 12.5-12.75 GHz (Региони 1 и 3)</p>					+					A.15.a	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2A Додатака 30 или 30A)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30A или 30B)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30A (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30B (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.16	<p align="center"><b>ОБАВЕЗА У ВЕЗИ УСКЛАЂЕНОСТИ СА ОГРАНИЧЕЊИМА СНАГЕ ИЗВАН ОСЕ ИЛИ СНАГЕ ГУСТИНЕ ФЛУКСА, pfd, ОГРАНИЧЕЊА</b></p>										A.16	
A.16.a	<p>обавеза да придружене земаљске станице које раде са геостационарном сателитском мрежом у фиксној сателитској служби задовољавају ограничења снаге изван осе дато у Nos. <b>22.26</b> до <b>22.28</b> или <b>22.32</b> (по потреби) под условима специфицираним у Nos. <b>22.30</b>, <b>22.31</b> и <b>22.34</b> до <b>22.39</b></p> <p>Потребно само када земаљске станице јесу предмет тих ограничења снаге</p>				+						A.16.a	
A.16.b	<p>Обавезе администрација да ће поднесени захтеви за систем задовољити једнолазна ограничења снаге густине флукса која су специфицирана у No. <b>5.502</b></p> <p>Потребно само за специфичне антене земаљске станице мање од 4.5 m у промеру које раде са геостационарним свемирским станицама у фиксној сателитској служби у опсегу 13.75-14 GHz</p>						+				A.16.b	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.17	<p align="center"><b>УСКЛАЂЕНОСТ СА СНАГОМ ГУСТИНЕ ФЛУКСА, pfd, ОГРАНИЧЕЊА</b></p>										A.17	
A.17.a	<p>обавеза усклађености са нивоом снаге густине флукса по сателиту произведеног на површини Земље од <math>-129 \text{ dB(W/(m}^2 \cdot \text{MHz))}</math> на сваких 1 MHz опсега под условима простирања у слободном простору</p> <p>Потребно једино за сателитске системе који раде у радионавигационој сателитској служби у опсегу 1 164-1 215 MHz</p>				+	+					A.17.a	
A.17.b.1	<p>израчуната агрегатна снага густине флукса произведена на површини Земље од било којег геостационарног радионавигационог сателитског система у опсегу 4 990-5 000 MHz у 10 MHz ширини опсега, како је дефинисано у <i>одлучује</i> 1 Резолуције <b>741 (WRC-03)</b></p> <p>Потребно само за геостационарне сателитске системе који раде у радионавигационој сателитској служби у опсегу 5 010-5 030 MHz</p>				+						A.17.b.1	

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
А.17.b.2	<p>израчуната агрегатна снага густине флука произведена на површини Земље од свих свемирских станица унутар било којег система радионавигационе сателитске службе у опсегу 5 030-5 150 MHz у 150 kHz ширини опсега, како је дефинисано у No. <b>5.443В</b></p> <p>Потребно само за геостационарне сателитске системе који раде у радионавигационој сателитској служби у опсегу 5 010-5 030 MHz</p>				+	+					А.17.b.2	
А.17.b.3	<p>Еквивалентна снага густине флука произведена на површини Земље од свих свемирских станица унутар било којег система не-геостационарне радионавигационе сателитске службе у опсегу 4 990-5 000 MHz у 10 MHz ширини опсега, како је дефинисано у <i>одлучује</i> 2 Резолуције <b>741 (WRC-03)</b></p> <p>Потребно само за геостационарне сателитске системе који раде у радионавигационој сателитској служби у опсегу 5 010-5 030 MHz</p>					+					А.17.b.3	

Ставке у Додатку	<p align="center"><b>A - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.17.c	<p>агрегатна снага густине флуksа произведена на површини Земље у опсегу 15.35-15.4 GHz, како је дефинисано у No. <b>5.511A</b></p> <p>Потребно само за не-геостационарне сателитске системе који раде у фиксној сателитској служби (спојне везе) у опсегу 15.43-15.63 GHz (свемир-Земља)</p>					+					A.17.c	
A.17.d	<p>Просечна снага густине флуksа произведена на површини Земље од стране било ког сензора у свемиру, како је дефинисано у No. <b>5.549A</b></p> <p>Потребно само за сателитске системе који раде у служби сателитског истраживања Земље (активно) или службе истраживања свемира (активно) у опсегу 35.5-36 GHz</p>				+	+					A.17.d	
A.17.e.1	<p>израчуната агрегатна снага густине флуksа произведена на месту радио астрономске станице у опсегу 42.5-43.5 GHz, како је дефинисано у No. <b>5.551H</b></p> <p>Потребно само за не-геостационарне сателитске системе који раде у фиксној сателитској служби и радиодифузној сателитској служби у опсегу 42-42.5 GHz</p>					+					A.17.e.1	

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
A.17.e.2	<p>Израчуната снага густине флукса произведена на месту радио астрономске станице у опсегу 42.5-43.5 GHz, како је дефинисано у No. 5.55II</p> <p>Потребно само за системе геостационарне сателитске службе који раде у фиксној сателитској служби и радиодифузној сателитској служби у опсегу 42-42.5 GHz</p>				+						A.17.e.2	
<b>A.18</b>	<b>САГЛАСНОСТ СА ОБАВЕШТЕЊЕМ ВАЗДУХОПЛОВНЕ ЗЕМАЉСКЕ СТАНИЦЕ</b>										<b>A.18</b>	
A.18.a	<p>обавеза да карактеристике ваздухопловне земаљске станице (AES) у ваздухопловној мобилној сателитској служби буде у оквиру карактеристика специфичне и/или типичне земаљске станице публиковане од стране Бироа за свемирску станицу којој је AES придружен</p> <p>Потребно само за опсег 14-14.5 GHz, када једна ваздухопловна Земљина станица у ваздухопловној мобилној сателитској служби комуницира са свемирском станицом у фиксној сателитској служби</p>				+	+					A.18.a	
<b>A.19</b>	<b>САГЛАСНОСТ СА § 6.26 ЧЛАНА 6 ДОДАТКА 30В</b>										<b>A.19</b>	

Ставке у Додатку	<p align="center"><b>А - ГЕНЕРАЛНЕ КАРАКТЕРИСТИКЕ САТЕЛИТСКЕ МРЕЖЕ, ЗЕМАЉСКЕ СТАНИЦЕ ИЛИ РАДИО АСТРОНОМСКЕ СТАНИЦЕ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радиоастрономија
А.19.а	<p>Обавеза да коришћење доделе неће узроковати неприхватљиву интерференцију, нити тражити заштиту због тога, оним доделама за које престанак још треба да се добије</p> <p>Потребно ако је обавештење поднесено под § 6.25 Члана 6 Додатка <b>30В</b></p>									+	А.19.а	

Ставке у Додатку	<p align="center"><b>В - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА ИМА СВАКИ САТЕЛИТСКИ АНТЕНСКИ СНОП ИЛИ СВАКА ЗЕМЉИНА СТАНИЦА ИЛИ РАДИО АСТРОНОМСКА АНТЕНА</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радио астрономија
<b>В.1</b>	<b>ИНДЕНТИФИКАЦИЈА И СМЕР САТЕЛИТСКОГ АНТЕНСКОГ СНОПА</b>										<b>В.1</b>	
В.1.a	означавање сателитског антенског снопа За земаљску станицу, означавање сателитског антенског снопа придружене свемирске станице			X	X	X	X	X	X	X	В.1.a	
В.1.b	индикатор који показује да ли је антенски сноп, под В.1.a, фиксан или да ли се окреће и / или је реконфигурабилан			X	X	X		X	X	X	В.1.b	
<b>В.2</b>	<b>ИНДИКАТОР ПРЕДАЈЕ / ПРИЈЕМА ЗА СНОП СВЕМИРСКЕ СТАНИЦЕ ИЛИ ПРИДРУЖЕНЕ СВЕМИРСКЕ СТАНИЦЕ</b>	X	X	X	X	X	+ <sup>1</sup>			X	<b>В.2</b>	
<b>В.3</b>	<b>КАРАКТЕРИСТИКЕ АНТЕНЕ СВЕМИРСКЕ СТАНИЦЕ</b>										<b>В.3</b>	
В.3.a	<b>За сваку антену свемирске станице:</b>										В.3.a	
В.3.a.1	максимално крос-поларно изотропско појачање, у dBi  Када се користи окрећући сноп (види No. <b>1.191</b> ), ако је ефективно подручје видљивости (види No. <b>1.175</b> ) индентично са глобалним подручјем сервиса, максимално антенско појачање, у dBi, је примењиво на све тачке видљиве површине Земље			X	X	X		X	X	X	В.3.a.1	

Ставке у Додатку	<p align="center"><b><i>В – КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА ИМА СВАКИ САТЕЛИТСКИ АНТЕНСКИ СНОП ИЛИ СВАКА ЗЕМЉИНА СТАНИЦА ИЛИ РАДИО АСТРОНОМСКА АНТЕНА</i></b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радио астрономија
В.3.а.2	ако је не-елиптичан сноп, максимално појачање кросполарне изотропске антене, у dBi							+	+		В.3.а.2	
В.3.б	<b>Контуре антенског појачања:</b>										В.3.б	
В.3.б.1	<p>контуре крос-поларног антенског појачања нацртане на мапи површине Земље, пожељно у радијалној пројекцији од сателита на раван управну на осу од центра Земље до сателита</p> <p>Контуре појачања свемирске станице треба да су нацртане као линије истог нивоа изотропског појачања, минимално у интервалима – 2, – 4, – 6, – 10 и – 20 dB и на 10 dB након тога, по потреби, релативно на максимално појачање антене, када је било која од тих контура смештена или потпуно или делимично било где унутар лимита видљивости Земље из датог геостационарног сателита</p> <p>Кад год је могуће, контуре појачања антене свемирске станице требало би да су дате у нумеричком формату (на пр. једначином или табеларно)</p>				X			+	+	+	В.3.б.1	

Ставке у Додатку	<p align="center"><b>В - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА ИМА СВАКИ САТЕЛИТСКИ АНТЕНСКИ СНОП ИЛИ СВАКА ЗЕМЉИНА СТАНИЦА ИЛИ РАДИО АСТРОНОМСКА АНТЕНА</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радио астрономија
	<p>Где је окрећући сноп (види No. <b>1.191</b>) коришћен, ако је подручје видљивости (види No. <b>1.175</b>) мање од глобалног подручја сервиса, контуре су резултат помицања видног поља окрећућег снопа око ограничења дефинисаног подручјем ефективне видљивости и треба да су дате како је горе описано али такође треба да укључе 0 dB линије једнаког релативног појачања</p> <p>Контуре антенског појачања треба да укључе ефекте планираног нагиба скретања, дужинске толеранције и планиране указујуће тачности антене</p> <p>У случају Додатка <b>30, 30А</b> или <b>30В</b>, потребно само за не-елиптичне снопове</p>											
В.3.b.2	ако је не-елиптични сноп, контуре кросполарног појачања треба да су дате како је дефинисано под В.3.b.1							+	+		В.3.b.2	

Ставке у Додатку	<p align="center"><b>В - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА ИМА СВАКИ САТЕЛИТСКИ АНТЕНСКИ СНОП ИЛИ СВАКА ЗЕМЉИНА СТАНИЦА ИЛИ РАДИО АСТРОНОМСКА АНТЕНА</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (слојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радио астрономија
В.3.с	<b>Дијаграми зрачења антене:</b>										В.3.с	
В.3.с.1	<p>дијаграм зрачења крос-поларне антене</p> <p>У случају геостационарних свемирских станица, потребно само кад је сноп зрачења антене усмерен према другом сателиту</p> <p>У случају Додатка <b>30, 30А</b> или <b>30В</b>, потребно само за елиптичне антенске снопове</p>			<b>X</b>	+	<b>X</b>		+	+	+	В.3.с.1	
В.3.с.2	ако је елиптичан сноп, дијаграм зрачења кросполарне антене							+	+		В.3.с.2	
В.3.д	<p>указујућа тачност антене</p> <p>У случају Додатка <b>30, 30А</b> или <b>30В</b>, потребно једино за елиптичне снопове</p>				<b>X</b>			+	+	+	В.3.д	
В.3.е	ако свемирска станица ради у опсегу намењеном за смер Земља-свемир и смер свемир-Земља, појачање антене у смеру оних делова геостационарне сателитске орбите која није ометана од Земље				+				+		В.3.е	
В.3.ф	<b>За свемирске станице поднесено у складу са Додатком 30, 30А или 30В:</b>										В.3.ф	
В.3.ф.1	Видно поље или циљна тачка антенског снопа (географска дужина и ширина)							<b>X</b>	<b>X</b>	<b>X</b>	В.3.ф.1	

Ставке у Додатку	<b>В - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА ИМА СВАКИ САТЕЛИТСКИ АНТЕНСКИ СНОП ИЛИ СВАКА ЗЕМЉИНА СТАНИЦА ИЛИ РАДИО АСТРОНОМСКА АНТЕНА</b>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарної сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарної сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радио астрономија
В.3.f.2	<b>За сваки елиптички сноп:</b>										В.3.f.2	
В.3.f.2.a	ротациона тачност, у степенима							X	X	X	В.3.f.2.a	
В.3.f.2.b	оријентација главне осе, у степенима, супротно казаљки на сату од Екватора							X	X	X	В.3.f.2.b	
В.3.f.2.c	главна оса, у степенима, на пола снаге ширине снопа							X	X	X	В.3.f.2.c	
В.3.f.2.d	мала оса, у степенима, на пола снаге ширине снопа							X	X	X	В.3.f.2.d	
<b>В.4</b>	<b>ДОДАТНЕ КАРАКТЕРИСТИКЕ ЗА АНТЕНУ НЕ-ГЕОСТАЦИОНАРНЕ СВЕМИРСКЕ СТАНИЦЕ</b>										<b>В.4</b>	
В.4.a.1	референтни број сваке орбиталне равни у којој се карактеристике антене свемирске станице користе			X		X					В.4.a.1	
В.4.a.2	ако карактеристике антене свемирске станице нису исте за сваки сателит у специфицираној орбиталној равни, референтни број сваког сателита у специфицираној орбиталној равни, у којој се карактеристике антене свемирске станице користе			+		+					В.4.a.2	
В.4.a.3	<b>За свемирске станице поднесено у складу са Nos. 9.11А, 9.12 , 9.12А или за активне или пасивне сензоре на не -геостационарної сателитској мрежи које не подлежу координацији под Секцијом II Члана 9:</b>										В.4.a.3	

Ставке у Додатку	<p align="center"><b>В - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА ИМА СВАКИ САТЕЛИТСКИ АНТЕНСКИ СНОП ИЛИ СВАКА ЗЕМЉИНА СТАНИЦА ИЛИ РАДИО АСТРОНОМСКА АНТЕНА</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радио астрономија
В.4.а.3.а	<b>За углове оријентације сателитских предајних и пријемних антенских снопова:</b>										В.4.а.3.а	
В.4.а.3.а.1	оријентациони угао алфа, у степенима (види најновију верзију Препоруке ITU-R SM.1413)			X		X					В.4.а.3.а.1	
В.4.а.3.а.2	оријентациони угао бета, у степенима (види најновију верзију Препоруке ITU-R SM.1413)			X		X					В.4.а.3.а.2	
В.4.б	<b>За свемирске станице поднесено у складу са Nos. 9.11А, 9.12 или 9.12А:</b>										В.4.б	
В.4.б.1	<b>Не користи се</b>										В.4.б.1	
	Не користи се											
В.4.б.2	појачање сателитске антене $G(\theta_e)$ као функција угла елевације ( $\theta_e$ ) на фиксној тачки на Земљи					X					В.4.б.2	
В.4.б.3	губици ширења као функција угла елевације (одређује се једначином или се даје у графичком формату)					X					В.4.б.3	
В.4.б.4	<b>За сваки сноп:</b>										В.4.б.4	
В.4.б.4.а	максимална вршна снопа e.i.r.p./4 kHz					X					В.4.б.4.а	
В.4.б.4.б	просечна вршна снопа e.i.r.p./4 kHz					X					В.4.б.4.б	
В.4.б.4.с	максимална вршна снопа e.i.r.p./1 MHz					X					В.4.б.4.с	

Ставке у Додатку	<b>В - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА ИМА СВАКИ САТЕЛИТСКИ АНТЕНСКИ СНОП ИЛИ СВАКА ЗЕМЉИНА СТАНИЦА ИЛИ РАДИО АСТРОНОМСКА АНТЕНА</b>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (слојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радио астрономија
В.4.b.4.d	просечна вршна снопа е.и.г.р./1 MHz					X					В.4.b.4.d	
В.4.b.5	израчуната вршна вредност снаге густине флукса произведене унутар ± 5° нагнутости геостационарне сателитске орбите Потребно само за фиксну сателитску службу (свемир-Земља) у опсегу 6 700-7 075 MHz					+					В.4.b.5	
<b>В.5</b>	<b>КАРАКТЕРИСТИКЕ АНТЕНЕ ЗЕМАЉСКЕ СТАНИЦЕ</b>										<b>В.5</b>	
В.5.a	изотропско појачање, у dBi, антене у смеру максималног зрачења (види No. <b>1.160</b> )						X				В.5.a	
В.5.b	пола снаге ширине снопа, у степенима						+ <sup>1</sup>				В.5.b	
В.5.c	мерени дијаграм зрачења антене или референтни дијаграм зрачења који се користи за координацију За координацију под No. <b>9.7А</b> , референтни дијаграм зрачења треба бити наведен						X				В.5.c	
<b>В.6</b>	<b>КАРАКТЕРИСТИКЕ РАДИО АСТРОНОМСКЕ АНТЕНЕ</b>										<b>В.6</b>	
В.6.a	тип антене (види Предговор)										В.6.a	X
В.6.b	димензије антене (види Предговор)										В.6.b	X

Ставке у Додатку	<p align="center"><b>В - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА ИМА СВАКИ САТЕЛИТСКИ АНТЕНСКИ СНОП ИЛИ СВАКА ЗЕМЉИНА СТАНИЦА ИЛИ РАДИО АСТРОНОМСКА АНТЕНА</b></p>										Ставке у Додатку	Радио астрономија	
В.6.с	ефективно подручје антене (види Предговор)		Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне - сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	В.6.с	X

Ставке у Додатку	<p align="center"><b>С - КАРАКТЕРИСТИКЕ КОЈЕ ТРЕБА ДА ИМА СВАКА ГРУПА ФРЕКВЕНЦИЈСКИХ ДОДЕЛА ЗА САТЕЛИТСКИ АНТЕНСКИ СНОП ИЛИ СВАКУ ЗЕМАЉСКУ СТАНИЦУ ИЛИ РАДИО АСТРОНОМСКУ АНТЕНУ</b></p>	Напредна публикација геостационарне сателитске мреже	Напредна публикација не-геостационарне сателитске мреже према координацији под Секцијом II Члана 9	Напредна публикација не-геостационарне сателитске мреже која није предмет координације под Секцијом II Члана 9	Обавештење или координација о геостационарној сателитској мрежи (укључујући функције свемирских операција под Чланом 2А Додатака 30 или 30А)	Обавештење или координација о геостационарној сателитској мрежи	Обавештење или координација о Земљиној станици (укључујући обавештење под под Додацима 30А или 30В)	Обавештење о сателитској мрежи у радиодифузној -сателитској служби под Додатком 30 (Чланови 4 и 5)	Обавештење о сателитској мрежи (спојне везе) под додатком 30А (Чланови 4 и 5)	Обавештење о сателитској мрежи у фиксној сателитској служби под Додатком 30В (Чланови 6 и 8)	Ставке у Додатку	Радио астрономија
<b>C.1</b>	<b>ФРЕКВЕНЦИЈСКИ РАСПОН</b>										<b>C.1</b>	
C.1.a	доња граница фреквенцијског распона унутар којег ће носиоци и ширина опсега емисије бити лоцирани за свако Земља-свемир или свемир-Земља подручје службе, или за свако свемир-свемир преспајање	<b>X</b>	<b>X</b>	<b>X</b>						<b>X</b>	C.1.a	
C.1.b	горња граница фреквенцијског распона унутар којег ће носиоци и ширина опсега емисије бити лоцирани за свако Земља-свемир или свемир-Земља подручје службе, или за свако свемир-свемир преспајање	<b>X</b>	<b>X</b>	<b>X</b>						<b>X</b>	C.1.b	

C.2	ДОДЕЉЕНА ФРЕКВЕНЦИЈА (ФРЕКВЕНЦИЈЕ)									C.2		
C.2.a.1	<p>додељена фреквенција (фреквенције), како је дефинисано у No. <b>1.148</b></p> <ul style="list-style-type: none"> <li>– у kHz до 28 000 kHz укључујући</li> <li>– у MHz изнад 28 000 kHz до 10 500 MHz укључујући</li> <li>– у GHz изнад 10 500 MHz</li> </ul> <p>Ако су основне карактеристике идентичне, са изузетком додељене фреквенције, листа фреквенцијских додела може да буде дата</p> <p>У случају напредне публикације, потребно само за активне сензоре</p> <p>У случају геостационарних и не-геостационарних сателитских мрежа, потребно за све свемирске апликације осим пасивних сензора</p> <p>У случају Додатка <b>30В</b>, потребно само за обавештење под Чланом 8</p>			+	+	+	X	X	X	+	C.2.a.1	
C.2.a.2	број канала							X	X			C.2.a.2

C.2.b	<p>центар посматраног фреквенцијског опсега</p> <ul style="list-style-type: none"> <li>– у kHz до 28 000 kHz укључујући</li> <li>– у MHz изнад 28 000 kHz до 10 500 MHz укључујући</li> <li>– у GHz изнад 10 500 MHz</li> </ul> <p>У случају сателитских мрежа, потребно само за пасивне сензоре</p>			+	+	+					C.2.b	X	
C.2.c	<p>ако фреквенцијска додела треба бити попуњена под No. 4.4, индикација о томе</p>			+	+	+	+					C.2.c	+
<b>C.3</b>	<b>ДОДЕЉЕНИ ФРЕКВЕНЦИЈСКИ ОПСЕГ</b>										<b>C.3</b>		
C.3.a	<p>ширина додељеног фреквенцијског опсега, у kHz (види No. 1.147)</p> <p>У случају напредне публикације, потребно једино за активне сензоре</p> <p>У случају геостационарних и не-геостационарних сателитских мрежа, потребно за све свемирске примене осим за пасивне сензоре</p> <p>У случају Додатка 30В, потребно само за обавештење под Чланом 8</p>			+	+	+	X	X	X	+	C.3.a		

C.3.b	ширина фреквенцијског опсега, у kHz, посматрано по станици У случају сателитских мрежа, потребно само за пасивне сензоре			+	+	+					C.3.b	X
<b>C.4</b>	<b>КЛАСА СТАНИЦЕ И ПРИРОДА СЛУЖБЕ</b>										<b>C.4</b>	
C.4.a	класа станице, користећи симболе из Предговора	X	X	X	X	X	X	X	X	X	C.4.a	X
C.4.b	природа службе која ради, користећи симболе из Предговора	X	X	X	X	X	X				C.4.b	X
<b>C.5</b>	<b>ТЕМПЕРАТУРА ШУМА ПРИЈЕМНОГ СИСТЕМА</b>										<b>C.5</b>	
C.5.a	најмања температура шума пријемног система, у келвинима, која се односи на излаз пријемне антене свемирске станице У случају сателитских мрежа, потребно за све свемирске примене осим за активне или пасивне сензоре			+	+	+			X	X	C.5.a	



C.6	ПОЛАРИЗАЦИЈА									C.6
C.6.a	<p>тип поларизације (види Предговор)</p> <p>У случају циркуларне поларизације, ово укључује смисао поларизације (види Nos. <b>1.154</b> и <b>1.155</b>)</p> <p>У случају свемирске станице поднесено у складу са Додатком <b>30</b> или <b>30А</b>, види § 3.2 Анекса 5 Додатка <b>30</b></p>		X	X	X	+ <sup>1</sup>	X	X		C.6.a
C.6.b	<p>Ако се користи линеарна поларизација, угао, у степенима, мерен противно смеру казаљке на сату у равни нормалној на осу снопа од екваторијалне равни до електричног вектора таласа како се види са сателита</p> <p>У случају свемирске станице поднесено у складу са Додатком <b>30</b> или <b>30А</b>, види § 3.2 Анекса 5 Додатка <b>30</b></p>		+	+	+	+ <sup>1</sup>	+	+		C.6.b

C.7	<p><b>НЕОПХОДНА ШИРИНА ОПСЕГА И КЛАСА ЕМИСИЈЕ</b></p> <p>(у складу са Чланом 2 и Додатком 1)</p> <p>За напредну публикацију не-геостационарне сателитске мреже која не подлеже координацији под Секцијом II Члана 9, измене ове информације у оквиру лимита специфицираних под С.1 не треба да се тичу разматрања обавештења под Чланом 11</p> <p>Није потребно за активне или пасивне сензоре</p>									C.7		
C.7.a	<p>Неопходна ширина опсега и класа емисије: за сваки носиоц</p> <p>У случају Додатка 30В, потребно једино за обавештење под Чланом 8</p>			X	X	X	X	X	X	+	C.7.a	
C.7.b	Фреквенција носиоца или фреквенције емисија			X	C	C	C			C.7.b		

C.8	КАРАКТЕРИСТИКЕ СНАГЕ ЕМИСИЈЕ Не треба за пасивне сензоре								C.8	
C.8.a	<b>За случај кад индивидуални носиоци могу бити идентификовани:</b>									C.8.a
C.8.a.1	Максимална вредност вршне снаге обвојнице, у dBW, доведена на улаз антене за сваки тип носиоца Потребно ако нити C.8.b.1 ни C.8.b.3.a није дато			+	+	+	C			C.8.a.1
C.8.a.2	Максимална густина снаге, у dB(W/Hz), доведена на улаз антене за сваки тип носиоца <sup>2</sup> Потребно ако нити C.8.b.2 нити C.8.b.3.b није дато			+	+	+	O			C.8.a.2

C.8.b	<b>За случај када није могуће идентификовати појединачне носиоце:</b>										C.8.b	
C.8.b.1	укупна вршна снага обвојнице, у dBW, доведена на улаз антене  За координацију или обавештење Додатка <b>30А</b> земаљске станице вредности треба да укључују максималан распон контроле снаге  Потребно ако нити C.8.a.1 ни C.8.b.3.a није дато			+	+	+	+ <sup>1</sup>	X	X		C.8.b.1	
C.8.b.2	Максимална густина снаге, у dB(W/Hz), доведена на улаз антене <sup>2</sup>  За координацију или обавештење Додатка <b>30А</b> земаљске станице вредности треба да укључују максималан распон контроле снаге  Потребно ако нити C.8.a.2 ни C.8.b.3.b није дато			+	+	+	+ <sup>1</sup>	X	X	X	C.8.b.2	

C.8.b.3	<b>За класу активних сензора:</b>									C.8.b.3	
C.8.b.3.a	укупна вршна снага обвојнице, у dBW, доведена на улаз антене Потребно ако нити C.8.a.1 ни C.8.b.1 није дато			+	+	+				C.8.b.3.a	
C.8.b.3.b	просечна густина снаге, in dB(W/Hz), доведена на улаз антене Потребно ако нити C.8.a.2 ни C.8.b.2 није дато			+	+	+				C.8.b.3.b	
C.8.c	<b>Минималне вредности снаге:</b> За све примене у свемиру осим активних и пасивних сензора									C.8.c	
C.8.c.1	минимална вршна снага обвојнице, у dBW, доведена на улаз антене за сваки тип носиоца Ако није дато, резултат за одсутност под C.8.c.2			+	+	+	+ <sup>1</sup>			C.8.c.1	
C.8.c.2	ако C.8.c.1 није дато, разлог за одсутност минималне вредности вршне снаге обвојнице			+	+	+	+ <sup>1</sup>			C.8.c.2	

C.8.c.3	минимална густина снаге, у dB(W/Hz), доведена на улаз антене за сваки тип носиоца <sup>2</sup> Ако није дато, разлог за одсутност под C.8.c.4			+	+	+	+ <sup>1</sup>			C.8.c.3	
C.8.c.4	ако C.8.c.3 није дато, разлог за одсутност минималне густине снаге			+	+	+	+ <sup>1</sup>			C.8.c.4	
C.8.d.1	минимална вршна снага обвојнице, у dBW, доведена на улаз антене за сваку сателитску граничну ширину опсега За сателитски транспондер, ово одговара максималној засићеној вршној снази обвојнице Потребно само за свемир-Земља или свемир-свемир везу			0	+	+				C.8.d.1	
C.8.d.2	Свака сателитска гранична ширина опсега За максималну засићену вршну снагу обвојнице сателитског транспондера, ово одговара ширини опсега сваког транспондера Потребно само за свемир-Земља или свемир-свемир везу, ако је различито од ставке C.3.a			0	+	+				C.8.d.2	
C.8.e.1	за свемир-Земља, Земља-свемир или свемир-свемир везе. За сваки тип носиоца, већи од или односа носиоц према шуму, у dB, потребно да се задовоље перформансе везе у условима чистог неба или односа носиоц према шуму, у dB, потребно да се задовоље краткорочни циљеви везе укључујући неопходне маргине Ако није дато, разлог одсутности под C.8.e.2			+	+	+	+ <sup>1</sup>			C.8.e.1	
C.8.e.2	ако C.8.e.1 није дато, разлог одсутности односа носиоц према шуму			+	+	+	+ <sup>1</sup>			C.8.e.2	
C.8.f.1	Номинална еквивалентна изотропски израчена снага (e.i.r.p.) свемирске станице на оси снопа Потребно једино за везу свемир-свемир			+						C.8.f.1	

C.8.f.2	номинална еквивалентна изотропски израчена снага (e.i.r.p.) придружене свемирске станице на оси снопа Потребно само за везу свемир-свемир			+						C.8.f.2	
C.8.g.1	максимална укупна снага, у dBW, свих носиоца (по транспондери, по могућности) доведене на улаз предајне антене земаљске станице или придружене земаљске станице Није потребно за координацију специфичне земаљске станице под Nos. <b>9.15</b> , <b>9.17</b> или <b>9.17A</b>				C	C	C			C.8.g.1	
C.8.g.2	Укупна снага свих носиоца (по транспондери, по могућности) доведена на улаз предајне антене земаљске станице или придружене земаљске станице Није потребно за координацију специфичне земаљске станице под Nos. <b>9.15</b> , <b>9.17</b> или <b>9.17A</b>				C	C	C			C.8.g.2	



C.9	ИНФОРМАЦИЈЕ О КАРАКТЕРИСТИКАМА МОДУЛАЦИЈЕ За све свемирске примене, осим активних и пасивних сензора								C.9
C.9.a	<b>За сваки носиоц, сагласно природи сигнала који модулише носиоц:</b>								C.9.a
C.9.a.1	тип модулације		O	C	+		X	X	C.9.a.1
C.9.a.2	У случају не-геостационарне свемирске станице потребно само за Nos. 9.11A, 9.12 или 9.12A <b>За фреквенцију носиоца модулисаног фреквенцијски-дељеним мултиканалним телефонским основним опсегом (FDM/FM) или сигналом који може да буде репрезентован са мултиканалним телефонским основним опсегом:</b>								C.9.a.2
C.9.a.2.a	Најнижа фреквенција основног опсега		O	C	C				C.9.a.2.a
C.9.a.2.b	Највиша фреквенција основног опсега		O	C	C				C.9.a.2.b
C.9.a.2.c	г.п.с. фреквенцијска девијација појачаног (на неким фреквенцијама) сигнала за тест тон као функција фреквенције основног опсега		O	C	C				C.9.a.2.c
C.9.a.3	<b>За фреквенције носиоца модулисаног телевизијским сигналом:</b>								C.9.a.3
C.9.a.3.a	Фреквенцијска девијација од врха до врха појачаног (на неким фреквенцијама) сигнала		O	C	C		X	X	C.9.a.3.a
C.9.a.3.b	Карактеристике појачања (на неким фреквенцијама)		O	C	C		X	X	C.9.a.3.b
C.9.a.3.c	Ако је примењиво, карактеристике мултиплексирања видео сигнала са звучним сигналом или другим сигнаlima		O	C	C		+	+	C.9.a.3.c
C.9.a.4	<b>За носиоц фазно модулисан дигиталним сигналом:</b>								C.9.a.4
C.9.a.4.a	брзина преноса података		O	C	C				C.9.a.4.a
C.9.a.4.b	број фаза		O	C	C				C.9.a.4.b
C.9.a.5	<b>За амплитудно модулисан носиоц (укључујући са једним бочним опсегом):</b>								C.9.a.5
C.9.a.5.a	природа модулишућег сигнала, што је могуће прецизније		O	C	C				C.9.a.5.a
C.9.a.5.b	врста коришћене амплитудске модулације		O	C	C				C.9.a.5.b

C.9.a.6	<b>За фреквенцијски модулисан носило:</b>									C.9.a.6
C.9.a.6.a	Фреквенцијска девијација од врха до врха, у MHz, таласног облика за равномерно распоређивање енергије		О	С	С		Х	Х		C.9.a.6.a
C.9.a.6.b	фреквенција помицања, у kHz, таласног облика за равномерно распоређивање енергије		О	С	С		Х	Х		C.9.a.6.b
C.9.a.6.c	таласни облик за равномерно распоређивање енергије		О	С	С		Х	Х		C.9.a.6.c
C.9.a.7	ако се користе друге форме модулације осим фреквенцијске модулације, тип равномерног распоређивања енергије		О	С	С		+	+		C.9.a.7
C.9.a.8	За све типове модулације, оне појединости које могу бити корисне за проучавање интерференције		О	С	С					C.9.a.8
C.9.a.9	ТВ стандард		О	С	С		Х	Х		C.9.a.9
C.9.b	<b>За аналогне носило:</b>									C.9.b
C.9.b.1	Карактеристике радиодифузије звука						Х	Х		C.9.b.1
C.9.b.2	Композиција основног опсега						Х	Х		C.9.b.2
C.9.c	<b>За не-геостационарну свемирску станицу поднесено у складу са Nos. 9.11A, 9.12 или 9.12A:</b>									C.9.c
C.9.c.1	тип вишеструког приступа					Х				C.9.c.1
C.9.c.2	спектрална маска					Х				C.9.c.2
C.9.d	<b>За станице које раде у фреквенцијском опсегу према Nos. 22.5C, 22.5D или 22.5F:</b>									C.9.d
C.9.d.1	Тип маске					Х				C.9.d.1
C.9.d.2	идентификацијски код pfd маске					Х				C.9.d.2
C.9.d.3	идентификацијски код е.и.г.р. маске свемирске станице					Х				C.9.d.3
C.9.d.4	идентификацијски код е.и.г.р. маске земаљске станице					Х				C.9.d.4
<b>C.10</b>	<b>ТИП И ИНДЕНТИТЕТ ПРИДРУЖЕНЕ СТАНИЦЕ (СТАНИЦА)</b>  (придružена станица може бити нека друга свемирска станица, типична Земљина станица неке мреже или специфична Земљина станица)  За све свемирске примене осим активних и пасивних сензора									<b>C.10</b>
C.10.a	<b>За придружену свемирску станицу:</b>									C.10.a
C.10.a.1	идентитет станице		Х	Х	Х					C.10.a.1

C.10.a.2	Ако је придружена свемирска станица у геостационарној орбити, њена номинална дужина			+	+	+				C.10.a.2	
C.10.b	<b>За придружену земаљску станицу:</b>									C.10.b	
C.10.b.1	име станице			X	X	X			X	C.10.b.1	
C.10.b.2	тип станице (специфичне или типичне)			X	X	X				C.10.b.2	
C.10.c	<b>За специфичну придружену земаљску станицу:</b>									C.10.c	
C.10.c.1	географске координате антенског места			X	X	X			X	C.10.c.1	
C.10.c.2	земља или географско подручје у којем је свемирска станица лоцирана, користећи симболе из Предговора			X	X	X			X	C.10.c.2	
C.10.d	<b>За придружену земаљску станицу (специфичну или типичну):</b>									C.10.d	
C.10.d.1	класа станице, користећи симболе из Предговора			X	X	X				C.10.d.1	
C.10.d.2	природа службе која се ради, користећи симболе из Предговора			X	X	X				C.10.d.2	
C.10.d.3	изотропско појачање, у dBi, антене у смеру максималног зрачења (види No. 1.160)			X	X	X		X	X	X	C.10.d.3

C.10.d.4	ширина снопа, у степенима, између тачака половине снаге (описано детаљно ако нема симетрије)			<b>O</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	C.10.d.4	
C.10.d.5.a	или измерени крос-поларни дијаграм зрачења антене или крос-поларни референтни дијаграм зрачења			<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	C.10.d.5.a	
C.10.d.5.b	или измерени крос-поларни дијаграм зрачења антене или крос-поларни референтни дијаграм зрачења						<b>X</b>	<b>X</b>		C.10.d.5.b	
C.10.d.6	ако је придружена станица пријемна Земљина станица, најнижа укупна температура шума пријемног система, у келвинима, која се односи на излаз пријемне антене земаљске станице под условима чистог неба			<b>+</b>	<b>+</b>	<b>+</b>			<b>+</b>	C.10.d.6	
C.10.d.7	дијаметар антене, у метрима у случајевима другачијим од оних у Додатку <b>30А</b> , потребно за мреже фиксне сателитске службе које раде у фреквенцијском опсегу 13.75-14 GHz и за мреже поморске мобилне сателитске службе које раде у фреквенцијском опсегу 14-14.5 GHz				<b>+</b>	<b>+</b>		<b>X</b>		C.10.d.7	
C.10.d.8	еквивалентни дијаметар антене (на пр. дијаметар, у метрима, параболичне антене са истим перформансама изван осе као пријемна антена придружене земаљске станице)						<b>X</b>			C.10.d.8	

C.11	СЕРВИСНО ПОДРУЧЈЕ За све свемирске примене осим активних и пасивних сензора										C.11	
C.11.a	<p>сервисно подручје или подручја сателитског снопа на Земљи, када придружене предајне или пријемне станице јесу земаљске станице</p> <p>За свемирску станицу поднето према Додатку <b>30, 30А</b> или <b>30В</b>, сервисно подручје идентификовано скупом од максимално двадесет тестних тачака и контуром сервисног подручја на површини Земље или дефинисано минималним углом елевације</p> <p>За напредну публикацију сателитских мрежа које подлежу координацији, само листа земаља и географских подручја, користећи симболе из Предговора, или говорни опис сервисног подручја треба да се поднесе</p>	X	X	X	X	X	X	X	X	C.11.a		

C.11.b	<p>одговарајуће информације потребне за прорачун захваћеног подручја (како је дефинисано у Препоруци ITU-R M.1187-1)</p> <p>Потребно само за не-геостационарну свемирску станицу у мобилној сателитској служби поднесено у складу са No. <b>9.11A</b></p>						+				C.11.b	
<b>C.12</b>	<b>ПОТРЕБНИ ОДНОС ЗАШТИТЕ</b>										<b>C.12</b>	
C.12.a	<p>минимални прихватљиви агрегатни однос носиоца према шуму, ако је мањи од 21 dB</p> <p>Однос носиоца према шуму изражава се као снага упросечена по неопходној ширини опсега модулисаних жељених и интерферирајућих сигнала, претпостављајући да и жељени носиоц и интерферирајући сигнали имају еквивалентне ширине опсега и модулационе типове</p>									+	C.12.a	

C.13	КАРАКТЕРИСТИКЕ ПОСМАТРАЊА ЗА РАДИОАСТРОНОМСКЕ СТАНИЦЕ								C.13	
C.13.a	<p>класа посматрања која треба да се изводе на фреквенцијском опсегу приказано под C.3.b</p> <ul style="list-style-type: none"> <li>– Класа А посматрања јесу она у којима осетљивост опреме није примарни фактор</li> <li>– Класа В посматрања јесу она такве природе да могу бити рађена једино са напредним нискошумним пријемницима коришћењем најбоље технике</li> </ul>								C.13.a	X
C.13.b	<p>тип радиоастрономске станице у фреквенцијском опсегу приказаном под C.3.b</p> <ul style="list-style-type: none"> <li>– Појединачни тањирасти, "S", телескоп коришћен за посматрања спектралних линија или континуума коришћењем Појединачних тањирастих или уско повезаних низова</li> <li>– Врло дуга основна линија интерферометријске (VLBI), "V", станице коришћено само за VLBI посматрања</li> </ul>								C.13.b	X
C.13.c	<p>минимални угао елевације <math>\theta_{min}</math> на којем радио астрономска станица изводи посматрања путем појединачних тањирастих телескопа или VLBI у фреквенцијском опсегу</p>								C.13.c	X



D.1.a	<p>конекција између фреквенцијских додела веза према горе и веза према доле за сваку намеравану комбинацију пријемних и предајних снопова</p> <p>У случају Додатка <b>30</b> или <b>30А</b>, потребно само у Региону 2</p> <p>У случају Додатка <b>30В</b>, потребно осим за поднесак за само једну везу</p>				<b>0</b>			+	+	+	D.1.a	
<b>D.2</b>	<b>ПОЈАЧАЊА ЕМИСИЈА И ПРИДРУЖЕНА ЕКВИВАЛЕНТНА ТЕМПЕРАТУРА ШУМА САТЕЛИТСКЕ ВЕЗЕ</b>										<b>D.2</b>	
D.2.a	<b>За сваку ставку под D.1.a:</b>										D.2.a	
D.2.a.1	<p>најнижа еквивалентна температура шума сателитске везе</p> <p>Те вредности треба да су наведене за номиналну вредност угла елевације</p>				<b>0</b>						D.2.a.1	
D.2.a.2	<p>Придružено појачање емисије најниже температуре шума еквивалентне сателитске везе</p> <p>Те вредности треба да су назначене за номиналну вредност угла елевације</p> <p>Појачање емисије се израчунава од излаза пријемне антене свемирске станице ка излазу пријемне антене земаљске станице</p>				<b>0</b>						D.2.a.2	
D.2.b.1	<p>вредност температуре шума придружене еквивалентне сателитске везе која одговара највећем односу појачања емисије и еквивалентне температуре шума сателитске везе</p>				<b>0</b>						D.2.b.1	
D.2.b.2	<p>вредности појачања емисије која одговарају највећем односу појачања емисије и еквивалентне температуре шума сателитске везе</p>				<b>0</b>						D.2.b.2	

ДОДАТАК 5 (Rev.WRC-07)

**Идентификација администрација са којима се остварује координација или затражен споразум под одредбама Члана 9**

ТАБЕЛА 5-1 (Rev.WRC-07)

Техничке карактеристике координације  
(види Члан 9)

MOD COM5/287/6 (B8/293/10) (R4/335/62)

Референца на Члан 9	Случај	Фреквенцијски опсежи (и Регион) службе за коју је затражена координација	Праг/услов	Метод прорачуна	Примедбе
No. 9.7 GSO/GSO	Станица у сателитској мрежи која користи геостационарне сателитске орбите (GSO), у било којој служби сателитске радиокомуникације, у фреквенцијском опсегу и Региону где та служба није предмет Плана, у односу на било коју другу која користи ту орбиту, у било којој радиокомуникационој служби у фреквенцијском опсегу и у Региону где та служба није предмет Плана, са изузетком координације између земаљских станица које раде у смеру супротном емисији	1) 3 400-4 200 MHz 5 725-5 850 MHz (Регион 1) и 5 850-6 725 MHz 7 025-7 075 MHz  2) 10.95-11.2 GHz 11.45-11.7 GHz 11.7-12.2 GHz (Регион 2) 12.2-12.5 GHz (Регион 3) 12.5-12.75 GHz (Регион 1 и 3) 12.7-12.75 GHz (Регион 2) и 13.75-14.5 GHz	i) Ширина опсега преклапања, и ii) било која мрежа у фиксној сателитској служби (FSS) и било којих придружених функција (види No. 1.23) са свемирском станицом унутар орбиталног лука од $\pm 10^\circ$ номиналне орбиталне позиције предложене мреже у FSS  i) Ширина опсега преклапања, и ii) било која мрежа у FSS или радиодифузна сателитска служба (BSS), која није предмет Плана, и било које придружен функције свемирске операције (види No. 1.23) са свемирском станицом унутар орбиталног лука од $\pm 9^\circ$ од номиналне орбиталне позиције предложене мреже у FSS или BSS, која није предмет Плана		Уз пажњу према свемирским службама излистаним у колони праг/услови у опсезима у 1), 2), 3), 4), 5), 6), 7) и 8), администрација може захтевати, сходно No. 9.41, да буде укључена у захтеве за координацију, наводећи мреже за које вредност од $\Delta T/T$ израчунато по методу у § 2.2.1.2 и 3.2 Додатка 8 прелази 6%. Када Биро, на захтев дотичне администрације, проучи ту информацију сходно No. 9.42, метод прорачуна дат у § 2.2.1.2 и 3.2 Додатка 8 треба да се користи

ТАБЕЛА 5-1 (наставак) (Rev.WRC-07)

Референца на Члан 9	Случај	Фреквенцијски опсези (и Регион) службе за коју је затражена координација	Праг/услов	Метод прорачуна	Примедбе
<p>No. 9.7 GSO/GSO (наставак.)</p>		<p>3) 17.7-20.2 GHz, (Региони 2 и 3), 17.3-20.2 GHz (Регион 1) и 27.5-30 GHz</p> <p>4) 17.3-17.7 GHz (Региони 1 и 2)</p>	<p>i) Ширина опсега преклапања, и</p> <p>ii) било која мрежа у FSS и било које придружене функције свемирске операције (види No. <b>1.23</b>) са свемирском станицом унутар орбиталног лука од <math>\pm 8^\circ</math> номиналне орбиталне позиције предложене мреже у FSS</p> <p>i) Ширина опсега преклапања, и</p> <p>ii) а) било која мрежа у FSS и било које придружене функције свемирске операције (види No. <b>1.23</b>) са свемирском станицом унутар орбиталног лука од <math>\pm 8^\circ</math> номиналне орбиталне позиције предложене мреже у FSS,</p> <p>или</p> <p>б) било која мрежа у BSS и било које придружене функције свемирске операције (види No. <b>1.23</b>) са свемирском станицом унутар орбиталног лука од <math>\pm 8^\circ</math> номиналне орбиталне позиције предложене мреже у FSS</p>		



ТАБЕЛА 5-1 (наставак) (Rev.WRC-07)

Референца на Члан 9	Случај	Фреквенцијски опсези (и Регион) службе за коју је затражена координација	Праг/услов	Метод прорачуна	Примедбе
<p>No. 9.7 GSO/GSO (наставак)</p>		<p>7) Опсези изнад 17.3 GHz, осим оних дефинисаних у § 3) и б)</p> <p>8) Опсези изнад 17.3 GHz осим оних дефинисаних у § 4) и 5)</p>	<p>i) Ширина опсега преклапања, и</p> <p>ii) било која мрежа у FSS и било које придружене функције свемирске операције (види No. 1.23) са свемирском станицом унутар орбиталног лука од <math>\pm 8^\circ</math> номиналне орбиталне позиције предложене мреже у FSS (види такође резолуцију <b>901 (Rev.WRC-07)</b>)</p> <p>i) Ширина опсега преклапања, и</p> <p>ii) било која мрежа у FSS или BSS, која није предмет Плана, и било које придружене функције свемирске операције (види No. 1.23) са свемирском станицом унутар орбиталног лука од <math>\pm 8^\circ</math> номиналне орбиталне позиције предложене мреже у FSS или BSS, која није предмет Плана, осим случаја мреже у FSS с пажњом према мрежи у FSS (види такође Резолуцију <b>901 (Rev.WRC-07)</b>)</p>		

ТАБЕЛА 5-1 (наставак) (Rev.WRC-07)

Референца на Члан 9	Случај	Фреквенцијски опсези (и Регион) службе за коју је затражена координација	Праг/услов	Метод прорачуна	Примедбе
No. 9.7 GSO/GSO (наставак)		9) Сви фреквенцијски опсези, осим оних у 1), 2), 3), 4, 5), 6), 7) и 8), намењени свемирској служби, и опсези у 1), 2), 3), 4), 5), 6), 7) и 8) где је радио служба предложене мреже или дотичних мрежа другачијих од свемирских служби излистаних у праг/услови колони, или у случају координације свемирских станица које раде у супротном смеру од емисије	i) Ширина опсега преклапања, и ii) Вредност од $\Delta T/T$ прелази 6%	Додатак 8	У примени Члана 2А Додатка 30 за функције свемирске операције коришћењем заштитних опсега дефинисаних у § 3.9 Анекса 5 Додатка 30, праг/услови специфицирано за FSS у опсезима у 2) се примењује. У примени Члана 2А Додатка 30А за функције свемирске операције коришћењем заштитних опсега дефинисаних у § 3.1 и 4.1 Анексу 3 Додатка 30А, праг/услов специфициран за FSS у опсезима у 7) се примењује

MOD COM4/211/7 (B3/224/21) (R2/266/13)

ТАБЕЛА 5-1 (наставка) (Rev.WRC-07)

Референца на Члан 9	Случај	Фреквенцијски опсези (и Регион) службе за коју је затражена координација	Праг/услов	Метод прорачуна	Примедбе
No. <b>9.11</b> GSO, не-GSO/ земаљске	Свемирска станица у BSS у било ком опсегу дељеном на једнакој примарној основи са земаљским службама и где BSS није предмет Плана, с пажњом према свемирским службама	620-790 MHz 1 452-1 492 MHz 2 310-2 360 MHz 2 535-2 655 MHz (Nos. <b>5.417A</b> и <b>5.418</b> ) 12.5-12.75 GHz (Региону 3) 17.3-17.8 GHz (Региону 2) 21.4-22 GHz (Регионима 1 и 3) 74-76 GHz	Преклапања ширина опсега: Детаљни услови промене No. <b>9.11</b> у опсезима 2 630-2 655 MHz и 2 605-2 630 MHz дати су у Резолуцији <b>539 (Rev.WRC-03)</b> за не-GSO BSS (звук) системе сходно Nos. <b>5.417A</b> и <b>5.418</b> , и у Nos. <b>5.417A</b> и <b>5.418</b> за GSO BSS (звук) мреже сходно тим одредбама. Резолуција <b>[COM4/1] (WRC-07)</b> се примењује у опсегу 620-790 MHz	Провера коришћењем додељених фреквенција и ширина опсега	

MOD COM5/230/7 (B4/234/6) (R3/292/98)

ТАБЕЛА 5-1 (наставка) (Rev.WRC-07)

Референца на Члан 9	Случај	Фреквенцијски опсези (и Регион) службе за коју је затражена координација	Праг/услови	Метод прорачуна	Примедбе
...					
No. <b>9.13</b> GSO/не-GSO	Станица у GSO сателитској служби у фреквенцијским опсезима који су назначени у фусноти No. <b>9.11A</b> или No. <b>9.13</b> , у односу на било коју другу не-GSO сателитску мрежу, са изузетком координације између земаљских станица које раде у смеру супротном од емисије	Фреквенцијски опсези који су назначени у фусноти No. <b>9.11A</b> или No. <b>9.13</b>	1) Преклапања ширина опсега 2) За опсег 1 668-1 668.4 MHz у односу на MSS координацију мреже са <b>SRS</b> (пасивним) мрежама, додатно на преклапање ширина опсега, e.i.g.p. спектрална густина мобилних земаљских станица у GSO мрежи мобилне сателитске службе која ради у том опсегу прелази -2.5 dB(W/4 kHz) или снагу густине спектра доведену на антену мобилне Земаљске станице прелази -10 dB(W/4 kHz)	1) Провера коришћењем додељених фреквенција и ширина опсега 2) Провера коришћењем података из Додатка 4 MSS мреже	

MOD COM4/392/17 (B19/413/22)

ТАБЕЛА 5-1 (наставка) (Rev.WRC-07)

Референца на Члан 9	Случај	Фреквенцијски опсези (и Регион) службе за коју је затражена координација	Праг/услови	Метод прорачуна	Примедбе
...					
No. <b>9.19</b> Земаљске, GSO, не-GSO/ GSO, не-GSO	Било која емитујућа станица земаљске службе или емитујућа станица у FSS (Земља-свемир) у фреквенцијском опсегу дељеном на једнакој примарној основи са BSS, у односу на типичне земаљске станице укључене у сервисно подручје свемирске станице у BSS	Опсези излистани у No. <b>9.11</b> , опсег 2 520-2 670 MHz и опсег 11.7-12.7 GHz	i) Неопходно прекривање ширина опсега; и ii) снага густине флукса (pfd) интерферирајуће станице на рубу BSS подручја прекривања прелази дозвољени ниво	Провера коришћењем додељених фреквенција и ширина опсега	Види такође Члан 6 Додатка <b>30</b>
...					

MOD COM4/392/17bis (B19/413/23)

ТАБЕЛА 5-1 (наставак) (Rev.WRC-07)

Референца на Члан 9	Случај	Фреквенцијски опсежи (и Регион) службе за коју је затражена координација	Праг/услови	Метод прорачуна	Примедбе
...					
<p>No. <b>9.14</b>                      Не-GSO/                      земаљске,                      GSO/                      земаљске</p>	<p>Свемирска станица у сателитској мрежи у фреквенцијским опсезима наведених у фусноти No. <b>9.11A</b> или No. <b>9.14</b>, с пажњом према станицама земаљских служби где су прагови превазиђени</p>	<p>1) Фреквенцијски опсежи наведени у фусноти No. <b>9.11A</b>; очо</p> <p>2) 11.7-12.2 GHz (Регион 2 GSO FSS)</p>	<p>1) Види § 1 Анекса 1 овог Додатка; У опсезима специфицираним у No. <b>5.4A01</b>, детаљни услови за примену No. <b>9.14</b> јесу дати у No. <b>5.4A01</b> за MSS мреже или</p> <p>2) У опсегу 11.7-12.2 GHz (Регион 2 GSO FSS):                      -124 dB(W/(m<sup>2</sup> · MHz)) за 0° ≤ θ ≤ 5°                      -124 + 0.5 (θ - 5) dB(W/(m<sup>2</sup> · MHz)) за 5° &lt; θ ≤ 25°                      -114 dB(W/(m<sup>2</sup> · MHz)) за θ &gt; 25°                      где θ је упадни угао долазећег таласа изнад хоризонталне равни (степени)</p>	<p>1) Види § 1 Анекса 1 овог Додатка</p>	

MOD COM4/392/18 (B19/413/24)

ТАБЕЛА 5-2 (наставак) (WRC-07)

Фреквенцијск и опсег (MHz)	Земаљска служба која се обезбеђује	Вредности прага координације				
		GSO свемирске станице		Не-GSO свемирске станице		
		pfd (по свемирској станици) фактори прорачуна (ПРИМЕДБА 2)		pfd (по свемирској станици) фактори прорачуна (ПРИМЕДБА 2)		% FDP (у 1 MHz) (ПРИМЕД БА 1)
		<i>P</i>	<i>R</i> dB/ степен и	<i>P</i>	<i>r</i> dB/ степен и	
...						
SUP 2 500- 2 520						
SUP 2 520- 2 535						
...						

**MOD** COM5/287/7 (B8/293/11) (R4/335/63)

**ДОДАТАК 7 (Rev.WRC-07)**

**Методе одређивања координационог подручја око земаљске станице у  
фреквенцијским опсезима између 100 MHz и 105 GHz**

**ДОДАТАК 7**

**Системски параметри и претходно одређене координацијске удаљености за  
одређивање координационог подручја око земаљске станице**

MOD COM4/318/12 (B11/329/9) (R6/410/14)

ТАБЕЛА 7b (WRC-07)

Параметри потребни за одређивање координацијске удаљености за предајну земаљску станицу

Обележје предајне свемирске радиокомуникационе службе	Фиксна-сателитска, мобилна - сателитска	Фиксна-сателитска	Фиксна-сателитска	Фиксна-сателитска	Фиксна-сателитска	Свемрска операција		Фиксна-сателитска, мобилна-сателитска, метеоролошка-сателитска	Фиксна-сателитска	Фиксна-сателитска	Фиксна-сателитска	Фиксна-сателитска <sup>3</sup>	Фиксна-сателитска	Фиксна-сателитска <sup>3</sup>					
						Фиксна, мобилна	Фиксна, мобилна												
Фреквенцијски опсеzi (GHz)	2.655-2.690	5.091-5.150	5.091-5.150	5.725-5.850	5.725-7.075	7.100-7.235 <sup>5</sup>		7.900-8.400	10.7-11.7	12.5-14.8	13.75-14.3	15.43-15.65	17.7-18.4	19.3-19.7					
Обележје пријемне земаљске службе	Фиксна, мобилна	Ваздухопловна радионавигацијска	Ваздухопловна мобилна (R)	Радио-локацијска	Фиксна, мобилна	Фиксна, мобилна		Фиксна, мобилна	Фиксна, мобилна	Фиксна, мобилна	Радиолокациона радионавигациона (само копно)	Ваздухопловна радионавигациона	Фиксна, мобилна	Фиксна, мобилна					
Метода коришћења	§ 2.1			§ 2.1	§ 2.1	§ 2.1, § 2.2		§ 2.1	§ 2.1	§ 2.1, § 2.2	§ 2.1		§ 2.1, § 2.2	§ 2.2					
Модулација на земаљској станици <sup>1</sup>	A				A	N	A	N	A	N	A	N	-	N	N				
Параметри критеријума интерференције земаљске станице	$P_0$ (%)	0.01			0.01	0.005	0.01	0.005	0.01	0.005	0.01	0.005	0.01	0.005	0.005				
	$N$	2			2	2	2	2	2	2	2	2	2	1	2				
	$P$ (%)	0.005			0.005	0.0025	0.005	0.0025	0.005	0.0025	0.005	0.0025	0.005	0.0025	0.0025				
	$N_L$ (dB)	0			0	0	0	0	0	0	0	0	0	0	0				
	$M_s$ (dB)	26 <sup>2</sup>			33	37	33	37	33	37	33	40	33	40	1	25	25		
	$W$ (dB)	0			0	0	0	0	0	0	0	0	0	0	0	0			
Параметри земаљске станице	$G_x$ (dBi) <sup>4</sup>	49 <sup>2</sup>	6	6	46	46	46	46	46	46	50	50	52	52	36	48	48		
	$T_e$ (K)	500 <sup>2</sup>			750	750	750	750	750	750	1 500	1 100	1 500	1 100	2 636		1 100	1 100	
Референтна ширина опсега	$B$ (Hz)	$4 \times 10^3$	$150 \times 10^3$	$10^6$		$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$10^7$		$10^6$	$10^6$		
Дозвољена снага интерференције	$P_r(p)$ (dBW) in $B$	-140	-160	-143		-131	-103	-131	-103	-131	-103	-128	-98	-128	-98	-131		-113	-113

<sup>1</sup> A: аналогна модулација; N: дигитална модулација.

<sup>2</sup> Параметри за земаљску станицу придружену са трансхоризонталним системима се користе. Радио -релејни параметри оптичке видљивости придружени фреквенцијском опсеру 5 725-7 075 MHz могу такође да се користе да се одреди суплементарна контура са изузетком  $G_x = 37$  dBi.

<sup>3</sup> Спојне везе не –геостационарних сателитских система у мобилној сателитској служби.

<sup>4</sup> Спојни губици нису укључени.

<sup>5</sup> Актуелни фреквенцијски опсеzi јесу 7 100-7 155 MHz и 7 190-7 235 MHz за службу која ради у свемиру и 7 145-7 235 MHz за службу истраживања свемира.

MOD COM5/287/8 (B8/293/12) (R4/335/64)

ТАБЕЛА 8d (Rev.WRC-07)

Параметри потребни за одређивање координацијске удаљености за пријемну земаљску станицу

Обележје пријемне свемирске радиокомуникационе службе	Метеоролошко-сателитска	Фиксна-сателитска	Фиксна-сателитска <sup>3</sup>	Радио-дифузна-сателитска	Сателитско истраживање Земље - <sup>4</sup>	Сателитско истраживање земље - <sup>5</sup>	Истраживање свемира (дубоки свемир)	Истраживање свемира		Фиксна-сателитска <sup>6</sup>	Фиксна-сателитска <sup>5</sup>	Мобилна-сателитска	Радиодифузна-сателитска, фиксна-сателитска	Мобилна-сателитска	Радио-навигацијска	Радиодифузна-сателитска
								Без посаде	С посадом							
Фреквенцијски опсежи (GHz)	18.0-18.4	18.8-19.3	19.3-19.7	21.4-22.0	25.5-27.0	25.5-27.0	31.8-32.3	37.0-38.0		37.5-40.5	37.5-40.5	39.5-40.5	40.5-42.5	43.5-47.0	43.5-47.0	84-86
Обележје предајне земаљске станице	Фиксна, мобилна	Фиксна, мобилна	Фиксна, мобилна	Фиксна, мобилна	Фиксна, мобилна	Фиксна, мобилна	Фиксна, радионавигациона	Фиксна, мобилна		Фиксна, мобилна	Фиксна, мобилна	Фиксна, мобилна	Радиодифузна, фиксна	Мобилна	Мобилна	Фиксна, мобилна, радиодифузна
Коришћена метода	§ 2.1	§ 2.1, § 2.2	§ 2.2	§ 1.4.5	§ 2.2	§ 2.1	§ 2.1, § 2.2	§ 2.1, § 2.2		§ 2.2	§ 2.1	§ 1.4.6	§ 1.4.5, § 2.1	§ 1.4.6	-	§ 1.4.5
Модулација на Земљи <sup>1</sup>	N	N	N		N	N	N	N		N	N	N	-	N		
Параметри и критеријуми интерференције земаљске станице	$p_0$ (%)	0.05	0.003	0.01		0.25	0.25	0.001	0.1	0.001	0.02	0.003				
	$N$	2	2	1		2	2	1	1	1		2				
	$p$ (%)	0.025	0.0015	0.01		0.125	0.125	0.001	0.1	0.001		0.0015				
	$N_L$ (dB)	0	0	0		0	0	0	0		1	1				
	$M_s$ (dB)	18.8	5	5		11.4	14	1	1		6.8	6				
$W$ (dB)	0	0	0		0	0	0	0		0	0					
Параметри земаљске станице	$E$ (dBW) in $B^2$	A	-	-		-	-	-	-	-	-	-	-	-	-	-
		N	40	40	40	40	42	42	-28	-28	35	35	35	44	40	40
	$P_f$ (dBW) in $B$	A	-	-		-	-	-	-	-	-	-	-	-	-	-
		N	-7	-7	-7	-7	-3	-3	-81	-73	-10	-10	-10	-1	-7	-7
$G_x$ (dBi)	47	47	47	47	45	45	53	45	45	45	45	45	45	47	47	
Референтна ширина опсега <sup>6</sup>	$B$ (Hz)	$10^7$	$10^6$	$10^6$		$10^7$	$10^7$	1	1	$10^6$	$10^6$	$10^6$	$10^6$			
Дозвољена снага интерференције	$P_f(p)$ (dBW) in $B$	-115	-140	-137		-120	-116	-216	-217	-140						

<sup>1</sup> A: аналогна модулација; N: дигитална модулација.

<sup>2</sup> *E* се дефинише као еквивалентна изотропска израчена снага интерферирајуће земаљске станице у референтној ширини опсега опсега.

<sup>3</sup> Не-геостационарне спојне везе мобилне сателитске службе.

<sup>4</sup> Не-геостационарни сателитски системи.

<sup>5</sup> Геостационарни сателитски системи.

<sup>6</sup> Не-геостационарни системи фиксне сателитске службе.

**MOD** COM5/216/9 (B3/224/22) (R2/266/14)

ТАБЕЛА 10 (WRC-07)

**Претходно одређене координацијске удаљености**

Ситуација фреквенцијског дељења		Координацијска удаљеност (у ситуацијама дељења укључујући службе намењене са једнаким правима) (km)
Тип земаљске станице	Тип земаљске станице	
...	...	...
На земљи у опсезима у којима ситуација фреквенцијског дељења није покривена у горњим редовима	Мобилна (ваздухоплов)	500

**MOD** COM6/229/7

**ДОДАТАК 10 (Rev.WRC-03)\***

**Извештај о штетним фреквенцијама**

(Погледати Члан 15, Део VI)

**SUP** COM4/211/8 (B3/224/23)

**ДОДАТАК 13 (Rev.WRC-03)\***

**Комуникације за случај несреће и безбедности (non-GMDSS)**

**MOD** COM4/296/45 (B9/305/47) (R4/335/65)

**ДОДАТАК 14 (Rev.WRC-07)**

**Фонетска азбука и сликовни код**

(види Чланове **30** и **57**) (WRC-07)

**MOD** COM4/296/46 (B9/305/48) (R4/335/66)

**ДОДАТАК 15 (Rev.WRC-07)**

**Фреквенције за комуникације за случај несреће и безбедности за GMDSS систем**

(Види Члан **31**)

Фреквенције за комуникације за случај несреће и безбедности за GMDSS дате су у Табелама 15-1 и 15-2 за фреквенције испод и изнад 30 MHz, респективно.

ТАБЕЛА 15-1 (WRC-07)

**Фреквенције испод 30 MHz**

Фреквенција (kHz)	Опис коришћења	Примедбе
490	MSI	Фреквенција 490 kHz се користи искључиво за поморске безбедносне информације (MSI). (WRC-03)
518	MSI	Фреквенција 518 kHz се користи искључиво од стране међународног NAVTEX система.
*2 174.5	NBDP-COM	
*2 182	RTP-COM	Фреквенција 2 182 kHz користи класу емисије J3E. Види такође No. <b>52.190</b> .
*2 187.5	DSC	
3 023	AERO-SAR	Ваздухопловне фреквенције носиоца (референтне) 3 023 kHz и 5 680 kHz могу бити коришћене за међусобну комуникацију између мобилних станица ангажованих у координираним операцијама претраге и спасавања, и за комуникације између тих станица и копнених станица које учествују, у складу са одредбама Додатка <b>27</b> (види Nos. <b>5.111</b> и <b>5.115</b> ).
*4 125	RTP-COM	Види такође No. <b>52.221</b> . Фреквенција носиоца 4 125 kHz може бити коришћена од стране станица на ваздухопловима за комуникацију са станицама поморске мобилне службе у случају несреће и безбедности, укључујући претрагу и спасавање (види No. <b>30.11</b> ).
*4 177.5	NBDP-COM	
*4 207.5	DSC	
4 209.5	MSI	Фреквенција 4 209.5 kHz се искључиво користи за NAVTEX-тип емисија (види Резолуцију <b>339 (Rev.WRC-03)</b> ).
4 210	MSI-HF	
5 680	AERO-SAR	Види примедбу под 3 023 kHz горе.
*6 215	RTP-COM	Види такође No. <b>52.221</b> .
*6 268	NBDP-COM	
*6 312	DSC	
6 314	MSI-HF	
*8 291	RTP-COM	
*8 376.5	NBDP-COM	
*8 414.5	DSC	
8 416.5	MSI-HF	

ТАБЕЛА 15-1 (крај) (WRC-07)

Фреквенција (kHz)	Опис коришћења	Примедбе
*12 290	RTP-COM	
*12 520	NBDP-COM	
*12 577	DSC	
12 579	MSI-HF	
*16 420	RTP-COM	
*16 695	NBDP-COM	
*16 804.5	DSC	
16 806.5	MSI-HF	
19 680.5	MSI-HF	
22 376	MSI-HF	
26 100.5	MSI-HF	

**Легенда:**

**AERO-SAR** Ова ваздухопловна (референтна) фреквенција носиоца може да се користи у случају несреће и безбедности од стране мобилних станица ангажованих у координираним операцијама претраге и спасавања.

**DSC** Те фреквенције се користе искључиво за позиве у случају несреће и безбедности коришћењем дигиталног селективног позивања у складу са No. **32.5** (види Nos. **33.8** и **33.32**). (WRC-07)

**MSI** У поморској мобилној служби, ове фреквенције се користе искључиво за емисије поморских безбедносних информација (MSI) (укључујући метеоролошка и навигациона упозорења и хитне информације) од обалских станица ка бродовима, путем ускопојасне машинске телеграфије.

**MSI-HF** У поморској мобилној служби, те фреквенције се искључиво користе за емисије MSI на пучини од стране обалских станица ка бродовима, путем ускопојасне машинске телеграфије.

**NBDP-COM** Те фреквенције се искључиво користе за комуникације за случај несреће и безбедности (саобраћај) путем ускопојасне машинске телеграфије.

**RTP-COM** Те фреквенције носиоца користе за комуникације за случај несреће и безбедности (саобраћај) путем радио телефоније.

\* Изузев како је прописано овом Регулацивом, свака емисија способна да изазове штетне сметње комуникацијама за случај несреће, аларма, ванредне ситуације и безбедности на фреквенцијама означеним звездом (\*) је забрањена. Свака емисија која изазиве штетне сметње комуникацијама за случај несреће, и безбедности на било којој од дискретних фреквенција назначених у овом Додатку је забрањена. (WRC-07)

ТАБЕЛА 15-2 (WRC-07)

**Фреквенције изнад 30 MHz (VHF/UHF)**

Фреквенција (MHz)	Опис коришћења	Примедбе
*121.5	AERO-SAR	<p>Ваздухопловна фреквенција за опасност 121.5 MHz користи се у случају несреће и опасности за радиотелефонију од стране станица ваздухопловне мобилне службе коришћењем фреквенција у опсегу између 117.975 MHz и 137 MHz. Та фреквенција може такође бити коришћена за те сврхе од станица у чамцима за спашавање. Радио фар за индикацију позиције у случају опасности користи фреквенцију 121.5 MHz како је назначено у Препоруци ИТУ-Р М.690-1.</p> <p>Мобилне станице поморске мобилне службе могу да комуницирају са станицама ваздухопловне мобилне службе на ваздухопловној фреквенцији за опасност 121.5 MHz само у случају несреће и ванредне ситуације, и на ваздухопловној помоћној фреквенцији 123.1 MHz за координиране операције тражења и спасавања, користећи емисије класе АЗЕ за обе фреквенције (види такође Nos. <b>5.111</b> и <b>5.200</b>). Оне тада треба да су у складу са сваким специјалним аранжманом између заинтересованих влада код којих је ваздухопловна мобилна служба регулисана.</p>
123.1	AERO-SAR	<p>Ваздухопловна помоћна фреквенција 123.1 MHz, која је помоћна ваздухопловној фреквенцији за опасност 121.5 MHz, служи за коришћење од стране станица ваздухопловне мобилне службе и од стране осталих мобилних и копнених станица ангажованих у координираним операцијама претраге и спасавања (види такође No. <b>5.200</b>).</p> <p>Мобилне станице поморске мобилне службе могу комуницирати са станицама ваздухопловне мобилне службе на ваздухопловној фреквенцији за опасност 121.5 MHz само у случају несреће и ванредне ситуације, и на ваздухопловној помоћној фреквенцији 123.1 MHz за координиране операције претраге и спасавања, користећи емисије класе АЗЕ за обе фреквенције (види такође Nos. <b>5.111</b> и <b>5.200</b>). Оне тада треба да су у складу са сваким специјалним аранжманом између заинтересованих влада код којих је ваздухопловна мобилна служба регулисана.</p>
156.3	VHF-CH06	<p>Фреквенција 156.3 MHz може бити коришћена за комуникацију између бродских станица и ваздухопловних станица ангажованих у координираним операцијама претраге и спасавања. Она такође може бити коришћена од станица на ваздухопловима да комуницирају са бродским станицама у остале безбедносне сврхе (види такође Примедбу <i>f</i>) у Додатку <b>18</b>).</p>
*156.525	VHF-CH70	<p>Фреквенција 156.525 MHz се користи у поморској мобилној служби за позиве у случају несреће и безбедности коришћењем дигиталног селективног позивања (види такође Nos. <b>4.9</b>, <b>5.227</b>, <b>30.2</b> и <b>30.3</b>).</p>

ТАБЕЛА 15-2 (крај) (WRC-07)

Фреквенција (MHz)	Опис коришћења	Примедбе
156.650	VHF-CH13	Фреквенција 156.650 MHz се користи за комуникације брод-брод у вези безбедности пловидбе у складу са Примедбом <i>k</i> ) у Додатку <b>18</b> .
*156.8	VHF-CH16	Фреквенција 156.8 MHz се користи за комуникације за случај несреће и безбедности за радиотелефонију. Додатно, фреквенција 156.8 MHz може бити коришћена од стране станица на ваздухоплову само у сигурносне сврхе.
*161.975	AIS-SART VHF CH AIS 1	AIS 1 се користи за AIS предајнике за претрагу и спасавање (AIS-SART) за коришћење у операцијама претраге и спасавања.
*162.025	AIS-SART VHF CH AIS 2	AIS 2 се користи за AIS предајнике за претрагу и спасавање (AIS-SART) за коришћење у операцијама претраге и спасавања.
*406-406.1	406-EPIRB	Овај фреквенцијски опсег се ексклузивно користи од стране сателитске индикације позиције у случају опасности са радио фаровима у смеру Земља-свемир (види No. <b>5.266</b> ).
1 530-1 544	SAT-COM	Додатно на његову расположивост за рутинске сврхе неvezано за безбедност, опсег 1 530-1 544 MHz се користи у случају несреће и безбедности у смеру свемир-Земља у поморској мобилној сателитској служби. GMDSS комуникације за случај несреће, ванредне ситуације и безбедности имају приоритет у овом опсегу (види No. <b>5.353A</b> ).
*1 544-1 545	D&S-OPS	Коришћење опсега 1 544-1 545 MHz (свемир-Земља) ограничено је на операције у случају несреће и безбедности (види No. <b>5.356</b> ), укључујући спојне везе сателита потребне за преспајање сателитских емисија радио фарова индикације позиције у случају опасности ка Земљиним станицама и ускопојасних (свемир-Земља) везама од свемирских станица ка мобилним станицама.
1 626.5-1 645.5	SAT-COM	Додатно на његову расположивост за рутинске сврхе неvezано за безбедност, опсег 1 626.5-1 645.5 MHz се користи у случају несреће и безбедности у смеру Земља-свемир у поморској мобилној сателитској служби. GMDSS комуникације за случај несреће, ванредне ситуације и безбедности имају приоритет у овом опсегу (види No. <b>5.353A</b> ).
*1 645.5-1 646.5	D&S-OPS	Коришћење опсега 1 645.5-1 646.5 MHz (Земља-свемир) је ограничено на операције у случају несреће и безбедности (види No. <b>5.375</b> ).
9 200-9 500	SARTS	Овај фреквенцијски опсег користе радарски транспондери за олакшавање претраге и спасавања.

**Легенда:**

**AERO-SAR** Ова ваздухопловна (референтна) фреквенција носиоца може да се користи у случају несреће и безбедности од стране мобилних станица ангажованих у координираним операцијама претраге и спасавања.

**D&S-OPS** Коришћење ових опсега ограничено је на операције за случај несреће и безбедности од стране сателитских радио фарова индикације позиције у случају опасности (EPIRBs).

**SAT-COM** Ова фреквенција је доступна за случај несреће и безбедности у поморској мобилној сателитској служби (види Примедбе).

**VHF-CH#** Ове VHF фреквенције се користе за случај несреће и безбедности. Канални број (CH#) се односи на VHF канал како је излистано у Додатку **18**, што такође треба да се договори.

**AIS** Ове фреквенције се користе од стране аутоматског идентификационог система (AIS), који би требао да ради у складу са најновијом верзијом Препоруке ИТУ-Р М.1371. (WRC-07)

\* Изузев како је прописано овом Регулацивом, свака емисија способна да изазове штетне сметње комуникацијама за случај несреће, аларма, ванредне ситуације и безбедности на фреквенцијама означеним звездицом (\*) је забрањена. Свака емисија која изазиве штетне сметње комуникацијама за случај несреће, и безбедности на било којој од дискретних фреквенција назначених у овом Додатку је забрањена. (WRC-07)

**MOD** COM4/332/177 (B14/365/40) (R7/411/210)

## ДОДАТАК 16 (Rev.WRC-07)

(Види Чланове **42** и **51**)

### Секција I – Бродске станице за које је потребно да се инсталише GMDSS по међународном споразуму

Те станице треба да имају:

- 1 лиценцу прописану Чланом **18**;
- 2 сертификат једног или више оператора;
- 3 дневник у којем се следеће бележи како се појављује, заједно са временом настанка, осим ако су администрације усвојиле друге аранжмане за бележење свих информација које дневник садржи:
  - a) збир комуникација које се односе на саобраћај у случају несреће, ванредне ситуације и безбедности;
  - b) референце на важне инциденте у служби;
- 4 *Листа бродских станица и додела идентитета поморској мобилној служби* (види Члан **20**) у штампаном или електронском формату;
- 5 *Листа обалских станица и станица специјалне службе* (види Члан **20**) у штампаном или електронском формату;
- 6 *Приручник за коришћење за поморску мобилну и поморску мобилну сателитску службу* (види Члан **20**) у штампаном или електронском формату.

ПРИМЕДБА – Нека администрација може да изузме брод од обавезе ношења докумената споменутих у ставкама 5 и 6 горе под различитим околностима (на пример, када тај брод носи еквивалентне информације за наведено подручје трговине за тај брод).

### Секција II – Остале бродске станице за које се захтева радио инсталација по регионалном или међународном споразуму

Те станице треба да имају:

- 1 лиценцу прописану Чланом **18**;
- 2 сертификат једног или више оператора;
- 3 дневник или неки други аранжмани које администрације могу усвојити за ту сврху, у којем збир комуникација које се односе на саобраћај у случају несреће и ванредне ситуације треба да буде забележен заједно са временом настанка;
- 4 *Листа бродских станица и додела идентитета поморској мобилној служби* (види Члан **20**) у штампаном или електронском формату;
- 5 релевантна правила и процедуре радиокомуникација, на пр. *Приручник за коришћење за поморску мобилну и поморску мобилну сателитску службу* (види Члан **20**) у штампаном или електронском формату.

ПРИМЕДБА – Нека администрација може изузети брод од обавезе ношења докумената споменутих у ставкама 4 и 5 горе под разним околностима (на пример, када тај брод носи еквивалентне информације за назначено трговачко подручје брода).

### Секција III – Остале бродске станице

Те станице треба да имају:

- 1 документе споменуте у ставкама 1 и 2 Секције II;
- 2 документи споменути у ставкама 4 и 5 Секције II, у складу са захтевима заинтересованих администрација. ПРИМЕДБА – Нека администрација може изузети брод од обавезе ношења докумената споменутих у ставки 2 горе под разним околностима (на пример, када тај брод носи еквивалентне информације за назначено трговачко подручје брода. Администрације могу такође, по обостраном споразуму, изузети бродове који саобраћају само између њихових националних подручја јурисдикције од лиценцирања прописаног Чланом 18 и ношења докумената споменутих у ставки 1 горе, обезбеђујући да та пловила иначе буду лиценцирана или ауторизована регулативом.

### Секција IV – Авионске станице

Те станице треба да имају:

- 1 документе споменуте у ставкама 1 и 2 Секције I;
- 2 дневник, осим ако су администрације усвојиле друге аранжмане за бележење свих информација које би дневник требао да садржи;
- 3 оне публиковане документе, у штампаном или електронском формату, који садрже службене информације које се односе на станице које авионска станица може да користи за вршење службе.

### ДОДАТАК 17 (Rev.WRC-07)

#### Фреквенције и каналски аранжмани у високо фреквенцијским опсезима за поморску мобилну службу

(Види Члан 52)

**MOD** COM4/380/58 (B17/404/62)

**ДЕО А – Табела подопсега** (WRC-07)

**SUP** COM4/380/59 (B17/404/63)

*h)*

**MOD** COM4/380/60 (B17/404/64)

- i)* За коришћење фреквенција носиоца 4 125 kHz, 6 215 kHz, 8 291 kHz, 12 290 kHz и 16 420 kHz у овим подопсезима од стране бродских и обалских станица за случај несреће и безбедности, од стране радиотелефоније са једним бочним опсегом, види Члан 31.

**ДЕО В – Каналски аранжмани** (WRC-07)

**Секција I – Радиотелефонија**

**MOD** COM4/380/61 (B17/404/65)

5A За коришћење фреквенција носиоца:

4 125 kHz (Канал No. 421);

6 215 kHz (Канал No. 606);

8 291 kHz (Канал No. 833);

12 290 kHz (Канал No. 1221);

16 420 kHz (Канал No. 1621);

У Под-Секцији А, од стране обалских и бродских станица у случају несреће и безбедности, види Члан **31**. (WRC-07)

**MOD** COM4/380/62 (B17/404/66)

<sup>5</sup> За услове коришћења фреквенције носиоца 6 215 kHz, види Додатак **15**.

**MOD** COM4/296/47 (B9/305/49) (R4/335/67)

**ДОДАТАК 18 (Rev.WRC-07)**

**Табела емитујућих фреквенција у VHF  
опсегу поморске мобилне**

(Види Члан **52**)

ПРИМЕДБА А – За помоћ у разумевању Табеле, види Примедбе *a*) до *q*) ниже. (WRC-07)

**ADD** COM4/296/48 (B9/305/50) (R4/335/68)

ПРИМЕДБА В – Табела ниже дефинише нумерисање канала за поморске VHF комуникације базирано на 25 kHz размака канала и коришћење неколико дуплексних канала, али такође дозвољава коришћење 12.5 kHz размака канала. Нумерисање канала за 12.5 kHz канале и конверзија двофреквенцијских канала за једнофреквенцијску операцију треба бити у складу са Препоруком ITU-R M.1084-4 Анекс 4, Табела 1 и 3. (WRC-07)

**MOD** COM4/296/49 (B9/305/51) (R4/335/69)

Означава ч канала	Примедб е	Емитијуће фреквенције (MHz)		Међуброд ске	Пристанишне операције и кретање бродова		Јавна кореспонд енција
		Од брода	Од обалске станице		Једнофрек венцијска	Двофрекве нцијска	
60	<i>m), o)</i>	156.025	160.625			x	X
01	<i>m), o)</i>	156.050	160.650			x	X
61	<i>m), o)</i>	156.075	160.675		x	x	X
02	<i>m), o)</i>	156.100	160.700		x	x	X
62	<i>m), o)</i>	156.125	160.725		x	x	X
03	<i>m), o)</i>	156.150	160.750		x	x	X
63	<i>m), o)</i>	156.175	160.775		x	x	X
04	<i>m), o)</i>	156.200	160.800		x	x	X
64	<i>m), o)</i>	156.225	160.825		x	x	X
05	<i>m), o)</i>	156.250	160.850		x	x	X
65	<i>m), o)</i>	156.275	160.875		x	x	X
06	<i>f)</i>	156.300		x			
66	<i>m), o)</i>	156.325	160.925			x	X
07	<i>m), o)</i>	156.350	160.950			x	X
67	<i>h)</i>	156.375	156.375	x	x		
08		156.400		x			
68		156.425	156.425		x		
09	<i>i)</i>	156.450	156.450	x	x		
69		156.475	156.475	x	x		
10	<i>h), q)</i>	156.500	156.500	x	x		
70	<i>f), j)</i>	156.525	156.525	Дигитално селективно позивање у случају несреће, безбедности и позивања			
11	<i>q)</i>	156.550	156.550		x		
71		156.575	156.575		x		
12		156.600	156.600		x		
72	<i>i)</i>	156.625		x			
13	<i>k)</i>	156.650	156.650	x	x		
73	<i>h), i)</i>	156.675	156.675	x	x		
14		156.700	156.700		x		
74		156.725	156.725		x		
15	<i>g)</i>	156.750	156.750	x	x		
75	<i>n)</i>	156.775	156.775		x		

Означава ч канала	Примедб е	Емитијуће фреквенције (MHz)		Међуброд ска	Пристишње операције и кретање бродова		Јавна кореспонд енција
		Од обалских станица	Од обалских станица		Једнофрек венцијска	Двофрекве нцијска	
16	<i>f)</i>	156.800	156.800	НЕСРЕЋА, БЕЗБЕДНОСТ И ПОЗИВАЊЕ			
76	<i>n)</i>	156.825	156.825		x		
17	<i>g)</i>	156.850	156.850	x	x		
77		156.875		x			
18	<i>m)</i>	156.900	161.500		x	x	x
78	<i>m)</i>	156.925	161.525			x	x
19	<i>m)</i>	156.950	161.550			x	x
79	<i>m)</i>	156.975	161.575			x	x
20	<i>m)</i>	157.000	161.600			x	x
80	<i>m)</i>	157.025	161.625			x	x
21	<i>m)</i>	157.050	161.650			x	x
81	<i>m)</i>	157.075	161.675			x	x
22	<i>m)</i>	157.100	161.700		x	x	x
82	<i>m), o)</i>	157.125	161.725		x	x	x
23	<i>m), o)</i>	157.150	161.750		x	x	x
83	<i>m), o)</i>	157.175	161.775		x	x	x
24	<i>m), o)</i>	157.200	161.800		x	x	x
84	<i>m), o)</i>	157.225	161.825		x	x	x
25	<i>m), o)</i>	157.250	161.850		x	x	x
85	<i>m), o)</i>	157.275	161.875		x	x	x
26	<i>m), o)</i>	157.300	161.900		x	x	x
86	<i>m), o)</i>	157.325	161.925		x	x	x
27		157.350	161.950			x	x
87		157.375	157.375		x		
28		157.400	162.000			x	x
88		157.425	157.425		x		
AIS 1	<i>f), l), p)</i>	161.975	161.975				
AIS 2	<i>f), l), p)</i>	162.025	162.025				

### Примедбе које се односе на Табелу

#### Генералне примедбе

**MOD** COM4/296/50 (B9/305/52) (R4/335/70)

- e) Администрације могу применити 12.5 kHz каналско преклапање на не-интерференцијској основи на 25 kHz канале, у складу са најновијом верзијом Препоруке ИТУ-Р М.1084, омогућујући:
- да неће утицати на 25 kHz канале фреквенција за случај несреће и безбедности поморске мобилне службе из садашњег Додатка, нарочито канале 06, 13, 15, 16, 17, и 70, нити техничке карактеристике утврђене у Препоруци ИТУ-Р М.489-2 за те канале;
  - имплементација 12.5 kHz каналског преклапања и следствено националне потребе треба да су предмет координације са заинтересованом администрацијом. (WRC-07)

**MOD** COM4/296/51 (B9/305/53) (R4/335/71)

#### Специфичне примедбе

- f) Фреквенције 156.300 MHz (канал 06), 156.525 MHz (канал 70), 156.800 MHz (канал 16), 161.975 MHz (AIS 1) и 162.025 MHz (AIS 2) могу такође да користе авионске станице за операције претраге и спасавања и друге комуникације у вези са безбедношћу. (WRC-07)

**MOD** COM4/296/52 (B9/305/54) (R4/335/72)

- l) Ови канали (AIS 1 и AIS 2) се користе за аутоматски систем идентификације (AIS) способан да обезбеди глобални рад, осим ако су друге фреквенције намењене на регионалној основи у ту сврху. Такво коришћење требало би да буде у складу са најновијом верзијом Препоруке ИТУ-Р М.1371. (WRC-07)
- m) Ови канали могу да раде као једнофреквенцијски канали и предмет су координације са дотакнутом администрацијом. (WRC-07)
- o) Ови канали могу да се користе да омогуће опсеге за нове технологије, и предмет су координације са дотакнутом администрацијом. Станице које користе те канале или опсеге за нове технологије не смеју да узрокују штетне сметње, нити да траже заштиту због тога, другим станицама које раде у складу са Чланом 5. Пројектовање таквих система треба бити такво да спречи могућност интерференције детектовању AIS сигнала на 161.975 или 162.025 MHz. (WRC-07)

**ADD** COM4/296/53 (B16/401/5)

- p) Додатно, AIS 1 и AIS 2 може да користи мобилна сателитска служба (Земља-свемир) за пријем AIS емисија са бродова. (WRC-07)

**ADD** COM4/296/54 (B9/305/56) (R4/335/73)

- q) Код коришћења тих канала (10 и 11), све мере требало би предузети да се избегну штетне сметње каналу 70. (WRC-07)

**SUP** COM4/211/9 (B3/224/24) (R2/266/15)

### ДОДАТАК 19

#### Техничке карактеристике радио фарова за одређивање позиције у случају опасности

који раде на фреквенцији носиоца 2182 kHz

ДОДАТАК 30 (Rev.WRC-07)\*

Одредбе за све службе и придружене Планове и Листе<sup>1</sup> за радиодифузну сателитску службу у фреквенцијским опсезима

11.7-12.2 GHz (у Региону 3), 11.7-12.5 GHz (у Региону 1)

и 12.2-12.7 GHz (у Региону 2) (WRC-03)

(Види Чланове **9** и **11**) (WRC-03)

## ЧЛАН 2А (Rev.WRC-07)

### Коришћење заштитних опсега

**MOD** COM5/307/3 (B11/329/10) (R6/410/15)

2А.1 Коришћење заштитних опсега дефинисаних у § 3.9 Анекса 5 да се омогуће функције свемирских операција у складу са No. **1.23** за подршку раду геостационарних сателитских мрежа у радиодифузној сателитској служби (BSS) није предмет примене Секције I Члана **9**.

2А.1.1 Координација између додела намењених да омогуће функције свемирских операција и доделе BSS које су предмет Плана треба да буде остварена коришћењем одредби Члана 7.

2А.1.2 Координација између додела намењених да омогуће функције свемирских операција и служби које нису предмет Плана треба да буде остварена коришћењем одредби Nos. **9.7**, **9.17**, **9.18** и придружених одредби Секције II Члана **9**, или § 4.1.1 *d*) или 4.2.3 *d*) Члана 4, по потреби.

2А.1.3 Координација модификација Плана Региона 2 или додела за укључење у Листу Региона 1 и 3 са доделама намењених да омогуће те функције треба да се оствари коришћењем § 4.1.1 *e*) или 4.2.3 *e*), по потреби, Члана 4.

2А.1.4 Захтеви за горепоменутом координацијом треба да су послати Бироу од захтевајуће администрације, заједно са одговарајућим информацијама излистаним у Додатку **4**.

2А.2 Било која додела намењена да омогући те функције за подршку геостационарним сателитским мрежама у BSS треба да има обавештење по Члану **11** и стављена на коришћење унутар следећих рокова:

2А.2.1 *a*) за случај где су придружене BSS доделе садржане у једном од почетних Планова (Планови Региона 2 укључени у Правилник о радиокомуникацијама на WARC Oгb-85 и План Региона 1 и 3 усвојено на WRC-2000), унутар регулаторних рокова напоменутих у § 4.1.3 или § 4.2.6 Члана 4 од датума кад је Биро примио комплетне податке из Додатка **4** за оне доделе намењене да омогуће функције свемирских операција;

2А.2.2 *b*) за случај када су придружене BSS доделе поднесене под § 4.1.3 или § 4.2.6 Члана 4 за ставке у Листи Региона 1 и 3 или модификације Плана Региона 2, унутар регулаторних оквира назначених у § 4.1.3 или § 4.2.6 Члана 4 за оне придружене BSS доделама;

2А.2.3 *c*) за случај када су придружене BSS доделе већ стављене на коришћење у складу са Планом о радиокомуникацијама, унутар регулаторног рока назначеног у § 4.1.3 и § 4.2.6 Члана 4 од датума кад је Биро примио комплетне податке из Додатка **4** за оне доделе намењене да омогуће функције свемирских операција.

2А.3 Секција II Члана **23** не примењује се на доделе у заштитним опсезима намењеним да омогуће горе поменуте функције.

ЧЛАН 4 (Rev.WRC-03)

**Процедуре за модификацију Плана Региона 2 или за додатна коришћења у Регионима 1 и 3<sup>3</sup>**

**MOD** COM5/307/4 (B11/329/11) (R6/410/16)

4.1.3 Администрација, или једна која ради у име групе именованих администрација, која намерава да укључи нову или модификовану доделу у Листу треба да пошаље Бироу, не раније од осам година али пожељно не касније од две године пре датума кад додела треба да се стави на коришћење, релевантне информације излистане у Додатку 4. Додела у Листи треба да истекне ако није стављено на коришћење унутар осам година након датума када је Биро примио релевантне комплетне информације<sup>5</sup>. Предложена нова или модификована додела која није укључена у листу унутар осам година након датума када је Биро примио релевантне комплетне информације треба такође да истекне<sup>5</sup>. (WRC-07)

**MOD** COM5/307/5 (B11/329/12) (R6/410/17)

4.1.5 Биро треба да одреди, на бази Анекса 1, администрацију за чије фреквенцијске доделе се сматра да су дотакнуте. Биро треба да публикује<sup>7</sup>, у специјалној секцији BR IFIC, комплетне информације примљене под § 4.1.3, заједно са именима дотакнутих администрација, одговарајуће мреже фиксне сателитске службе, одговарајуће доделе радиодифузне сателитске службе и земаљске станице, по потреби. Биро треба одмах да пошаље телеграм/факс администрацији која је предложила доделу, скрећући њену пажњу на информације садржане у релевантном BR IFIC. (WRC-07)

**4.1.5**

**MOD** COM5/308/5 (B10/326/5) (R6/410/18)

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<sup>7</sup> Ако уплата није примљена у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања заинтересоване администрације. Биро треба да информише све администрације о тој мери и да дотична мрежа наведена у публикацији не треба више да буде узимана у разматрање од стране Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе поменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**MOD** COM5/307/6 (B11/329/13) (R6/410/19)

4.1.6 Биро треба да пошаље телеграм/факс администрацијама излистаним у Специјалној секцији BR IFIC, скрећући њихову пажњу на садржане информације. (WRC-07)

**MOD** COM5/379/5 (B16/401/6)

4.1.11 Ако, у тражењу пристанка, нека администрација модификује свој почетни предлог, она мора поново да примени одредбе из § 4.1 и наредне процедуре у случајевима када:

- доделе било које друге администрације примљене у Бироу у складу са § 4.1.3 или § 4.2.6, или § 7.1 Члана 7, или No. 9.7 пре него што је тај модификовани предлог примљен под § 4.1.12;
- доделе било које администрације садржане у Плановима или Листама; *или*
- земаљске службе било које друге администрације,

сматрају се дотакнуте и примају више интерференције као резултат модификација од оних произведених почетним предлогом. (WRC-07)

#### 4.1.1.5

**MOD** COM5/308/6 (B10/326/6) (R6/410/20)

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<sup>8</sup> Ако уплата није примљена у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања заинтересоване администрације. Биро треба да информише све администрације о тој мери и да дотична мрежа наведена у публикацији не треба више да буде узимана у разматрање од стране Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе поменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**MOD** COM5/307/7 (B11/329/14) (R6/410/21)

4.2.6 Администрација, или једна<sup>13</sup> која ради у име групе именованих администрација, која намерава да уради модификације на План Региона 2 треба да пошаље Бироу, не раније од осам година али пожељно не касније од две године пре датума кад додела треба да се стави на коришћење, релевантне информације излистане у Додатку 4. Модификације на тај План треба да истекне ако није стављено на коришћење унутар осам година након датума када је Биро примио релевантне комплетне информације<sup>14</sup>. Захтев за модификацију који није укључен у листу унутар осам година након датума када је Биро примио релевантне комплетне информације треба такође да истекне<sup>14</sup>. (WRC-07)

**MOD** COM5/307/8 (B11/329/15) (R6/410/22)

4.2.8 Биро треба да одреди, на бази Анекса 1, администрацију за чије фреквенцијске доделе се сматра да су дотакнуте, у оквиру значења § 4.2.3. Биро треба публиковати<sup>16</sup>, у специјалној секцији BR IFIC, комплетне информације примљене под § 4.2.6, заједно са именима дотакнутих администрација, одговарајуће мреже фиксне сателитске службе, одговарајуће доделе радиодифузне сателитске службе и земаљске станице, по потреби. Биро треба одмах послати телеграм/факс администрацији која је предложила доделу, скрећући њену пажњу на информације садржане у релевантном BR IFIC. (WRC-07)

#### 4.2.8

**MOD** COM5/308/7 (B10/326/7) (R6/410/23)

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<sup>16</sup> Ако уплата није примљена у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања заинтересоване администрације. Биро треба да информише све администрације о тој мери и да дотична мрежа наведена у публикацији не треба више да буде узимана у разматрање од стране Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе поменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**MOD** COM5/307/9 (B11/329/16) (R6/410/24)

4.2.9 Биро треба да пошаље телеграм/факс администрацијама излистаним у Специјалној секцији BR IFIC, скрећући њихову пажњу на садржане информације. (WRC-07)

**MOD** COM5/307/10 (B11/329/17) (R6/410/25)

4.2.10 Администрација која сматра да је требала бити укључена у публикацију назначену под § 4.2.8 горе треба, унутар четири месеца од датума публикације у релевантном BR IFIC, и дајући техничке разлоге за тај поступак, затражити да Биро укључи њено име у публикацију. Биро треба да проучи ту информацију на бази Анекса 1 и треба да информише обе Администрације о својим закључцима. Ако би Биро пристао да реагује на захтев администрације, он треба да публикује један додаток на публикацију под § 4.2.8. (WRC-07)

#### 4.2.19

**MOD** COM5/308/8 (B10/326/8) (R6/410/26)

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<sup>17</sup> Ако уплата није примљена у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања заинтересоване администрације. Биро треба да информише све администрације о тој мери и да дотична мрежа наведена у публикацији не треба више да буде узимана у разматрање од стране Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе поменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**MOD** COM5/308/9 (B10/326/9) (R6/410/27)

### ЧЛАН 5 (WRC-03)

## **Обавештење, испитивање и уписивање у Главни Међународни Фреквенцијски Регистар фреквенцијских додела свемирским станицама у радиодифузној сателитској служби**<sup>ADD 17A</sup> (WRC-07)

**ADD** COM5/308/10 (B10/326/10) (R6/410/28)

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<sup>17A</sup> Ако уплата није примљена у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију специфицирану у § 5.1.6 и одговарајуће ставке у Главни Регистар под § 5.2.2, 5.2.2.1, 5.2.2.2 или 5.2.6, по могућности, и одговарајуће ставке укључене у План на и након 3.6.2000. или у Листи, по могућности, након информисања заинтересоване администрације. Биро треба да информише све администрације о таквој акцији. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе поменутом Одлуком Савета 482 осим ако је уплата већ примљена. Види такође резолуцију **905 (WRC-07)**. (WRC-07)

**MOD** COM5/307/11 (B11/329/18) (R6/410/29)

5.2.2 Кад је Биро дошао до повољног налаза поштујући § 5.2.1 *a*), 5.2.1 *b*) и 5.2.1 *c*), фреквенцијска додела неке администрације треба бити уписана у Главни регистар. Датум када је Биро примио обавест треба бити уписан у Главни Регистар. У односима између администрација, све фреквенцијске доделе стављене на коришћење у складу са одговарајућим Регионалним Планом и уписане у Главни регистар треба сматрати да имају једнак статус независно о датуму пријема уписаном у Главни регистар за ту фреквенцијску доделу. (WRC-07)

**MOD** COM5/307/12 (B11/329/19) (R6/410/30)

5.2.2.1 Кад је Биро дошао до повољног налаза поштујући § 5.2.1 *a*), 5.2.1 *c*) и 5.2.1 *d*), фреквенцијска додела неке администрације треба бити уписана у Главни регистар. Датум када је Биро примио обавест треба бити уписан у Главни Регистар. У односима између администрација, све фреквенцијске доделе стављене на коришћење у складу са одговарајућим Регионалним Планом и уписане у Главни регистар треба сматрати да имају једнак статус независно о датуму пријема уписаном у Главни регистар за ту фреквенцијску доделу. Кад се уписују те доделе, Биро треба да назначи помоћу одговарајућег симбола карактеристике које имају вредност другачију од оне која се појављује у одговарајућем регионалном Плану. (WRC-07)

**MOD** COM5/307/13 (B11/329/20) (R6/410/31)

5.2.2.2 У случају Региона 2, где је Биро дошао до повољног налаза поштујући § 5.2.1 *a*) и 5.2.1 *c*), али један неповољан налаз поштујући § 5.2.1 *b*) and 5.2.1 *d*), треба испитати обавест у односу на успешну примену одредби Резолуције **42 (Rev.WRC-03)**. Фреквенцијска додела за коју су одредбе Резолуције **42 (Rev.WRC-03)** биле успешно примењене треба бити уписана у Главни регистар са одговарајућим симболом за индикацију њеног привременог статуса. Датум примања обавести од стране Бироа треба бити унесен у Главни регистар. У односима између администрација све фреквенцијске доделе стављене на коришћење након успешне примене одредаба Резолуције **42 (Rev.WRC-03)** и уписане у Главни регистар треба да се сматрају да имају исти статус независно о датуму пријема уписаном у Главни Регистар за те фреквенцијске доделе. (WRC-07)

**MOD** COM5/307/14 (B11/329/21) (R6/410/32)

5.2.3 Кад год се фреквенцијска додела упише у Главни регистар, налаз до којег је дошао Биро треба да се назначи. (WRC-07)

**MOD** COM5/307/15 (B11/329/22) (R6/410/33)

5.2.9 Датум стављања на коришћење о којем је обавестила заинтересована администрација треба бити уписан у Главни регистар. (WRC-07)

**MOD** COM5/307/16 (B11/329/23) (R6/410/34)

5.3.1 Свака фреквенцијска додела за коју је издато обавештење на коју су примењене процедуре из Члана 4 и која је привремено записана под § 5.2.7 треба бити стављена на коришћење не касније од краја периода датог под § 4.1.3 или 4.2.6 Члана 4. Било која друга фреквенцијска додела привремено уписана под § 5.2.7 треба бити стављена на коришћење до датума назначених у обавести. Осим ако је Биро информисан од обавештавајуће администрације о стављању на коришћење доделе под § 5.2.8, он треба, не касније од петнаест дана пре датума за пуштање у рад у обавештењу или краја регулаторног периода установљеног под § 4.1.3 или 4.2.6 Члана 4, по потреби, послати подсетник захтевајући потврду да је додела стављена на коришћење унутар регулаторног периода. Ако Биро не прими ту потврду у року тридесет дана након датума обавештавања о стављању на коришћење или периода датог под § 4.1.3 или 4.2.6 Члана 4, као што може бити, он треба да поништи ставку у Главном регистру. (WRC-07)

## ЧЛАН 10

### **План за радиодифузну сателитску службу у фреквенцијском опсегу 12.2-12.7 GHz у Региону 2**

**MOD** COM5/216/10 (B3/224/25) (R2/266/16)

*(Примедба за Табелу 3)*

Примедба – Администрације излистане у табели 3 идентификоване су на бази критеријума усвојених на Регионалној Административној Конференцији за Планирање Рдиодифузне сателитске службе у Региону 2 (Geneva, 1983) (RARC Sat-R2), како је приказано у Табели 2. WRC-2000 и WRC-03 ревидирале су критеријуме примењиве за одређивање дотакнутих администрација. Због тога, Биро, кад прими обавештење за доделу у Плану Региона 2, треба да одлучи које земље су дотакнуте на бази ревидираних критеријума усвојених на WRC-03, што може да доведе до различитог скупа дотакнутих администрација од оног тренутно садржаних у Табели 3. (WRC-07)

## ЧЛАН 11 (Rev.WRC-03)

### **План за радиодифузну сателитску службу у фреквенцијским опсезима 11.7-12.2 GHz у Региону 3 и 11.7-12.5 GHz у Региону 1**

11.2 ТЕКСТ ЗА ПРИМЕДБЕ У КОЛОНИ ЗА НАПОМЕНЕ ПЛАНА (WRC-03)

SUP COM5/328/1 (B12/346/1) (R6/410/35)

ТАБЕЛА 2

ADD COM5/328/5 (B12/346/2) (R6/410/36)

ТАБЕЛА 2 (WRC-07)

Дотакнуте администрације и одговарајуће мреже/снопови идентификовани на основу Примедбе 5 у § 11.2 Члана 11

Име снопа	Канали	Реф. Табела 1	Дотакнуте администрације *	Дотакнуте мреже /снопови/земаљске станице *
ARS34000	40	C	BLR/IK, CHN, F/EUT, G, HOL, INS, J, KOR, MLA, PAK, THA, TON, UAE, USA	AM-SAT A4, APSTAR-4, ASIASAT-AKX, ASIASAT-CKX, ASIASAT-EK1, ASIASAT-EKX, EMARSAT-1F, EMARSAT-1G, EUTELSAT 3-36E, EUTELSAT 3-48E, EUTELSAT 3-70.5E, INTELSAT7 66E, INTERSPUTNIK-27E-Q, JCSAT-3A, JCSAT-3B, KOREASAT-1, MEASAT-1, MEASAT-91.5E, MEASAT-95E, N-SAT-110, N-SAT-110E, N-SAT-128, NSS-8, NSS-9, PAKSAT-1, SJC-1, THAICOM-A2B, THAICOM-C1, THAICOM-G1K, TONGASAT C/KU-1
AUSA_100	1, 5, 9	C	BLR/IK	INTERSPUTNIK-153.5EQ
AZE06400	25, 27, 29, 31, 33, 35, 37, 39	C	BLR/IK	INTERSPUTNIK-27E-Q
BEL01800	26, 28, 30, 32, 34, 36, 38, 40	C	PAK	PAKSAT-1
BFA10700	22, 24	C	E	HISPASAT-1, HISPASAT-2C3 KU
BHR25500	25	c	BLR/IK, F/EUT, PAK	EUTELSAT 3-36E, INTERSPUTNIK-27E-Q, PAKSAT-1
BHR25500	29, 33, 37	c	BLR/IK, F/EUT	EUTELSAT 3-36E, INTERSPUTNIK-27E-Q
CAF25800	22, 26	c	F/EUT	EUTELSAT 3-12.5W
CME30000	22, 24, 26	c	F/EUT	EUTELSAT 3-12.5W
COG23500	1, 3, 5, 7, 9, 11, 13, 15, 17, 19	c	F/EUT	EUTELSAT 3-12.5W
CPV30100	2, 4, 6, 8, 10, 12	c	USA	INTELSAT7 325.5E
CVA08300	1, 3, 5, 7, 9, 11	c	USA	INTELSAT7 359E, INTELSAT8 359E, INTELSAT10 359E
CYP08600	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT7 359E, INTELSAT8 359E
CZE14401	1, 9, 17, 25	c	F/EUT	EUTELSAT 3-12.5W
CZE14402	14	c	F/EUT	EUTELSAT 3-12.5W
CZE14403	2, 22, 24	c	F/EUT	EUTELSAT 3-12.5W
FSM00000	1, 3, 5, 7, 9, 11, 13	c	J, USA	INTELSAT7 157E, SUPERBIRD-A2
FSM00000	15, 17, 19, 21, 23	c	J	SUPERBIRD-A2
GAB26000	1, 5, 9, 13, 17	c	F/EUT	EUTELSAT 3-12.5W
GMB30200	1, 5, 9, 13, 17	c	USA	USASAT-26A
GNB30400	22, 24	c	E	HISPASAT-1, HISPASAT-2C3 KU
GRC10500	2, 4, 6, 8, 10, 12	c	USA	INTELSAT7 359E, INTELSAT8 359E, INTELSAT10 359E

Име снопа	Канали	Реф. Табела 1	Дотакнуте администрације *	Дотакнуте мреже /снопови/земаљске станице *
GUII9200	2, 4, 6, 8, 10, 12, 14, 16, 18, 20	c	USA	USASAT-26A
HNG10601	3, 11, 19	c	F/EUT	EUTELSAT 3-12.5W
HNG10602	6	c	F/EUT	EUTELSAT 3-12.5W
HNG10603	2, 22, 24	c	F/EUT	EUTELSAT 3-12.5W
HRV14801	5, 13, 21	c	F/EUT	EUTELSAT 3-12.5W
HRV14802	10	c	F/EUT	EUTELSAT 3-12.5W
HRV14803	2, 22, 24	c	F/EUT	EUTELSAT 3-12.5W
I 08200	22	c	F/EUT	EUTELSAT 3-7E
I 08200	26	c	F/EUT	EUTELSAT 3-7E
IRL21100	1, 3, 5, 7, 9, 11, 13, 15, 17, 19	c	USA	USASAT-26A
ISL04900	27	a	GUY	GUY00302
ISL04900	29, 39	a	JMC	JMC00005
ISL04900	31, 33, 35, 37	a	GUY, JMC	GUY00302, JMC00005
ISL04900	23	c	B, F, F/EUT, HOL, USA	B-SAT I, EUTELSAT 3-12.5W, EUTELSAT 3-7E, F-SAT-KU-E-5W, INTELSAT8 304.5E, INTELSAT8 310E, NSS-18, USASAT-14L, USASAT-26G
ISL05000	22, 24, 26	c	HOL	NSS-18
KIR__100	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT7 174E, INTELSAT7 176E, INTELSAT7 177E, INTELSAT7 178E, INTELSAT7 180E, INTELSAT8 174E, INTELSAT8 176E, INTELSAT8 178E, USASAT-14K
KIR__100	17, 21	c	USA	USASAT-14K
LBR24400	1, 5, 9, 13	c	USA	INTELSAT7 325.5E
MAU__100	26, 28, 30, 32, 34, 36, 38, 40	c	BLR/IK, F/EUT	EUTELSAT 3-36E, INTERSPUTNIK-27E-Q
MDA06300	28, 30, 32, 34, 36, 38, 40	c	THA	THAICOM-C1
MLI__100	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT IBS 342E, INTELSAT7 342E, INTELSAT7 340E, INTELSAT8 342E, INTELSAT8 340E
MNG24800	27	c	BLR/IK, F/EUT, IND	EUTELSAT 3-70.5E, INSAT-EK74, INTERSPUTNIK-75E-Q
MNG24800	31, 35	c	BLR/IK, CHN, F/EUT, IND, THA	APSTAR-4, EUTELSAT 3-70.5E, INSAT-EK74, INTERSPUTNIK-75E-Q, THAICOM-A2B, THAICOM-G1K
MOZ30700	2, 6, 10	c	USA	INTELSAT7 359E, INTELSAT8 359E, INTELSAT10 359E
NGR11500	2, 4, 6, 8, 10, 12, 14, 16, 18, 20	c	USA	USASAT-26A
NOR12000	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT7 359E, INTELSAT8 359E, INTELSAT10 359E
NZL__100	2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	c	J	SUPERBIRD-A2

Име снопа	Канали	Реф. Табела 1	Дотакнуте администрације *	Дотакнуте мреже /снопови/земаљске станице *
POL13200	28, 30, 32, 34, 36, 38, 40	c	THA	THAICOM-C1
POR__100	1, 3, 5, 7, 9, 11, 13, 15, 17, 19	c	USA	USASAT-26A
RUS-4	26	c	J	N-SAT-110, N-SAT-110E
RUS-4	28	c	G, J, KOR	AM-SAT A4, KOREASAT-1, KOREASAT-2, N-SAT-110, N-SAT-110E
RUS-4	29	c	G, J, KOR	AM-SAT A4, KOREASAT-1, KOREASAT-2, N-SAT-110, N-SAT-110E
RUS-4	31, 35, 39	c	G	AM-SAT A4
RUS-4	33, 37	c	G, J, KOR	AM-SAT A4, KOREASAT-1, KOREASAT-2, N-SAT-110, N-SAT-110E
SEN22200	23	c	USA	USASAT-26A
S 13800	21, 23, 25	c	F/EUT	EUTELSAT 3-7E
SEY00000	26, 28, 30, 32, 34, 36, 38, 40	c	F/EUT, PAK, UAE	EMARSAT-1F, EUTELSAT 3-36E, EUTELSAT 3-48E, PAKSAT-2
SOM31200	26	c	F/EUT, PAK	EUTELSAT 3-36E, PAKSAT-1, PAKSAT-2
SOM31200	28, 30, 32, 34, 36, 38, 40	c	F/EUT, PAK	EUTELSAT 3-36E, PAKSAT-1, PAKSAT-2
SVK14401	7, 15, 23	c	F/EUT	EUTELSAT 3-12.5W
SVK14402	18, 26	c	F/EUT	EUTELSAT 3-12.5W
SVK14403	2, 22, 24	c	F/EUT	EUTELSAT 3-12.5W
TGO22600	1, 3, 5, 7, 9, 11	c	USA	INTELSAT7 330.5E, INTELSAT8 330.5E
TGO22600	13	c	E, USA	HISPASAT-1, INTELSAT7 330.5E, HISPASAT-2C3 KU, INTELSAT8 330.5E
TGO22600	15, 17, 19	c	E	HISPASAT-1, HISPASAT-2C3 KU
TJK06900	26	c	F/EUT, PAK, UAE	EMARSAT-1F, EUTELSAT 3-36E, EUTELSAT 3-48E, PAKSAT-1, PAKSAT-2
TJK06900	28, 30, 32, 34, 36, 38, 40	c	F/EUT, PAK, UAE	EMARSAT-1F, EUTELSAT 3-36E, EUTELSAT 3-48E, PAKSAT-1, PAKSAT-2
TKM06800	26	c	F/EUT, HOL, IND, UAE	EMARSAT-1F, EMARSAT-1G, EUTELSAT 3-48E, INSAT-EK48, NSS-8, PAKSAT-1, PAKSAT-2
TKM06800	28	c	F/EUT, HOL, IND, J, PAK, THA, UAE	EMARSAT-1F, EMARSAT-1G, EUTELSAT 3-48E, INSAT-EK48, JCSAT-3B, NSS-8, PAKSAT-1, PAKSAT-2, THAICOM-C1
TKM06800	30, 32, 34, 36, 38, 40	c	F/EUT, HOL, IND, J, KOR, THA, UAE	EMARSAT-1F, EMARSAT-1G, EUTELSAT 3-48E, INSAT-EK48, JCSAT-3B, KOREASAT-1, NSS-8, PAKSAT-1, PAKSAT-2, SJC-1, THAICOM-C1
TON21500	2, 6, 10, 14, 18, 20, 22, 24	c	USA	USASAT-14K
TUV00000	4, 8, 12	c	USA	INTELSAT7 176E, INTELSAT8 176E
UAE27400	27	c	F/EUT, HOL	EUTELSAT 3-48E, NSS-8
UAE27400	31, 35, 39	c	F/EUT, HOL, THA	EUTELSAT 3-48E, NSS-8, THAICOM-C1
ZWE13500	1, 3, 5, 7, 9, 11, 13	c	USA	INTELSAT7 359E, INTELSAT8 359E

\* Администрације и одговарајуће мреже/снопови/земаљске станице чије доделе могу примити интерференцију од снопа приказаног у левој колони.

SUP COM5/328/2 (B12/346/3) (R6/410/37)

ТАБЕЛА 3

ADD COM5/328/6 (B12/346/4) (R6/410/38)

ТАБЕЛА 3 (WRC-07)

Дотакнуте администрације и одговарајуће мреже/снопови идентификовани на основу Примедби 6 и 7 у § 11.2 Члана 11

Име снопа	Канали	Приме дбе	Дотакнуте администрације *	Дотакнуте мреже /снопови*
AGL29500	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
AND34100	2, 6, 10, 12	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A INTELSAT8 328.5E
AND34100	14, 16, 18, 20	7	USA	USASAT-26A
ARM06400	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3B
ARS34000	40	7	J	JCSAT-3A, JCSAT-3B
ARS__100	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
AUSB_100	4, 8, 12	7	USA	INTELSAT7 174E
AZE06400	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3A, JCSAT-3B
BEN23300	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
BFA10700	22, 24	7	E	HISPASAT-1, HISPASAT-2C3 KU
BHR25500	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3A, JCSAT-3B
COD__100	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
COG23500	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 342E
COM20700	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3B
CPV30100	2, 4, 6, 8, 10, 12	7	USA	INTELSAT8 328.5E
CTI23700	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
CVA08300	1, 3, 5, 7, 9, 11	7	USA	INTELSAT7 359E
CYP08600	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E
CZE14401	1, 9	7	USA	INTELSAT7 342E
CZE14403	2	7	USA	INTELSAT7 342E
D 08700	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
DNK090XR	29	6	JMC	JMC00005
DNK090XR	33	6	GUY, JMC	GUY00302, JMC00005
DNK091XR	31, 35	6	GUY, JMC	GUY00302, JMC00005
DNK__100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
EGY02600	2, 6, 8, 10, 12	7	USA	INTELSAT7 359E

Име снопа	Канали	Приме дбе	Дотакнуте администрације *	Дотакнуте мреже /снопови*
ERI09200	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3B
FJI19300	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT7 183E, INTELSAT IBS 183E
F___100	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3A, JCSAT-3B
G 02700	2, 4, 6, 8, 10, 12	7	USA	INTELSAT8 328.5E
GAB26000	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 342E
GMB30200	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
GMB30200	15, 17, 19	7	USA	USASAT-26A
GNB30400	22, 24	7	E	HISPASAT-1, HISPASAT-2C3 KU
GRC10500	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 359E
GUI19200	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
GUI19200	14, 16, 18, 20	7	USA	USASAT-26A
HNG10601	3, 11	7	USA	INTELSAT7 342E
HNG10602	6	7	USA	INTELSAT7 342E
HNG10603	2	7	USA	INTELSAT7 342E
HRV14801	5, 13	7	USA	INTELSAT7 342E
HRV14802	10	7	USA	INTELSAT7 342E
HRV14803	2	7	USA	INTELSAT7 342E
IRL21100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A
IRL21100	15, 17, 19	7	USA	USASAT-26A
ISL04900	27	6	GUY	GUY00302
ISL04900	29, 39	6	JMC	JMC00005
ISL04900	31, 33, 35, 37	6	GUY, JMC	GUY00302, JMC00005
KIR__100	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT8 174E
KWT11300	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
LBR24400	1, 5, 7, 9, 11, 13	7	USA	INTELSAT8 328.5E
LBY__100	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
LSO30500	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E
MAU__100	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
MLI__100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
MNG24800	27	7	J	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C
MNG24800	29, 31, 33, 35, 37, 39	7	CHN, J, THA	JCSAT-3A, JCSAT-3B, APSTAR-4, JCSAT-1R, THAICOM-A2B, SUPERBIRD-C
MOZ30700	2, 6, 10, 12	7	USA	INTELSAT7 359E
MRC20900	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
MTN__100	22, 24, 26	7	USA	USASAT-26A
MWB30800	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 359E

Име снопа	Канали	Приме дбе	Дотакнуте администрације *	Дотакнуте мреже /снопови*
NGR11500	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
NGR11500	14, 16, 18, 20	7	USA	USASAT-26A
NOR12000	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E
OMA12300	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
POR__100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
POR__100	15, 17, 19	7	USA	USASAT-26A
RUS-4	25	7	J	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C
RUS-4	26, 27	7	J	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C
RUS-4	28, 29	7	J, KOR	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C, KOREASAT-1, KOREASAT-2
RUS-4	31, 33, 35, 37, 39	7	J, KOR	JCSAT-3A, JCSAT-3B, JCSAT-1R, SUPERBIRD-C, KOREASAT-1, KOREASAT-2
SEN22200	23, 25	7	USA	USASAT-26A
SEY00000	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
SMO05700	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT7 183E, INTELSAT IBS 183E
SMR31100	1, 3, 5, 7, 9, 11, 13	7	HOL, USA	INTELSAT7 319.5E, INTELSAT8 319.5E, USASAT-26A, INTELSAT8 328.5E
SMR31100	15, 17, 19	7	USA	USASAT-26A
SOM31200	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
SRL25900	27	6	GUY	GUY00302
SRL25900	29, 39	6	JMC	JMC00005
SRL25900	31, 33, 35, 37	6	GUY, JMC	GUY00302, JMC00005
STP24100	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 359E
SUI14000	2, 4, 6, 8, 10, 12	7	HOL, USA	INTELSAT7 338.5E, INTELSAT7 342E, INTELSAT8 338.5E
SVK14401	7	7	USA	INTELSAT7 342E
SVK14403	2	7	USA	INTELSAT7 342E
SWZ31300	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E
TGO22600	1, 3, 5, 7, 9, 11	7	USA	INTELSAT8 328.5E
TGO22600	13	7	E, USA	INTELSAT8 328.5E, HISPASAT-2C3 KU
TGO22600	15, 17, 19	7	E	HISPASAT-1, HISPASAT-2C3 KU
TJK06900	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B, JCSAT-1R
TKM06800	26, 28, 30, 32, 34, 36, 38, 40	7	J	JCSAT-3A, JCSAT-3B
TON21500	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT8 174E
TUV00000	2, 4, 6, 8, 10, 12	7	USA	INTELSAT7 174E, INTELSAT7 177E, INTELSAT7 180E, INTELSAT8 174E
UAE27400	25, 27, 29, 31, 33, 35, 37, 39	7	J	JCSAT-3A, JCSAT-3B
ZWE13500	1, 3, 5, 7, 9, 11, 13	7	USA	INTELSAT7 359E

\* Администрације и одговарајуће мреже/снопови чије доделе могу узроковати интерференцију снопу приказаном у левој колони.

SUP COM5/328/3 (B12/346/5) (R6/410/39)

ТАБЕЛА 4

ADD COM5/328/7 (B12/346/6) (R6/410/40)

ТАБЕЛА 4 (WRC-07)

Дотакнуте администрације и одговарајуће земаљске станице идентификовани на основу Примедбе 8 у § 11.2 Члана 11

Име снопа	Канали	Дотакнуте администрације *	Дотакнуте земаљске станице *
EGY02600	2	ISR	HERZILIYA
F 09300	24, 26	SUI	GENEVE STUDIO C VOGT
I 08200	38, 40	AUT	EHRWALD
JOR22400	2	ISR	HERZILIYA, JERUSALEM
RUS-4	25, 26, 27, 28, 29, 31, 33, 35, 37, 39	J <sup>1</sup>	

\* Администрације и одговарајуће земаљске станице чије доделе могу узроковати интерференцију снопу приказаном у левој колони.

<sup>1</sup> Идентификација ових администрација базирана је на типичној додели земаљске станице како је уписано у Главном регистру.

SUP COM5/328/4 (B12/346/7) (R6/410/41)

ТАБЕЛА 6А

ADD COM5/328/8 (B12/346/8) (R6/410/42)

ТАБЕЛА 6А (WRC-07)

Основне карактеристике Плана за Регионе 1 и 3 (сортирано по администрацијама)

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16
			Дуж.	Шир.	Карактеристике антене свемирске станице					Код антене свемирске станице	Обликовани споп	Појачање антене свемирске станице	Антена земаљске станице		Поларизација						
Админ. симбол	Идентификација снопа	Орбитална позиција	Гл. вна оса	Мала оса	Усмерење	Код антене свемирске станице	Обликовани споп	Код антене свемирске станице	Појачање				Тип	Угао	е.и.г.р.	Означавање емисије	Идентитет свемирске станице	Групи код	Статус	Примедбе	
AFG	AFG_100	50.00	65.88	33.86				CB_TSS_AFGA		42.71		MODRES	35.50	CL		58.4	27M0G7W			P	
AFS	AFS02100	4.80	24.50	-28.00	3.13	1.68	27.00	R13TSS		37.24		MODRES	35.50	CL		59.1	27M0G7W			P	
AGL	AGL29500	-24.80	16.06	-12.45	2.42	1.88	77.88	R13TSS		37.87		MODRES	35.50	CL		59.1	27M0G7W			P	7
ALB	ALB29600	62.00	20.04	41.23	0.60	0.60	61.32	R13TSS		48.88		MODRES	35.50	CL		58.9	27M0G7W			P	
ALG	ALG_100	-24.80	1.86	27.60				CB_TSS_ALGA		39.59		MODRES	35.50	CL		54.5	27M0G7W			P	
AND	AND34100	-37.00	1.60	42.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CL		56.5	27M0G7W			P	7
ARM	ARM06400	22.80	44.99	39.95	0.73	0.60	148.17	R13TSS		48.02		MODRES	35.50	CR		58.9	27M0G7W			P	7
ARS	ARS_100	17.00	44.72	23.76				CB_TSS_ARSA		37.81		MODRES	35.50	CL		57.7	27M0G7W		54	P	7
ARS	ARS34000	17.00	52.30	24.80	2.68	0.70	143.00	R13TSS		41.71		MODRES	35.50	CL		59.2	27M0G7W		54	P	5, 7
AUS	AUS00400	152.00	123.00	-24.20	3.06	2.17	102.00	R13TSS		36.22		MODRES	35.50	CR		58.2	27M0G7W		30	P	
AUS	AUS0040A	152.00	96.83	-12.19	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		30	P	
AUS	AUS0040B	152.00	105.69	-10.45	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		30	P	

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16					
			Админ. симбол	Идентификација снопа	Орбита лна позиција	Видокруг				Карактеристике антене свемирске станице			Код антене свемирске станице	Обликовани споп	Појачање антене свемирске станице							Антена земаљске станице		Поларизација		
						Дуж.	Шир.			Главна оса	Мала оса	Усмерење			Код							Појачање	Тип	Угао		
AUS	AUS0040C	152.00	110.52	-66.28	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		30	P						
AUS	AUS00500	152.00	133.90	-18.40	2.82	1.74	105.00	R13TSS		37.53		MODRES	35.50	CL		59.4	27M0G7W			P						
AUS	AUS00600	152.00	136.60	-30.90	2.41	1.52	161.00	R13TSS		38.80		MODRES	35.50	CL		58.4	27M0G7W			P						
AUS	AUS00700	164.00	145.20	-38.10	2.12	1.02	147.00	R13TSS		41.09		MODRES	35.50	CR		58.5	27M0G7W		31	P						
AUS	AUS0070A	164.00	158.94	-54.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		31	P						
AUS	AUS00800	164.00	145.90	-21.70	3.62	1.63	136.00	R13TSS		36.73		MODRES	35.50	CL		58.8	27M0G7W			P						
AUS	AUS00900	164.00	147.50	-32.10	2.31	1.43	187.00	R13TSS		39.25		MODRES	35.50	CR		59.3	27M0G7W		32	P						
AUS	AUS0090A	164.00	159.06	-31.52	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		32	P						
AUS	AUS0090B	164.00	167.93	-29.02	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W		32	P						
AUS	AUSA_100	152.00	132.38	-38.37				CB_TSS_AUSA		48.88		MODRES	35.50	CR		58.9	27M0G7W			P	5					
AUS	AUSB_100	164.00	132.38	-38.37				CB_TSS_AUSB		48.88		MODRES	35.50	CL		58.9	27M0G7W			P	7					
AUT	AUT01600	-18.80	10.31	49.47	1.82	0.92	151.78	MOD13FRTSS		42.19		MODRES	35.50	CR		59.1	27M0G7W			P						
AZE	AZE06400	23.20	47.47	40.14	0.93	0.60	158.14	R13TSS		46.98		MODRES	35.50	CL		58.9	27M0G7W			P	5, 7					
BDI	BDI27000	11.00	29.90	-3.10	0.71	0.60	80.00	R13TSS		48.15		MODRES	35.50	CL		58.4	27M0G7W			P						
BEL	BEL01800	38.20	5.12	51.96	1.00	1.00	24.53	MOD13FRTSS		44.45		MODRES	35.50	CL		55.5	27M0G7W			P	5					
BEN	BEN23300	-19.20	2.20	9.50	1.44	0.68	97.00	R13TSS		44.54		MODRES	35.50	CL		58.3	27M0G7W			P	7					
BFA	BFA10700	-30.00	-1.50	12.20	1.45	1.14	29.00	R13TSS		42.26		MODRES	35.50	CL		57.0	27M0G7W			P	5, 7					
BGD	BGD22000	74.00	90.30	23.60	1.46	0.84	135.00	R13TSS		43.56		MODRES	35.50	CR		58.7	27M0G7W			P						
BHR	BHR25500	34.00	50.50	26.10	0.60	0.60	0.00	MOD13FRTSS		48.88		MODRES	35.50	CR		54.5	27M0G7W			P	5, 7					
BIH	BIH14800	56.00	18.22	43.97	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		58.9	27M0G7W			P						
BLR	BLR06200	37.80	27.91	53.06	1.21	0.60	11.47	R13TSS		45.83		MODRES	35.50	CL		58.9	27M0G7W			P						
BOT	BOT29700	-0.80	23.30	-22.20	2.13	1.50	36.00	R13TSS		39.40		MODRES	35.50	CL		58.7	27M0G7W			P						
BRM	BRM29800	104.00	96.97	18.67	3.33	1.66	91.58	R13TSS		37.04		MODRES	35.50	CL		58.9	27M0G7W			P						
BRU	BRU33000	74.00	114.70	4.40	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		57.5	27M0G7W			P						
BTN	BTN03100	86.00	90.44	27.05	0.72	0.60	175.47	R13TSS		48.11		MODRES	35.50	CR		58.9	27M0G7W			P						
BUL	BUL02000	-1.20	25.00	43.00	1.04	0.60	165.00	R13TSS		46.50		MODRES	35.50	CL		58.6	27M0G7W			P						
CAF	CAF25800	-13.20	21.00	6.30	2.25	1.68	31.00	R13TSS		38.67		MODRES	35.50	CL		59.3	27M0G7W			P	5					
CBG	CBG29900	86.00	104.82	12.34	1.04	0.86	9.45	R13TSS		44.91		MODRES	35.50	CR		59.3	27M0G7W			P						
CHN	CHN15500	62.00	88.18	31.20	3.03	1.24	163.23	R13TSS		38.69		MODRES	35.50	CL		57.9	27M0G7W			P						
CHN	CHN15800	134.00	113.29	39.70	2.80	1.55	35.44	R13TSS		38.07		MODRES	35.50	CR		57.0	27M0G7W			P						
CHN	CHN19000	122.00	114.17	23.32	0.91	0.60	2.88	MOD13FRTSS		47.08		MODRES	35.50	CR		58.9	27M0G7W			P						
CHN	CHN20000	122.00	113.55	22.20	0.60	0.60	0.00	MOD13FRTSS		48.88		MODRES	35.50	CL		57.0	27M0G7W			P						
CHN	CHNA_100	62.00	90.56	39.22				CB_TSS_CHNA		40.01		MODRES	35.50	CR		58.5	27M0G7W			P						
CHN	CHNC_100	134.00	105.77	27.56				CB_TSS_CHNC		39.51		MODRES	35.50	CL		57.1	27M0G7W			P						
CHN	CHNE_100	92.20	114.96	20.16				CB_TSS_CHNE		44.74		MODRES	35.50	CL		59.4	27M0G7W			P						
CHN	CHNF_100	92.20	123.54	45.78				CB_TSS_CHNF		43.71		MODRES	35.50	CR		60.4	27M0G7W			P						
CLN	CLN21900	50.00	80.60	7.70	1.18	0.60	106.00	R13TSS		45.95		MODRES	35.50	CL		56.7	27M0G7W			P						
CME	CME30000	-13.00	12.70	6.20	2.54	1.68	87.00	R13TSS		38.15		MODRES	35.50	CR		58.5	27M0G7W			P	5					

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16
			Админ. симбол	Идентификација снопа	Орбита лна позиција	Видокруг				Карактеристике антене свемирске станице			Код антене свемирске станице	Обликовани сноп	Појачање антене свемирске станице						
Дуж.	Шир.	Главна оса				Мала оса	Усмерење	Кополарна	Кросполарна	Код	Појачање	Тип			Угао						
COD	COD_100	-19.20	21.85	-3.40				CB_TSS_CODA		38.36		MODRES	35.50	CR		59.7	27M0G7W			P	7
COG	COG23500	-13.20	14.60	-0.70	2.02	1.18	59.00	R13TSS		40.67		MODRES	35.50	CL		58.8	27M0G7W			P	5, 7
COM	COM20700	29.00	44.10	-12.10	0.76	0.60	149.00	R13TSS		47.86		MODRES	35.50	CR		58.1	27M0G7W			P	7
CPV	CPV30100	-33.50	-24.12	16.09	0.77	0.63	94.46	R13TSS		47.56		MODRES	35.50	CL		57.2	27M0G7W			P	5, 7
CTI	CTI23700	-24.80	-5.78	7.19	1.50	1.26	111.74	R13TSS		41.67		MODRES	35.50	CL		58.8	27M0G7W			P	7
CVA	CVA08300	-1.20	13.02	42.09	0.75	0.66	20.53	R13TSS		47.50		MODRES	35.50	CR		60.2	27M0G7W			P	5, 7
CVA	CVA08500	-1.20	12.59	41.09	1.72	1.31	144.13	MOD13FRTSS		40.92		MODRES	35.50	CR		56.5	27M0G7W			P	
CYP	CYP08600	-1.20	33.45	35.12	0.60	0.60	0.00	MOD13FRTSS		48.88		MODRES	35.50	CR		56.1	27M0G7W			P	5, 7
CZE	CZE14401	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CL		58.8	27M0G7W			P	5, 7
CZE	CZE14402	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		58.8	27M0G7W			P	5
CZE	CZE14403	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		58.8	27M0G7W		37	P	5, 7
D	D 08700	-18.80	10.31	49.47	1.82	0.92	151.78	MOD13FRTSS		42.19		MODRES	35.50	CR		59.1	27M0G7W			P	7
DJI	DJI09900	16.80	42.68	11.68	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		57.5	27M0G7W			P	
DNK	DNK_100	-25.20	2.92	59.62				CB_TSS_DNKA		48.88		MODRES	35.50	CL		58.3	27M0G7W			P	7
DNK	DNK090XR	-33.50	13.27	60.86	1.99	0.63	151.38	MOD13FRTSS		43.48		MODRES	35.50	CR		54.5	27M0G7W			P	6
DNK	DNK091XR	-33.50	-15.16	63.67	1.56	0.60	170.63	MOD13FRTSS		44.73		MODRES	35.50	CR		58.6	27M0G7W			P	6
E	E____100	-30.00	-9.40	34.15				CB_TSS_E__A		44.79		MODRES	35.50	CL		58.9	27M0G7W			P	
E	HISP33D1	-30.00	-4.00	39.00					COP	39.80	5.50	MODRES	35.50	CL		57.6	33M0G7W--	HISPASAT-1	01	PE	
E	HISP33D2	-30.00	-4.00	39.00					COP	39.80	5.50	MODRES	32.50	CL		57.6	33M0G7W--	HISPASAT-1	01	PE	
E	HISPA27D	-30.00	-4.00	39.00					COP	39.80	5.50	MODRES	38.43	CL		57.6	27M0G7W--	HISPASAT-1	01	PE	
E	HISPASA4	-30.00	-4.00	39.00					COP	39.80	5.50	MODRES	38.43	CL		57.6	27M0F8W	HISPASAT-1	01	PE	
EGY	EGY02600	-7.00	29.70	26.80	2.33	1.72	136.00	R13TSS		38.42		MODRES	35.50	CL		58.1	27M0G7W		12	P	7, 8
ERI	ERI09200	22.80	39.41	14.98	1.67	0.95	145.48	R13TSS		42.44		MODRES	35.50	CR		58.9	27M0G7W			P	7
EST	EST06100	44.50	25.06	58.60	0.77	0.60	12.27	R13TSS		47.81		MODRES	35.50	CR		58.7	27M0G7W			P	
ETH	ETH09200	36.00	40.29	8.95	2.87	2.16	174.06	R13TSS		36.52		MODRES	35.50	CL		58.7	27M0G7W			P	
F	F 09300	-7.00	3.52	45.41	2.22	1.15	159.34	R13TSS		40.39		MODRES	35.50	CL		58.8	27M0G7W		21	P	8
F	F____100	-7.00	50.00	-15.65				CB_TSS_F__A		48.88		MODRES	35.50	CR		58.9	27M0G7W			P	7
F	NCL10000	140.00	166.00	-21.00	1.14	0.72	146.00	R13TSS		45.30		MODRES	35.50	CR		58.7	27M0G7W			P	
F	OCE10100	-160.00	-145.00	-16.30	4.34	3.54	4.00	R13TSS		32.58		MODRES	35.50	CL		58.5	27M0G7W			P	
F	WAL10200	140.00	-176.80	-14.00	0.74	0.60	29.00	R13TSS		47.97		MODRES	35.50	CR		59.4	27M0G7W			P	
FIN	FIN10300	22.80	22.50	64.50	1.38	0.76	171.00	MOD13FRTSS		44.24		MODRES	35.50	CL		54.5	27M0G7W			P	
FIN	FIN10400	22.80	15.87	61.15	2.24	0.91	16.70	MOD13FRTSS		41.37		MODRES	35.50	CL		54.5	27M0G7W		52	P	
FJI	FJI19300	-178.00	179.62	-17.87	1.16	0.92	155.22	R13TSS		44.16		MODRES	35.50	CR		58.7	27M0G7W			P	7
FSM	FSM00000	158.00	151.90	5.48	5.15	1.57	167.00	R13TSS		35.38		MODRES	35.50	CR		58.9	27M0G7W			P	5
G	G 02700	-33.50	-3.50	53.80	1.84	0.72	142.00	R13TSS		43.23		MODRES	35.50	CR		58.0	27M0G7W			P	7
GAB	GAB26000	-13.20	11.80	-0.60	1.43	1.12	64.00	R13TSS		42.40		MODRES	35.50	CR		58.3	27M0G7W			P	5, 7
GEO	GEO06400	23.20	43.35	42.27	1.11	0.60	161.21	R13TSS		46.23		MODRES	35.50	CR		58.9	27M0G7W			P	
GHA	GHA10800	-25.00	-1.20	7.90	1.48	1.06	102.00	R13TSS		42.49		MODRES	35.50	CR		58.6	27M0G7W			P	

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16
			Админ. симбол	Идентификација снопа	Орбита лна позиција	Видокруг				Карактеристике антене свемирске станице			Код антене свемирске станице	Обликовани споп	Појачање антене свемирске станице						
Дуж.	Шир.	Главна оса				Мала оса	Усмерење	Кополарна	Кросполарна	Код	Појачање	Тип			Угао						
GMB	GMB30200	-37.20	-15.10	13.40	0.79	0.60	4.00	R13TSS		47.69		MODRES	35.50	CL		58.3	27M0G7W			P	5, 7
GNB	GNB30400	-30.00	-15.00	12.00	0.90	0.60	172.00	R13TSS		47.12		MODRES	35.50	CL		58.1	27M0G7W			P	5, 7
GNE	GNE30300	-18.80	10.30	1.50	0.68	0.60	10.00	R13TSS		48.34		MODRES	35.50	CL		58.8	27M0G7W			P	
GRC	GRC10500	-1.20	24.51	38.08	1.70	0.95	152.97	MOD13FRTSS		42.40		MODRES	35.50	CL		56.3	27M0G7W			P	5, 7
GUI	GUI19200	-37.00	-11.00	10.20	1.58	1.04	147.00	R13TSS		42.29		MODRES	35.50	CR		58.4	27M0G7W			P	5, 7
HNG	HNG10601	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CL		59.3	27M0G7W			P	5, 7
HNG	HNG10602	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		59.3	27M0G7W			P	5, 7
HNG	HNG10603	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		59.3	27M0G7W	37		P	5, 7
HOL	HOL21300	38.20	5.12	51.96	1.00	1.00	24.53	MOD13FRTSS		44.45		MODRES	35.50	CL		58.5	27M0G7W			P	
HRV	HRV14801	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CL		58.8	27M0G7W			P	5, 7
HRV	HRV14802	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		58.8	27M0G7W			P	5, 7
HRV	HRV14803	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		58.8	27M0G7W	37		P	5, 7
I	I 08200	9.00	12.67	40.74	1.99	1.35	144.20	R13TSS		40.14		MODRES	35.50	CR		54.5	27M0G7W			P	5, 8
IND	IND03700	68.00	93.00	25.50	1.46	1.13	40.00	R13TSS		42.27		MODRES	35.50	CL		58.9	27M0G7W			P	
IND	IND04700	68.00	93.30	11.10	1.92	0.60	96.00	R13TSS		43.83		MODRES	35.50	CR		58.4	27M0G7W			P	
IND	INDA_100	55.80	76.16	14.72				CB_TSS_INDA		45.66		MODRES	35.50	CR		58.8	27M0G7W			P	
IND	INDB_100	55.80	83.43	24.22				CB_TSS_INDB		43.15		MODRES	35.50	CL		58.9	27M0G7W			P	
IND	INDD_100	68.00	74.37	29.16				CB_TSS_INDD		41.80		MODRES	35.50	CR		59.3	27M0G7W			P	
INS	INSA_100	80.20	108.82	-0.73				CB_TSS_INSA		38.88		MODRES	35.50	CR		59.2	27M0G7W			P	
INS	INSB_100	104.00	129.75	-3.50				CB_TSS_INSB		37.53		MODRES	35.50	CL		58.8	27M0G7W			P	
IRL	IRL21100	-37.20	-8.25	53.22	0.72	0.60	157.56	R13TSS		48.08		MODRES	35.50	CL		59.2	27M0G7W			P	5, 7
IRN	IRN10900	34.00	54.20	32.40	3.82	1.82	149.00	R13TSS		36.03		MODRES	35.50	CL		57.8	27M0G7W			P	
IRQ	IRQ25600	50.00	43.78	33.28	1.74	1.23	156.76	R13TSS		41.14		MODRES	35.50	CL		58.3	27M0G7W			P	
ISL	ISL04900	-33.50	-19.00	64.90	1.00	0.60	177.00	R13TSS		46.67		MODRES	35.50	CL		60.8	27M0G7W			P	5, 6
ISL	ISL05000	-33.50	-15.35	63.25	1.58	0.60	169.00	R13TSS		44.67		MODRES	35.50	CR		57.3	27M0G7W			P	5
ISR	ISR11000	-4.00	34.95	31.32	0.73	0.60	110.02	R13TSS		48.01		MODRES	35.50	CR		58.8	27M0G7W			P	
J	000BS-3N	109.85	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		MODRES	35.50	CR		*	27M0F8W	BS-3N	02	PE	
J	J 10985	109.85	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		MODRES	35.50	CR		*	34M5G7W		02	P	
J	J 11100	110.00	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		MODRES	35.50	CR		*	34M5G7W		02	P	
J	J 1110E	110.00	134.50	31.50	3.52	3.30	68.00	R13TSS		33.80		MODRES	35.50	CR		*	27M0F8W	BS-3M	02	PE	
JOR	JOR22400	11.00	37.55	34.02	1.47	0.91	73.16	MOD13FRTSS		43.19		MODRES	35.50	CL		55.5	27M0G7W			P	8
KAZ	KAZ06600	56.40	65.73	46.40	4.58	1.76	177.45	R13TSS		35.38		MODRES	35.50	CR		58.9	27M0G7W			P	
KEN	KEN24900	-0.80	37.95	0.92	2.13	1.34	98.35	R13TSS		39.90		MODRES	35.50	CL		58.7	27M0G7W			P	
KGZ	KGZ07000	50.00	73.91	41.32	1.47	0.64	5.05	R13TSS		44.75		MODRES	35.50	CR		59.0	27M0G7W			P	
KIR	KIR_100	176.00	-170.31	-0.56				CB_TSS_KIRA		42.58		MODRES	35.50	CL		58.9	27M0G7W			P	5, 7

\* Channel 1: 58.2 dBW, channels 3, 5, 7: 59.2 dBW, channels 9, 11, 13: 59.3 dBW, other channels: 59.4 dBW.

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16
			Админ. симбол	Идентификација снопа	Орбита лна позиција	Видокруг				Карактеристике антене свемирске станице			Код антене свемирске станице	Обликовани споп	Појачање антене свемирске станице						
Дуж.	Шир.	Главна оса				Мала оса	Усермење	Кополарна	Кросполарна	Код	Појачање	Тип			Угао						
KOR	KO11201D	116.00	127.50	36.00	1.24	1.02	168.00	R13TSS		43.40		MODRES	38.43	CL		**	27M0G7W	KOREASAT-1	03	PE	
KOR	KOR11200	116.00	127.50	36.00	1.24	1.02	168.00	R13TSS		43.80		MODRES	35.50	CL		***	27M0G7W		03	P	
KOR	KOR11201	116.00	127.50	36.00	1.24	1.02	168.00	R13TSS		43.40		MODRES	38.43	CL		**	27M0F8W	KOREASAT-1	03	PE	
KRE	KRE28600	140.00	128.45	40.32	1.63	0.68	18.89	R13TSS		44.00		MODRES	35.50	CL		59.0	27M0G7W			P	
KWT	KWT11300	11.00	47.48	29.12	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.2	27M0G7W			P	7
LAO	LAO28400	122.20	103.71	18.17	1.87	1.03	123.99	MOD13FRTSS		41.60		MODRES	35.50	CR		58.8	33M0G7W			P	
LBN	LBN27900	11.00	37.55	34.02	1.47	0.91	73.16	MOD13FRTSS		43.19		MODRES	35.50	CR		55.5	27M0G7W			P	
LBR	LBR24400	-33.50	-9.30	6.60	1.22	0.70	133.00	R13TSS		45.13		MODRES	35.50	CR		58.2	27M0G7W			P	5, 7
LBY	LBY_100	-24.80	17.62	26.55				CB_TSS_LBYA		40.30		MODRES	35.50	CL		58.0	27M0G7W			P	7
LIE	LIE25300	-18.80	10.31	49.47	1.82	0.92	151.78	MOD13FRTSS		42.19		MODRES	35.50	CL		59.1	27M0G7W			P	
LSO	LSO30500	4.80	27.80	-29.80	0.66	0.60	36.00	R13TSS		48.47		MODRES	35.50	CR		59.2	27M0G7W			P	7
LTU	LTU06100	23.20	24.51	56.09				CB_TSS_LTUA		48.21		MODRES	35.50	CL		56.9	27M0G7W			P	
LUX	LUX11400	28.20	5.21	49.20	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		57.9	27M0G7W		09	P	
LVA	LVA06100	23.20	24.51	56.09				CB_TSS_LVAA		48.21		MODRES	35.50	CR		56.9	27M0G7W			P	
MAU	MAU_100	29.00	58.61	-15.88				CB_TSS_MAUA		41.42		MODRES	35.50	CL		59.0	27M0G7W			P	5, 7
MCO	MCO11600	34.20	7.93	43.59	1.28	0.60	21.73	MOD13FRTSS		45.58		MODRES	35.50	CL		58.6	27M0G7W			P	
MDA	MDA06300	50.00	28.45	46.99	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W			P	5
MDG	MDG23600	29.00	46.60	-18.80	2.72	1.14	65.00	R13TSS		39.53		MODRES	35.50	CL		58.3	27M0G7W			P	
MHL	MHL00000	146.00	167.64	9.83	2.07	0.90	157.42	R13TSS		41.75		MODRES	35.50	CR		59.0	27M0G7W			P	
MKD	MKD14800	22.80	21.61	41.56	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W			P	
MLA	MLA_100	91.50	108.05	4.00				CB_TSS_MLAA		43.00		MODRES	35.50	CR		58.4	27M0G7W			P	
MLD	MLD30600	50.00	72.95	5.78	1.19	0.91	104.53	R13TSS		44.09		MODRES	35.50	CR		58.7	27M0G7W			P	
MLI	MLI_100	-19.20	-5.35	17.11				CB_TSS_MLIB		41.21		MODRES	35.50	CR		58.7	27M0G7W			P	5, 7
MLT	MLT14700	22.80	14.40	35.90	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		56.0	27M0G7W			P	
MNG	MNG24800	74.00	102.20	46.60	3.60	1.13	169.00	R13TSS		38.35		MODRES	35.50	CR		59.0	27M0G7W			P	5, 7
MOZ	MOZ30700	-1.00	34.00	-18.00	3.57	1.38	55.00	R13TSS		37.52		MODRES	35.50	CL		59.2	27M0G7W			P	5, 7
MRC	MRC20900	-25.20	-8.95	28.98	3.56	1.23	49.23	R13TSS		38.02		MODRES	35.50	CR		54.9	27M0G7W			P	7
MTN	MTN_100	-36.80	-10.52	19.66				CB_TSS_MTNA		41.91		MODRES	35.50	CR		55.5	27M0G7W			P	7
MWI	MWI30800	4.80	33.79	-13.25	1.56	0.70	92.69	R13TSS		44.10		MODRES	35.50	CR		59.2	27M0G7W			P	7
NGR	NGR11500	-37.20	7.63	17.01	2.20	1.80	102.40	R13TSS		38.48		MODRES	35.50	CL		59.5	27M0G7W			P	5, 7
NIG	NIG11900	-19.20	7.80	9.40	2.16	2.02	45.00	R13TSS		38.05		MODRES	35.50	CR		58.9	27M0G7W			P	
NMB	NMB02500	-18.80	17.50	-21.60	2.66	1.90	48.00	R13TSS		37.41		MODRES	35.50	CL		59.7	27M0G7W			P	
NOR	NOR12000	-0.80	13.42	62.76	1.43	0.60	19.61	MOD13FRTSS		45.10		MODRES	35.50	CL		56.2	27M0G7W		06	P	5, 7
NOR	NOR12100	-0.80	18.00	60.23	1.67	0.83	23.85	R13TSS		43.02		MODRES	35.50	CL		57.8	27M0G7W		06	P	

\*\* Channels 2, 4, 6: 63.6 dBW, channels 8, 10, 12: 63.7 dBW.

\*\*\* Channels 2, 4, 6: 59.0 dBW, other channels: 59.1 dBW.

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16					
			Админ. симбол	Идентификација снопа	Орбита лна позиција	Видокруг				Карактеристике антене свемирске станице			Код антене свемирске станице	Обликовани сноп	Појачање антене свемирске станице							Антена земаљске станице		Поларизација		
						Дуж.	Шир.			Главна оса	Мала оса	Усермење			Кополарна							Кросполарна	Код	Појачање	Тип	Угао
NPL	NPL12200	50.00	83.70	28.30	1.72	0.60	163.00	R13TSS		44.31		MODRES	35.50	CR		59.6	27M0G7W			P						
NRU	NRU30900	134.00	167.00	-0.50	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CL		57.5	27M0G7W			P						
NZL	NZL_100	158.00	-170.68	-19.72				CB_TSS_NZLA		48.88		MODRES	35.50	CL		59.6	27M0G7W			P	5					
OMA	OMA12300	17.20	55.60	21.00	1.88	1.02	100.00	R13TSS		41.62		MODRES	35.50	CR		58.3	27M0G7W			P	7					
PAK	PAK12700	38.20	69.60	29.50	2.30	2.16	14.00	R13TSS		37.49		MODRES	35.50	CR		58.9	27M0G7W			P						
PHL	PHL28500	98.00	121.30	11.10	3.46	1.76	99.00	R13TSS		36.60		MODRES	35.50	CL		58.7	27M0G7W			P						
PLW	PLW00000	140.00	132.98	5.51	1.30	0.60	55.41	R13TSS		45.53		MODRES	35.50	CR		58.8	27M0G7W			P						
PNG	PNG13100	134.00	148.07	-6.65	3.13	2.30	168.32	MOD13FRTSS		35.87		MODRES	35.50	CR		54.5	27M0G7W			P						
POL	POL13200	50.00	20.07	51.86	1.20	0.69	17.76	R13TSS		45.26		MODRES	35.50	CL		59.2	27M0G7W			P	5					
POR	POR_100	-37.00	-15.92	37.65				CB_TSS_PORA		47.17		MODRES	35.50	CR		58.4	27M0G7W			P	5, 7					
PSE	YYY00000	-13.20	34.99	31.86	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		58.9	27M0G7W			P	3					
OAT	OAT24700	20.00	51.38	25.26	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		54.5	27M0G7W			P						
ROU	ROU13600	50.00	25.12	45.75	1.17	0.73	9.52	R13TSS		45.15		MODRES	35.50	CR		58.9	27M0G7W			P						
RRW	RRW31000	11.00	30.00	-2.10	0.66	0.60	42.00	R13TSS		48.47		MODRES	35.50	CL		59.8	27M0G7W			P						
RUS	RSTREA11	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		53.0	27M0F8W	RST-1	05	PE						
RUS	RSTREA12	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		53.0	27M0F8W	RST-1	05	PE						
RUS	RSTRED11	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		53.0	27M0G7W	RST-1	05	PE						
RUS	RSTRED12	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		53.0	27M0G7W	RST-1	05	PE						
RUS	RSTRSD11	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		53.0	27M0G7W	RST-1	05	P						
RUS	RSTRSD12	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		53.0	27M0G7W	RST-1	05	P						
RUS	RSTRSD13	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	39.02	CL		53.0	27M0G7W	RST-1	05	P						
RUS	RSTRSD14	36.00	38.00	53.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	39.02	CR		53.0	27M0G7W	RST-1	05	P						
RUS	RSTRSD21	56.00	65.00	63.00	2.20	2.20	0.00	R123FR		37.70		MODRES	35.50	CL		55.0	27M0G7W	RST-2	14	P						
RUS	RSTRSD22	56.00	65.00	63.00	2.20	2.20	0.00	R123FR		37.70		MODRES	35.50	CR		55.0	27M0G7W	RST-2	14	P						
RUS	RSTRSD31	86.00	97.00	62.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		55.0	27M0G7W	RST-3	33	P						
RUS	RSTRSD32	86.00	97.00	62.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		55.0	27M0G7W	RST-3	33	P						
RUS	RSTRSD51	140.00	158.00	56.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CL		55.0	27M0G7W	RST-5	35	P						
RUS	RSTRSD52	140.00	158.00	56.00	2.20	2.20	0.00	R13TSS		37.70		MODRES	35.50	CR		55.0	27M0G7W	RST-5	35	P						
RUS	RUS00401	110.00	128.73	54.30	4.25	2.02	156.81	R13TSS		35.11		MODRES	35.50	CL		58.9	27M0G7W	RUS-4	34	P	5, 7, 8					
RUS	RUS00402	110.00	128.73	54.30	4.25	2.02	156.81	R13TSS		35.11		MODRES	35.50	CR		58.9	27M0G7W	RUS-4	34	P	5, 7, 8					
S	S 13800	5.00	16.20	61.00	1.04	0.98	14.00	R13TSS		44.36		MODRES	35.50	CL		55.6	27M0G7W		04	P	5					
S	S 13900	5.00	17.00	61.50	2.00	1.00	10.00	R13TSS		41.44		MODRES	35.50	CL		61.1	27M0G7W		04	P						
SCG*	SCG14800	-7.00	20.50	43.98	0.91	0.60	145.16	R13TSS		47.07		MODRES	35.50	CR		58.9	27M0G7W			P						
SDN	SDN_100	-7.00	30.24	13.53				CB_TSS_SDNA		40.26		MODRES	35.50	CR		59.4	27M0G7W			P						
SEN	SEN22200	-37.00	-14.40	13.80	1.46	1.04	139.00	R13TSS		42.63		MODRES	35.50	CL		58.6	27M0G7W			P	5, 7					

\* Note by the Secretariat: This designation replaces the former designation "YUG" which was used previously as a three-letter code for the Administration of Serbia and Montenegro.

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16
			Админ. симбол	Идентификација снопа	Орбита лна позиција	Видокруг				Карактеристике антене свемирске станице			Код антене свемирске станице	Обликовани снопови	Појачање антене свемирске станице						
Дуж.	Шир.	Главна оса				Мала оса	Усмерење	Кополарна	Кросполарна	Код	Појачање	Тип			Угао						
SEY	SEY00000	42.50	51.86	-7.23	2.43	1.04	27.51	R13TSS		40.44		MODRES	35.50	CR		58.9	27M0G7W			P	5, 7
SLM	SLM00000	128.00	159.27	-8.40	1.35	1.08	118.59	R13TSS		42.81		MODRES	35.50	CL		58.9	27M0G7W			P	
SMO	SMO05700	-178.00	-171.70	-13.87	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.6	27M0G7W			P	7
SMR	SMR31100	-36.80	12.60	43.70	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		57.4	27M0G7W			P	7
SNG	SNG15100	88.00	103.86	1.42	0.92	0.72	175.12	R13TSS		46.25		MODRES	35.50	CL		58.5	27M0G7W			P	
SOM	SOM31200	37.80	45.16	7.11	3.31	1.51	65.48	R13TSS		37.46		MODRES	35.50	CR		57.4	27M0G7W			P	5, 7
SRL	SRL25900	-33.50	-11.80	8.60	0.78	0.68	114.00	R13TSS		47.20		MODRES	35.50	CR		58.4	27M0G7W			P	6
STP	STP24100	-7.00	6.17	1.45	0.65	0.60	153.51	R13TSS		48.56		MODRES	35.50	CR		56.4	27M0G7W			P	7
SUI	SUI14000	-18.80	10.31	49.47	1.82	0.92	151.78	MOD13FRTSS		42.19		MODRES	35.50	CL		59.1	27M0G7W			P	7
SVK	SVK14401	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CL		59.3	27M0G7W			P	5, 7
SVK	SVK14402	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		59.3	27M0G7W			P	5
SVK	SVK14403	-12.80	16.77	46.78	1.71	0.89	149.15	MOD13FRTSS		42.64		MODRES	35.50	CR		59.3	27M0G7W		37	P	5, 7
SVN	SVN14800	33.80	15.01	46.18	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CR		58.9	27M0G7W			P	
SWZ	SWZ31300	4.80	31.39	-26.44	0.60	0.60	90.00	R13TSS		48.88		MODRES	35.50	CL		57.9	27M0G7W			P	7
SYR	SYR22900	11.00	37.55	34.02	1.47	0.91	73.16	MOD13FRTSS		43.19		MODRES	35.50	CL		55.5	27M0G7W		53	P	
SYR	SYR33900	11.00	37.60	34.20	1.32	0.88	74.00	MOD13FRTSS		43.80		MODRES	35.50	CL		56.4	27M0G7W		53	P	
TCD	TCD14300	17.00	18.36	15.47	3.23	2.05	82.89	R13TSS		36.23		MODRES	35.50	CR		58.9	27M0G7W			P	

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16					
			Админ. симбол	Идентификација снопа	Орбита лна позиција	Видокруг				Карактеристике антене свемирске станице			Код антене свемирске станице	Обликовани споп	Појачање антене свемирске станице							Антена земаљске станице		Поларизација		
						Дуж.	Шир.			Главна оса	Мала оса	Усмерење			Код							Појачање	Тип	Угао		
TGO	TGO22600	-30.00	0.72	8.61	1.12	0.60	109.54	R13TSS		46.19		MODRES	35.50	CR		58.5	27M0G7W			P	5, 7					
THA	THA14200	98.00	100.75	12.88	2.80	1.82	93.77	R13TSS		37.37		MODRES	35.50	CL		58.6	27M0G7W			P						
TJK	TJK06900	38.00	71.14	38.41	1.21	0.73	155.31	R13TSS		45.00		MODRES	35.50	CL		58.8	27M0G7W			P	5, 7					
TKM	TKM06800	50.00	59.24	38.83	2.26	1.02	166.64	R13TSS		40.81		MODRES	35.50	CR		58.9	27M0G7W			P	5, 7					
TMP	TMP00000	128.00	126.03	-8.72	0.66	0.60	13.92	R13TSS		48.50		MODRES	35.50	CR		58.9	27M0G7W			P	9					
TON	TON21500	170.75	-175.23	-18.19	1.59	0.60	71.33	R13TSS		44.64		MODRES	35.50	CR		58.3	27M0G7W			P	5, 7					
TUN	TUN15000	-25.20	9.50	33.50	1.88	0.72	135.00	MOD13FRTSS		43.13		MODRES	35.50	CR		57.3	27M0G7W		55	P						
TUN	TUN27200	-25.20	2.10	31.75	3.41	1.81	179.18	MOD13FRTSS		36.54		MODRES	35.50	CR		55.5	27M0G7W		55	P	4					
TUR	TUR14500	42.00	34.95	39.09	3.18	0.99	0.79	R13TSS		39.47		MODRES	35.50	CL		58.8	27M0G7W		36	P						
TUV	TUV00000	176.00	177.61	-7.11	0.94	0.60	137.58	R13TSS		46.93		MODRES	35.50	CR		58.9	27M0G7W			P	5, 7					
TZA	TZA22500	11.00	34.60	-6.20	2.41	1.72	129.00	R13TSS		38.27		MODRES	35.50	CR		58.7	27M0G7W			P						
UAE	UAE27400	52.50	53.85	24.34	1.19	0.85	3.72	R13TSS		44.39		MODRES	35.50	CR		58.2	27M0G7W			P	5, 7					
UGA	UGA05100	17.00	32.20	1.04	1.50	1.02	68.73	R13TSS		42.62		MODRES	35.50	CL		58.2	27M0G7W			P						
UKR	UKR06300	38.20	31.74	48.22	2.29	0.96	177.78	R13TSS		41.01		MODRES	35.50	CR		58.9	27M0G7W			P						
USA	GUM33100	122.00	144.50	13.10	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CL		58.3	27M0G7W			P						
USA	MRA33200	121.80	145.90	16.90	1.20	0.60	76.00	R13TSS		45.87		MODRES	35.50	CR		58.5	27M0G7W			P						
USA	PLM33200	170.00	-161.40	7.00	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CL		57.4	27M0G7W			P						
USA	USAA_100	170.00	-170.51	-12.72				CB_TSS_USAA		48.88		MODRES	35.50	CL		56.1	27M0G7W			P						
USA	WAK33400	140.00	166.50	19.20	0.60	0.60	0.00	R13TSS		48.88		MODRES	35.50	CR		58.6	27M0G7W			P						
UZB	UZB07100	33.80	63.80	41.21	2.56	0.89	159.91	R13TSS		40.84		MODRES	35.50	CR		58.8	27M0G7W			P						
VTN	VTN32500	107.00	106.84	14.21	3.43	1.76	109.43	R13TSS		36.65		MODRES	35.50	CR		58.4	27M0G7W			P						
VUT	VUT12800	140.00	168.00	-16.40	1.52	0.68	87.00	R13TSS		44.30		MODRES	35.50	CL		57.8	27M0G7W			P						
YEM	YEM_100	11.00	48.05	14.64				CB_TSS_YEMA		47.63		MODRES	35.50	CL		54.9	27M0G7W			P						
ZMB	ZMB31400	-0.80	27.50	-13.10	2.38	1.48	39.00	R13TSS		38.98		MODRES	35.50	CR		58.7	27M0G7W			P						
ZWE	ZWE13500	-0.80	29.60	-18.80	1.46	1.36	37.00	R13TSS		41.47		MODRES	35.50	CR		59.2	27M0G7W			P	5, 7					

АНЕКС 1 (Rev.WRC-03)

**Ограничења за одређивање да ли је служба неке администрације дотакнута предложеном модификацијом Плана Региона 2 или предложеном новом или модификованом доделом у Листи Региона 1 и 3 или кад је неопходно под овим Додатком за тражење пристанка од било које друге администрације<sup>25</sup>**

MOD COM5/216/13 (B3/224/28) (R2/266/17)

**7 Ограничења за измену еквивалентне температуре шума за заштиту фиксне сателитске службе (Земља-свемир) у Региону 1 од модификација Плана Региона 2 у опсегу 12.5-12.7 GHz**

Поштујући § 4.2.3 *e*) Члана 4, сматра се да је нека администрација дотакнута ако предложена модификација Плана Региона 2 може да резултује у:

- вредности  $\Delta T/T$  њених преклапајућих фреквенцијских додела у фиксној сателитској служби у Региону 1 која резултује од предложених модификација буде већа од вредности  $\Delta T/T$  која резултује од доделе у Плану Региона 2 од датума ступања на снагу Финалних аката Конференције 1985; *и*
- вредности  $\Delta T/T$  њених преклапајућих фреквенцијских додела у фиксној сателитској служби у Региону 1 која резултује од предложених модификација прелази 6%,

користећи методу из додатка 8 (Случај II). (WRC-07)

АНЕКС 4 (Rev.WRC-03)

**Потреба за координацијом емитујуће свемирске станице у фиксној сателитској служби или у радиодифузној сателитској служби када та служба није предмет Плана: У Региону 2 (11.7-12.2 GHz) поштујући План, Листа или предложене нове или модификоване доделе у Листи Региона 1 и 3; у Региону 1 (12.5-12.7 GHz) и у Региону 3 (12.2-12.7 GHz) у односу на План или предложене модификације Плана у Региону 2; у Региону 3 (12.2-12.5 GHz) поштујући План, Листа или предложене нове или модификоване доделе у Листи за Регион 1**

(Види Члан 7)

MOD COM5/216/14 (B3/224/29) (R2/266/18)

Поштујући § 7.1 и 7.2 Члана 7, координација емитујуће свемирске станице у фиксној сателитској служби (FSS) (свемир-Земља) Региона 2 или Региона 3 је потребна када, под условима простирања у слободном простору, снага густине флукса на било којем делу сервисног подручја преклапајућих фреквенцијских додела у BSS неке администрације у Региону 1 или Региону 3 прелази следеће вредности: (WRC-07)

## АНЕКС 5

### Технички подаци коришћени у одређивању одредби и придружених Планова и Листа Региона 1 и 3, које би требало користити за њихове примене<sup>34</sup> (Rev.WRC-03)

**MOD** COM5/216/15 (B3/224/30) (R2/266/19)

#### 3.7.1

...

У ревидирању овог Плана на WRC-97, минимални дијаметар пријемне антене био је такав да је ширина снопа на половини снаге била 2.86°. (WRC-07)

...

**MOD** COM5/216/16 (B3/224/31) (R2/266/20)

(Слика 7bis - Крос-поларни дијаграм зрачења)

#### 3.7.2

...

$G_{cross}(\varphi) = G_{max} - 17 + C$  **Error!** for  $\varphi_0 \leq \varphi < \varphi_1$  (WRC-07)

...

ДОДАТАК 30А (Rev.WRC-07)\*

**Одредбе и придружени Планови и Листе<sup>1</sup> за спојне везе за радиодифузну сателитску службу (11.7-12.5 GHz у Региону 1, 12.2-12.7 GHz у Региону 2 и 11.7-12.2 GHz у Региону 3) у фреквенцијским опсезима 14.5-14.8 GHz<sup>2</sup> и 17.3-18.1 GHz у Регионима 1 и 3, и 17.3-17.8 GHz у Региону 2** (WRC-03)

(Види Чланове 9 и 11) (WRC-03)

ЧЛАН 2А (Rev.WRC-07)

**Коришћење заштитних опсега**

**MOD** COM5/307/17 (B11/329/24) (R6/410/43)

2А.1 Коришћење заштитних опсега дефинисано у § 3.1 и 4.1 Анекса 3 за омогућавање функција свемирских операција у складу са No. **1.23** за подршку раду геостационарних сателитских мрежа за спојну везу радиодифузне сателитске службе (BSS) није предмет примене Секције I Члана 9.

2А.1.1 Координација између додела намењених за омогућавање функција свемирских операција и доделе спојне везе за BSS које подлежу Плану треба да буде остварено коришћењем одредби Члана 7.

2А.1.2 Координација између додела намењених за омогућавање функција свемирских операција и сервиса које не подлежу Плану треба бити остварена коришћењем одредби из Nos. **9.7, 9.17, 9.17А, 9.18**, и придружених одредби Секције II Члана 9, по потреби.

2А.1.3 Координација модификација Плана за спојне везе у Региону 2 или додела за укључење у Листу спојних веза у Регионима 1 и 3, са доделама намењених да омогуће те функције треба бити остварена коришћењем § 4.1.1 *d*) Члана 4.

2А.1.4 Захтеви за горе поменуто координацију требају бити послани Бироу од захтевајуће администрације, заједно са одговарајућим информацијама излистаним у Додатку 4.

2А.2 Било која додела намењена да омогући те функције за подршку геостационарној сателитској мрежи за BSS спојне везе треба да има обавештење под Чланом 11 и стављање на коришћење унутар следећих рокова:

2А.2.1 *a)* за случај када су придружене доделе BSS спојних веза садржане у једном од почетних Планава (Планови Региона 2 укључени у Правилник о радиокомуникацијама на WARC Orb-85 и План Региона 1 и 3 усвојен на WRC-2000), унутар регулаторног рока назначеног у § 4.1.3 или 4.2.6 Члана 4 од датума кад је Биро примио комплетне податке из Додатка 4 за оне доделе које су намењене да омогуће функције свемирских операција;

2А.2.2 *b)* за случај где придружене доделе BSS спојне везе јесу поднесене под § 4.1.3 или § 4.2.6 Члана 4 за ставку у Листи Региона 1 и 3 или модификацију Плана Региона 2, унутар регулаторног рока назначеног у § 4.1.3 или § 4.2.6 Члана 4 за оне придружене доделе BSS спојних веза;

2А.2.3 *c)* за случај када су доделе придружених BSS спојних веза већ стављене на коришћење у складу са Правилником о радиокомуникацијама, унутар регулаторног рока

назначеног у § 4.1.3 и § 4.2.6 Члана 4 од датума кад је Биро примио комплетне податке из Додатка 4 за оне доделе намењене за омогућавање тих функција свемирских операција.

#### ЧЛАН 4 (Rev.WRC-03)

### Процедуре за модификацију Плана спојних веза у Региону 2 или за додатна коришћења у Регионима 1 и 3

**МОД** COM5/307/18 (B11/329/25) (R6/410/44)

4.1.3 Администрација, или једна која ради у име групе именованих администрација, која намерава да укључи нову или модификовану доделу у Листу спојних веза треба да пошаље Бироу, не раније од осам година али пожељно не касније од две године пре датума за који додела треба да се стави на коришћење, релевантне информације излистане у Додатку 4. Додела у Листи спојних веза треба да истекне ако није стављена на коришћење унутар осам година након датума када је Биро примио релевантне комплетне информације. Предложена нова или модификована додела која није укључена у Листу унутар осам година након што је Биро примио релевантне комплетне информације<sup>7</sup> треба такође да истекне. (WRC-07)

**МОД** COM5/307/19 (B11/329/26) (R6/410/45)

4.1.5 Биро треба да одреди, на основу Анекса 1, администрације чије фреквенцијске доделе се сматра да су дотакнуте. Биро треба да публикује<sup>9</sup>, у Специјалној секцији од BRIFIC, комплетне информације примљене под § 4.1.3, заједно са именима дотакнутих администрација, одговарајуће мреже фиксне сателитске службе, и одговарајуће доделе спојних веза радиодифузне сателитске службе, по потреби. Биро треба одмах да пошаље телеграм/факс администрацији која је предложила доделу, скрећући њену пажњу на информације садржане у релевантном BR IFIC. (WRC-07)

#### 4.1.5

**МОД** COM5/308/11 (B10/326/11) (R6/410/46)

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<sup>9</sup> Ако уплата није примљена у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања заинтересоване администрације. Биро треба да информише све администрације о таквој акцији и да дотична мрежа назначена у публикацији неће више бити узимана у разматрање од Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе поменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**МОД** COM5/307/20 (B11/329/27) (R6/410/47)

4.1.6 Биро треба да пошаље телеграм /факс администрацијама излистаним у специјалној секцији BR IFIC, скрећући њихову пажњу на садржане информације. (WRC-07)

**МОД** COM5/379/6 (B16/401/7)

4.1.11 Ако, у тражењу пристанка, нека администрација модификује свој почетни предлог, она треба поново да примени одредбе од § 4.1 и следеће процедуре у случајевима када:

- доделе било које администрације примљене у Бироу у складу са § 4.1.3 или § 4.2.6, или § 7.1 Члана 7, или Но. 9.7 пре примања тог модификованог предлога под § 4.1.12; или

– додела било које друге администрације садржане у Плановима или Листама или, сматра се да су дотакнуте и да примају више интерференције као резултат модификација, него кад су произведене по почетном предлогу. (WRC-07)

#### 4.1.15

**MOD** COM5/308/12 (B10/326/12) (R6/410/48)

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<sup>10</sup> Ако уплата није примљена у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања заинтересоване администрације. Биро треба да информише све администрације о таквој акцији и да дотична мрежа назначена у публикацији неће више бити узимана у разматрање од Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе поменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**MOD** COM5/307/21 (B11/329/28) (R6/410/49)

4.2.6 Администрација, или једна<sup>16</sup> која ради у име групе именованих администрација, која намерава да уради модификацију у Плану спојних веза за Регион 2 треба да пошаље Бироу, не раније од осам година али пожељно не касније од две године пре датума за који додела треба да се стави на коришћење, релевантне информације излистане у Додатку 4. Модификација тога Плана треба да истекне ако додела није стављена на коришћење унутар осам година након датума када је Биро примио релевантне комплетне информације<sup>17</sup>. Захтев за модификацију који није укључен у тај План унутар осам година након што је Биро примио релевантне комплетне информације<sup>17</sup> треба такође да истекне. (WRC-07)

**MOD** COM5/307/22 (B11/329/29) (R6/410/50)

4.2.8 Биро треба да одреди, на основу Анекса 1, администрације чије фреквенцијске доделе се сматра да су дотакнуте у смислу § 4.2.2. Биро треба да публикује<sup>19</sup>, у Специјалној секцији од BRIFIC, комплетне информације примљене под § 4.2.6, заједно са именима дотакнутих администрација, одговарајуће мреже фиксне сателитске службе, и одговарајуће доделе спојних веза радиодифузне сателитске службе, по потреби. Биро треба одмах да пошаље телеграм/факс администрацији која је предложила доделу, скрећући њену пажњу на информације садржане у релевантном BR IFIC. (WRC-07)

#### 4.2.8

**MOD** COM5/308/13 (B10/326/13) (R6/410/51)

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<sup>19</sup> Ако уплата није примљена у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања заинтересоване администрације. Биро треба да информише све администрације о таквој акцији и да дотична мрежа назначена у публикацији неће више бити узимана у разматрање од Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе поменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**MOD** COM5/307/23 (B11/329/30) (R6/410/52)

4.2.9 Биро треба да пошаље телеграм /факс администрацијама излистаним у Специјалној секцији BR IFIC, скрећући њихову пажњу на садржане информације. (WRC-07)

**MOD** COM5/307/24 (B11/329/31) (R6/410/53)

4.2.10 Администрација која сматра да је требала бити укључена у публикацију назначену под § 4.2.8 горе треба, унутар четири месеца од датума публикације у релевантном BR IFIC, и дајући техничке разлоге за тај поступак, затражити да Биро укључи њено име у публикацију. Биро треба да проучи ту информацију на бази Анекса 1 и треба да информише обе Администрације о својим закључцима. Ако би Биро пристао да реагује на захтев администрације, он треба да публикује један додаток на публикацију под § 4.2.8. (WRC-07)

#### 4.2.19

**MOD** COM5/308/14 (B10/326/14) (R6/410/54)

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<sup>20</sup> Ако уплата није примљена у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији попуне за покривање трошкова за сателитске мреже, Биро треба да поништи публикацију, након информисања заинтересоване администрације. Биро треба да информише све администрације о таквој акцији и да дотична мрежа назначена у публикацији неће више бити узимана у разматрање од Бироа и других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе поменутом Одлуком Савета 482 осим ако је уплата већ примљена. (WRC-07)

**MOD** COM5/308/15 (B10/326/15) (R6/410/55)

### ЧЛАН 5 (Rev.WRC-03)

**Координација, обавештење, испитивање и уписивање у MIFR  
фреквенцијских додела за спојне везе предајних земаљских станица и  
пријемних свемирских станица у фиксној сателитској служби**<sup>21, ADD 21A</sup> (WRC-07)

**ADD** COM5/308/16 (B10/326/16) (R6/410/56)

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<sup>21A</sup> Ако уплате нису примљене у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији покривања тошкова за попуне сателитске мреже, Биро треба да поништи публикацију специфицирану у § 5.1.10 и одговарајуће ставке у Главном регистру под § 5.2.2, 5.2.2.1 или 5.2.2.2, по потреби, и одговарајуће ставке укључене у План на и након 3.6.2000. или у Листи, по потреби, након информисања заинтересованих администрација. Биро треба да информише све администрације о таквој мери. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе споменутом Одлуком Савета 482 осим ако плаћање није већ примљено. Види такође Резолуцију **905 (WRC-07)**. (WRC-07)

**MOD** COM5/307/25 (B11/329/32) (R6/410/57)

5.2.2 Кад је Биро дошао до повољног налаза поштујући § 5.2.1 a), 5.2.1 b), 5.2.1 c) и 5.2.1 f) фреквенцијска додела неке администрације треба бити уписана у Главни регистар. Датум када је Биро примио обавест треба бити уписан у Главни Регистар. У односима између администрација, све фреквенцијске доделе стављене на коришћење у складу са Планом спојних веза и уписане у Главни регистар треба сматрати да имају једнак статус независно о датуму пријема уписаном у Главни регистар за ту фреквенцијску доделу. (WRC-07)

**MOD** COM5/307/26 (B11/329/33) (R6/410/58)

5.2.2.1 Кад је Биро дошао до повољног налаза поштујући § 5.2.1 *a*), 5.2.1 *c*), 5.2.1 *d*) and 5.2.1 *f*) фреквенцијска додела неке администрације треба бити уписана у Главни регистар. Датум када је Биро примио обавест треба бити уписан у Главни Регистар. У односима између администрација, све фреквенцијске доделе стављене на коришћење у складу са Планом спојних веза и уписане у Главни регистар треба сматрати да имају једнак статус независно о датуму пријема уписаном у Главни регистар за ту фреквенцијску доделу. Приликом уписивања тих додела, Биро треба да назначи путем једног одговарајућег симбола карактеристике које имају другачије вредности него оне које се појављују у Плану. (WRC-07)

**MOD** COM5/307/27 (B11/329/34) (R6/410/59)

5.2.2.2 У случају Региона 2, кад је Биро дошао до повољног налаза поштујући § 5.2.1 *a*) и 5.2.1 *c*) али један неповољан налаз поштујући § 5.2.1 *b*) and 5.2.1 *d*), треба испитати обавест у односу на успешну примену одредби Резолуције **42 (Rev.WRC-03)**. Фреквенцијска додела за коју су одредбе Резолуције **42 (Rev.WRC-03)** биле успешно примењене треба бити уписана у Главни регистар са одговарајућим симболом за индикацију њеног привременог статуса. Датум примања обавести од стране Бироа треба бити унесен у Главни регистар. У односима између администрација све фреквенцијске доделе стављене на коришћење након успешне примене одредаба Резолуције **42 (Rev.WRC-03)** и уписане у Главни регистар треба да се сматрају да имају исти статус независно о датуму пријема уписаном у Главни Регистар за те фреквенцијске доделе. Ако је налаз поштујући § 5.2.1 *e*), по потреби, неповољан, обавештење одмах треба бити враћено авионском поштом обавештавајућој администрацији. (WRC-07)

**MOD** COM5/307/28 (B11/329/35) (R6/410/60)

5.2.3 Кад год је фреквенцијска додела уписана у Главни Регистар, налаз до којег је Биро дошао треба бити назначен. (WRC-07)

**MOD** COM5/307/29 (B11/329/36) (R6/410/61)

5.2.9 Датум стављања на коришћење из обавештења заинтересоване администрације треба бити уписан у Главни регистар. (WRC-07)

**MOD** COM5/307/30 (B11/329/37) (R6/410/62)

5.3.1 Било која фреквенцијска додела из обавештења на коју су примењене процедуре Члана 4 и која је привремено уписана под § 5.2.7 треба бити стављена на коришћење не касније од краја периода датог под § 4.1.3 или 4.2.6 Члана 4. Било која друга фреквенцијска додела привремено уписана под § 5.2.7 треба бити стављена на коришћење до датума назначеном у обавештењу. Осим ако је обавештавајућа администрација информисала Биро о стављању на коришћење доделе под § 5.2.8, он треба, не касаније од петнаест дана пре датума из обавештења о стављању на коришћење или краја регулаторног периода установљеног под § 4.1.3 или 4.2.6 Члана 4, по потреби, послати подсетник захтевајући потврду да је додела стављена на коришћење унутар регулаторног периода. Ако Биро не прими ту потврду унутар тридесет дана након датума из обавештења о стављању на коришћење или периода датог под § 4.1.3 or 4.2.6 Члана 4, као што може бити, он треба да поништи ставку у Главном регистру. (WRC-07)

ЧЛАН 9А (Rev.WRC-03)

**План за спојне везе за радиодифузну сателитску службу у фиксној  
сателитској служби у фреквенцијским опсезима  
14.5-14.8 GHz и 17.3-18.1 GHz у Регионима 1 и 3**

9А.2 ТЕКСТ ЗА БЕЛЕШКЕ У КОЛОНИ ЗА ПРИМЕДБЕ ПЛАНА СПОЈНИХ ВЕЗА ЗА  
РЕГИОНЕ 1 И 3 (WRC-03)

**SUP** COM5/328/9 (B12/346/9) (R6/410/63)

ТАБЕЛА 1А

**ADD** COM5/328/12 (B12/346/10) (R6/410/64)

TABELA 1A (WRC-07)

**Дотакнуте администрације и одговарајуће мреже/снопови идентификовани на основу Примедбе 5 у § 9А.2 Члана 9А**

Име снопа	Канали	Дотакнуте администрације*	Дотакнуте мреже/снопови*
CPV30100	2, 4, 8, 10, 12	GUY JMC	GUY00302, JMC00005
CPV30100	6	JMC	JMC00005
G 02700	2, 4, 8, 10, 12	GUY JMC	GUY00302, JMC00005
G 02700	6	JMC	JMC00005
LBR24400	1	GUY	GUY00302
LBR24400	3, 9, 13	JMC	JMC00005
LBR24400	5, 7, 11	GUY JMC	GUY00302, JMC00005

\* Администрације и одговарајуће мреже или снопови чије доделе могу примити интерференцију од снопа приказаног у левој колони.

**SUP** COM5/328/10 (B12/346/11) (R6/410/65)

ТАБЕЛА 1В

**ADD** COM5/328/13 (B12/346/12) (R6/410/66)

ТАБЕЛА 1В (WRC-07)

**Дотакнуте администрације и одговарајуће мреже/снопови идентификовани на основу Примедби 6 и 7 у § 9А.2 Члану 9А**

Име снопа	Канали	Приме дба	Дотакнуте администрације*	Дотакнуте мреже/снопови *
CPV30100	2, 4, 8, 10, 12	6	GUY JMC	GUY00302, JMC00005
CPV30100	6	6	JMC	JMC00005
E____100	1, 3, 5, 7, 9, 11, 13	6	G	BERBER02
G 02700	2, 4, 8, 10, 12	6	GUY JMC	GUY00302, JMC00005
G 02700	6	6	JMC	JMC00005
LBR24400	1	6	GUY	GUY00302
LBR24400	3, 9, 13	6	JMC	JMC00005
LBR24400	5, 7, 11	6	GUY JMC	GUY00302, JMC00005
NZL__100	24	7	J	SUPERBIRD-A

\* Аадминистрације или одговарајуће мреже или снопови чије доделе могу узроковати снопу приказаном у левој колони.

SUP COM5/328/11 (B12/346/13) (R6/410/67)

ТАБЕЛА 3А2

ADD COM5/328/14 (B12/346/14) (R6/410/68)

ТАБЕЛА 3А2 (WRC-07)

Основне карактеристике Плана спојних веза Региона 1 и 3 у фреквенцијском опсегу 17.3-18.1 GHz (сортирано по администрацијама)

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17
			Дуж.	Шпр.	Велика оса	Мала оса	Усмерење			Код антене свемирске станице	Облик антени	Појачање антене свемирске станице	Код	Појачање	Тип							
Админ. симбол	Идентификација снопа	Орбитална позиција	Видокруг		Карактеристике антене свемирске станице			Код антене свемирске станице	Облик антени	Појачање антене свемирске станице		Антена земаљске станице		Поларизација		с.г.р.	Контрола снаге	Означивање емисије	Идентитет свемирске станице	Груписки код	Статус	Примедбе
AFG	AFG24501	50.00	67.00	34.30	1.89	1.19	18.00	MODRSS		40.93		MODTES	57.00	CL		84.0		27M0G7W		71	P	
AFG	AFG24502	50.00	67.00	34.30	1.89	1.19	18.00	MODRSS		40.93		MODTES	57.00	CR		84.0		27M0G7W		71	P	
AGL	AGL29500	-24.80	16.43	-12.37	2.66	1.75	77.43	MODRSS		37.77		MODTES	57.00	CR		84.0		27M0G7W			P	
ALB	ALB29600	62.00	19.50	41.37	0.60	0.60	69.35	MODRSS		48.88		MODTES	57.00	CL		82.6		27M0G7W			P	
ALG	ALG25152	-24.80	1.50	27.60	3.65	2.94	135.00	MODRSS		34.14		MODTES	57.00	CL		84.0		27M0G7W			P	
AND	AND34100	-37.00	1.60	42.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		83.0		27M0G7W			P	
ARM	ARM06400	22.80	44.99	39.95	0.73	0.60	148.17	MODRSS		48.02		MODTES	57.00	CR		84.0		27M0G7W			P	
ARS	ARS00375	17.00	44.60	23.40	4.21	2.48	145.00	MODRSS		34.26		MODTES	57.00	CL		84.0		27M0G7W		54	P	
ARS	ARS34000	17.00	44.60	23.40	4.21	2.48	145.00	MODRSS		34.28		MODTES	57.00	CL		84.0		27M0G7W		54	P	
AUS	AUS00400	152.00	135.00	-24.20	7.19	5.20	140.00	MODRSS		28.71		MODTES	57.00	CR		87.0		27M0G7W		30	P	
AUS	AUS00401	152.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P	
AUS	AUS00402	152.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P	
AUS	AUS00403	152.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P	
AUS	AUS00404	152.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P	
AUS	AUS00405	152.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P	
AUS	AUS00406	152.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		30	P	
AUS	AUS0040A	152.00	135.36	-23.95	6.89	4.83	141.15	R123FR		29.23		MODTES	57.00	CL		87.0		27M0G7W		30	P	
AUS	AUS00500	152.00	135.00	-24.20	7.19	5.20	140.00	MODRSS		28.71		MODTES	57.00	CR		87.0		27M0G7W		41	P	
AUS	AUS00501	152.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P	
AUS	AUS00502	152.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P	
AUS	AUS00503	152.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P	
AUS	AUS00504	152.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P	

1	2	3	4					6	7	8		9		10		11	12	13	14	15	16	17		
			Видокруг		Карактеристике антене свемирске станице					Код антене свемирске станице	Обликовани сноп	Појачање антене свемирске станице		Антена земаљске станице									Поларизација	
			Дуж.	Шир.	Велика оса	Мала оса	Усмерење					Код	Појачање	Тип	Угао									
AUS	AUS00505	152.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P			
AUS	AUS00506	152.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		41	P			
AUS	AUS00600	152.00	135.50	-24.20	7.19	5.20	140.00	MODRSS		28.71		MODTES	57.00	CR		87.0		27M0G7W		42	P			
AUS	AUS00601	152.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P			
AUS	AUS00602	152.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P			
AUS	AUS00603	152.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P			
AUS	AUS00604	152.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P			
AUS	AUS00605	152.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P			
AUS	AUS00606	152.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		42	P			
AUS	AUS00700	164.00	136.00	-23.90	7.26	4.48	132.00	MODRSS		29.32		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00701	164.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00702	164.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00703	164.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00704	164.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00705	164.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00706	164.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS0070A	164.00	136.62	-24.16	6.82	4.20	134.19	R123FR		29.87		MODTES	57.00	CR		87.0		27M0G7W		31	P			
AUS	AUS00800	164.00	136.00	-23.90	7.26	4.48	132.00	MODRSS		29.32		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00801	164.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00802	164.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00803	164.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00804	164.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00805	164.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00806	164.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		44	P			
AUS	AUS00900	164.00	136.00	-23.90	7.26	4.48	132.00	MODRSS		29.32		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00901	164.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00902	164.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00903	164.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00904	164.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS00905	164.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			

1	2	3	4					6	7	8		9		10		11	12	13	14	15	16	17		
			Видокруг		Карактеристике антене свемирске станице					Код антене свемирске станице	Облик антени снопа	Појачање антене свемирске станице		Антиена земаљске станице									Поларизација	
			Дуж.	Шир.	Велика оса	Мала оса	Усмерење					Код	Појачање	Тип	Угао									
AUS	AUS00906	164.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUS0090A	164.00	136.62	-24.16	6.82	4.20	134.19	R123FR		29.87		MODTES	57.00	CR		87.0		27M0G7W		32	P			
AUS	AUSA0000	152.00	135.36	-23.95	6.89	4.83	141.15	R123FR		29.23		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0001	152.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0002	152.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0003	152.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0004	152.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0005	152.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSA0006	152.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		40	P			
AUS	AUSB0000	164.00	136.62	-24.16	6.82	4.20	134.19	R123FR		29.87		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0001	164.00	96.83	-12.19	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0002	164.00	105.69	-10.45	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0003	164.00	110.52	-66.28	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0004	164.00	158.94	-54.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0005	164.00	159.06	-31.52	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUS	AUSB0006	164.00	167.93	-29.02	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		87.0		27M0G7W		43	P			
AUT	AUT01600	-18.80	10.31	49.47	1.82	0.92	151.78	MODRSS		42.19		MODTES	57.00	CR		84.0		27M0G7W			P			
AZE	AZE06400	23.20	47.47	40.14	0.93	0.60	158.14	MODRSS		46.98		MODTES	57.00	CL		84.0		27M0G7W			P			
BDI	BDI27000	11.00	29.90	-3.10	0.71	0.60	80.00	MODRSS		48.15		MODTES	57.00	CL		81.0		27M0G7W			P			
BEL	BEL01800	38.20	5.12	51.96	1.00	1.00	0.00	MODRSS		44.44		MODTES	57.00	CR		85.5		27M0G7W			P			
BEN	BEN23300	-19.20	2.20	9.50	1.44	0.68	97.00	MODRSS		44.54		MODTES	57.00	CL		84.0		27M0G7W			P			
BFA	BFA10700	-30.00	-1.50	12.20	1.45	1.14	29.00	MODRSS		42.26		MODTES	57.00	CL		84.0		27M0G7W			P			
BGD	BGD22000	74.00	90.30	23.60	1.46	0.84	135.00	MODRSS		43.56		MODTES	57.00	CR		84.0		27M0G7W			P			
BHR	BHR25500	34.00	50.50	26.10	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		83.0		27M0G7W			P			
BIH	BIH14800	56.00	18.22	43.97	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		84.0		27M0G7W			P			
BLR	BLR06200	37.80	28.04	53.18	1.17	0.60	9.68	MODRSS		45.96		MODTES	57.00	CL		84.0		27M0G7W			P			
BOT	BOT29700	-0.80	23.30	-22.20	2.13	1.50	36.00	MODRSS		39.40		MODTES	57.00	CL		84.0		27M0G7W			P			
BRM	BRM29800	104.00	96.97	18.68	3.33	1.66	91.63	MODRSS		37.02		MODTES	57.00	CR		84.0		27M0G7W			P			
BRU	BRU3300A	74.00	114.70	4.40	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		84.0		27M0G7W			P			
BTN	BTN03100	86.00	90.44	27.05	0.72	0.60	175.47	MODRSS		48.11		MODTES	57.00	CR		84.0		27M0G7W			P			

1	2	3	4					5	6	7	8		9		10		11	12	13	14	15	16	17									
			Видокруг		Карактеристике антене свемирске станице						Код антене свемирске станице	Обликовани сноп	Појачање антене свемирске станице		Антена земаљске станице									Поларизација		e.i.g.p.	Контрола снаге	Означавање емисије	Идентитет свемирске станице	Груписни код	Статус	Примедбе
			Дуж.	Шир.	Велика оса	Мала оса	Усмерење						Код	Појачање	Тип	Угао																
BUL	BUL02000	-1.20	25.00	43.00	1.04	0.60	165.00	MODRSS		46.50		MODTES	57.00	CL		83.0		27M0G7W			P											
CAF	CAF25800	-13.20	21.00	6.30	2.25	1.68	31.00	MODRSS		38.67		MODTES	57.00	CR		84.0		27M0G7W			P											
CBG	CBG29900	86.00	104.89	12.79	1.12	0.94	32.89	MODRSS		44.22		MODTES	57.00	CR		84.0		27M0G7W			P											
CHN	CHN15400	62.00	101.90	33.50	5.10	2.80	143.00	MODRSS		32.90		MODTES	57.00	CR		84.0		27M0G7W		45	P											
CHN	CHN15500	62.00	101.90	33.50	5.10	2.80	143.00	MODRSS		32.90		MODTES	57.00	CL		84.0		27M0G7W		45	P											
CHN	CHN15800	134.00	113.21	34.27	6.40	3.16	10.74	MODRSS		31.39		MODTES	57.00	CL		84.0		27M0G7W		46	P											
CHN	CHN15900	134.00	113.21	34.27	6.40	3.16	10.74	MODRSS		31.39		MODTES	57.00	CR		84.0		27M0G7W		46	P											
CHN	CHN16000	92.20	108.10	33.70	5.00	4.00	148.00	MODRSS		31.44		MODTES	57.00	CR		84.0		27M0G7W		47	P											
CHN	CHN16100	92.20	108.10	33.70	5.00	4.00	148.00	MODRSS		31.44		MODTES	57.00	CL		84.0		27M0G7W		47	P											
CHN	CHN20000	122.00	113.55	22.20	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P											
CLN	CLN21900	50.00	80.60	7.70	1.18	0.60	106.00	MODRSS		45.95		MODTES	57.00	CL		84.0		27M0G7W			P											
COD	COD_100	-19.20	21.85	-3.40				CB_RSS_CODA		38.36		MODTES	57.00	CL		84.0		27M0G7W			P											
COG	COG23500	-13.20	14.60	-0.70	2.02	1.18	59.00	MODRSS		40.67		MODTES	57.00	CR		84.0		27M0G7W			P											
COM	COM20700	29.00	44.10	-12.10	0.76	0.60	149.00	MODRSS		47.86		MODTES	57.00	CR		84.0		27M0G7W			P											
CPV	CPV30100	-33.50	-24.12	16.09	0.77	0.63	94.46	MODRSS		47.56		MODTES	57.00	CL		84.0		27M0G7W			P	5, 6										
CTI	CTI23700	-24.80	-5.66	7.39	1.45	1.29	126.59	MODRSS		41.73		MODTES	57.00	CR		84.0		27M0G7W			P											
CVA	CVA08300	-1.20	13.02	42.09	0.75	0.66	20.53	MODRSS		47.48		MODTES	57.00	CR		84.0		27M0G7W			P											
CVA	CVA08500	-1.20	13.02	42.09	0.75	0.66	20.53	MODRSS		47.48		MODTES	57.00	CR		84.0		27M0G7W			P											
CYP	CYP08600	-1.20	33.45	35.12	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P											
CZE	CZE14401	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CR		84.0		27M0G7W			P											
CZE	CZE14402	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W			P											
CZE	CZE14403	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W		37	P											
D	D 08700	-18.80	10.31	49.47	1.82	0.92	151.78	MODRSS		42.19		MODTES	57.00	CR		84.0		27M0G7W			P											
DJI	DJI09900	16.80	42.68	11.68	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P											
DNK	DNK_100	-25.20	5.28	61.83				CB_RSS_DNKA		48.88		MODTES	57.00	CL		79.5		27M0G7W			P											
DNK	DNK09000	-33.50	14.34	61.72	1.83	0.60	151.50	MODRSS		44.05		MODTES	57.00	CR		84.0		27M0G7W			P											
DNK	DNK09100	-33.50	-14.94	63.79	1.52	0.60	168.57	MODRSS		44.86		MODTES	57.00	CR		84.0		27M0G7W			P											
E	E_100	-30.00	-9.40	34.15				CB_RSS_E_A		44.79		MODTES	57.00	CR		84.0		27M0G7W		01	P	6										
E	HISP27D4	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	55.00	CR		82.5		27M0G7W--	HISPASAT-1	01	PE											
E	HISP27D6	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	58.50	CR		83.5		27M0G7W--	HISPASAT-1	01	PE											
E	HISP33D4	-30.00	-3.10	39.90					ECO	43.00	18.70	MODTES	55.00	CR		82.5		33M0G7W--	HISPASAT-1	01	PE											
E	HISP33D6	-30.00	-3.10	39.90					ECO	43.00	18.70	MODTES	58.50	CR		83.5		33M0G7W--	HISPASAT-1	01	PE											
E	HISPASA4	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	55.00	CR		82.5		27M0F8W	HISPASAT-1	01	PE											
E	HISPASA6	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	58.50	CR		83.5		27M0F8W	HISPASAT-1	01	PE											
EGY	EGY02600	-7.00	29.70	26.80	2.33	1.72	136.00	MODRSS		38.42		MODTES	57.00	CR		84.0		27M0G7W		12	P											
ERI	ERI09200	22.80	39.41	14.98	1.67	0.95	145.49	MODRSS		42.44		MODTES	57.00	CL		84.0		27M0G7W			P											
EST	EST06100	44.50	25.40	59.18	0.67	0.60	5.99	MODRSS		48.42		MODTES	57.00	CR		84.0		27M0G7W			P											
F	F 09300	-7.00	3.30	45.37	2.18	1.20	156.36	MODRSS		40.27		MODTES	57.00	CR		84.0		27M0G7W		21	P											

1	2	3	4					6	7	8		9		10		11	12	13	14	15	16	17		
			Видокруг		Карактеристике антене свемирске станице					Код антене свемирске станице	Обликовани сноп	Појачање антене свемирске станице		Антена земаљске станице									Поларизација	
			Дуж.	Шир.	Велка оса	Мала оса	Усмерење					Код	Појачање	Тип	Угао									
F	F___100	-7.00	29.16	13.43				CB_RSS_F__A		48.88		MODTES	57.00	CL		84.0		27M0G7W		12	P			
F	F___200	140.00	174.50	-17.30				CB_RSS_F__B		45.80		MODTES	57.00	CL		84.0		27M0G7W		7F	P			
F	F___300	140.00	174.65	-17.65				CB_RSS_F__C		47.97		MODTES	57.00	CR		84.0		27M0G7W		7F	P			
F	OCE10100	-160.00	-145.00	-16.30	4.34	3.54	4.00	MODRSS		32.58		MODTES	57.00	CL		84.0		27M0G7W			P			
FIN	FIN10300	22.80	17.61	61.54	2.18	0.90	11.59	MODRSS		41.53		MODTES	57.00	CL		84.0		27M0G7W		52	P			
FIN	FIN10400	22.80	17.61	61.54	2.18	0.90	11.59	MODRSS		41.53		MODTES	57.00	CL		84.0		27M0G7W		52	P			
FJI	FJI19300	-178.00	179.62	-17.87	1.16	0.92	155.22	MODRSS		44.16		MODTES	57.00	CR		84.0		27M0G7W			P			
FSM	FSM00000	158.00	151.90	5.48	5.15	1.57	167.00	MODRSS		35.38		MODTES	57.00	CR		84.0		27M0G7W			P			
G	G 02700	-33.50	-3.50	53.80	1.84	0.72	142.00	MODRSS		43.23		MODTES	57.00	CR		84.0		27M0G7W			P	5, 6		
GAB	GAB26000	-13.20	11.80	-0.60	1.43	1.12	64.00	MODRSS		42.40		MODTES	57.00	CL		84.0		27M0G7W			P			
GEO	GEO06400	23.20	43.35	42.27	1.11	0.60	161.21	MODRSS		46.23		MODTES	57.00	CL		84.0		27M0G7W			P			
GMB	GMB30200	-37.20	-15.10	13.40	0.79	0.60	4.00	MODRSS		47.69		MODTES	57.00	CL		83.0		27M0G7W			P			
GNB	GNB30400	-30.00	-15.00	12.00	0.90	0.60	172.00	MODRSS		47.12		MODTES	57.00	CL		84.0		27M0G7W			P			
GNE	GNE30300	-18.80	10.30	1.50	0.68	0.60	10.00	MODRSS		48.34		MODTES	57.00	CR		84.0		27M0G7W			P			
GRC	GRC10500	-1.20	24.52	38.11	1.70	0.95	152.55	MODRSS		42.37		MODTES	57.00	CR		84.0		27M0G7W			P			
GUI	GUI19200	-37.00	-11.00	10.20	1.58	1.04	147.00	MODRSS		42.29		MODTES	57.00	CR		85.0		27M0G7W			P			
HNG	HNG10601	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CR		84.0		27M0G7W			P			
HNG	HNG10602	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W			P			
HNG	HNG10603	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W		37	P			
HOL	HOL21300	38.20	5.12	51.96	1.00	1.00	0.00	MODRSS		44.44		MODTES	57.00	CL		85.5		27M0G7W			P			
HRV	HRV14801	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CR		84.0		27M0G7W			P			
HRV	HRV14802	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W			P			
HRV	HRV14803	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W		37	P			
I	I 08200	9.00	12.67	40.74	1.99	1.35	144.20	MODRSS		40.14		MODTES	57.00	CR		84.0		27M0G7W			P			
IND	IND03700	68.00	93.00	25.50	1.46	1.13	40.00	MODRSS		42.27		MODTES	57.00	CL		84.0		27M0G7W			P			
IND	IND04701	68.00	93.30	11.10	1.92	0.60	96.00	MODRSS		43.83		MODTES	57.00	CR		84.0		27M0G7W		7E	P			
IND	IND04702	68.00	93.30	11.10	1.92	0.60	96.00	MODRSS		43.83		MODTES	57.00	CL		84.0		27M0G7W		7E	P			
IND	INDA_101	55.80	76.16	14.72				CB_RSS_INDA		45.66		MODTES	57.00	CR		84.0		27M0G7W		7G	P			
IND	INDA_102	55.80	76.16	14.72				CB_RSS_INDA		45.66		MODTES	57.00	CL		84.0		27M0G7W		7G	P			
IND	INDB_101	55.80	83.67	23.73				CB_RSS_INDB		43.13		MODTES	57.00	CR		84.0		27M0G7W		7H	P			
IND	INDB_102	55.80	83.67	23.73				CB_RSS_INDB		43.13		MODTES	57.00	CL		84.0		27M0G7W		7H	P			
IND	INDD_100	68.00	74.37	29.16				CB_RSS_INDD		41.79		MODTES	57.00	CR		84.0		27M0G7W			P			
INS	INS02800	80.20	113.60	-1.40	6.73	3.33	160.00	MODRSS		30.94		MODTES	57.00	CR		84.0		27M0G7W			P			
INS	INS03501	104.00	115.20	-1.70	9.14	3.43	170.00	MODRSS		29.48		MODTES	57.00	CL		84.0		27M0G7W		7D	P			
INS	INS03502	104.00	115.20	-1.70	9.14	3.43	170.00	MODRSS		29.48		MODTES	57.00	CR		84.0		27M0G7W		7D	P			
IRL	IRL21100	-37.20	-8.25	53.22	0.72	0.60	157.56	MODRSS		48.08		MODTES	57.00	CR		84.0		27M0G7W			P			
IRN	IRN10900	34.00	54.20	32.40	3.82	1.82	149.00	MODRSS		36.03		MODTES	57.00	CL		83.0		27M0G7W			P			
ISL	ISL04900	-33.50	-19.00	64.90	1.00	0.60	177.00	MODRSS		46.67		MODTES	57.00	CL		83.0		27M0G7W			P			

1	2	3	4					5			6	7	8		9		10		11	12	13	14	15	16	17						
			Видокруг		Карактеристике антене свемирске станице			Код антене свемирске станице	Обликовани сноп	Појачање антене свемирске станице			Антена земаљске станице		Поларизација		e.i.g.p.	Контрола снаге								Означавање емисије	Идентитет свемирске станице	Груписни код	Статус	Примедбе	
			Дуж.	Шир.	Велика оса	Мала оса	Усмерење			Код			Појачање	Код	Појачање	Тип															Угао
ISL	ISL05000	-33.50	-14.94	63.79	1.52	0.60	168.57	MODRSS		44.86		MODTES	57.00	CR		84.0				27M0G7W			P								
ISR	ISR11000	-4.00	34.95	31.32	0.73	0.60	110.02	MODRSS		48.03		MODTES	57.00	CR		84.0				27M0G7W			P								
J	000BS-3N	109.85	134.50	31.50	3.52	3.30	68.00	MODRSS		33.80		MODTES	57.00	CR		87.0				27M0F8W	BS-3N	02	PE								
J	J 10985	109.85	134.50	31.50	3.52	3.30	68.00	MODRSS		33.80		MODTES	57.00	CR		87.0				34M5G7W		02	P								
J	J 11100	110.00	134.50	31.50	3.52	3.30	68.00	MODRSS		33.80		MODTES	57.00	CR		87.0				34M5G7W		02	P								
J	J 1110E	110.00	134.50	31.50	3.52	3.30	68.00	MODRSS		33.80		MODTES	57.00	CR		87.0				27M0F8W	BS-3M	02	PE								
JOR	JOR22400	11.00	37.55	34.02	1.47	0.91	73.16	MODRSS		43.19		MODTES	57.00	CL		85.0				27M0G7W			P								
KAZ	KAZ06600	56.40	65.73	46.40	4.58	1.76	177.45	MODRSS		35.38		MODTES	57.00	CL		84.0				27M0G7W			P								
KEN	KEN24900	-0.80	37.99	0.88	2.06	1.30	99.68	MODRSS		40.17		MODTES	57.00	CR		84.0				27M0G7W			P								
KGZ	KGZ07000	50.00	73.91	41.32	1.47	0.64	5.05	MODRSS		44.75		MODTES	57.00	CR		84.0				27M0G7W			P								
KIR	KIR_100	176.00	-170.31	-0.56				CB_RSS_KIRA		42.60		MODTES	57.00	CL		84.0				27M0G7W			P								
KOR	KOR11201	116.00	127.50	36.00	1.24	1.02	168.00	MODRSS		43.43		MODTES	57.00	CL		89.0				27M0G7W		03	P								
KOR	KOR11202	116.00	127.50	36.00	1.24	1.02	168.00	MODRSS		43.43		MODTES	57.00	CR		89.0				27M0G7W		03	P								
KRE	KRE28600	140.00	128.45	40.32	1.63	0.68	18.89	MODRSS		44.00		MODTES	57.00	CL		87.0				27M0G7W			P								
KWT	KWT11300	11.00	47.48	29.12	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		83.0				27M0G7W			P								
LAO	LAO28400	122.20	103.71	18.17	1.87	1.03	123.99	MODRSS		42.18		MODTES	57.00	CR		84.0				33M0G7W			P								
LBN	LBN27900	11.00	37.55	34.02	1.47	0.91	73.16	MODRSS		43.19		MODTES	57.00	CR		84.0				27M0G7W			P								
LBR	LBR24400	-33.50	-9.30	6.60	1.22	0.70	133.00	MODRSS		45.13		MODTES	57.00	CR		84.0				27M0G7W			P	5, 6							
LBY	LBY28021	-24.80	17.50	26.30	3.68	1.84	130.00	MODRSS		36.14		MODTES	57.00	CL		84.0				27M0G7W			P								
LIE	LIE25300	-18.80	10.31	49.47	1.82	0.92	151.78	MODRSS		42.19		MODTES	57.00	CL		84.0				27M0G7W			P								
LSO	LSO30500	4.80	27.80	-29.80	0.66	0.60	36.00	MODRSS		48.47		MODTES	57.00	CL		84.0				27M0G7W			P								
LTU	LTU06100	23.20	24.52	56.11				CB_RSS_LTUA		47.92		MODTES	57.00	CR		84.0				27M0G7W			P								
LUX	LUX11400	28.20	5.21	49.20	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0				27M0G7W		09	P								
LVA	LVA06100	23.20	24.52	56.11				CB_RSS_LVAA		47.92		MODTES	57.00	CR		84.0				27M0G7W			P								
MAU	MAU_100	29.00	58.61	-15.88				CB_RSS_MAUAA		41.42		MODTES	57.00	CL		84.0				27M0G7W			P								
MCO	MCO11600	34.20	7.40	43.70	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		81.0				27M0G7W			P								
MDA	MDA06300	50.00	28.45	46.99	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		84.0				27M0G7W			P								
MDG	MDG23600	29.00	46.20	-18.60	2.57	0.80	67.00	MODRSS		41.32		MODTES	57.00	CL		84.0				27M0G7W			P								
MHL	MHL00000	146.00	167.64	9.83	2.07	0.90	157.42	MODRSS		41.75		MODTES	57.00	CR		84.0				27M0G7W			P								
MKD	MKD14800	22.80	21.53	41.50	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0				27M0G7W			P								
MLA	MLA_100	91.50	108.07	3.92				CB_RSS_MLAAA		41.75		MODTES	57.00	CR		84.0				27M0G7W			P								
MLD	MLD30600	50.00	73.10	6.00	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		84.0				27M0G7W			P								
MLI	MLI_100	-19.20	-4.80	16.10				CB_RSS_MLIA		41.11		MODTES	57.00	CR		87.0				27M0G7W			P								
MLT	MLT14700	22.80	14.40	35.90	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CR		84.0				27M0G7W			P								
MNG	MNG24800	74.00	101.95	46.79	3.32	1.04	169.27	MODRSS		39.07		MODTES	59.92	CL		86.9				27M0G7W			P								
MRC	MRC20900	-25.20	-8.90	28.90	3.96	1.55	50.00	MODRSS		36.57		MODTES	57.00	CR		80.0				27M0G7W			P								
MTN	MTN_100	-36.80	-11.24	20.91				CB_RSS_MTNA		37.55		MODTES	57.00	CR		86.0				27M0G7W			P								
MWI	MWI30800	4.80	33.79	-13.25	1.56	0.70	92.69	MODRSS		44.10		MODTES	57.00	CR		84.0				27M0G7W			P								

1	2	3	4					6	7	8		9		10		11	12	13	14	15	16	17		
			Видокруг		Карактеристике антене свемирске станице					Код антене свемирске станице	Обликовани сноп	Појачање антене свемирске станице		Антена земаљске станице									Поларизација	
			Дуж.	Шир.	Велика оса	Мала оса	Усмерење					Код	Појачање	Тип	Угао									
NGR	NGR11500	-37.20	7.63	16.97	2.20	1.80	100.58	MODRSS		38.47		MODTES	57.00	CL		84.0		27M0G7W			P			
NOR	NOR12000	-0.80	16.70	61.58	1.84	0.95	177.31	MODRSS		42.02		MODTES	57.00	CR		84.0		27M0G7W		06	P			
NOR	NOR12100	-0.80	16.70	61.58	1.84	0.95	177.31	MODRSS		42.02		MODTES	57.00	CL		84.0		27M0G7W		06	P			
NRU	NRU30900	134.00	167.00	-0.50	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
NZL	NZL_100	158.00	-174.35	-24.30				CB_RSS_NZLA		48.88		MODTES	57.00	CL		84.0		27M0G7W			P	7		
OMA	OMA12300	17.20	55.60	21.00	1.88	1.02	100.00	MODRSS		41.62		MODTES	57.00	CL		85.0		27M0G7W			P			
PHL	PHL28500	98.00	121.30	11.10	3.46	1.76	99.00	MODRSS		36.60		MODTES	57.00	CL		84.0		27M0G7W			P			
PLW	PLW00000	140.00	132.98	5.51	1.30	0.60	55.41	MODRSS		45.53		MODTES	57.00	CR		84.0		27M0G7W			P			
POL	POL13200	50.00	19.71	52.18	1.22	0.63	16.12	MODRSS		45.59		MODTES	57.00	CR		84.0		27M0G7W			P			
POR	POR_100	-37.00	-15.92	37.65				CB_RSS_PORA		47.17		MODTES	57.00	CR		84.0		27M0G7W			P			
PSE	YYY00001	-13.20	34.99	31.86	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		80.5		27M0G7W			P	8		
QAT	QAT24700	20.00	51.59	25.35	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
ROU	ROU13600	50.00	25.12	45.75	1.17	0.73	9.52	MODRSS		45.15		MODTES	57.00	CL		84.0		27M0G7W			P			
RRW	RRW31000	11.00	30.00	-2.10	0.66	0.60	42.00	MODRSS		48.47		MODTES	57.00	CR		81.0		27M0G7W			P			
RUS	RSTREA11	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0F8W	RST-1	05	PE			
RUS	RSTREA12	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0F8W	RST-1	05	PE			
RUS	RSTRED11	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-1	05	PE			
RUS	RSTRED12	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-1	05	PE			
RUS	RSTRSD11	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-1	05	P			
RUS	RSTRSD12	36.00	38.00	53.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-1	05	P			
RUS	RSTRSD21	56.00	65.00	63.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-2	14	P			
RUS	RSTRSD22	56.00	65.00	63.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-2	14	P			
RUS	RSTRSD31	86.00	97.00	62.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-3	33	P			
RUS	RSTRSD32	86.00	97.00	62.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-3	33	P			
RUS	RSTRSD51	140.00	158.00	56.00					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RST-5	35	P			
RUS	RSTRSD52	140.00	158.00	56.00					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RST-5	35	P			
RUS	RUS00401	110.00	118.22	51.52					COP	38.40	8.40	MODTES	57.00	CR		84.0		27M0G7W	RUS-4	34	P			
RUS	RUS00402	110.00	118.22	51.52					COP	38.40	8.40	MODTES	57.00	CL		84.0		27M0G7W	RUS-4	34	P			
S	S 13800	5.00	17.00	61.50	2.00	1.00	10.00	MODRSS		41.44		MODTES	57.00	CL		84.0		27M0G7W		04	P			
S	S 13900	5.00	17.00	61.50	2.00	1.00	10.00	MODRSS		41.44		MODTES	57.00	CL		84.0		27M0G7W		04	P			
SCG*	SCG14800	-7.00	20.50	43.98	0.91	0.60	145.16	MODRSS		47.07		MODTES	57.00	CL		84.0		27M0G7W			P			
SEY	SEY00000	42.50	51.86	-7.23	2.43	1.04	27.51	MODRSS		40.44		MODTES	57.00	CR		84.0		27M0G7W			P			
SLM	SLM00000	128.00	159.27	-8.40	1.35	1.08	118.59	MODRSS		42.81		MODTES	57.00	CL		84.0		27M0G7W			P			
SMO	SMO05700	-178.00	-171.70	-13.87	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
SMR	SMR31100	-36.80	12.50	43.90	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		83.0		27M0G7W			P			

\* Note by the Secretariat: This designation replaces the former designation "YUG" which was used previously as a three-letter code for the Administration of Serbia and Montenegro

1	2	3	4					6	7	8		9		10		11	12	13	14	15	16	17		
			Видокруг		Карактеристике антене свемирске станице					Код антене свемирске станице	Обликовани сноп	Појачање антене свемирске станице		Антена земаљске станице									Поларизација	
			Дуж.	Шир.	Велика оса	Мала оса	Усмерење					Код	Појачање	Тип	Угао									
SNG	SNG15100	88.00	103.86	1.42	0.92	0.72	175.12	MODRSS		46.25		MODTES	57.00	CL		84.0		27M0G7W			P			
SRL	SRL25900	-33.50	-11.80	8.60	0.78	0.68	114.00	MODRSS		47.20		MODTES	57.00	CR		84.0		27M0G7W			P			
STP	STP24100	-7.00	7.00	0.80	0.60	0.60	0.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27M0G7W			P			
SUI	SUI14000	-18.80	10.31	49.47	1.82	0.92	151.78	MODRSS		42.19		MODTES	57.00	CL		84.0		27M0G7W			P			
SVK	SVK14401	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CR		84.0		27M0G7W			P			
SVK	SVK14402	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W			P			
SVK	SVK14403	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27M0G7W		37	P			
SVN	SVN14800	33.80	15.01	46.18	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		82.0		27M0G7W			P			
SWZ	SWZ31300	4.80	31.39	-26.44	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CR		82.0		27M0G7W			P			
SYR	SYR22900	11.00	37.55	34.02	1.47	0.91	73.16	MODRSS		43.19		MODTES	57.00	CL		84.0		27M0G7W		53	P			
SYR	SYR33900	11.00	37.60	34.20	1.32	0.88	74.00	MODRSS		43.80		MODTES	57.00	CL		84.0		27M0G7W		53	P			
TCD	TCD14300	17.00	18.39	15.52	3.21	2.05	83.26	MODRSS		36.26		MODTES	57.00	CR		84.0		27M0G7W			P			
THA	THA14200	98.00	100.75	12.88	2.80	1.82	93.77	MODRSS		37.38		MODTES	57.00	CR		84.0		27M0G7W			P			
TJK	TJK06900	38.00	71.14	38.41	1.21	0.73	155.31	MODRSS		45.00		MODTES	57.00	CL		82.0		27M0G7W			P			
TKM	TKM06800	50.00	59.24	38.83	2.26	1.02	166.64	MODRSS		40.81		MODTES	57.00	CL		85.7		27M0G7W			P			
TMP	TMP00000	128.00	126.03	-8.72	0.66	0.60	13.92	MODRSS		48.50		MODTES	57.00	CR		84.0		27M0G7W			P	10		
TON	TON21500	170.75	-175.23	-18.19	1.59	0.60	71.33	MODRSS		44.64		MODTES	57.00	CR		84.0		27M0G7W			P			
TUN	TUN15000	-25.20	9.50	33.50	1.88	0.72	135.00	MODRSS		43.13		MODTES	57.00	CR		84.0		27M0G7W		55	P			
TUN	TUN27200	-25.20	2.50	32.00	3.59	1.75	175.00	MODRSS		36.47		MODTES	57.00	CR		84.0		27M0G7W		55	P			
TUR	TUR14500	42.00	35.14	38.99	3.19	1.10	0.03	MODRSS		39.00		MODTES	57.00	CL		84.0		27M0G7W		36	P			
TUV	TUV00000	176.00	177.61	-7.11	0.94	0.60	137.58	MODRSS		46.93		MODTES	57.00	CR		84.0		27M0G7W			P			
TZA	TZA22500	11.00	34.60	-6.20	2.41	1.72	129.00	MODRSS		38.27		MODTES	57.00	CR		84.0		27M0G7W			P			
UAE	UAE27400	52.50	53.98	24.37	1.23	0.84	6.62	MODRSS		44.31		MODTES	57.00	CR		84.0		27M0G7W			P			
UGA	UGA05100	17.00	32.20	1.04	1.50	1.02	68.73	MODRSS		42.62		MODTES	57.00	CR		84.0		27M0G7W			P			
UKR	UKR06300	38.20	31.82	48.19	2.32	0.95	177.32	MODRSS		41.01		MODTES	57.00	CR		84.0		27M0G7W			P			
USA	GUM33101	122.00	155.56	13.21				CB_RSS_GUMA		43.61		MODTES	57.00	CR		87.0		27M0G7W		7C	P			
USA	GUM33102	122.00	155.56	13.21				CB_RSS_GUMA		43.61		MODTES	57.00	CL		87.0		27M0G7W		7C	P			
USA	MRA33200	121.80	155.56	13.21				CB_RSS_MRAA		43.61		MODTES	57.00	CR		91.0		27M0G7W			P			
USA	PLM33200	170.00	-145.55	19.50				CB_RSS_PLMA		39.35		MODTES	57.00	CL		87.0		27M0G7W			P			
USA	USAA_101	170.00	-145.55	19.50				CB_RSS_USAA		39.35		MODTES	57.00	CR		87.0		27M0G7W		7A	P			
USA	USAA_102	170.00	-145.55	19.50				CB_RSS_USAA		39.35		MODTES	57.00	CL		87.0		27M0G7W		7A	P			
UZB	UZB07100	33.80	63.80	41.21	2.56	0.89	159.91	MODRSS		40.84		MODTES	57.00	CR		82.0		27M0G7W			P			
VTN	VTN32500	107.00	106.84	14.21	3.43	1.76	109.43	MODRSS		36.64		MODTES	57.00	CR		84.0		27M0G7W			P			
VUT	VUT12801	140.00	168.00	-16.40	1.52	0.68	87.00	MODRSS		44.30		MODTES	57.00	CL		84.0		27M0G7W		7B	P			
VUT	VUT12802	140.00	168.00	-16.40	1.52	0.68	87.00	MODRSS		44.30		MODTES	57.00	CR		84.0		27M0G7W		7B	P			
ZMB	ZMB31400	-0.80	27.50	-13.10	2.38	1.48	39.00	MODRSS		38.98		MODTES	57.00	CR		84.0		27M0G7W			P			
ZWE	ZWE13500	-0.80	29.60	-18.80	1.46	1.36	37.00	MODRSS		41.47		MODTES	57.00	CL		85.0		27M0G7W			P			

### АНЕКС 3

#### Технички подаци коришћени у успостављању одредби и придружених Планова и Листа спојних веза у Регионима 1 и 3, које би требало користити за њихову примену<sup>36</sup> (Rev.WRC-03)

**MOD** COM6/341/22 (B14/365/41) (R7/411/211)

#### 2.2 Кишно појачање

...

Корак 6 остаје исти осим што фреквенцијски овисни коефицијенти  $k$  и  $\alpha$  треба да буду добијени из Препоруке ITU-R P.838-3. (WRC-07)

...

**MOD** COM5/385/1A (B18/405/1)

#### ДОДАТАК 30В (Rev.WRC-07)

#### Одредбе и придружени План за фиксну-сателитску службу у фреквенцијским опсезима 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz и 12.75-13.25 GHz

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## ЧЛАН 1

### Циљ одредаба и придружени План

**MOD** COM5/385/1 (B18/405/3)

1.2 Процедуре прописане у овом додатку не смеју ни у ком случају спречити имплементацију додела у сагласности са националним алотментима Плана. (WRC-07)

## ЧЛАН 2

### Дефиниције

**MOD** COM5/385/2 (B18/405/4)

2.2 *План:* План за фиксну сателитску службу у фреквенцијским опсезима садржано у Додатку, састојећи се од националних алотмента. (WRC-07)

**ADD** COM5/385/3 (B18/405/5)

2.2bis *Листа додела (у даљем тексту, “Листа”):* Листа придружена Плану која садржи доделе које резултују успешном применом одредаба Члана 6 Додатка **30B** или применом Резолуције [COM5/7] (WRC-07). (WRC-07)

**MOD** COM5/385/4 (B18/405/6)

2.3 *Алотмент:* У овом Додатку, алотмент обухвата:

- номиналну орбиталну позицију;
- ширину опсега од 800 MHz (веза према горе и према доле) у фреквенцијским опсезима излистаним у Члану 3 овог Додатка;
- сервисно подручје за национално покривање

. (WRC-07)

**MOD** COM5/385/5 (B18/405/7)

2.4 *Постојећи системи:* Они сателитски системи у фреквенцијским опсезима покривеним овим додатком који су идентификовани у Резолуцији [COM5/7] (WRC-07). (WRC-07)

**SUP** COM5/385/6 (B18/405/8)

2.5

**MOD** COM5/385/7 (B18/405/9)

2.6 *Додатни систем:* За примарну одредбу овог додатка, додатни систем је систем за који додела поднесена од неке администрације није резултат конверзије алотмента у доделе. Код подношења за додатни систем, национални алотмент у Плану од администрације која је извршила подношење треба бити задржана. Подношење за додатни систем може бити извршено у име групе именованих администрација, са једном администрацијом означеном да ради као обавештавајућа администрација у вези тог додатног система. (WRC-07)

**]ADD** COM5/385/8 (B18/405/10)

*2.6bis* Код подношења за додатни систем, администрације треба да су потпуно сагласне са захтевима прописаним у Члану 44 Статута ИТУ. Посебно, те администрације треба да ограниче број орбиталних позиција и придруженог спектра тако да:

a) орбитални/спектрални природни ресурси се користе рационално, ефикасно и економично; и

b) коришћење вишеструких орбиталних локација за прекривање истог сервисног подручја се избегава. (WRC-07)

### ЧЛАН 3

#### Фреквенцијски опсези

### ЧЛАН 4

#### Извршење одредби и придружени План

**SUP** COM5/385/9 (B18/405/11)

### ЧЛАН 5 (WRC-03)

#### План и придружена Листа додела

**MOD** COM5/385/10 (B18/405/12)

### ЧЛАН 6 (Rev.WRC-07)

**MOD** COM5/385/11 (B18/405/13)

#### Процедуре за конверзију алотмента у доделу, за увођење додатног система или за модификацију доделе у Листи<sup>MOD 1, ADD 1A</sup> (WRC-07)

**MOD** COM5/385/12 (B18/405/14)

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<sup>1</sup> Ако уплате нису примљене у складу са одредбама Одлуке Савета 482, са изменама, о имплементацији покривања тошкова за попуне сателитске мреже, Биро треба да поништи публикацију специфицирану у § 6.7 и/или 6.23 и одговарајуће ставке у Листи под § 6.23 и/или 6.25, по потреби, и обнови све те алотменте у Плану, након информисања заинтересованих администрација. Биро треба да информише све администрације о таквој мери и да мрежа назначена у дотичној публикацији не треба више да се разматра ни од Бироа нити од других администрација. Биро треба да пошаље подсетник обавештавајућој администрацији не касније од два месеца пре истека рока плаћања у складу са горе споменутом Одлуком Савета 482 осим ако плаћање није већ примљено. Види такође резолуцију **905 (WRC-07)**. (WRC-07)

**ADD** COM5/385/13 (B18/405/15)

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<sup>1A</sup> Резолуција **49 (Rev.WRC-07)** се примењује.

**SUP** COM5/385/14 (B18/405/16)

#### Секција I – Процедура за конверзију алотмента у доделу

**SUP** COM5/385/15 (B18/405/17)

**Секција IA – Процедура за конверзију алотмента у доделу која није у сагласности са делом А Плана или није сагласна са Анексом 3В**

**SUP** COM5/385/16 (B18/405/18)

**Секција IB – Процедура за уписивање у Листу постојећих система садржано у Делу В Плана**

**SUP** COM5/385/17 (B18/405/19)

**Секција II – Процедура за увођење једног субрегионалног система**

**MOD** COM5/385/18 (B18/405/20)

6.1 када једна администрација намерава да конвертује један алотмент у доделу или кад нека администрација, или једна која ради у име групе именованих администрација<sup>ADD 1B</sup>, намерава да уведе додатни систем или модификује карактеристике додела у Листи које су стављене на коришћење, она треба, не раније од осам година и не касније од од две године пре планираног датума стављања доделе на коришћење, послати Бироу информацију назначену у Додатку 4<sup>ADD 1C, ADD 1D</sup>. (WRC-07)

**ADD** COM5/385/19 (B18/405/21)

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<sup>1B</sup> Кадгод, под § 6.1, нека администрација ради у име групе именованих администрација, сви чланови те групе задржавају право да одговоре у вези са њиховим властитим алотментима или доделама.

<sup>1C</sup> Подношење може садржавати конверзију 6/4 GHz или 13/10-11 GHz дела (везе према горе и везе према доле) алотмента у доделу омогућујући да је орбитална локација доделе иста као неконвертовани део алотмента.

<sup>1D</sup> Поднесци за додатне системе могу укључити коришћење једино свемир-Земља или Земља-свемир веза.

**ADD** COM5/385/20 (B18/405/22)

6.2 Ако Биро нађе да су информације које је примио под § 6.1 некомплетне, Биро треба одмах да затражи свако потребно појашњење и информацију која није поднесена од дотичне администрације.

**SUP** COM5/385/21 (B18/405/23)

6.39 to 6.42

**MOD** COM5/385/22 (B18/405/24)

6.3 По примању комплетног обавештења под § 6.1, Биро треба да га испита у вези са његовом сагласношћу са:

- a) Табела фреквенцијских намена и друге одредбе<sup>ADD 1E</sup> Правилника о радиокомуникацијама, осим оних одредби које се односе на сагласност са Планом фиксне сателитске службе; и
- b) Анекс 3 овом Додатку.

**ADD** COM5/385/23 (B18/405/25)

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<sup>1E</sup> “Остале провизије” треба да су идентификоване и укључене у Правила процедуре.

**ADD** COM5/385/24 (B18/405/26)

6.4 Када испитивање поштујући § 6.3 доведе до неповољног налаза, релевантан део обавештења треба да се врати обавештавајућој администрацији са индикацијом одговарајуће акције.

6.5 Када испитивање сваке доделе у обавештењу примљеном под § 6.1 у односу на § 6.3 води до повољног налаза, Биро треба да користи метод из Анекса 4 да одреди администрације чије:

- a) алотменте у Плану; или
- b) доделе које се појављују у Листама; или
- c) доделе које је Биро раније испитао под овим параграфом након примања комплетне информације у складу са § 6.1 овог Члана,

се сматрају да су дотакнуте од стране било које доделе у обавештењу.

6.6 Биро треба да идентификује оне администрације чија територија је укључена у сервисно подручје доделе која се испитује. Обавештавајућа администрација треба да тражи пристанак од сваке администрације чија територија делимично или у целости укључена у намеравано сервисно подручје доделе.

6.7 Биро треба да публикује, у Специјалној секцији свог BR IFIC, комплетне информације примљене под § 6.1 и испитане под § 6.5, заједно са:

- a) именима администрација идентификованих под § 6.5 и одговарајућих алотмента у Плану, додела у Листи и додела за које је Биро претходно примио комплетне информације у складу са § 6.1 и које је испитао под § 6.5 овог Члана;
- b) именима администрација идентификованих под § 6.6.

6.8 Следећи испитивање под § 6.5 и 6.6, Биро треба одмах да пошаље телеграм или факс администрацији која је поднела обавест под § 6.1, скрећући пажњу на захтеве који се траже и добијајући пристанак оних администрација идентификованих у Специјалној секцији BR IFIC публикованој под § 6.7.

6.9 Биро треба одмах да пошаље телеграм или факс свакој администрацији излистаној у Специјалној секцији BR IFIC публикованој под § 6.7, скрећући њену пажњу на информације које су садржане.

6.10 Коментари од администрација идентификованих као дотакнуте под § 6.5 у Специјалној секцији BR IFIC публиковано под § 6.7 треба да су послате Бироу и администрација која је поднела обавештење под § 6.1, или директно или кроз Биро, унутар периода од четири месеца након датума публикавања у BR IFIC. Када нека администрација не одговори унутар периода од четири месеца, сматра се да та администрација није пристала на предложену доделу, осим ако су одредбе од § 6.13 до 6.15 примењене.

Горе поменути период од четири месеца треба бити повећан за администрацију која је затражила помоћ од Бироа за максимум тридесет дана од датума кад је Биро саопштио резултат своје акције.

6.11 Тридесет дана пре истицања споменутог периода од четири месеца, Биро треба да разашиле телеграм-подсетник или факс свакој администрацији излистаној у Специјалној секцији публикованој под § 6.7 која није дала свој коментар под § 6.10, стављајући материју њој на пажњу.

6.12 Администрација која сматра да је требала да буде идентификована у публикацији горе наведеној под § 6.7 треба, у току од четири месеца од датума публикације релевантног BR IFIC, захтевати од Бироа да укључи њено име у публикацију истовремено дајући разлог за то. Биро треба да проучи ту информацију на бази Анекса 4 и да информише обе, дотакнуту администрацију и администрацију која је поднела обавештење о својим закључцима. Ако би Биро пристао на захтев администрације, он треба да публикује додатак на публикацију под § 6.7.

6.13 Након истог временског периода као што је онај назначен у § 6.10, обавештавајућа администрација може захтевати од Бироа да помогне у вези администрације која није одговорила унутар тог временског периода.

6.14 Биро, поступајући по захтеву за помоћ под § 6.13, треба да пошаље подсетник администрацији која није одговорила, захтевајући одлуку.

6.14bis Петнаест дана пре истека 30-дневног периода напоменутог у § 6.15, Биро треба да пошаље подсетник горе поменутој администрацији скрећући њену пажњу на последице ако не одговори.

6.15 Ако никаква одлука није саопштена Бироу у року од тридесет дана након датума од слања подсетника под § 6.14, сматраће се да је администрација која није послала одлуку пристала на предложену доделу.

6.16 Нека администрација може у било које време или након горе поменутог периода од четири месеца да информише Биро о свом приговору о укључењу у сервисно подручје било које доделе, чак и ако је та додела унета у Листу. Биро ће тада да обавести администрацију одговорну за доделу и да искључи територију и тестне тачке унутар територије администрације која је уложила приговор из сервисног подручја. Биро треба да ажурира референтну ситуацију без преиспитивања ранијих провера.

6.17 Ако се постигне споразум са администрацијама публиковано у складу са § 6.7, администрација која предлаже нову или модификовану доделу може захтевати од Бироа да додела буде унесена у Листу, указујући на финалне карактеристике доделе заједно са именима администрација са којима је споразум постигнут. У ту сврху, она треба да пошаље Бироу информације специфициране у Додатку 4. У подношењу обавештења, администрација може да захтева да Биро испита обавештење под § 6.19, 6.21 и 6.22 (ставка у Листи) и Члан 8 овог Додатка (обавештавање).

6.18 Ако је информација коју је Биро примио под § 6.17 некомплетна, Биро ће моментално да затражи свако потребно појашњење и информацију коју дотична администрација није доставила.

6.19 Након примања комплетног обавештења под § 6.17, Биро треба да испита сваку доделу у обавештењу:

- a) у вези са захтевом обавештавајуће администрације да затражи пристанак од оних администрација назначених у § 6.6;
- b) у вези са његовом сагласношћу у вези са Табелом фреквенцијских намена и остале одредбе<sup>ADD IF</sup> Правилника о радиокомуникацијама, осим оних одредби које се односе на сагласност са Планом фиксне сателитске службе; и

c) у вези са његовом сагласношћу са Анексом 3 овог Додатка.

**ADD** COM5/385/25 (B18/405/27)

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<sup>1F</sup> “Остале одредбе” треба да буду идентификоване и укључене у Правила процедуре.

**ADD** COM5/385/26 (B18/405/28)

6.20 Када испитивање поштујући § 6.19 неке доделе примљене под § 6.17 доведе до неповољног налаза, обавештење треба бити враћено обавештавајућој администрацији са напоменом да ће наредно подношење под § 6.17 бити сматрано да има нови датум пријема.

6.21 Када испитивање поштујући § 6.19 неке доделе примљене под § 6.17 доведе до повољног налаза, Биро треба да користи методу из Анекса 4 да испита да ли се додирнуте администрације и одговарајуће:

a) алотменте у Плану;

b) доделе које се појављују у Листи са датумом пријема испитиваног обавештења поднесеног под § 6.1;

c) доделе за које је Биро раније примио комплетне информације у складу са § 6.1 и провео испитивање под § 6.5 овог Члана са датумом пријема испитиваног обавештења поднесеног под § 6.1;

наведене у Специјалној секцији публикованој под § 6.7 и чији пристанак није био дат под § 6.17 још сматрају додирнуте том доделом.

6.22 Биро треба да одлучи да ли финалне карактеристике неке доделе примљене под § 6.17 узрокују више интерференције испитујући да ли оне смањују *C/I* вредност везе према горе и везе према доле једног алотмента у Плану или доделе у Листи или доделе за коју је Биро примио комплетну информацију у складу са овим чланом пре датума примања комплетног обавештења под § 6.17. Ако финалне карактеристике узрокују више интерференције него што је произведено са карактеристикама поднетим раније под § 6.1 алотменту у Плану или додели у Листи или додели за коју је Биро примио комплетну информацију у складу са овим Чланом, Биро треба да користи метод из Анекса 4 да одреди да ли тај алотмент или додела се сматра да је дотакнута предложеном доделом у одсуству експлицитног пристанка идентификованих администрација.

**SUP** COM5/385/27 (B18/405/29)

6.43bis

**ADD** COM5/385/28 (B18/405/30)

6.23 У случају повољног налаза под § 6.21 и 6.22, Биро треба да унесе предложену доделу у Листу <sup>ADD 1G</sup> и публикује у Специјалној секцији свог BR IFIC карактеристике доделе примљене под § 6.17, заједно са именима администрација са којима су одредбе овог Члана успешно примењене. Администрација може затим дати обавештење за доделу у складу са Чланом 8 овог Додатка.

**ADD** COM5/385/29 (B18/405/31)

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<sup>1G</sup> У случају конверзије алотмента у доделу, део алотмента који је био конвертован треба да се уклони из плана и референтна ситуација треба да је ажурирана.

**ADD** COM5/385/30 (B18/405/32)

6.24 Када испитивање под § 6.21 или 6.22 доведе до неповољног налаза, Биро треба да врати обавештење примљено под § 6.17 обавештавајућој администрацији заједно са именима администрација са којима неопходни споразуми под § 6.21 или 6.22 нису били дати и са индикацијом да ће наредно подношење под § 6.17 бити разматрано са новим датумом пријема.

6.25 Након што је обавештење враћено под § 6.24, ако би обавештавајућа администрација поново поднела обавештење и инсистирала на његовом поновном разматрању, Биро, под условом повољног налаза под § 6.21 и 6.22 у односу на алотменте у Плану, треба да унесе доделу привремено у Листу, са навођењем оних администрација чије доделе јесу база неповољног налаза. Ставка у Листи треба да се промени од привремене на дефинитивну само ако Биро добије обавештење да су сви тражени споразуми постигнути.

6.26 Обавештења добијена под § 6.25 треба такође да укључују потписани пристанак обавештавајуће администрације, указујући да коришћење једне доделе уписане у Листу под § 6.25 неће узроковати неприхватљиву интерференцију, нити ће се тражити заштита због тога, оним доделама за које споразум још треба да се постигне.

6.27 Кад је нека додела унесена привремено у Листу под одредбама § 6.25, та дедела не треба да се узима у обзир код ажурирања референтне ситуације оних додела које су основа за неповољан налаз. Ако Биро добије информацију да је неки споразум постигнут, референтна ситуација те доделе треба да се ажурира.

6.28 Ако доделе које су основа за неповољан налаз не би биле стављене на коришћење унутар периода специфицираног у § 6.1, тада статус доделе у Листи треба бити одговарајуће преиспитан.

6.29 Ако би неприхватљива интерференција била узрокована неком доделом унесеном у Листу под § 6.25 било којој додели у Листи која је била база за неслагање, обавештавајућа администрација доделе унесене у Листу под § 6.25 требала би, након примања савета о томе, одмах елиминисати ту неприхватљиву интерференцију.

**SUP** COM5/385/31 (B18/405/33)

6.44 до 6.53

**MOD** COM5/385/32 (B18/405/34)

6.30 Када нека додела укључена у Листу није више потребна, обавештавајућа администрација треба о томе да информише Биро.

**ADD** COM5/385/33 (B18/405/35)

6.31 Датум о стављању на коришћење може обавештавајућа администрација да продужи све до не више од осам година од датума када је Биро примио комплетно обавештење под § 6.1.

6.32 Тридесет дана пре датума стављања на коришћење под § 6.31, Биро треба да пошаље телеграм-подсетник или факс обавештавајућој администрацији која није доделу ставила на коришћење, скрећући пажњу на ту ствар.

6.33

Када:

i) нека додела није више потребна; или

- ii) нека додела уписана у Листу и стављена на коришћење била је суспендована за период који прелази две године и завршава и након датума истека назначеног у § 6.31; *или*
- iii) нека додела уписана у Листу није стављена на коришћење унутар периода од осам година након што је Биро примио комплетне информације под § 6.1, са изузетком додела које су поднеле нове Земље чланице где се § 6.35 и 7.7 примењује,

Биро треба:

- a) публиковати у Специјалној секцији свог BR IFIC поништавање Специјалних секција и дотичних додела уписане у Додатку **30В** Листе;
- b) ако је поништена додела резултат конверзије алотмента без модификације, да обнови алотмент у Додатку **30В** Плана;
- c) ако је поништена додела резултат конверзије алотмента са модификацијама, обновити алотмент са истом орбиталном локацијом и технички параметри поништене доделе осим за њено сервисно подручје, које треба да буде национална територија администрације чији алотмент се обнавља; *и*
- d) ажурирати референтну ситуацију за алотменте Плана и додела у Листи.

6.34 Када предложена нова или фреквенцијска додела није испунила све захтеве за уношење у Листу, у складу са § 6.23 или 6.25, до датума истека назначеног у § 6.31, Биро треба да публикује у Специјалној секцији BR IFIC поништавање дотичних Специјалних секција.

6.35 Процедура овог Члана може бити примењена од администрације земље\* која се придружила Унији као ITU Држава чланица и нема националну

и алотмент у Плану или доделу у Листи која произилази из конверзије неког алотмента у намери да укључи нове доделе у Листу. Након комплетирања процедуре, од следеће конференције о радиокомуникацијама може бити затражено да узме у обзир, између додела укључених у Листу након успешног комплетирања ове процедуре, укључивање у План новог алотмента преко националне територије нове Земље чланице.

6.36 Ако доделе споменуте у § 6.35 преко националне територије администрације не би биле стављене на коришћење у току осам година након што је Биро примио релевантну комплетну информацију под § 6.1, оне би требале бити задржане у Листи до завршетка WRC моментално следећи успешан завршетак процедуре назначене у § 6.35.

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\* Ова процедура се може применити на Палестину како би се добиле доделе у Додатку **30В** Плана. Овакве доделе важе ексклузивно само за Палестину и у складу су са Израелско-Палестинским Привременим Споразумом од 28. септембра 1995. године, Резолуција 741 Савета и Резолуције 99 (Анталија 2006) Конференције опуномоћеника. Ово је без предрасуда ствар будућих споразума између Државе Израел и Палестине.

**SUP** COM5/385/34 (B18/405/36)

**Секција III – Допунске одредбе примењиве на додатна коришћења у планираним опсезима**

**MOD** COM5/385/35 (B18/405/37)

**ЧЛАН 7** (Rev.WRC-07)

**Процедура за додавање нових алотмента у План за нову Земљу чланицу Уније**

**MOD** COM5/385/36 (B18/405/38)

7.1 Администрација земље \*\* која се придружила Унији као Земља чланица и нема ни један национални алотмент у Плану<sup>ADD 1H</sup> или неку доделу из конверзије неког алотмента треба да добије један национални алотмент помоћу следеће процедуре.

**ADD** COM5/385/37 (B18/405/39)

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<sup>1H</sup> Следећи WRC-07, администрација Украјине може, по изузетном основу, поднети захтев за један алотмент у замену за њен постојећи алотмент.

**MOD** COM5/385/38 (B18/405/40)

7.2 Администрација може да поднесе свој захтев Бироу за један алотмент, са следећим информацијама:

- a) географске координате од не више од двадесет тестних тачака за одређивање минималне елипсе за покривање своје националне територије;
- b) надморску висину сваке њене тестне тачке;
- c) било који специјални захтев који треба да се размотри до разумне величине.

**MOD** COM5/385/39 (B18/405/41)

7.3 Након примања комплетних информација (споменутих у § 7.2 горе), Биро треба експедитивно и пре подношења за која испитивање под § 6.5 није још почело, идентификовати одговарајуће техничке карактеристике и придружене орбиталне локације за потенцијалне националне алотменте. Биро треба да пошаље ову информацију захтевајућим администрацијама.

**SUP** COM5/385/40 (B18/405/42)

7.4

**ADD** COM5/385/41 (B18/405/43)

7.4 Након примања одговора од Бироа под § 7.3, захтевајућа администрација треба, унутар тридесет дана, назначити које је од предложених орбиталних локација са

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\*\* Ова процедура се може применити на Палестину како би се добиле доделе у Додатку **30B** Плана. Овакве доделе важе ексклузивно само за Палестину и у складу су са Израелско-Палестинским Привременим Споразумом од 28. септембра 1995. године, Резолуција 741 Савета и Резолуције 99 (Анталија 2006) Конференције опуномоћеника. Ово је без предрасуда ствар будућих споразума између Државе Израел и Палестине.

придруженим техничким параметрима, које је Биро назначио, одабрала. За време тог периода, захтевајућа администрација може у сваком тренутку да затражи помоћ Бироа.

*7.4bis* Ако избор за неки алотмент под § 7.4 Биро не прими унутар назначеног рока, Биро ће наставити испитивање поднесака под § 6.5, или наредног поднеска под Чланом 7, према потреби, и информисати захтевајућу администрацију да ће њен захтев бити процесираан под § 7.5 када је Биро информисан о изабраној орбиталној локацији.

7.5 Након примања захтева под § 7.4, Биро треба да процесира захтев пре подношења за која испитивање под § 6.5 није још почело и, користећи Анексе 3 и 4, у односу на његову сагласност са:

- a) Табелом фреквенцијских намена и осталих одредби<sup>ADD II</sup> Правилника о радиокомуникацијама, осим оних одредби које се односе на сагласност са Планом фиксне сателитске службе које су предмет следећег субпараграфа;
- b) намена у Плану;
- c) намена које се појављују у Листи;
- d) додела за које је Биро претходно примио комплетне информације и које су испитиване, или су у фази испитивања под § 6.5.

**ADD** COM5/385/42 (B18/405/44)

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<sup>II</sup> “Остале одредбе” треба да буду идентификоване и укључене у Правила процедуре.

**ADD** COM5/385/43 (B18/405/45)

7.6 Када испитивање под § 7.5 доведе до повољног налаза, Биро треба да унесе национални алотмент нове Земље чланице Уније у план и публикује карактеристике дотичног алотмента и резултат свог испитивања у Специјалној секцији BR IFIC са ажурираном референтном ситуацијом.

7.7 У случају да налаз Бироа под § 7.5 није повољан, предложени алотмент Земље чланице треба да буде третирана као поднесак под § 6.1 и треба да је Биро третира пре било каквих других подношења примљених под Чланом 6, осим за подношења која Биро већ испитује под § 6.5 у време комплетирања испитивања захтева нове Земље чланице под § 7.5.

**MOD** COM5/385/44 (B18/405/46)

## ЧЛАН 8 (Rev.WRC-07)

**MOD** COM5/385/45 (B18/405/47)

### **Процедура за обавештење и уписивање у главни регистар додела у планираним опсезима за фиксну сателитску службу**<sup>ADD IJ, ADD IK</sup> (WRC-07)

**ADD** COM5/385/46 (B18/405/48)

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<sup>IJ</sup> Ако уплата није примљена у складу са одредбама одлуке Савета 482, са изменама, о имплементацији покривања трошкова за пријаве сателитске мреже, Биро ће поништити публикацију специфицирану у § 8.5 и 8.12 и одговарајуће ставке у Главном регистру под § 8.11, након информисања заинтересоване администрације. Биро треба да информише све администрације о таквој акцији и да ће било које поново поднесено обавештење бити сматрано као ново обавештење. Биро ће послати подсетник обавештавајућој администрацији

не више од два месеца пре крајњег рока плаћања у складу са горе споменутом одлуком Савета 482, осим ако је уплата већ примљена. Види такође Резолуцију [COM5/2] (WRC-07). (WRC-07)

<sup>1K</sup> Резолуција 49 (Rev.WRC-07) се примењује. (WRC-07)

**MOD** COM5/385/47 (B18/405/49)

8.2 Ако прво обавештење напоменуто у § 8.1 Биро није примио унутар периода од осам година споменутог у § 6.1 Члана 6, доделе у Листи Биро и администрације не требају више узимати у обзир. Биро ће након тога деловати као да додела у Листи није стављена на коришћење у сагласности са § 6.1 Члана 6. Биро ће да информише обавештавајућу администрацију, три месеца унапред о крају периода од осам година, о акцијама које намерава да предузме. (WRC-07)

**SUP** COM5/385/48 (B18/405/50)

8.4

**MOD** COM5/385/49 (B18/405/51)

8.5 Комплетна обавештења Биро треба да нотира са њиховим датумом пријема и треба да буду прегледана по реду како су примана. Након примања комплетног обавештења Биро треба, за не више од два месеца, публиковати тај садржај, са било којим дијаграмима и мапама и датум примања, у BR IFIC, што треба да конституише потврду обавештавајућој администрацији о примању њеног обавештења. Када Биро није у позицији да се сложи са роком напоменутих горе, он ће периодично о том обавестити администрације, дајући разлог за то. (WRC-07)

**MOD** COM5/385/50 (B18/405/52)

8.9 *b)* у односу на сагласности са Планом фиксне сателитске службе и придруженим одредбама<sup>ADD 1L</sup>. (WRC-07)

**ADD** COM5/385/51 (B18/405/53)

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<sup>1L</sup> Кад нека администрација обавести за било коју доделу са карактеристикама другачијим од оних унесених у Листу путем успешне примене Члана 6 Додатка 30B, Биро треба да предузме израчунавање да одреди да ли предложене нове карактеристике повећавају ниво интерференције према другим алотментима и доделама у Плану и Листи. Повећање интерференције због карактеристика другачијих од оних унесених у Листу биће испитано упоређујући *C/I* односе тих других алотмента и додела, који резултују из коришћења предложених нових карактеристика од предмета доделе на једној страни, и оних добијених од карактеристика предмета доделе у Листи, на другој страни. Тај *C/I* прорачун се изводи под истим техничким претпоставкама и условима. (WRC-07)

**MOD** COM5/385/52 (B18/405/54)

8.13 Обавештење о промени у карактеристикама неке доделе која је већ уписана, како је специфицирано у Додатку 4, Биро треба да испита под § 8.8 и 8.9 по потреби. Свака промена карактеристика једне доделе, која је обавештена и потврђена да је била стављена на коришћење, треба бити стављена на коришћење унутар осам година од датума обавештења за модификацију. Све промене карактеристика неке доделе за које има обавештење али нису још стављене на коришћење треба да буду стављене на коришћење унутар периода датог за то у § 6.1 или 6.31 Члана 6. (WRC-07)

**SUP** COM5/385/53 (B18/405/55)

8.14

**MOD** COM5/385/54 (B18/405/56)

8.16 Све фреквенцијске доделе обавештене унапред о њиховом стављању на коришћење треба да се унесу привремено у Главни регистар. Било која фреквенцијска додела привремено унесена под том одредбом треба бити стављена на коришћење не касније од краја периода датог за то у § 6.1. Осим ако Биро није био информисан од обавештавајуће администрације о стављању на коришћење доделе, он треба, не касније од 15 дана пре истека регулаторног периода успостављеног под § 6.1, да пошаље подсетник захтевајући потврду да је додела стављена на коришћење унутар регулаторног периода. Ако Биро не прими ту потврду унутар 30 дана након периода датог под § 6.1, он треба поништити ставку у Главном регистру. (WRC-07)

**MOD** COM5/385/55 (B18/405/57)

8.17 Када је коришћење уписане доделе свемирској станици суспендовано за период који не прелази осамнаест месеци, обавештавајућа администрација треба, што пре је могуће, да информише Биро о датуму кад је то коришћење суспендовано и датуму када ће додела бити дата поново на регуларно коришћење. Тај други датум не сме прећи две године од датума суспензије. Ако додела није стављена поново на коришћење у року од две године након датума суспензије, Биро треба да поништи доделу у Главном регистру и примени одредбе из § 6.33. (WRC-07)

**MOD** COM5/385/56 (B18/405/58)

## ЧЛАН 9 (Rev.WRC-07)

### Генералне одредбе

**MOD** COM5/385/57 (B18/405/59)

9.1 План је ограничен на националне системе који пружају услуге на националном нивоу. Међутим, администрације могу у складу с одлукама Члана 6, конвертовати своје намене или предложити додатне системе да омогуће националне и мултинационалне услуге.

**SUP** COM5/385/57B (B18/405/60)

9.2

**MOD** COM5/385/58 (B18/405/61)

## ЧЛАН 10 (Rev.WRC-07)

**MOD** COM5/385/59 (B18/405/62)

### План за фиксну сателитску службу у опсезима 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz and 12.75-13.25 GHz

**MOD** COM5/385/60 (B18/405/63)

A.1 НАЗИВИ КОЛОНА ПЛАНА

**MOD** COM5/385/61 (B18/405/64)

Col. 2 Номиналне позиције орбита, у степенима

<b>SUP</b>	COM5/385/62	(B18/405/65)
Col. 3		
<b>SUP</b>	COM5/385/63	(B18/405/66)
Col. 4		
<b>MOD</b>	COM5/385/64	(B18/405/67)
Col. 3	<i>Лонгитуда оптичке осе, у степенима</i>	
<b>MOD</b>	COM5/385/65	(B18/405/68)
Col. 4	<i>Латитуда оптичке осе, у степенима</i>	
<b>MOD</b>	COM5/385/66	(B18/405/69)
Col. 5	<i>Велика оса елиптичног пресека снопа, у степенима</i>	
<b>MOD</b>	COM5/385/67	(B18/405/70)
Col. 6	<i>Мала оса елиптичног пресека снопа, у степенима</i>	
<b>MOD</b>	COM5/385/68	(B18/405/71)
Col. 7	<i>Оријентација елипсе одређена је на следећи начин: у равни нормалној на осу снопа, смер главне осе елипсе дефинисан је углом мереним супротно казаљци на сату од линије паралелне екваторијалној равни до главне осе елипсе, до најближег степена</i>	
<b>MOD</b>	COM5/385/69	(B18/405/72)
Col. 8	<i>Густина e.i.r.p. земаљске станице(dB(W/Hz))</i>	
<b>MOD</b>	COM5/385/70	(B18/405/73)
Col. 9	<i>Густина e.i.r.p. сателита(dB(W/Hz))</i>	
<b>MOD</b>	COM5/385/71	(B18/405/74)
Col. 10	Примедбе	
<b>SUP</b>	COM5/385/72	(B18/405/75)
1		
<b>ADD</b>	COM5/385/73	(B18/405/76)
1	Доделе конвертоване из намена.	
<b>SUP</b>	COM5/385/74	(B18/405/77)
2		
<b>ADD</b>	COM5/385/75	(B18/405/78)
2	Администрација Луксембурга (LUX) пристала је да ради са LUX-30B-6 сателитском мрежом у оквиру карактеристика укључених у Листу <b>30B</b> , као што је модификовано за време WRC-07, да се одмах елиминише интерференција која би могла да буде узрокована од LUX-30B-6 на националну намену Исламске Републике Иран (IRN00000) (IRN).	
<b>SUP</b>	COM5/385/76	(B18/405/79)
3		

**ADD** COM5/385/77 (B18/405/80)

3 Намена конвертована у доделу са једним снопом и затим обновљен у Плану.

**SUP** COM5/385/78 (B18/405/81)

4

**SUP** COM5/385/79 (B18/405/82)

5

**MOD** COM5/385/80 (B18/405/83)

*Напомена Секретаријата (примењива кад се налази звездица (\*))у колони 10):* Треба напоменути да је тај сноп намењен да буде имплементован као део више-сноповске мреже, која ради из једне локације у орбити. У оквиру било које више-сноповске мреже, сви снопови су одговорност једне администрације, тако да њихова међусобна интерференција неће да буде разматрана на Конференцији. Број који се налази у нумеричком коду након звездице служи за идентификацију вишесноповске мреже.

**SUP** COM5/385/81 (B18/405/84)

**B** НАЗИВИ КОЛОНА ДЕЛА Б ПЛАНА

A.2 ТЕКСТ ЗА СИМБОЛЕ У КОЛОНАМА ЗА НАПОМЕНУ ПЛАНА

**SUP** COM5/403/1 (B20/414/11)

Табела са Додатком 30В Плана (странице од AP30B-20 до AP30B-26)

**ADD** COM5/403/2 (B20/414/12)

**4 500-4 800 MHz, 6 725-7 025 MHz**

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>
ABW00000	-98.20	-69.10	12.40	1.60	1.60	90.00	-9.6	-41.4	
ADL00000	113.00	140.00	-66.70	1.60	1.60	90.00	-9.6	-41.3	*/MB1
AFG00000	50.00	66.40	33.90	2.20	1.60	15.00	-9.6	-39.4	
AFS00000	71.00	27.20	-30.10	5.30	1.60	128.00	-7.8	-38.6	
AGL00000	-36.10	15.90	-12.40	2.40	1.60	78.00	-9.6	-39.1	
ALB00000	4.13	20.00	41.10	1.60	1.60	90.00	-9.6	-41.4	
ALG00000	-33.50	1.60	27.80	3.30	2.20	133.00	-8.6	-38.9	
ALS00000	-159.00	-158.60	57.50	6.30	1.60	1.00	-7.9	-38.8	*/MB2
AND00000	-41.00	1.50	42.50	1.60	1.60	90.00	-9.6	-41.4	
ARG00000	-51.00	-62.00	-33.60	4.80	2.90	93.00	-2.5	-38.1	*/MB3
ARGINSUL	-51.00	-60.00	-57.50	3.60	1.60	154.00	-9.6	-38.5	*/MB3
ARM00000	71.40	45.13	40.12	1.60	1.60	90.00	-9.6	-40.4	
ARS00000	51.90	45.70	23.10	3.70	2.60	153.00	-8.7	-39.3	
ASCSTHTC	-37.10	-11.80	-19.60	5.60	1.80	77.00	-8.0	-39.0	*/MB4
ATG00000	-77.70	-61.80	17.00	1.60	1.60	90.00	-9.6	-41.8	
ATN00000	-5.00	-65.60	15.10	1.60	1.60	90.00	-9.6	-38.9	*/MB5
AUS00001	144.10	134.30	-24.50	6.60	5.30	146.00	1.9	-38.2	*/MB6
AUS00002	144.10	163.60	-30.50	1.60	1.60	90.00	-9.6	-39.5	*/MB6
AUS00003	144.10	101.50	-11.10	1.60	1.60	90.00	-9.6	-40.5	*/MB6
AUS00004	144.10	159.00	-54.50	1.60	1.60	90.00	-9.6	-41.6	*/MB6
AUS00005	144.10	110.40	-66.30	1.60	1.60	90.00	-9.6	-41.3	*/MB6
AUT00000	-11.40	13.20	47.50	1.60	1.60	90.00	-9.6	-40.8	
AZR00000	-10.60	-28.00	38.70	1.60	1.60	90.00	-9.6	-41.1	*/MB7
B 00001	-66.25	-62.60	-6.00	4.10	4.00	43.00	-2.5	-38.7	
B 00002	-63.60	-45.40	-6.30	4.60	4.10	152.00	-1.9	-38.6	
B 00003	-69.45	-50.00	-20.90	4.30	3.00	60.00	-3.4	-38.5	
BAH00000	-74.30	-75.80	24.00	1.60	1.60	133.00	-9.6	-39.4	

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
BDI00000	-3.50	29.90	-3.40	1.60	1.60	90.00	-9.6	-41.6	
BEL00000	54.55	5.20	50.60	1.60	1.60	90.00	-9.6	-41.2	
BEN00000	-30.60	2.30	9.30	1.60	1.60	90.00	-9.6	-39.9	
BERCAYMS	-37.10	-68.60	22.50	3.70	2.30	41.00	-5.6	-38.2	*/MB4
BFA00000	10.79	-1.40	12.20	1.70	1.60	24.00	-9.6	-39.5	
BGD00000	133.00	90.20	24.00	1.60	1.60	90.00	-9.6	-40.3	
BHR00000	13.60	50.60	26.10	1.60	1.60	90.00	-9.6	-41.9	
BLZ00000	-90.80	-88.60	17.20	1.60	1.60	90.00	-9.6	-41.6	
BOL00000	-34.80	-64.40	-17.10	2.70	1.70	129.00	-7.5	-38.6	
BOT00000	21.20	24.00	-21.80	1.60	1.60	90.00	-9.6	-40.0	
BRB00000	-29.60	-59.60	13.20	1.60	1.60	90.00	-9.6	-41.6	
BRM00000	111.50	97.00	18.90	3.20	1.60	88.00	-7.2	-38.8	
BRU00000	157.30	114.60	4.50	1.60	1.60	90.00	-9.6	-40.9	
BTN00000	59.10	90.40	27.00	1.60	1.60	90.00	-9.6	-41.5	
BUL00000	56.02	25.60	42.80	1.60	1.60	90.00	-9.6	-40.8	
CAF00000	14.40	21.50	6.50	2.70	1.70	14.00	-8.4	-39.1	
CANOCENT	-111.10	-96.10	51.40	4.30	2.00	155.00	-7.6	-38.4	
CANOEAST	-107.30	-76.60	50.10	5.00	1.70	154.00	-7.0	-38.3	
CANOWEST	-114.90	-120.10	57.40	3.10	1.90	173.00	-9.6	-38.7	
CBG00000	96.10	105.10	12.90	1.60	1.60	90.00	-9.6	-40.4	
CHL00000	-74.90	-82.60	-32.80	8.10	6.10	155.00	-0.7	-38.4	
CHN00001	101.40	103.70	35.00	8.10	4.30	2.00	-0.1	-38.3	
CHN00002	135.50	114.80	16.40	4.90	2.40	65.00	-3.6	-38.7	
CLM00000	-70.90	-74.00	5.70	4.00	2.30	121.00	-5.1	-38.9	
CLN00000	121.50	80.10	7.70	1.60	1.60	90.00	-9.6	-41.2	
CME00000	7.98	12.90	6.30	2.50	1.90	84.00	-8.4	-39.5	
CNR00000	-30.00	-15.90	28.50	1.60	1.60	90.00	-9.6	-41.3	*/MB8
COD00000	50.95	24.40	-4.60	3.90	3.50	92.00	-7.4	-38.5	
COG00000	-16.35	14.80	-0.60	2.00	1.60	63.00	-9.1	-38.8	
COM00000	94.50	44.10	-12.20	1.60	1.60	90.00	-9.6	-41.0	
CPV00000	-85.70	-24.10	16.00	1.60	1.60	90.00	-9.6	-41.3	
CTI00000	-15.76	-5.90	7.80	1.60	1.60	90.00	-9.6	-40.0	
CTR00000	-96.00	-85.30	8.20	1.60	1.60	90.00	-9.6	-40.2	
CUB00000	-80.60	-79.50	21.00	2.00	1.60	172.00	-9.6	-39.3	
CVA00000	59.00	12.50	41.90	1.60	1.60	90.00	-9.6	-41.3	
CYP00000	0.50	33.20	35.10	1.60	1.60	90.00	-9.6	-41.6	
CYPSBA00	57.50	32.90	34.60	1.60	1.60	90.00	-9.6	-41.7	*/MB9
D 00001	26.40	9.70	50.70	1.60	1.60	90.00	-9.6	-40.5	
D 00002	37.20	12.60	51.40	1.60	1.60	90.00	-9.6	-40.8	
DJI00000	-17.46	42.60	11.70	1.60	1.60	90.00	-9.6	-41.3	
DMA00000	-70.00	-61.30	15.30	1.60	1.60	90.00	-9.6	-41.8	
DNK00001	32.28	11.60	56.00	1.60	1.60	90.00	-9.6	-40.9	
DNK00002	-49.00	12.50	56.30	1.60	1.60	90.00	-9.6	-40.6	*/MB10
DNK00FAR	-49.00	-7.20	61.70	1.60	1.60	90.00	-9.6	-41.1	*/MB10
DOM00000	-85.40	-70.40	18.70	1.60	1.60	90.00	-9.6	-41.7	
E 00002	-30.00	-3.00	39.90	2.10	1.60	8.00	-9.6	-39.5	*/MB8
EGY00000	67.11	30.30	26.20	2.30	1.60	54.00	-9.6	-39.2	
EQA00000	-104.00	-83.10	-1.40	3.10	1.60	174.00	-7.8	-38.9	
ETH00000	58.30	40.60	10.30	2.80	2.80	64.00	-9.4	-39.4	
F 00000	-8.00								1
FIN00000	46.80	23.80	64.30	1.60	1.60	90.00	-9.6	-39.3	
FJI00000	148.80	178.50	-17.20	1.60	1.60	90.00	-9.6	-41.5	
FLKSTGGL	-37.10	-46.80	-59.60	3.70	1.60	170.00	-9.6	-38.8	*/MB4
G 00000	-37.10	-4.10	53.90	1.60	1.60	151.00	-9.6	-39.0	*/MB4
GAB00000	39.00	11.70	-0.70	1.60	1.60	90.00	-9.6	-39.8	
GDL00000	-8.00								1
GDL00002	-115.90	-61.80	16.40	1.60	1.60	90.00	-9.6	-40.3	*/MB13

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
GHA00000	15.90	-1.30	7.70	1.60	1.60	90.00	-9.6	-39.7	
GIB00000	57.50	-5.40	36.10	1.60	1.60	90.00	-9.6	-40.9	*/MB9
GMB00000	-34.00	-16.40	13.40	1.60	1.60	90.00	-9.6	-42.1	
GNB00000	40.00	-15.40	12.00	1.60	1.60	90.00	-9.6	-41.3	
GNE00000	-32.30	10.50	1.70	1.60	1.60	90.00	-9.6	-40.9	
GRC00000	22.05	24.70	38.30	1.70	1.60	160.00	-9.6	-39.3	
GRD00000	-32.80	-61.60	12.00	1.60	1.60	90.00	-9.6	-41.6	
GRL00000	-49.00	-42.90	68.60	2.30	1.60	174.00	-9.6	-38.6	*/MB10
GTM00000	-135.70	-90.50	15.50	1.60	1.60	90.00	-9.6	-40.5	
GUF00000	-8.00								1
GUF00002	-115.90	-53.30	4.30	1.60	1.60	90.00	-8.6	-39.4	*/MB13
GUI00000	27.50	-10.90	10.20	1.60	1.60	90.00	-9.6	-39.2	
GUMMRA00	-159.00	145.40	16.70	1.70	1.60	79.00	-9.4	-38.3	*/MB2
GUY00000	-23.80	-59.20	4.70	1.60	1.60	90.00	-9.6	-39.4	
HKG00000	57.50	114.50	22.40	1.60	1.60	90.00	-9.6	-40.6	
HND00000	-76.20	-86.10	15.40	1.60	1.60	90.00	-9.6	-40.0	
HNG00000	-7.50	19.40	47.40	1.60	1.60	90.00	-9.6	-41.0	
HOL00000	-5.00	5.40	52.40	1.60	1.60	90.00	-9.6	-41.4	*/MB5
HTI00000	-92.00	-73.00	18.80	1.60	1.60	90.00	-9.6	-41.7	
HWA00000	-159.00	-157.60	20.70	1.60	1.60	90.00	-9.6	-40.2	*/MB2
HWL00000	-159.00	-176.60	0.10	1.60	1.60	90.00	-9.6	-41.8	*/MB2
I 00000	-23.40	11.30	40.90	2.10	1.60	141.00	-9.6	-38.9	
IND00000	74.00	82.70	18.90	6.20	4.90	120.00	0.3	-38.5	
INS00000	115.40	117.60	-1.80	9.40	4.30	170.00	1.8	-38.6	
IRL00000	-21.80	-8.20	53.20	1.60	1.60	90.00	-9.6	-41.1	
IRN00000	24.19	54.30	33.00	3.70	1.60	143.00	-9.6	-39.0	
IRQ00000	65.45	44.30	33.10	1.60	1.60	90.00	-9.6	-39.4	
ISL00000	-35.20	-18.20	64.90	1.60	1.60	90.00	-9.6	-40.5	
ISR00000	-4.00								1
J 00000	152.50	140.40	30.40	5.70	3.70	15.00	-2.3	-38.5	
JAR00000	-159.00	-160.00	-0.40	1.60	1.60	90.00	-9.6	-41.9	*/MB2
JMC00000	-108.60	-77.60	18.20	1.60	1.60	90.00	-9.6	-41.5	
JON00000	-159.00	-168.50	17.00	1.60	1.60	90.00	-9.6	-42.2	*/MB2
JOR00000	81.76	36.70	31.30	1.60	1.60	90.00	-9.6	-40.9	
KEN00000	78.20	38.40	0.80	2.10	1.60	95.00	-9.6	-39.3	
KER00000	113.00	69.30	-43.90	1.90	1.60	169.00	-9.6	-38.7	*/MB1
KGZ00000	64.60	74.54	41.15	1.60	1.60	90.00	-9.6	-38.8	
KIR00000	150.00	173.00	1.00	1.60	1.60	90.00	-9.6	-41.8	
KNA00000	-88.80	-62.90	17.30	1.60	1.60	90.00	-9.6	-41.6	
KOR00000	116.20	127.70	36.20	1.60	1.60	90.00	-9.6	-40.5	
KRE00000	145.00	127.80	39.80	1.60	1.60	90.00	-9.6	-39.6	
KWT00000	30.90	47.70	29.10	1.60	1.60	90.00	-9.6	-41.9	
LAO00000	142.00	104.10	18.10	1.60	1.60	90.00	-9.6	-39.1	
LBN00000	97.50	35.80	33.80	1.60	1.60	90.00	-9.6	-41.3	
LBR00000	-41.80	-8.90	6.50	1.60	1.60	90.00	-9.6	-40.4	
LBY00000	28.90								1
LIE00000	-17.10	9.50	47.20	1.60	1.60	90.00	-9.6	-41.7	
LSO00000	-19.30	28.40	-29.50	1.60	1.60	90.00	-9.6	-41.5	
LUX00000	19.20	6.20	49.70	1.60	1.60	90.00	-9.6	-41.6	
MAC00000	117.00	113.60	22.20	1.60	1.60	90.00	-9.6	-41.8	
MAU00000	92.20	57.50	-20.20	1.60	1.60	90.00	-9.6	-41.4	
MCO00000	41.00	7.40	43.70	1.60	1.60	90.00	-9.6	-41.3	
MDG00000	16.90	46.60	-18.70	2.60	1.60	66.00	-7.5	-38.6	
MDR00000	-10.60	-16.20	31.60	1.60	1.60	90.00	-9.6	-41.7	*/MB7
MDW00000	-159.00	-177.40	28.20	1.60	1.60	90.00	-9.6	-42.0	*/MB2
MEX00000	-113.00	-103.60	23.30	5.80	2.40	161.00	-4.7	-38.8	
MHL00000	-159.00	175.30	8.70	2.30	1.60	94.00	-8.6	-38.8	*/MB2

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
MLA00000	78.50	108.20	4.70	3.20	1.60	0.00	-6.3	-38.5	
MLD00000	117.60	73.40	2.50	2.20	1.60	88.00	-9.6	-38.7	
MLI00000	-6.00	-3.90	17.60	3.30	2.50	21.00	-7.6	-39.2	
MLT00000	-3.00	14.40	35.90	1.60	1.60	90.00	-9.6	-41.8	
MNG00000	113.60	103.80	46.80	3.60	1.60	3.00	-9.6	-38.9	
MOZ00000	90.60	35.60	-17.20	3.10	1.60	98.00	-7.7	-38.3	
MRC00000	32.86	-8.90	27.90	3.40	1.60	45.00	-9.6	-38.8	
MTN00000	-21.10	-10.30	19.80	2.50	2.40	76.00	-9.6	-39.4	
MWI00000	28.00	34.10	-13.30	1.60	1.60	90.00	-9.6	-40.0	
MYT00000	-8.00								1
NCG00000	-84.40	-84.90	12.90	1.60	1.60	90.00	-9.6	-40.6	
NCL00000	113.00	165.80	-21.40	1.60	1.60	90.00	-9.6	-40.6	*/MB1
NGR00000	-38.50	7.50	17.20	2.10	1.70	100.00	-9.6	-38.9	
NIG00000	41.82	8.00	9.90	2.50	1.60	47.00	-7.7	-38.5	
NMB00000	12.20	18.50	-21.00	2.70	2.60	155.00	-9.6	-39.5	
NOR00000	-0.80	11.70	64.60	2.00	1.60	17.00	-9.6	-38.7	
NPL00000	123.30	84.40	28.00	1.60	1.60	90.00	-9.6	-40.8	
NRU00000	146.00	166.90	-0.50	1.60	1.60	90.00	-9.6	-41.8	
NZL00001	152.00	170.90	-44.80	5.40	1.60	49.00	-7.4	-38.1	*/MB14
NZL00002	152.00	-165.40	-13.20	2.70	2.00	82.00	-7.3	-38.3	*/MB14
OCE00000	-115.90	-141.90	-16.10	3.50	2.40	139.00	-7.1	-38.9	*/MB13
OMA00000	104.00	55.10	21.60	1.90	1.60	61.00	-9.6	-39.2	
PAK00000	56.50	69.90	29.80	3.00	2.00	22.00	-9.3	-39.0	
PHL00000	161.00	122.23	11.37	3.33	1.60	79.65	-6.3	-38.4	
PLM00000	-159.00	-161.40	7.00	1.60	1.60	90.00	-9.6	-41.9	*/MB2
PNG00000	154.10	148.40	-6.60	3.30	2.30	167.00	-6.2	-39.0	
PNR00000	-79.20	-80.20	8.50	1.60	1.60	90.00	-9.6	-40.4	
POL00000	15.20	19.30	52.00	1.60	1.60	90.00	-9.6	-40.0	
POR00000	-10.60	-8.00	39.70	1.60	1.60	90.00	-9.6	-41.2	*/MB7
PRG00000	-81.50	-58.70	-23.10	1.60	1.60	90.00	-9.6	-39.1	
PRU00000	-89.90	-74.20	-8.40	3.60	2.40	111.00	-5.4	-38.7	
PTC00000	-62.30	-130.10	-25.10	1.60	1.60	90.00	-9.6	-41.2	
QAT00000	0.90	51.60	25.40	1.60	1.60	90.00	-9.6	-41.6	
REU00000	-8.00								1
REU00002	113.00	55.60	-21.10	1.60	1.60	90.00	-9.6	-40.6	*/MB1
ROU00000	30.45	25.00	46.30	1.60	1.60	90.00	-9.6	-39.6	
RRW00000	17.60	29.70	-1.90	1.60	1.60	90.00	-9.6	-41.9	
RUS00001	61.00	51.50	52.99	5.56	2.01	10.74	-7.2	-38.3	
RUS00003	138.50	138.14	53.83	5.86	2.09	8.41	-6.7	-38.2	
RUSLA201	88.10	94.80	48.60	7.50	3.50	175.00	-1.4	-38.3	
S 00000	5.00	16.70	60.90	1.60	1.60	90.00	-9.6	-40.2	
SDN00001	23.55	29.30	10.30	3.00	1.90	131.00	-9.3	-39.0	*/MB15
SDN00002	23.55	29.40	16.70	2.60	2.40	171.00	-9.6	-39.3	*/MB15
SEN00000	-48.40	-14.00	14.10	1.60	1.60	90.00	-9.6	-40.3	
SEY00000	42.25								1
SLM00000	147.50	159.00	-9.10	1.60	1.60	90.00	-9.6	-39.5	
SLV00000	-130.50	-89.00	13.70	1.60	1.60	90.00	-9.6	-40.9	
SMA00000	-159.00	-170.70	-14.20	1.60	1.60	90.00	-9.6	-42.2	*/MB2
SMO00000	-125.50	-172.10	-13.70	1.60	1.60	90.00	-9.6	-41.1	
SMR00000	16.50	12.50	43.90	1.60	1.60	90.00	-9.6	-42.0	
SNG00000	98.10	103.90	1.30	1.60	1.60	90.00	-9.6	-41.6	
SOM00000	98.40	46.00	6.30	3.10	1.60	72.00	-9.6	-38.8	
SPM00000	-8.00								1
SRL00000	-51.80	-11.90	8.50	1.60	1.60	90.00	-9.6	-41.4	
STP00000	30.25	7.00	1.00	1.60	1.60	90.00	-9.6	-41.7	
SUI00000	9.45	8.20	46.50	1.60	1.60	90.00	-9.6	-41.3	
SUR00000	-77.00	-55.60	3.90	1.60	1.60	90.00	-9.6	-40.7	

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
SWZ00000	30.10	31.30	-26.40	1.60	1.60	90.00	-9.6	-42.0	
SYR00000	18.00	38.60	35.30	1.60	1.60	90.00	-9.6	-40.8	
TCD00000	-9.90	18.40	15.60	3.50	1.60	97.00	-8.9	-39.0	
TGO00000	-23.15	0.80	8.60	1.60	1.60	90.00	-9.6	-40.4	
THA00000	120.60	100.90	12.80	2.80	1.60	83.00	-7.7	-38.8	
TON00000	-128.00	-175.20	-21.20	1.60	1.60	90.00	-9.6	-41.0	
TRD00000	-73.40	-61.10	10.80	1.60	1.60	90.00	-9.6	-41.8	
TUN00000	5.74	9.40	33.50	1.60	1.60	90.00	-9.6	-40.3	
TUR00000	8.50	34.10	38.90	2.80	1.60	171.00	-6.4	-38.6	
TUV00000	158.00	179.20	-8.50	1.60	1.60	90.00	-9.6	-41.8	
TZA00000	67.50	35.40	-5.90	2.40	1.60	117.00	-9.6	-39.3	
UAE00000	63.50	53.80	24.90	1.60	1.60	90.00	-9.6	-41.1	
UGA00000	31.50	32.20	0.90	1.60	1.60	90.00	-9.6	-40.3	
UKR00000	50.50	34.42	49.50	1.60	1.60	0.00	-8.4	-38.2	
URG00000	-86.10	-56.30	-33.70	1.60	1.60	90.00	-9.6	-40.7	
USA00000	-101.00	-93.90	36.80	8.20	3.60	172.00	-0.9	-38.3	*/MB16
USAVIPRT	-101.00	-64.50	17.80	1.60	1.60	90.00	-9.6	-41.4	*/MB16
VCT00000	-93.10	-61.10	13.20	1.60	1.60	90.00	-9.6	-41.5	
VEN00001	-82.70	-66.40	6.80	2.80	2.10	142.00	-7.0	-38.9	*/MB17
VEN00002	-82.70	-63.60	15.70	1.60	1.60	90.00	-9.6	-41.7	*/MB17
VTN00000	107.00								1
VUT00000	150.70	168.40	-17.20	1.60	1.60	90.00	-9.6	-40.3	
WAK00000	-159.00	166.50	19.20	1.60	1.60	90.00	-9.6	-41.9	*/MB2
WAL00000	113.00	-177.10	-13.80	1.60	1.60	90.00	-9.0	-39.8	*/MB1
XCQ00000	-159.00	173.40	4.60	10.20	2.40	175.00	4.5	-35.6	*/MB2
XCS00000	-19.82	17.30	49.60	1.60	1.60	90.00	-9.6	-40.0	
XYU00000	43.04	18.70	44.40	1.60	1.60	90.00	-9.6	-40.5	
YEM00001	27.00	44.20	15.10	1.60	1.60	90.00	-9.6	-41.4	
YEM00002	108.00	49.90	14.80	1.60	1.60	90.00	-9.6	-39.7	
ZMB00000	39.55	27.90	-12.80	2.40	1.60	26.00	-9.6	-39.6	
ZWE00000	65.60	30.00	-18.90	1.60	1.60	90.00	-9.6	-39.9	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
ABW00000	-98.20	-69.10	12.40	0.80	0.80	90.00	-6.4	-25.8	
ADL00000	113.00	140.00	-66.70	0.80	0.80	90.00	-10.2	-31.9	*/MB1
AFG00000	50.00	66.40	33.90	2.20	1.30	15.00	-4.1	-29.2	
AFS00000	71.00	27.20	-30.10	5.30	1.40	128.00	3.3	-26.7	
AGL00000	-36.10	15.90	-12.40	2.40	1.40	78.00	1.1	-25.8	
ALB00000	4.13	20.00	41.10	0.80	0.80	90.00	-8.6	-28.2	
ALG00000	-33.50	1.60	27.80	3.30	2.20	133.00	3.4	-26.6	
ALS00000	-159.00	-158.60	57.50	6.30	1.50	1.00	1.6	-28.7	*/MB2
AND00000	-41.00	1.50	42.50	0.80	0.80	90.00	-10.2	-30.0	
ARG00000	-51.00	-62.00	-33.60	4.80	2.90	93.00	9.4	-21.9	*/MB3
ARGINSUL	-51.00	-60.00	-57.50	3.60	1.30	154.00	-1.4	-28.6	*/MB3
ARM00000	71.40	45.13	40.12	0.80	0.80	90.00	-10.2	-30.1	
ARS00000	51.90	45.70	23.10	3.70	2.60	153.00	0.8	-29.4	
ASCSTHTC	-37.10	-11.80	-19.60	5.60	1.80	77.00	2.1	-28.6	*/MB4
ATG00000	-77.70	-61.80	17.00	0.80	0.80	90.00	-7.2	-27.1	
ATN00000	-5.00	-65.60	15.10	1.30	1.00	58.00	-1.1	-22.3	*/MB5
AUS00001	144.10	134.30	-24.50	6.60	5.30	146.00	13.4	-22.1	*/MB6
AUS00002	144.10	163.60	-30.50	1.60	1.00	15.00	-2.9	-26.5	*/MB6
AUS00003	144.10	101.50	-11.10	1.10	1.00	15.00	-6.9	-28.5	*/MB6
AUS00004	144.10	159.00	-54.50	0.80	0.80	90.00	-10.2	-32.3	*/MB6
AUS00005	144.10	110.40	-66.30	0.80	0.80	90.00	-10.2	-31.8	*/MB6
AUT00000	-11.40	13.20	47.50	0.80	0.80	90.00	-8.1	-27.2	
AZR00000	-10.60	-28.00	38.70	0.80	0.80	90.00	-8.7	-27.9	*/MB7
B 00001	-66.25	-62.60	-6.00	4.10	4.00	43.00	9.8	-22.4	
B 00002	-63.60	-45.40	-6.30	4.60	4.10	152.00	10.4	-22.4	
B 00003	-69.45	-50.00	-20.90	4.30	3.00	60.00	8.9	-22.2	
BAH00000	-74.30	-75.80	24.00	1.60	1.00	133.00	-0.8	-24.5	
BDI00000	-3.50	29.90	-3.40	0.80	0.80	90.00	-10.2	-29.9	
BEL00000	54.55	5.20	50.60	0.80	0.80	90.00	-10.2	-30.2	
BEN00000	-30.60	2.30	9.30	1.20	1.00	89.00	-2.1	-23.0	
BERCAYMS	-37.10	-68.60	22.50	3.70	2.30	41.00	7.4	-21.8	*/MB4
BFA00000	10.79	-1.40	12.20	1.70	1.00	24.00	-0.6	-25.0	
BGD00000	133.00	90.20	24.00	0.80	0.80	90.00	-3.9	-21.9	
BHR00000	13.60	50.60	26.10	0.80	0.80	90.00	-10.2	-32.2	
BLZ00000	-90.80	-88.60	17.20	0.80	0.80	90.00	-6.5	-26.6	
BOL00000	-34.80	-64.40	-17.10	2.70	1.70	129.00	4.3	-22.5	
BOT00000	21.20	24.00	-21.80	1.50	1.50	94.00	-6.0	-30.0	
BRB00000	-29.60	-59.60	13.20	0.80	0.80	90.00	-7.0	-26.4	
BRM00000	111.50	97.00	18.90	3.20	1.60	88.00	4.6	-22.6	
BRU00000	157.30	114.60	4.50	0.80	0.80	90.00	-6.9	-24.9	
BTN00000	59.10	90.40	27.00	0.80	0.80	90.00	-10.2	-29.3	
BUL00000	56.02	25.60	42.80	0.80	0.80	90.00	-7.8	-27.0	
CAF00000	14.40	21.50	6.50	2.70	1.70	14.00	3.8	-22.8	
CANOCENT	-111.10	-96.10	51.40	4.30	2.00	155.00	3.9	-26.7	
CANOEAST	-107.30	-76.60	50.10	5.00	1.70	154.00	6.2	-25.0	
CANOWEST	-114.90	-120.10	57.40	3.10	1.90	173.00	-0.6	-28.7	
CBG00000	96.10	105.10	12.90	1.20	1.00	35.00	-2.5	-23.2	
CHL00000	-74.90	-82.60	-32.80	8.10	6.10	155.00	9.0	-28.4	
CHN00001	101.40	103.70	35.00	8.10	4.30	2.00	13.6	-23.2	
CHN00002	135.50	114.80	16.40	4.90	2.40	65.00	8.2	-22.5	
CLM00000	-70.90	-74.00	5.70	4.00	2.30	121.00	7.1	-22.6	
CLN00000	121.50	80.10	7.70	0.80	0.80	90.00	-6.5	-24.8	
CME00000	7.98	12.90	6.30	2.50	1.90	84.00	3.9	-22.7	
CNR00000	-30.00								1
COD00000	50.95	24.40	-4.60	3.90	3.50	92.00	6.5	-24.4	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
COG00000	-16.35	14.80	-0.60	2.00	1.10	63.00	0.7	-22.7	
COM00000	94.50	44.10	-12.20	0.80	0.80	90.00	-6.7	-24.7	
CPV00000	-85.70	-24.10	16.00	0.80	0.80	90.00	-10.2	-30.4	
CTI00000	-15.76	-5.90	7.80	1.40	1.20	66.00	-0.9	-23.1	
CTR00000	-96.00	-85.30	8.20	1.30	1.00	64.00	-2.1	-23.2	
CUB00000	-80.60	-79.50	21.00	2.00	1.00	172.00	0.1	-24.6	
CVA00000	59.00	12.50	41.90	0.80	0.80	90.00	-9.3	-28.8	
CYP00000	0.50	33.20	35.10	0.80	0.80	90.00	-10.2	-29.8	
CYPSBA00	57.50	32.90	34.60	0.80	0.80	90.00	-10.2	-30.2	*/MB9
D 00001	26.40	9.70	50.70	1.10	1.00	41.00	-7.7	-28.7	
D 00002	37.20	12.60	51.40	0.80	0.80	90.00	-9.3	-28.2	
DJI00000	-17.46	42.60	11.70	0.80	0.80	90.00	-10.2	-30.1	
DMA00000	-70.00	-61.30	15.30	0.80	0.80	90.00	-7.3	-27.3	
DNK00001	32.28	11.60	56.00	0.80	0.80	90.00	-10.2	-29.0	
DNK00002	-49.00	12.50	56.30	0.80	0.80	90.00	-8.2	-27.7	*/MB10
DNK00FAR	-49.00	-7.20	61.70	0.80	0.80	90.00	-10.2	-29.5	*/MB10
DOM00000	-85.40	-70.40	18.70	0.80	0.80	90.00	-7.2	-27.1	
E 00002	-30.00								1
EGY00000	67.11	30.30	26.20	2.30	1.50	54.00	-2.7	-28.8	
EQA00000	-104.00	-83.10	-1.40	3.10	1.40	174.00	3.8	-22.7	
ETH00000	58.30	40.60	10.30	2.80	2.80	64.00	1.1	-28.6	
F 00000	-8.00								1
FIN00000	46.80	23.80	64.30	1.50	1.00	23.00	-6.2	-28.6	
FJI00000	148.80	178.50	-17.20	0.80	0.80	90.00	-7.0	-26.2	
FLKSTGGL	-37.10	-46.80	-59.60	3.70	1.40	170.00	-0.9	-28.7	*/MB4
G 00000	-37.10	-4.10	53.90	1.60	1.00	151.00	-4.7	-27.8	*/MB4
GAB00000	39.00	11.70	-0.70	1.40	1.10	79.00	-1.5	-23.0	
GDL00000	-8.00								1
GDL00002	-115.90	-61.80	16.40	0.80	0.80	90.00	-4.6	-22.7	*/MB13
GHA00000	15.90	-1.30	7.70	1.50	1.10	90.00	-1.0	-23.0	
GIB00000	57.50	-5.40	36.10	0.80	0.80	90.00	-6.8	-27.0	*/MB9
GMB00000	-34.00	-16.40	13.40	0.80	0.80	90.00	-10.2	-31.0	
GNB00000	40.00	-15.40	12.00	0.80	0.80	90.00	-9.2	-28.8	
GNE00000	-32.30	10.50	1.70	0.80	0.80	90.00	-6.8	-24.9	
GRC00000	22.05	24.70	38.30	1.70	1.00	160.00	-2.7	-26.6	
GRD00000	-32.80	-61.60	12.00	0.80	0.80	90.00	-7.1	-26.5	
GRL00000	-49.00	-42.90	68.60	2.30	1.00	174.00	-3.3	-27.8	*/MB10
GTM00000	-135.70	-90.50	15.50	0.80	0.80	90.00	-4.2	-22.2	
GUF00000	-8.00								1
GUF00002	-115.90	-53.30	4.30	0.80	0.80	90.00	-5.3	-23.4	*/MB13
GUI00000	27.50	-10.90	10.20	1.30	1.10	104.00	-1.5	-22.9	
GUMMRA00	-159.00	145.40	16.70	1.70	1.00	79.00	0.0	-22.2	*/MB2
GUY00000	-23.80	-59.20	4.70	1.40	1.00	94.00	-1.4	-22.8	
HKG00000	57.50	114.50	22.40	0.80	0.80	90.00	-6.5	-24.5	
HND00000	-76.20	-86.10	15.40	1.40	1.00	26.00	-1.8	-23.1	
HNG00000	-7.50	19.40	47.40	0.80	0.80	90.00	-8.8	-28.1	
HOL00000	-5.00	5.40	52.40	0.80	0.80	90.00	-10.2	-30.8	*/MB5
HTI00000	-92.00	-73.00	18.80	0.80	0.80	90.00	-7.1	-26.9	
HWA00000	-159.00	-157.60	20.70	1.20	1.00	157.00	-2.2	-23.1	*/MB2
HWL00000	-159.00	-176.60	0.10	0.80	0.80	90.00	-7.3	-27.4	*/MB2
I 00000	-23.40	11.30	40.90	2.10	1.00	141.00	-1.6	-26.4	
IND00000	74.00	82.70	18.90	6.20	4.90	120.00	12.6	-22.2	
INS00000	115.40	117.60	-1.80	9.40	4.30	170.00	13.7	-22.4	
IRL00000	-21.80	-8.20	53.20	0.80	0.80	90.00	-10.2	-29.3	
IRN00000	24.19	54.30	33.00	3.70	1.50	143.00	1.1	-27.5	2
IRQ00000	65.45	44.30	33.10	1.60	1.30	178.00	-4.0	-28.0	
ISL00000	-35.20	-18.20	64.90	0.80	0.80	90.00	-8.5	-27.4	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
ISR00000	-4.00								1
J 00000	152.50	140.40	30.40	5.70	3.70	15.00	11.1	-22.8	
JAR00000	-159.00	-160.00	-0.40	0.80	0.80	90.00	-7.5	-27.5	*/MB2
JMC00000	-108.60	-77.60	18.20	0.80	0.80	90.00	-6.9	-25.9	
JON00000	-159.00	-168.50	17.00	0.80	0.80	90.00	-10.2	-32.5	*/MB2
JOR00000	81.76	36.70	31.30	0.80	0.80	90.00	-9.7	-28.5	
KEN00000	78.20	38.40	0.80	2.10	1.30	95.00	-2.1	-27.6	
KER00000	113.00	69.30	-43.90	1.90	1.60	169.00	-2.2	-27.8	*/MB1
KGZ00000	64.60	74.54	41.15	1.56	0.80	10.12	-8.3	-29.7	
KIR00000	150.00	173.00	1.00	0.80	0.80	90.00	-7.2	-27.1	
KNA00000	-88.80	-62.90	17.30	0.80	0.80	90.00	-7.1	-26.5	
KOR00000	116.20	127.70	36.20	1.30	1.00	4.00	-4.3	-26.7	
KRE00000	145.00	127.80	39.80	1.40	1.00	14.00	-1.2	-23.3	
KWT00000	30.90	47.70	29.10	0.80	0.80	90.00	-10.2	-31.6	
LAO00000	142.00	104.10	18.10	1.50	1.00	101.00	-0.7	-22.6	
LBN00000	97.50	35.80	33.80	0.80	0.80	90.00	-10.2	-30.5	
LBR00000	-41.80	-8.90	6.50	0.80	0.80	90.00	-4.0	-22.1	
LBY00000	28.90								1
LIE00000	-17.10	9.50	47.20	0.80	0.80	90.00	-10.2	-31.2	
LSO00000	-19.30	28.40	-29.50	0.80	0.80	90.00	-10.2	-31.1	
LUX00000	19.20	6.20	49.70	0.80	0.80	90.00	-10.2	-31.6	
MAC00000	117.00	113.60	22.20	0.80	0.80	90.00	-7.2	-27.1	
MAU00000	92.20	57.50	-20.20	0.80	0.80	90.00	-6.9	-25.6	
MCO00000	41.00	7.40	43.70	0.80	0.80	90.00	-8.0	-27.8	
MDG00000	16.90	46.60	-18.70	2.60	1.00	66.00	1.6	-22.5	
MDR00000	-10.60	-16.20	31.60	0.80	0.80	90.00	-10.2	-30.5	*/MB7
MDW00000	-159.00	-177.40	28.20	0.80	0.80	90.00	-10.2	-32.2	*/MB2
MEX00000	-113.00	-103.60	23.30	5.80	2.40	161.00	9.1	-23.7	
MHL00000	-159.00	175.30	8.70	2.30	1.40	94.00	2.7	-22.6	*/MB2
MLA00000	78.50	108.20	4.70	3.20	1.40	0.00	4.1	-22.3	
MLD00000	117.60	73.40	2.50	2.20	0.80	88.00	0.1	-22.4	
MLI00000	-6.00	-3.90	17.60	3.30	2.50	21.00	6.3	-24.8	
MLT00000	-3.00	14.40	35.90	0.80	0.80	90.00	-10.2	-30.4	
MNG00000	113.60	103.80	46.80	3.60	1.10	3.00	-0.3	-27.6	
MOZ00000	90.60	35.60	-17.20	3.10	1.10	98.00	3.2	-22.0	
MRC00000	32.86	-8.90	27.90	3.40	1.00	45.00	-0.5	-27.0	
MTN00000	-21.10	-10.30	19.80	2.50	2.40	76.00	0.1	-28.4	
MWI00000	28.00	34.10	-13.30	1.60	1.00	101.00	-6.7	-29.3	
MYT00000	-8.00								1
NCG00000	-84.40	-84.90	12.90	1.10	1.00	16.00	-2.8	-23.1	
NCL00000	113.00	165.80	-21.40	0.80	0.80	90.00	-5.9	-23.9	*/MB1
NGR00000	-38.50	7.50	17.20	2.10	1.70	100.00	-0.6	-27.3	
NIG00000	41.82	8.00	9.90	2.50	1.60	47.00	3.4	-22.4	
NMB00000	12.20	18.50	-21.00	2.70	2.60	155.00	-0.7	-29.6	
NOR00000	-0.80								1
NPL00000	123.30	84.40	28.00	0.80	0.80	90.00	-7.2	-26.6	
NRU00000	146.00	166.90	-0.50	0.80	0.80	90.00	-7.2	-27.2	
NZL00001	152.00	170.90	-44.80	5.40	1.00	49.00	2.0	-26.5	*/MB14
NZL00002	152.00	-165.40	-13.20	2.70	2.00	82.00	5.4	-22.0	*/MB14
OCE00000	-115.90	-141.90	-16.10	3.50	2.40	139.00	6.8	-24.2	*/MB13
OMA00000	104.00	55.10	21.60	1.90	1.00	61.00	-6.0	-29.3	
PAK00000	56.50	69.90	29.80	3.00	2.00	22.00	3.7	-25.7	
PHL00000	161.00	122.23	11.37	3.33	1.41	79.65	4.8	-22.3	
PLM00000	-159.00	-161.40	7.00	0.80	0.80	90.00	-7.6	-27.6	*/MB2
PNG00000	154.10	148.40	-6.60	3.30	2.30	167.00	6.0	-22.7	
PNR00000	-79.20	-80.20	8.50	1.20	1.00	177.00	-2.4	-23.2	
POL00000	15.20	19.30	52.00	1.30	1.00	166.00	-7.0	-28.7	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
POR00000	-10.60	-8.00	39.70	0.80	0.80	90.00	-9.0	-28.1	*/MB7
PRG00000	-81.50	-58.70	-23.10	1.50	1.30	116.00	0.1	-22.8	
PRU00000	-89.90	-74.20	-8.40	3.60	2.40	111.00	6.9	-22.5	
PTC00000	-62.30	-130.10	-25.10	0.80	0.80	90.00	-10.2	-27.3	
QAT00000	0.90	51.60	25.40	0.80	0.80	90.00	-10.2	-31.5	
REU00000	-8.00								1
REU00002	113.00	55.60	-21.10	0.80	0.80	90.00	-6.4	-24.5	*/MB1
ROU00000	30.45	25.00	46.30	1.50	1.00	178.00	-5.2	-28.0	
RRW00000	17.60	29.70	-1.90	0.80	0.80	90.00	-10.2	-30.8	
RUS00001	61.00	51.50	52.99	5.56	2.01	10.74	3.1	-28.2	
RUS00003	138.50	138.14	53.83	5.86	2.09	8.41	3.3	-28.4	
RUS0BF1A	87.70	38.50	52.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF1B	87.70	38.50	52.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF2A	87.70	46.00	55.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF2B	87.70	46.00	55.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF3A	87.70	57.00	57.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF3B	87.70	57.00	57.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF4A	87.70	71.00	57.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF4B	87.70	71.00	57.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF5A	87.70	87.50	58.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF5B	87.70	87.50	58.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF6A	87.70	106.50	56.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF6B	87.70	106.50	56.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF7A	87.70	120.00	55.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF7B	87.70	120.00	55.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF8A	87.70	135.00	47.00	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF8B	87.70	135.00	47.00	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BF9A	87.70	42.00	44.50	1.00	1.00	0.00	-8.0	-29.6	*/MB18
RUS0BF9B	87.70	42.00	44.50	1.00	1.00	0.00	-4.0	-29.6	*/MB18
RUS0BR1A	87.70	38.50	52.00	1.00	1.00	0.00	-8.0	-28.1	*/MB18
RUS0BR1B	87.70	38.50	52.00	1.00	1.00	0.00	-4.0	-28.1	*/MB18
RUS0BR2A	87.70	135.00	47.00	1.00	1.00	0.00	-8.0	-28.1	*/MB18
RUS0BR2B	87.70	135.00	47.00	1.00	1.00	0.00	-4.0	-28.1	*/MB18
S 00000	-5.00								1
SDN00001	23.55	29.30	10.30	3.00	1.90	131.00	5.3	-24.0	*/MB15
SDN00002	23.55	29.40	16.70	2.60	2.40	171.00	1.1	-27.4	*/MB15
SEN00000	-48.40	-14.00	14.10	1.10	1.00	148.00	-2.3	-23.8	
SEY00000	42.25								1
SLM00000	147.50	159.00	-9.10	1.50	1.00	147.00	-1.2	-23.0	
SLV00000	-130.50	-89.00	13.70	0.80	0.80	90.00	-6.8	-24.9	
SMA00000	-159.00	-170.70	-14.20	0.80	0.80	90.00	-10.2	-31.1	*/MB2
SMO00000	-125.50	-172.10	-13.70	0.80	0.80	90.00	-6.6	-24.6	
SMR00000	16.50	12.50	43.90	0.80	0.80	90.00	-10.2	-30.3	
SNG00000	98.10	103.90	1.30	0.80	0.80	90.00	-7.3	-25.4	
SOM00000	98.40	46.00	6.30	3.10	1.00	72.00	-0.8	-25.5	
SPM00000	-8.00								1
SRL00000	-51.80	-11.90	8.50	0.80	0.80	90.00	-6.9	-25.4	
STP00000	30.25	7.00	1.00	0.80	0.80	90.00	-7.1	-27.0	
SUI00000	9.45	8.20	46.50	0.80	0.80	90.00	-10.2	-29.4	
SUR00000	-77.00	-55.60	3.90	1.00	0.90	37.00	-3.6	-23.2	
SWZ00000	30.10	31.30	-26.40	0.80	0.80	90.00	-10.2	-30.9	
SYR00000	18.00	38.60	35.30	1.10	1.00	32.00	-7.1	-28.3	
TCD00000	-9.90	18.40	15.60	3.50	1.60	97.00	5.0	-24.1	
TGO00000	-23.15	0.80	8.60	1.10	1.00	116.00	-2.7	-23.2	
THA00000	120.60	100.90	12.80	2.80	1.60	83.00	4.0	-22.6	
TON00000	-128.00	-175.20	-21.20	0.80	0.80	90.00	-6.7	-24.7	
TRD00000	-73.40	-61.10	10.80	0.80	0.80	90.00	-7.2	-27.3	

10.70-10.95 GHz, 11.20-11.45 GHz, 12.75-13.25 GHz

1	2	3	4	5	6	7	8	9	10
TUN00000	5.74	9.40	33.50	1.30	1.00	104.00	-5.9	-28.2	
TUR00000	8.50	34.10	38.90	2.80	1.00	171.00	0.0	-26.0	
TUV00000	158.00	179.20	-8.50	0.80	0.80	90.00	-7.1	-27.1	
TZA00000	67.50	35.40	-5.90	2.40	1.40	117.00	-1.3	-27.8	
UAE00000	63.50	53.80	24.90	1.10	1.00	12.00	-9.7	-30.4	
UGA00000	31.50	32.20	0.90	1.50	1.00	70.00	-6.3	-28.9	
UKR00000	50.50	35.43	49.71	1.14	0.80	174.61	-7.0	-28.1	
URG00000	-86.10	-56.30	-33.70	1.10	1.00	58.00	-6.5	-27.7	
USA00000	-101.00						11.2	-23.9	3, */MB16
USAVIPRT	-101.00	-64.50	17.80	0.80	0.80	90.00	-6.9	-25.5	*/MB16
VCT00000	-93.10	-61.10	13.20	0.80	0.80	90.00	-7.0	-26.2	
VEN00001	-82.70	-66.40	6.80	2.80	2.10	142.00	4.9	-22.8	*/MB17
VEN00002	-82.70	-63.60	15.70	0.80	0.80	90.00	-7.1	-27.0	*/MB17
VTN00000	107.00								1
VUT00000	150.70	168.40	-17.20	1.20	1.00	122.00	-2.4	-23.1	
WAK00000	-159.00	166.50	19.20	0.80	0.80	90.00	-10.2	-31.9	*/MB2
WAL00000	113.00	-177.10	-13.80	0.80	0.80	90.00	-6.0	-24.1	*/MB1
XCQ00000	-159.00	173.40	4.60	10.20	2.40	175.00	16.0	-16.0	*/MB2
XCS00000	-19.82	17.30	49.60	1.30	1.00	166.00	-5.1	-27.4	
XYU00000	43.04	18.70	44.40	1.10	1.00	161.00	-5.6	-27.3	
YEM00001	27.00	44.20	15.10	1.00	1.00	103.00	-9.8	-30.1	
YEM00002	108.00	49.90	14.80	1.40	1.00	53.00	-5.7	-26.9	
ZMB00000	39.55	27.90	-12.80	2.40	1.60	26.00	-3.0	-29.2	
ZWE00000	65.60	30.00	-18.90	1.50	1.10	140.00	-6.0	-28.9	

**MOD** COM5/385/82 (B18/405/85)

## ЧЛАН 11

### Период за који важе одредбе и одговарајући План

**MOD** COM5/385/83 (B18/405/86)

11.2 Ове одредбе и одговарајући План морају у сваком случају остати на снази до њихове ревизије на компетентној конференцији о радиокомуникацијама, сазваној у складу са одговарајућим одлукама важећег ИТУ Статута и Конвенције. (WRC-07)

**MOD** COM5/385/84 (B18/405/87)

### АНЕКС 1 (WRC-03)

**MOD** COM5/385/85 (B18/405/88)

### Параметри који карактеришу План намене фиксне сателитске службе

**SUP** COM5/385/86 (B18/405/89)

#### Део А – Технички подаци коришћени при успостављању Плана намене и одговарајућих одредби

**MOD** COM5/385/87 (B18/405/90)

#### 1.2 Параметри који се користе за прорачун густине снаге земаљских и свемирских станица

Однос носиоц/шум ( $C/N$ ) је следећи:

- a) однос  $C/N$  за линк ка свемиру прелази 21 dB под кишним условима са минималном густином снаге предајника земаљске станице од  $-60$  dB(W/Hz) просечно у потребном опсегу модулисаног носиоца;
- b) однос  $C/N$  за линк ка земљи прелази 15 dB под кишним условима;
- c) за опсег 6/4 GHz, горњи  $C/N$  односи буду премашени у 99.95% године (НАПОМЕНА – Маргина кишног слабљења је ограничена на максимално 8 dB);
- d) за опсеге 13/10-11 GHz, горњи  $C/N$  односи буду премашени 99.9% године (НАПОМЕНА – Маргина кишног слабљења је ограничена на максимално 8 dB);
- e) коришћени модели гасног атмосферског слабљења и кишног слабљења су они описани у Препорукама ИТУ-R P.676-7 и ИТУ-R P.618-9. (WRC-07)

**MOD** COM5/385/88 (B18/405/91)

#### 1.3 Елевациони угао антене земаљске станице

Минимални елевациони угао за сваку тачку тестирања укључену у сервисно подручје базиран је на следећем:

- 10° за  $R_p \leq 40$  mm/h;
- 20° за  $40 < R_p \leq 70$  mm/h;
- 30° за  $70 < R_p \leq 100$  mm/h;
- 40° за  $R_p > 100$  mm/h.

Где је  $R_p$  стопа падавина премашена за било који дати проценат  $p$  просечне године, израчунат у сагласности са Препоруком ИТУ-R P.837-5. Администрације могу изабрати мање

елевационе углове за своја подручја сервисирања. За земље на већим ширинама или раздвојеним територијима, у одсуству таквог захтева, ако се не могу постићи горње минималне вредности угла елевације, примењује се највећи елевациони угао који доводи до нунулног опсега могућих орбиталних позиција. У планинским крајевима, елевациони угао специфицирају заинтересоване администрације. (WRC-07)

**MOD** COM5/385/89 (B18/405/92)

#### **1.4 Критеријум интерференције**

План се припремао имајући у виду да се омогући за сваку намену укупна агрегатна вредност носиоца према интерференцији, у условима слободног простора, 21 dB или више, и једна укупна једноулазна вредност носиоца према интерференцији, у условима слободног простора од 25 dB. (WRC-07)

**MOD** COM5/385/90 (B18/405/93)

#### **1.6 Карактеристике земаљске станице**

1.6.1 Дијаметар антена земаљске станице износи:

5.5 m за 6/4 GHz опсег;

2.7 m за 13/10-11 GHz опсег. (WRC-07)

1.6.2 Код пријемног система свемирске станице температура шума на изласку пријемне антене износи:

95 K за 4 GHz опсег;

125 K за 10-11 GHz опсег. (WRC-07)

1.6.3 Ефикасност антене земаљске станице је 70%.

1.6.3bis Појачања антена земаљске станице за гореспецифициране дијаметре и ефикасност за означене израчунате фреквенције је следећи:

50.4 dBi на 6 875 MHz;

47.0 dBi на 4 650 MHz;

49.8 dBi на 13.0 GHz;

48.4 dBi на 11.075 GHz. (WRC-07)

1.6.4 Прикладан образац за референтну антену земаљске станице приказан је ниже у Табели 1. (WRC-07)

ТАБЕЛА 1 (WRC-07)

$G_{max} = 10 \log (\eta(\pi D/\lambda)^2)$		dBi
$G(\varphi) = G_{max} - 2.5 \times 10^{-3} \left(\frac{D}{\lambda} \varphi\right)^2$	for $0 < \varphi < \varphi_m$	dBi
$G(\varphi) = \min (G_1, 29 - 25 \log \varphi)$	for $\varphi_m \leq \varphi \leq 19.95^\circ$	dBi
$G(\varphi) = \max (\min (-3.5, 32 - 25 \log \varphi), -10)$	for $\varphi > 19.95^\circ$	dBi
Где је:		
$D$ : дијаметар антене $\lambda$ : таласна дужина		<b>Error! Objects cannot be created from editing field codes.</b> изражено у истим јединицама
$\varphi$ : угао одклона антене од осе (у степенима)		
$G_1$ : појачање прве бочне латиге		<b>Error! Objects cannot be created from editing field codes.</b> dBi
$\varphi_m = \frac{20\lambda}{D} \times \sqrt{G_{max} - G_1} \quad \text{degrees}$		
$\eta$ : ефикасност антене		

**MOD** COM5/385/91 (B18/405/94)

**1.7 Карактеристике свемирске станице** (WRC-07)

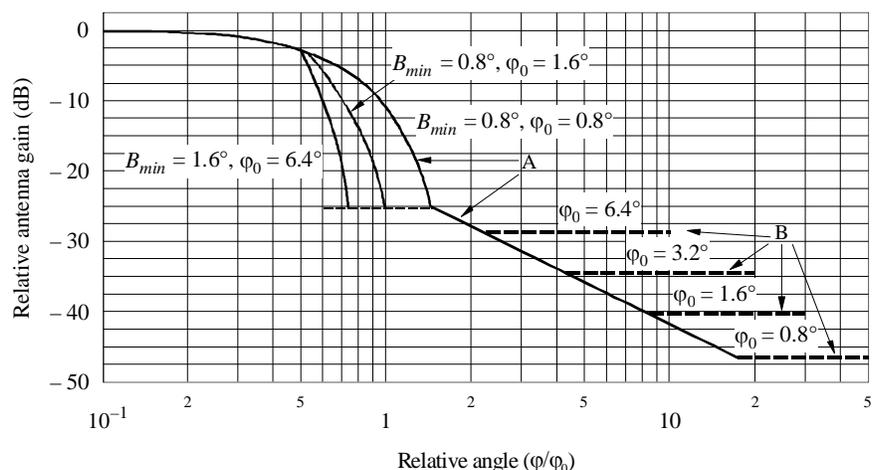
1.7.1 План намене је базиран на коришћењу антена свемирске станице са сноповима елиптичног пресека.

1.7.2 Карактеристике зрачења антене приказане су на Слици 1.

**MOD** COM5/385/92 (B18/405/95)

СЛИКА 1\* (WRC-07)

**Reference patterns for satellite antennas with fast roll-off in the main beam**



RP/A1-02

\* Слика 1 приказује дијаграме за неке комбинације  $B_{min}$  и  $\varphi_0$ . (WRC-07)

$$G_{max} = 44.45 - 10 \log (\varphi_{01} \cdot \varphi_{02}) \quad \text{dBi} \quad (\text{WRC-07})$$

*Крива А:* dB релативно према појачању главног снопа

$$-12 (\varphi/\varphi_0)^2 \quad \text{for } 0 \leq (\varphi/\varphi_0) \leq 0.5$$

**–Error! Objects cannot be created from editing field codes.** for  $0.5 < (\varphi/\varphi_0) \leq$  **Error! Objects cannot be created from editing field codes.**

$$-25.23 \quad \text{for } \mathbf{Error! Objects cannot be created from editing field codes.}$$

$$-(22 + 20 \log (\varphi/\varphi_0)) \quad \text{for } (\varphi/\varphi_0) > 1.45$$

након пресека са Кривом В: Крива В.

*Крива В:* Минус појачање на оси (Крива В представља пример од четири антене са различитим вредностима  $\varphi_0$  како је назначено на Слици 1. Појачање на оси ових антена је приближно 28.3, 34.3, 40.4 и 46.4 dBi) (WRC-07)

где:

$\varphi$ : угао одклона од осе (у степенима)

$\varphi_0$ : пресечни HPBW у смеру од интереса (у степенима)

$\varphi_{01}, \varphi_{02}$ : HPBW по великој и малој оси елиптичног снопа (у степенима) (WRC-07)

**Error! Objects cannot be created from editing field codes.**

где је:

**Error! Objects cannot be created from editing field codes.**

1.7.3 Код пријемног система свемирске станице температура шума на изласку пријемне антене износи:

500 К за 6 GHz опсег;

550 К за 13 GHz опсег.

1.7.4 Минимална величина ширине снопа, у смислу HPBW, је  $1.6^\circ$  за 6/4 GHz опсег и  $0.8^\circ$  за 13/10-11 GHz опсег.

1.7.5 Ефикасност антене свемирске станице је 55%.

1.7.6 Девијација антенског снопа свемирске станице од номиналног смера показивања ограничена је на  $0.1^\circ$  у било ком смеру. Ротациона тачност елиптичних снопова је  $\pm 1.0^\circ$ .

SUP COM5/385/93 (B18/405/96)

**Секција В – Генерализовани параметри који се користе за одређивање да ли су предложене сателитске мреже у складу с Планом**

SUP COM5/385/94 (B18/405/97)

АНЕКС 2 (WRC-03)

**Основни подаци који треба да се налазе у обавештењима везано са станицама фиксне сателитске службе које су у фази дизајнирања користећи фреквенцијске опсеге из Плана**

SUP COM5/385/95 (B18/405/98)

## АНЕКС 3А

### Критеријуми за одлучивање када се предложене доделе сматрају сагласне са Планом

**SUP** COM5/385/96 (B18/405/99)

## АНЕКС 3В

### Концепт макросегментације

**ADD** COM5/385/97 (B18/405/100)

## АНЕКС 3 (WRC-07)

### Ограничења која се примењују на поднеске примљене под Чланом 6 или Чланом 7<sup>1М</sup>

Под претпоставком да се пропација одвија у условима слободног простора, снага густине флуksа (свемир-Земља) предложене нове намене или доделе, настала на било којем делу површине Земље не сме да пређе :

- $-127.5 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  у 4 500-4 800 MHz опсегу; и
- $-114.0 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  у 10.70-10.95 GHz и 11.20-11.45 GHz опсезима.

Под претпоставком да се пропација одвија у условима слободног простора, снага густине флуksа (свемир-Земља) предложене нове намене или доделе не сме да пређе:

- $-140.0 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  према било којој локацији у геостационарној-сателитској орбити лоцираној за више од  $10^\circ$  од предложене орбиталне позиције у 6 725-7 025 MHz опсегу, или
- $-133.0 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  према било којој локацији у геостационарној-сателитској орбити лоцираној за више од  $9^\circ$  од предложене орбиталне позиције у 12.75-13.25 GHz опсегу.

**MOD** COM5/385/98 (B18/405/101)

## АНЕКС 4 (Rev.WRC-07)

### Критеријуми за одређивање да ли се сматра да је нека намена или додела дотакнута

Сматра се да је нека намена или додела дотакнута предложеном новом наменом или доделом:

1 ако је орбитални размак између њене орбиталне позиције и орбиталне позиције предложене нове намене или доделе једнак или мањи од:

1.1  $10^\circ$  у 4 500-4 800 MHz (свемир-Земља) и 6 725-7 025 MHz (Земља-свемир) опсезима;

1.2  $9^\circ$  у 10.70-10.95 GHz (свемир-Земља), 11.20-11.45 GHz (свемир-Земља) и 12.75-13.25 GHz (Земља-свемир ) опсезима;

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<sup>1М</sup> Ова ограничења не важе за доделе забележене у Листи пре 17.11.2007.

*и*

- 2 ако најмање један од следећих услова није задовољен:
- 2.1 израчуната<sup>1</sup> проста Земља-свемир вредност носиоца према интерференцији  $(C/I)_u$  у свакој тачки тестирања придруженој намени или додели која се разматра је већа или једнака референтној вредности која је 30 dB, или  $(C/N)_u + 9$  dB<sup>2</sup>, или било којој већ прихваћеној Земља-свемир простој вредности  $(C/I)_u$ <sup>3</sup>, која год је најмања;
- 2.2 израчуната<sup>1</sup> проста свемир-Земља вредност носиоца према интерференцији  $(C/I)_d$  било где у сервисној области намене или доделе која се разматра је већа или једнака референтној вредности која је 26.65 dB, или  $(C/N)_d + 11.65$  dB<sup>5</sup>, или било којој већ прихваћеној свемир-Земља простој вредности  $(C/I)_u$ <sup>3</sup>, која год је најмања;
- 2.3 израчуната<sup>1</sup> укупна агрегатна вредност  $(C/I)_u$  у свакој тачки тестирања придруженој намени или додели која се разматра, већа је или једнака референтној вредности која је 21 dB, или  $(C/N)_t + 7$  dB<sup>6</sup>, или било којој већ прихваћеној укупној агрегатној вредности  $(C/I)_u$ <sup>3</sup>, која год је најмања, с толеранцијом 0.25 dB<sup>7</sup> у случају додела које не произилазе из конверзије неке намене у доделу без модификације, или када се модификација налази унутар карактеристичне анvelope иницијалне намене.

**MOD** COM5/385/99 (B18/405/102)

## ДОДАТАК 1 НА АНЕКС 4 (WRC-07)

### Метод одређивања свеукупне просте и агрегатне вредности носиоца према интерференцији упросечено по потребној ширини опсега модулисаног носиоца

#### 1 Прости $C/I$

Ова секција описује методу израчунавања потенцијала просте интерференције.

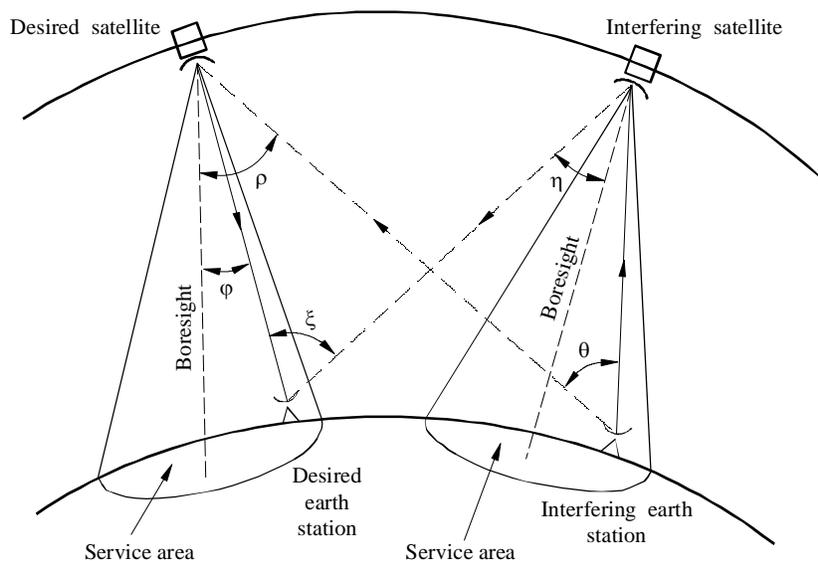
Овај метод је базиран на простом односу интерференције носиоца према шуму  $(C/I)$  који дата намена или додела урађена у складу са одредбама Додатка **30В** може да очекује због емисије предложене нове доделе или модификације. Просте узлазне  $(C/I)_u$  и силазне  $(C/I)_d$  вредности узроковане једном интерферирајућом сателитском мрежом дате су са:

- 
- <sup>1</sup> Укључујући прецизност израчунавања 0.05 dB.
- <sup>2</sup>  $C/N_u$  је израчунат као у Додатку 2 овог Анекса.
- <sup>3</sup> Искључујући вредности прихваћене у складу са § 6.15 Члана 6.
- <sup>1</sup> Укључујући прецизност израчунавања 0.05 dB.
- <sup>5</sup>  $C/N_d$  је израчунат као у Додатку 2 овог Анекса.
- <sup>3</sup> Искључујући вредности прихваћене у складу са § 6.15 Члана 6.
- <sup>1</sup> Укључујући прецизност израчунавања 0.05 dB.
- <sup>6</sup>  $(C/N)_t$  је израчунат као у Додатку 2 овог Анекса.
- <sup>3</sup> Искључујући вредности прихваћене у складу са § 6.15 Члана 6.
- <sup>7</sup> Укључено прецизност израчунавања 0.05 dB .

$$(C/I)_u = 10 \log_{10} \left( \frac{p_1 g_1 g_2(\varphi) l_{su'}}{p_1' g_1'(\theta) g_2(\rho) l_{su}} \right), \text{ dB}$$

$$(C/I)_d = 10 \log_{10} \left( \frac{p_3 g_3(\varphi) g_4 l_{sd'}}{p_3' g_3'(\eta) g_4(\xi) l_{sd}} \right), \text{ dB}$$

FIGURE 1



AP30BA4-01

где је:

$\theta$ ,  $\varphi$ ,  $\rho$ ,  $\eta$ ,  $\xi$  су углови дефинисани у Fig. 1, горе.

У следећем, сви показатељи су нумерички показатељи снаге.

- $p_1$ : густина снаге, упросечно по потребној ширини опсега модулисаног носиоца, уведена у предајну антену жељене земаљске станице (W/Hz)
- $g_1$ : максимално појачање предајне антене жељене Земаљске станице
- $l_{su}$ : губитак на стази у слободном простору жељеног сигнала на стази према горе
- $l_{su'}$ : губитак на стази у слободном простору интерферентног сигнала на стази према горе
- $g_2(\varphi)$ : појачање пријемне антене жељене свемирске станице у смеру жељене земаљске станице
- $g_2$ : максимално појачање пријемне антене жељене свемирске станице
- $p_1'$ : густина снаге, упросечно по потребној ширини опсега модулисаног носиоца, уведена у предајну антену интерферирајуће земаљске станице (W/Hz)
- $g_1'(\theta)$ : антенско појачање интерферирајуће земаљске станице у смеру жељеног сателита

$l_{sd}$ :	губитак на стази у слободном простору жељеног сигнала на стази према доле
$l_{sd}'$ :	губитак на стази у слободном простору интерферентног сигнала на стази према доле
$g_2(\rho)$ :	антенско појачање пријемне антене жељене земаљске станице у смеру интерферирајуће земаљске станице
$p_3$ :	густина снаге, упросечено по потребној ширини опсега модулисаног носиоца, уведена у предајну антену жељене земаљске станице (W/Hz)
$g_3(\varphi)$ :	антенско појачање жељене свемирске станице у смеру жељене земаљске станице
$g_3$ :	максимално појачање предајне антене жељене свемирске станице
$g_4$ :	максимално појачање пријемне антене жељене земаљске станице
$p_3'$ :	густина снаге, упросечено по потребној ширини опсега модулисаног носиоца, уведена у предајну антену интерферирајуће свемирске станице (W/Hz)
$g_3'(\eta)$ :	антенско појачање предајне антене жељене свемирске станице у смеру жељене земаљске станице
$g_4(\xi)$ :	антенско појачање жељене земаљске станице у смеру интерферирајућег сателита

Укупан прости  $(C/I)_t$  у датој тачки тестирања везе према доле, узрокован једном интерферирајућом наменом или доделом износи:

$$(C/I)_t = -10 \log_{10} \left[ 10^{-\frac{(C/I)_{u_{min}}}{10}} + 10^{-\frac{(C/I)_d}{10}} \right] \text{ dB}$$

где је:

$(C/I)_{u_{min}}$ : најнижа вредност  $C/I$  између свих тачака тестирања везе према горе

$(C/I)_d$ : вредност  $C/I$  везе према горе у разматраним тачкама тестирања.

ПРИМЕДБА –Кад је имплементирана само једна веза према доле или према горе у опсезима који подлежу Додатку **30В**, само допринос од везе која је имплементирана у опсезима који подлежу Додатку **30В** треба да се укалкулише у прорачун  $(C/I)_t$ .

## 2 Агрегатни $C/I$

Агрегатни  $(C/I)_{agg}$  у да тој тачки тестирања везе према доле:

$$(C/I)_{agg} = -10 \log_{10} \left( \sum_j^n 10^{-\frac{(C/I)_{t_j}}{10}} \right) \text{ dB}$$

$$j = 1, 2, 3 \dots n,$$

где је:

$(C/I)_j$ : укупан однос носиоца према интерференцији узрокован интерференцијом од  $j$ -те намене или доделе израчунате коришћењем методе укупног простог  $(C/I)_t$  како је прописано у § 1 Додатка 1 овог Анекса; и

где је:

$n$ : укупан број интерферирајућих намена или додела за које је орбитално раздвајање са жељеним сателитом мање или једнако  $10^\circ$  у случају 6/4 GHz опсега и мање или једнако  $9^\circ$  у случају 13/10-11 GHz опсега.

**ADD** COM5/385/100 (B18/405/103)

## ДОДАТАК 2 АНЕКСА 4 (WRC-07)

### Метод одређивања вредности носиоца према шуму ( $C/N$ )

Вредност носиоца према шуму за везу према горе  $(C/N)_u$  и носиоца према шуму за везу према доле  $(C/N)_d$  рачуна се на следећи начин:

$$(C/N)_u = 10 \log_{10} \left( \frac{P_1 \cdot g_1 \cdot g_2(\varphi)}{k \cdot T_s \cdot l_{su}} \right) \text{ dB}$$

$$(C/N)_d = 10 \log_{10} \left( \frac{P_3 \cdot g_4 \cdot g_3(\varphi)}{k \cdot T_e \cdot l_{sd}} \right) \text{ dB}$$

где је:

У следећем, сви односи су нумерички односи снага.

- $P_1$ : густина снаге, упросечена преко потребне ширине опсега модулисаног носиоца, што напаја предајну антену земаљске станице (W/Hz)
- $g_1$ : максимално појачање предајне антене земаљске станице
- $l_{su}$ : губитак у слободном простору сигнала из горње стазе
- $g_2(\varphi)$ : појачање пријемне антене свемирске станице у смеру земаљске станице
- $T_s$ : температура шума пријемног система свемирске станице која се односи на излаз пријемне антене
- $P_3$ : густина снаге, упросечена преко потребне ширине опсега модулисаног носиоца, што напаја предајну антену свемирске станице (W/Hz)
- $g_3(\varphi)$ : појачање предајне антене свемирске станице у смеру земаљске станице
- $l_{sd}$ : губитак у слободном простору сигнала из доње стазе
- $g_4$ : максимално појачање пријемне антене земаљске станице
- $T_e$ : температура шума пријемног система земаљске станице која се односи на излаз пријемне антене
- $k$ : Болцманова константа.

Укупна вредност носиоца према шуму  $(C/N)_t$  тада се израчунава на следећи начин:

$$(C/N)_t = -10 \log_{10} \left[ 10^{-\frac{(C/N)_{u_{min}}}{10}} + 10^{-\frac{(C/N)_d}{10}} \right] \text{ dB}$$

где је:

$(C/N)_{u_{min}}$ : најнижа вредност  $C/N$  између свих тачака тестирања везе према горе,

$(C/N)_d$ : вредност  $C/N$  везе према доле у разматраним тачкама тестирања.

ПРИМЕДБА –Кад је имплементирана само једна веза према доле или према горе у опсезима који подлежу Додатку **30В**, само допринос од везе која је имплементирана у опсезима који подлежу Додатку **30В** треба да се укалкулише у прорачун  $(C/N)_t$ .

**SUP** COM5/385/101 (B18/405/104)

АНЕКС 5 (WRC-03)

**Примена PDA концепта (унапред дефинисаног лука)**

**SUP** COM5/385/102 (B18/405/105)

АНЕКС 6 (WRC-03)

**Техничка средства погодна за избегавање некомпатибилности између система фиксне сателитске службе у фази њихове имплементације**

**MOD** COM4/211/19 (B3/224/32) (R2/266/21)

ДОДАТАК 42 (Rev.WRC-07)

**Табела додељених међународних позивних префикса**

(Види Члан 19)

1) Изузми следеће ставке из садашње табеле:

Позивни префикс	Додељен
T9A-T9Z	Bosnia and Herzegovina
YTA-YUZ	Serbia and Montenegro
YZA-YZZ	Serbia and Montenegro
4NA-4OZ	Serbia and Montenegro

2) Додај следеће ставке у садашњу табелу:

Позивни префикс	Додељен	
E5A-E5Z	New Zealand – Cook Islands	(WRC-07)
E7A-E7Z	Bosnia and Herzegovina	(WRC-07)
XXA-XXZ	China (People’s Republic of) – Macao	(WRC-07)
YTA-YUZ	Serbia (Republic of)	(WRC-07)
4OA-4OZ	Montenegro (Republic of)	(WRC-07)

## **РЕЗОЛУЦИЈЕ**

MOD COM4/296/55 (B9/305/57) (R5/336/1)

## РЕЗОЛУЦИЈА 18 (Rev.WRC-07)

### **Која се односи на процедуру за идентификацију и објаву позиције бродова и летилица држава које не учествују у оружаном конфликту<sup>1</sup>**

Светска конференција о радио-комуникацијама (Женева, 2007),

*имајући у виду*

- a) значајан ризик приликом сусрета бродова и летилица у близини подручја оружаног конфликта;
- b) да је због сигурности живота и имовине пожељно за бродове и летилице држава које не учествују у оружаном конфликту да су у стању да се идентификују и објаве своју позицију у таквим околностима;
- c) да радио-комуникације нуде таквим бродовима и летилицама брз начин самоидентификације и омогућавања објаве позиције пре њиховог уласка у зоне оружаних дејстава и за време њиховог проласка кроз те зоне;
- d) да се сматра пожељним да се омогући додатни сигнал и процедура за коришћење, у складу са уобичајеном праксом, у зонама оружаних дејстава за бродове и летилице држава како би показале да не припадају ни једној страни у оружаном конфликту,

*одлучује*

1 да фреквенције за хитне сигнале и поруке специфициране у Правилнику о радио-комуникацијама могу да користе бродови и летилице држава које не припадају ни једној страни у оружаном конфликту, да би се самоидентификовали и успоставили комуникацију. Емисија ће да се састоји од хитних и сигурносних сигнала, како одговара, описано у Члану 33 за којима следи додаток од једне групе "NNN" у радиотелеграфији и додаток једне речи "NEUTRAL" изговорене као на француском "neutral" у радиотелефонији. Чим постане могуће, комуникације треба да буду пребачене на одговарајућу радну фреквенцију;

2 да коришћење сигнала како је описано у претходном параграфу означава да се порука која следи односи на брод или летилицу државе која не припада ни једној страни у оружаном конфликту. Порука треба да садржи најмање следеће податке:

- a) позивни знак или неки други препознатљив начин идентификације таквог брода или летилице;
- b) позицију таквог брода или летилице;
- c) број и тип таквих бродова или летилица;
- d) пут којим намеравају да иду;
- e) процењено време пуга, одласка и доласка, по потреби;
- f) било коју другу информацију, као што је висина лета, заштићене радио фреквенције, језике и SSR модове и кодове;

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<sup>1</sup> Администрације се позивају да проуче текст ове Резолуције и да дају евентуалне предлоге за будућу надлежну Конференцију .

3 да одредбе Члана **33** које се односе на хитне и сигурносне емисије, и медицински транспорти треба да затраже коришћење хитних и сигурносних сигнала, на одговарајући начин, за такав брод или летилицу;

4 да идентификација и локација бродова државе која не припада ни једној страни у оружаном конфликту може бити остварена помоћу поморских радарских транспондера. Идентификација и локација летилица државе која не припада ни једној страни у оружаном конфликту може бити остварена коришћењем SSR система у складу с процедурама које препоручује Међународна организација за цивилно ваздухопловство (ИКАО);

5 да се коришћење горе наведених сигнала не би усаглашавало или укључивало признавање било каквих права и обавеза државе која не припада ни једној страни у оружаном конфликту или припада страни у конфликту, осим што може бити признато заједничким споразумом између страна у конфликту и стране која то није;

6 да се подстичу стране у конфликту да уђу у такве споразуме,

*налаже се Генералном Секретару*

да проследи садржај ове Резолуције Међународној поморској организацији, Међународној организацији за цивилно ваздухопловство, Међународном Комитету Црвеног Крста, и Међународној федерацији Црвеног крста и заједницама Црвеног полумесеца, за такву акцију коју би могле сматрати одговарајућом

*налаже се ИТУ-R-у*

да препоручи одговарајући сигнал у систему за дигитално селективно позивање за коришћење у поморској мобилној служби и остале потребне информације, консултујући заинтересоване организације.

**MOD** COM6/251/1 (B5/267/1) (R3/292/99)

## РЕЗОЛУЦИЈА 26 (Rev.WRC-07)

### **Фусноте у Табели намене фреквенцијских опсега у Члану 5 Правилника о радио-комуникацијама**

Светска конференција о радио-комуникацијама (Женева, 2007),

*имајући у виду*

a) да су фусноте саставни део Табеле намене фреквенцијских опсега у Правилнику о радио-комуникацијама и, као такве, спадају у део текста међународног уговора;

b) да фусноте у Табели намене фреквенцијских опсега треба да су јасне, концизне и лаке за разумевање;

c) да фусноте треба да се односе директно на предмет намене фреквенцијских опсега;

d) да, су, у намери да се осигура да фусноте дозвољавају измене у Табели намене фреквенцијских опсега без увођења сувишних компликација, потребни принципи како да се фусноте користе;

e) да се, моментално, фусноте усвајају на компетентним светским конференцијама о радиокомуникацијама и било који додатак, модификација, или брисање фусноте се разматра и прихвата на компетентној конференцији;

f) да неки проблеми који се тичу фуснота за неку земљу могу да буду разрешени путем примене специјалног споразума размотреног у Члану 6;

g) да су у неким случајевима администрације суочене са значајним тешкоћама због несагласности или пропуста у фуснотама;

h) да у сврху ажурног одржавања фуснота у Табели намене фреквенцијских опсега, требало би да постоје јасне и ефективне смернице за додавања, модификовања и брисања фуснота;

*одлучује*

1 да кад год је могуће, фусноте у Табели намене фреквенцијских опсега треба да буду ограничене на мењање, ограничавање и остале промене на одговарајућим наменама, а не да се баве радом станица, доделама фреквенција и другим стварима;

2 да би Табела намене фреквенцијских опсега требала да укључује само оне фусноте које имају међународне импликације у коришћењу радио-фреквенцијског спектра;

3 да фусноте у Табели намене фреквенцијских опсега треба једино да буду усвојене у циљу :

a) да се постигне флексибилност у Табели намене фреквенцијских опсега;

b) да се заштите релевантне намене у самој Табели и у другим фуснотама у складу са Секцијом II Члана 5;

c) да се уведу или прелазна или стална ограничења новој служби да би се постигла компатибилност; или

d) да се изађе у сусрет специфичним захтевима неке земље или региона кад је непрактично задовољавати такве захтеве на други начин у Табели намене фреквенцијских опсега;

4 да фусноте које служе заједничкој сврси треба да буду у заједничком формату, и где је могуће, да буду груписане у јединствену фусноту са одговарајућим референцама на припадни фреквенцијски опсег

*даље одлучује*

1 да додавање било које нове фусноте или модификација постојеће фусноте треба да буде разматрано на Светској конференцији о радио-комуникацијама само када :

a) дневни ред дотичне конференције експлицитно укључује опсег на који се предложена додатна или модификована фуснота односи; или

b) фреквенцијски опсези којима захтевани додаци или измене фусноте припадају су разматрани у току конференције и конференција одлучи да врши измене у тим опсезима; или

c) додатак или измена фусноте је специјално укључена у дневни ред конференције као резултат уважавања предлога поднесеног од једне или више администрација;

2 да предложени дневни ред за следеће Светске конференције о радио-комуникацијама треба да укључује једну сталну тачку дневног реда која би дозвољавала разматрање предлога администрација за брисање домаћих фуснота, ако више не требају;

3 да би у случајевима који нису обухваћени *даљим одлукама* 1 и 2, предлози за нове фусноте или измене постојећих фуснота могли изузетно бити разматрани на Светској конференцији о радио-комуникацијама ако се тичу исправки очигледних пропуста, противречности, двосмислености или штампарских грешака и ако су поднесени ИТУ-у како је предвиђено у No. 40 Генералних Правила Конференција, Скупштина и Скупова Уније (Antalya, 2006)

*налаже се администрацијама*

- 1 да периодично прегледавају фусноте и предлажу брисања њихових домаћих фуснота или домаћих имена из фуснота, на одговарајући начин;
- 2 да узму у обзир горе поменуте *даље одлуке* приликом прављења предлога за Светске конференције о радио-комуникацијама.

**MOD** COM6/206/1 (B2/213/1) (R1/221/6)

## РЕЗОЛУЦИЈА 27 (Rev.WRC-07)

### **Коришћење сједињења по назнаци у Правилнику о радио-комуникацијама**

Светска конференција о радио-комуникацијама (Женева, 2007),

*имајући у виду*

- a) да је принцип присаједињења докумената по назнаци, у којем се у главном документу само спомиње други, прихваћен у WRC-95, ревидиран у WRC-97 и даље ревидиран у WRC-2000 (види Анексе 1 и 2 на ову Резолуцију);
- b) да постоје одредбе у Правилнику о радио-комуникацијама које садрже делове код којих не може јасно да се разликује да ли је њихов статус обавезно или необавезно

*препознајући*

да референце на Резолуције или Препоруке Светске конференције о радиокомуникацијама (WRC) не захтевају специјалне процедуре, и прихватљиве су за разматрање, будући да је (WRC) прихватио те текстове,

*одлучује*

- 1 да ће за потребе Правилника о радио-комуникацијама, термин “присаједињење по назнаци” бити примењено само на оне назнаке које треба да постану обавезујуће;
- 2 да кад се разматра увођење нових случајева присаједињења по назнаци, такво присаједињење треба да буде што мање и урађено примењујући следеће критеријуме:
  - само текстови који су релевантни за одређену тачку дневног реда WRC-а могу доћи у обзир;
  - правилан метод за назнаке одређује се на бази принципа постављених у Додатку 1 ове Резолуције;
  - упутства садржана у Додатку 2 ове Резолуције примењују се да осигурају да се применио правилан начин назнаке за дату сврху;
- 3 да се процедура описана у Додатку 3 ове Резолуције примењује за одобравање присаједињења по назнаци ИТУ-Р Препорука или дела тога;
- 4 да се постојеће назнаке у ИТУ-Р Препорукама ревидирају да би се појаснило да ли је назнака обавезујућа или необавезујућа у складу да Додатком 2 ове Резолуције;
- 5 да се ИТУ-Р Препоруке, или део њих, присаједињене по назнаци у закључку сваке WRC, сакупе и објаве у књизи Правилника о радио-комуникацијама (види Додатак 3 ове Резолуције),

*налаже Директору Бироа за радиокомуникације*

- 1 да предочи ову резолуцију Скупштини за Радиокомуникације и ИТУ-Р Студијској Групи;

2 да пронађу одредбе и фусноте Правилника о радио-комуникацијама које садрже назнаке у ITU-R Препорукама и ставе сугестије на увид било којој будућој акцији другог заседања Тела за припрему конференције, као и за укључивање у Извештај Директора следећој WRC;

3 да пронађу одредбе и фусноте Правилника о радио-комуникацијама које садрже назнаке на WRC резолуције које садрже назнаке на ITU-R препоруке, и ставе сугестије на увид било којој будућој акцији другог заседања Тела за припрему конференције, као и за укључивање у Извештај Директора следећој WRC,

*позива администрације*

да поднесу предлоге за будуће конференције, узимајући у обзир извештаје СРМ-а, у циљу појашњавања статуса назнака, где су остале неодређености око статуса назнака у смислу обавезно-необавезно, имајући у виду допуне тих назнака:

- i) за које се испостави да су обавезујуће природе, означавајући такве назнаке да су инкорпориране као назнаке употребљавајући чисти повезујући језик у сагласности са Анексом 2;
- ii) да немају обавезујући карактер, тако као да се односе на “најновију“ верзију Препорука.

## АНЕКС 1 НА РЕЗОЛУЦИЈУ 27 (Rev.WRC-07)

### Принципи присаједињења по назнаци

1 За потребе Правилника о радио-комуникацијама, израз “присаједињење по назнаци” примењује се само на назнаке означене да буду обавезујуће.

2 Када је релевантни текст кратак, назначени материјал треба да се стави у Правилник о радио-комуникацијама, не користећи присаједињење по назнаци.

*2bis* Када је обавезујућа назнака на неку ITU-R Препоруку, или њен део, укључена у одлуке неке WRC одлуке, која је сама цитирана у одредби или фусноти Правилника о радио-комуникацијама користећи прописани речник (на.пр. "shall"), та ITU-R Препорука или део ње такође се сматра присаједињен по назнаци.

3 Текст који није обавезујуће природе или који се односи на друге текстове који нису обавезујуће природе не треба да се присаједини по назнаци.

4 Ако је, од случаја до случаја, одлучено да се материјал по назнаци укључи на обавезној основи, примењују се следеће одредбе:

4.1 текст који се укључује по назнаци има исти уговорни статус као сам Правилник о радио-комуникацијама;

4.2 назнака мора да буде изричита, да специфицира специфичан део текста (ако је подесно) и верзију или број издања;

4.3 текст укључен по назнаци мора да буде поднесен на усвајање од компетентне WRC у складу са одлукама 3;

4.4 сви текстови укључени по назнаци објављују се кад се заврши WRC, у складу са одлукама 5.

5 Ако је, између WRC-а, текст укључен по назнаци (на пр. ITU-R Препорука) промењен, назнака у Правилнику о радио-комуникацијама наставља да се примењује на раније верзије укључене по назнаци до времена када компетентна WRC пристане да укључи нову верзију. Механизам за разматрање таквог корака дат је у Резолуцији **28 (Rev.WRC-03)**.

## АНЕКС 2 НА РЕЗОЛУЦИЈУ 27 (Rev.WRC-07)

### Апликација за присаједињење по назнаци

За време увођења нових случајева присаједињења по назнаци у одредбама Правилника о радио-комуникацијама или ревидирања постојећих случајева присаједињења по назнаци, администрације и ИТУ-Р би требале адресирати следеће факторе да би осигурале да је примењена исправна метода за намеравану сврху, сагласно за сваку референцу да ли је обавезујућа (на пр, присаједињена по назнаци) или необавезујућа

#### Обавезујуће референце

- 1 обавезујућа референца употребљава јасан језик за повезивање, на пр. “shall”;
- 2 обавезујућа референца се експлицитно и специфично препознаје;
- 3 уколико је намеравани назначени материјал, у целости неподесан за текст са статусом уговора, назнака ће бити ограничена на само оне делове поменутог материјала који је подесан, на пр. “Анекс А на Препоруку ИТУ-Р Z.123-4”.

#### Необавезујуће референце

- 4 Необавезујуће референце или нејасне референце које су предодређене да буду необавезујуће (на пр. присаједињене по назнаци ) користе одговарајући језик, као “should” or “may”. Тај одговарајући језик може да се односи на најновију верзију Препоруке. Сваки одговарајући језик може у будућности бити промењен на било којој будућој WRC.

## АНЕКС 3 НА РЕЗОЛУЦИЈУ 27 (Rev.WRC-07)

### Процедура коју примењује WRC за одобравање укључивања по назнаци ИТУ-Р Препорука или дела њих

Назначени текст треба да буде доступан делегацијама довољно дуго времена за све администрације да се консултују на ИТУ језику. Једна копија текста треба да буде доступна свакој администрацији као конференцијски документ.

За време трајања сваке WRC, листа текстова присаједињених по назнаци треба да буде развијена и одржавана од стране комитета. Та листа биће публикована као конференцијски документ по реду са осталим развојем за време конференције.

Након завршетка сваке WRC, Биро и Генерални Секретаријат модификоваће књигу Правилника о радио-комуникацијама која служи као складиште текстова присаједињених по назнаци у складу са развојем на конференцији како је забележено у горе поменутом документу.

**MOD** COM5/384/1 (B16/401/8)

## РЕЗОЛУЦИЈА 49 (Rev.WRC-07)

### Администрирање с дужном пажњом које се примењује за неке сателитске радиокомуникационе службе

Светска конференција о радио-комуникацијама (Женева, 2007),

*имајући у виду*

- a) да је Резолуција 18 Конференције опуномоћеника (Кјото, 1994) наложила Директору Бироа за радиокомуникације да иницира ревизију неколико важних питања који се тичу координације међународне сателитске мреже и да направи прелиминарни извештај за WRC-95 и финални извештај за WRC-97;

- b) да је Директор Бироа доставио свеобухватни извештај за WRC-97, укључујући извештај број препорука за деловање што је пре могуће и за одређивање подручја која захтевају даље проучавање;
- c) да је једна од препорука у Директоровом извештају за WRC-97 да би администрација с дужном пажњом требало да буде прихваћено као начин адресирања проблема резервације орбите и спектралних капацитета без да се стварно користе;
- d) искуство би требало да се постигне у примени административних с дужном пажњом процедура, прихваћених од WRC-97, и да неколико година буде потребно да се види да ли администрација са дужном пажњом даје задовољавајуће резултате;
- e) нови регулаторни прилаз би могао да буде пажљиво разматран да би се избегли контра ефекти на мрежама које већ пролазе кроз различите фазе процедура;
- f) да Члан 44 Устава даје основне принципе за употребу радио-фреквенцијског спектра и да геостационарних сателита и осталих сателитских орбита, узимајући у обзир потребе земаља у развоју,

*имајући у виду следеће*

- g) да је WRC-97 одлучио да редукује временске оквири за увођење сателитске мреже у употребу;
- h) да WRC-2000 сматра резултате имплементације администрација с дужном пажњом, и припрема репорт за 2002 Конференцију Опумоћеника у одговору на Резолуцију 85 (Минеаполис, 1998),

*одлучује*

1 процедура администрација с дужном пажњом садржана у Анексу 1 ове Резолуције треба да се примењује од 22.11.1997. за сателитске мреже и сателитске системе фиксне-сателитске мреже, мобилне сателитске мреже или радиодуфусне сателитске службе за које су публиковане информације под No. **9.2B**, или за које захтев за модификације у Плану Региона 2 у чланку 4, § 4.2.1 b) Додатака **30** и **30A** који укључује додавање нових фреквенција или позиција орбита, или за које захтев за модификације Плана Региона 2 у Чланку 4, § 4.2.1 a) Додаци **30** and **30A** које проширују подручје службе на другу земљу или земље поврх постојећег подручја службе, или за које захтев за додатно коришћење у Регионима 1 и 3 у § 4.1 Чланка 4 Додатка **30** и **30A**, или за које подношење информације под суплементарним одредбама подесним за додатне употребе у планираним опсезима дефинисаним у Чланку 2 Додатка **30B** (Секција III Чланка б) је Биро примио иза 22.11.1997., или за које подношење у Чланку 6 додатка **30B (Rev.WRC-07)** је примљено на или након 17.11.2007., са изузетком поднесака нових Чланица које траже прикупљање њихових додела<sup>3</sup> за укључивање у План Додатка **30B**;

2 да за сателитске мреже или сателитске системе разматране у § 1 или 3 Додатка 1 ове Резолуције које нису још забележене у Главном Међународном Регистру Фреквенција (MIFR) до 22.11.1997., за које је публикована информација у No. **1042** Правилника о радиокомуникацијама (издање 1990, ревидирано 1994) или за апликацију Секције III of Чланка 6 Додатка **30B** коју је Биро примио пре 22.11.1997, одговорна администрација треба да поднесе Бироу комплетну информацију с дужном пажњом у сагласности са Анексом 2 ове Резолуције не после 21.11.2004. , или пре истека назначеног периода пуштања сателитске мреже у употребу, плус сваки додатни период који не прелази три године сходно апликацији

<sup>3</sup> Види § 2.3 Додатка **30B (Rev.WRC-07)**.

№. **1550** Правилника о радиокомуникацијама (издање 1990, ревидирано 1994) или датума специфицираним у одговарајућим одредбама Чланка 6 Додатка **30В**, кад год је датум ранији. Ако је датум почетка употребе, укључујући гореспоменута померања, пре 1.07.1998, одговорна администрација треба да поднесе Бироу комплетну информацију с дужном пажњом у складу са Анексом 2 ове Резолуције не касније од 1.07.1998;

*2bis* да за сателитску мрежу или сателитски систем разматран у § 2 Анексу 1 ове Резолуције који нису забележени у МИФР до 22.11.1997., за које је захтев за модификацију Плана у Додацима **30** и **30А** стигао у Биро пре 22.11.1997., дотична администрација треба да поднесе Бироу комплетну информацију са дужном пажњом у складу са Анексом 2 ове Резолуције што пре је могуће пре завршетка периода постављеног за границу пуштања у употребу у складу са одговарајућим одлукама из Члана 4 у Додатку **30** и одговарајућим одлукама из Члана 4 Додатка **30А**;

3 да за сателитску мрежу или сателитски систем разматран у § 1, 2 или 3 у Анексу 1 ове Резолуције који су забележени у МИФР до 22.11.1997., дотична администрација треба да поднесе Бироу комплетну информацију са дужном пажњом у складу са Анексом 2 ове Резолуције не касније од 21.11.2000, или пре назначеног датума пуштања сателитске мреже у употребу (укључујући и додатни период), зависно који датум пада касније;

4 да шест месеци пре датума истека који је специфициран у одлуци 2 или горенаведеној 2бис, ако дотична администрација није поднела информације с дужном пажњом, Биро ће послати подсетник тој администрацији;

5 да ако се установи да су информације с дужном пажњом некомплетне, Биро ће сместа захтевати од дотичне администрације да достави недостајуће информације. У сваком случају, комплетне информације с дужном пажњом треба да буду у Бироу пре истека датума специфицираног у одлуци 2 или горенаведеној 2бис, ако је подесно, и Биро треба да их објави у Међународном циркулару за информације о фреквенцијама (BR IFIC);

6 да ако комплетне информације с дужном пажњом не буду примљене у Бироу пре истека датума специфицираног у одлуци 2 или горенаведеној 2бис, захтев за координацију или захтев за модификацију Плана у Додацима **30** и **30А** или за апликацију Секције III чланка 6 Додатка **30В** како је покривено горепоменутом Одлуком 1 поднесено Бироу биће поништен. Било која модификација Плана (Додаци **30** и **30А**) престаје да важи, и свако записивање у МИФР као и записивање у Додатак **30В** Листу Биро треба да обрише након што је информисао заинтересоване администрације. Биро треба да објави те информације у BR IFIC.

*такође одлучује*

да су процедуре у овој Резолуцији додаци одредаба из Чланова 9 или 11 Правилника о радиокомуникацијама или Додатака **30**, **30А** и **30В**, ако је подесно и у овом случају, не утичу на захтев за координацију према тим одредбама (Додаци **30**, **30А**) у зависности од ширења подручја службе на другу земљу или земље поврх постојећег подручја службе

*налаже се Директору Бироа за радиокомуникације*

да извести наредну компетентну светску конференцију о радиокомуникацијама о резултатима имплементације процедуре администрација с дужном пажњом.

## АНЕКС 1 НА РЕЗОЛУЦИЈУ 49 (Rev.WRC-07)

1 Свака сателитска мрежа или сателитски систем фиксне сателитске службе, мобилно- сателитска служба или радиодифузна-сателитска служба са додељеним

фреквенцијама које подлежу координацији под Nos. **9.7, 9.11, 9.12, 9.12A** и **9.13** и Резолуцији **33 (Rev.WRC-03)** треба да буду подвргнути овим процедурама.

2 Сваки захтев за измену Плана у Региону 2 према одговарајућим одредбама из Члана 4 Додаци **30** и **30A** који укључује додавање нових фреквенција или места у орбити или измену Плана у Региону 2 према одговарајућим одредбама из Члана 4 Додаци **30** и **30A** који повећава подручје службе на другу земљу или земље поред постојећег подручја службе или захтев за додатна коришћења у Регионима 1 и 3 према одговарајућим одредбама из Члана 4 Додаци **30** и **30A** треба да буду подвргнути овим процедурама.

3 Свако подношење информације према Члану 6 Додатак **30B (Rev.WRC-07)**, са изузетком поднесака нових земаља чланица које траже прикупљање њихових националних расподела за укључење у Додатак **30B** Плана треба да буду подвргнути овим процедурама.

4 Администрација која захтева координацију за сателитску мрежу под горепоменутиим § 1 треба да достави Бироу што раније пре истека рока постављеног за стављање у употребу у No. **9.1**, информације с дужном пажњом које се односе на сателитску мрежу и произвођача свемирског брода наведене у Анексу 2 ове Резолуције.

5 Администрација која захтева измену Плана у Региону 2 или додатна коришћења у Регионима 1 и 3 Додаци **30** и **30A** под горепоменутиим § 2 треба да достави Бироу што раније пре истека рока постављеног за стављање у употребу према одговарајућим одлукама из Члана 4 Додатак **30** и одговарајућим одлукама из Члана 4 Додатак **30A**, информације с дужном пажњом које се односе на идентитет сателитске мреже и произвођача свемирског брода наведене у Анексу 2 ове Резолуције.

6 Администрација која примењује Члан 6 Додатка **30B (Rev.WRC-07)** под горепоменутиим § 3 треба да достави Бироу што раније пре истека рока постављеног за стављање у употребу према § 6.1 овог Члана информације с дужном пажњом које се односе на идентитет сателитске мреже и произвођача свемирског брода наведене у Анексу 2 ове Резолуције.

7 Информације које се подnose према горепоменутиим § 4, 5 или 6 морају бити потписане од ауторизованог лица администрације за обавештење или неке администрације која заступа именовану групу администрација.

8 По пријему информације с дужном пажњом према горепоменутиим § 4, 5 или 6, Биро ће одмах проверити да ли су информације комплетне. Ако установи да јесу, Биро треба да објави те комплетне информације у BR IFIC у року од 30 дана.

9 Ако се установи да информације нису комплетне, Биро ће одмах захтевати од администрације да достави информације које недостају. У сваком случају, комплетне информације с дужном пажњом Биро ће да прими у одговарајућем времену специфицираном у горепоменутиим § 4, 5 или 6, као што случај може бити, у односу на датум стављања сателитске мреже у употребу.

10 Шест месеци пре истека периода специфицираног у горепоменутиим § 4, 5 или 6 и ако администрација одговорна за сателитску мрежу није доставила није доставила информације с дужном пажњом под горепоменутиим § 4, 5 или 6, Биро ће послати подсетник одговорној администрацији.

11 Ако Биро не прими комплетне информације с дужном пажњом у одређено време специфицирано у овој Резолуцији, мреже покривене горепоменутиим § 1, 2 или 3 неће се више узимати у обзир и неће бити записане у MIFR. Биро ће обрисати привремени запис из MIFR након што је обавестио заинтересоване администрације. Биро ће објавити те информације у BR IFIC.

Поштујући захтев за измену Плана у Региону 2 или за додатна коришћења у Регионима 1 и 3 Додаци **30** и **30А** под горепоменутим § 2, измене ће бити одбачене ако информације с дужном пажњом нису достављене у складу с овом Резолуцијом.

Поштујући захтев за примену Члана 6 Додатак **30В (Rev.WRC-07)** под горепоменутим § 3, мрежа ће бити избрисана из Листе Додатка. Када је нека расподела из Додатка **30В** конвертована у доделу, додела ће бити обновљена у Плану према § 6.33 *ц*) Члана 6 Додатак **30В (Rev.WRC-07)**.

12 Администрација која најављује сателитску мрежу под горепоменутим § 1, 2 или 3 за упис у MIFR треба да достави Бироу што раније пре истека рока постављеног за стављање у употребу према § 6.1 овог Члана информације с дужном пажњом које се односе на идентитет сателитске мреже и провајдера за послове лансирања наведене у Анексу 2 ове Резолуције.

13 Кад је нека администрација комплетирала процедуру с дужном пажњом, али није урађена координација, то је не спречава у примени No. **11.41**.

## АНЕКС 2 НА РЕЗОЛУЦИЈУ 49 (Rev.WRC-07)

### **А Идентитет сателитске мреже**

- a)* Идентитет сателитске мреже
- b)* Име администрације
- c)* Симбол земље
- d)* Позив на унапред објављене информације или на захтев за модификацију Плана за Регион 2 или за додатна коришћења у Регионима 1 и 3 према Додацима **30** and **30А**; или позивање на процес информисања према Члану 6 Додаци **30** and **30А**; или позивање на процес информисања према Члану 6 Додатак **30В (Rev.WRC-07)**
- e)* Позив на захтев за координацију (није примењлив на Додатке **30**, **30А** и **30В**)
- f)* Фреквенцијски опсези
- g)* Име оператора
- h)* Име сателита
- i)* Карактеристике орбите.

### **В Произвођач свемирске летилице\***

- a)* Име произвођача свемирске летилице
- b)* Датум извршења уговора
- c)* Уговорни “оквир испоруке“
- d)* Број набављених сателита.

### **С Провајдер службе лансирања**

- a)* Име провајдера лансирних уређаја

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\* БЕЛЕШКА – У случају када уговор за набавку сателита покрива више од једног сателита, морају се дати релеванте информације за сваки сателит.

- b) Датум извршења уговора
  - c) Лансирни и орбитни оквир испоруке
  - d) Назив лансирног уређаја
  - e) Назив и место лансирног комплекса.
- MOD** COM5/307/31 (B11/329/38) (R6/410/69)

## РЕЗОЛУЦИЈА 55 (Rev.WRC-07)

### Електронско подношење форми за обавештавање за земаљске станице и радио астрономске станице

Светска конференција за радиокомуникације (Женева, 2007),

*с обзиром*

да би електронско подношење форми за обавештавање за све сателитске мреже, земаљске станице, и радио астрономске станице у електронском формату олакшало посао Бироа за радиокомуникације и администрације, и убрзало процесирање тих обавештења

*констатујући*

да, ако би се кашњење процесирања везано за координацију и процедуре обавештавања наставило преко периода специфицираног у Чланцима **9** и **11** као и Додацима **30**, **30А** и **30В**, администрације би могле да имају мање времена у којем треба да ураде координацију,

*одлучује*

1 да, од 3.6.2000, сва обавештења (AP4/II и AP4/III), радио астрономске објаве (AP4/IV) и API (AP4/V и AP4/VI) и информације с дужном пажњом (Резолуција **49 (WRC-07)**) за сателитске службе и земаљске станице поднесена Бироу за радиокомуникације сходно Члановима **9** и **11** треба да буде поднесена у електронском формату који је компатибилан са BR формама електронских обавештења софтвера за примање (SpaceCap);

2 да, од 17.11.2007., сва обавештења за сателитске мреже, земаљске станице и радио астрономске станице поднесена Бироу сходно Члану **9** и **11**, као и Додацима **30** и **30А** и Резолуцији **49 (WRC-07)**, треба да буду поднесена у електронском формату који је компатибилан са BR формама електронских обавештења софтвера за примање (SpaceCap и SpaceCom);

3 да, од 1.6.2008, сва обавештења за сателитске мреже и земаљске станице поднесене Бироу за радиокомуникације сходно Додатку **30В** треба да буду поднесена у електронском формату који је компатибилан са BR формама електронских обавештења софтвера за примање (SpaceCap);

4 да, од 3.6.2000, сви графички подаци придружени поднесцима адресирани у одлукама 1, 2 и 3 требали би бити поднесени у графичком формату софтвера Бироа за примање (графички систем за управљање интерференцијом (GIMS)); подношење графике у папирнатој форми и даље се прихвата

*налаже Бироу за радиокомуникације*

1 да омогући захтеве и обавештења напоменута у одлукама 1, “како су примљена”, на њиховом BR Међународном циркулару за информације о фреквенцијама CD-ROM, у року од 30 дана од пријема, и на његовом веб-сајту;

2 да обезбеди администрацијама најновије верзије софтвера за примње и валидацију, и сва потребна техничка средства, и сваку помоћ захтевану администрација да им се омогући да се ускладе са горе поменутих одлукама 1 до 4;

3 да обједине софтвере за валидацију и примање до погодног практичног нивоа, *позива администрације*

да доставе, колико је практично, графичке податке који се односе на њихова обавештења у формату компатибилном са софтвером Бироа за примање података.

**MOD** COM6/269/1 (B7/283/7) (R5/336/2)

### РЕЗОЛУЦИЈА 63 (Rev.WRC-07)

#### **Заштита радиокомуникационих служби од интерференције коју узрокује радијација од индустријске, научне и медицинске (ISM) опреме**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*имајући у виду*

a) да се ISM примене дефинишу под RR 1.15 као “операције опреме или апарата намењене да генеришу и користе радиофреквенцијску енергију за индустријске, научне, медицинске, домаће или сличне потребе, искључујући примене на пољу *телекомуникација*”;

b) да ISM опрема може да се налази на локацијама где спољна радијација не може увек да се избегне;

c) да се повећава количина ISM опреме која ради на разним фреквенцијама у спектру;

d) да у неким случајевима ISM опрема може да израчи значајни део енергије изван своје радне фреквенције;

e) да Препорука ITU-R SM.1056 препоручује администрацијама употребу Публикацију 11 Специјалног Међународног Комитета за Радио Интерференцију (CISPR) као водич за ISM опрему за заштиту радиокомуникационих служби, али да CISPR 11 још увек не специфицира у потпуности радијацијске лимите за све фреквенцијске опсеге;

f) да неке радио службе, посебно оне које користе мале снаге електричног поља, могу да имају сметње због интерференције коју узрокује зрачење ISM опреме, а тај ризик је неприхватљив посебно у случају радионавигације или других сигурносних служби;

g) да, у намери да се ограничи ризици од интерференције на одређене делове спектра:

– да је претходна Конференција о радиокомуникацијама Атлант Сити 1947 и Женева 1959, означила извесне фреквенцијске опсеге у којима радиокомуникационе службе морају да прихвате штетну интерференцију коју производи ISM опрема;

– WARC-79 је прихватио пораст броја опсега намењених за ISM опрему, али једино под условом да лимити зрачења из таквих уређаја буду специфицирани у оквиру опсега који су ново-одређени за употребу широм света и изван свих опсега одређених за ISM опрему,

*одлучује*

да због обезбеђивања адекватне заштите Радиокомуникационим службама, обавезне су студије за лимите који треба да се примене на зрачење ISM опреме у фреквенцијским опсезима означеним у Правилнику о радиокомуникацијама за то коришћење и изван тих опсега,

*позива ITU-R*

да настави, у сарадњи са CISPR, своје студије које се односе на зрачење ISM опреме у фреквенцијским опсезима означеним у Правилнику о радиокомуникацијама за то коришћење и изван тих опсега због обезбеђивања адекватне заштите Радиокомуникационим службама, уз давање приоритета комплетирању студија које би омогућиле CISPR да дефинише лимите у Публикацији CISPR 11 за зрачење из ISM опреме унутар свих опсега означених у Правилнику о радиокомуникацијама за коришћење такве опреме,

*налаже се Директору Бироа за радиокомуникације*

- 1 да предочи ову Резолуцију у CISPR;
- 2 да достави резултате ових студија на разматрање у WRC-11.

**MOD** COM6/208/1 (B2/213/2) (R1/221/7)

## РЕЗОЛУЦИЈА 72 (Rev.WRC-07)

### **Светске и регионалне припреме за Светску Конференцију о радиокомуникацијама**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*имајући у виду*

- a) да многе регионалне телекомуникационе организације континуирано координишу своје припреме за WRC;
- b) да је много заједничких предлога поднесено овој Конференцији од администрација које учествују у припремама регионалних телекомуникационих организација;
- c) да је ово усклађивање погледа на регионалном нивоу, заједно са могућностима међурегионалних дискусија пре Конференције, олакшало посао међусобног разумевања и штедело време у току ранијих WRC;
- d) да ће терет припрема будућих конференција вероватно да порасте;
- e) да наведено представља велику корист државама чланицама за координацију припрема на светском и регионалном нивоу ;
- f) да ће успех будућих конференција зависити о већој ефикасности регионалне координације и интеракцији на међурегионалном нивоу пре будућих конференција, укључујући могуће директне сусрете регионалних група;
- g) да постоји потреба за свеобухватном координацијом међурегионалних консултација,

*препознајући*

- a) одлуку 2 Резолуције 80 (Rev. Marrakesh, 2002) Конференције опуномоћеника: “подржавајући регионалну хармонизацију заједничких предлога, као што је наведено у Резолуцији 72 (WRC-97), за подношење Светским Конференцијама о радиокомуникацијама”;

b) одлуку 3 Резолуције 80 (Rev. Marrakesh, 2002) Конференције опуномоћеника: “подстичући обје формалну и неформалну сарадњу у интервалу између конференција у погледу разрешавања разлика у стварима које су већ на дневном реду конференције или новим стварима”,

*констатујући*

да су конференције опуномоћеника решиле да би Унија требала да настави да развија тешње везе са регионалним телекомуникацијским организацијама,

*одлучује*

да позове регионалне групе да наставе своје припреме за WRC, укључујући могуће сазивање заједничког скупа регионалних група формално и неформално,

*такође одлучује да се налаже Директору Бироа за радиокомуникације*

1 да настави консултовање регионалних телекомуникационих организација у смислу која помоћ може да се пружи њиховим припремама за будуће светске конференције о радиокомуникацијама у следећим областима:

- организације припремних скупова;
- организације информативних седница, пожељно пре и после друге седнице припремног скупа конференције (СРМ);
- идентификације главних питања која треба да се разреше на будућој светској конференцији о радиокомуникацијама;
- потпоре регионалним и међурегионалним формалним и неформалним скуповима, у циљу постизања евентуалног приближавања међурегионалних погледа на главна питања;

2 сходно Резолуцији ИТУ-Р 2-5 Скупштине за Радиокомуникације СРМ-а, да помогне да се осигура да водство СРМ-а уради преглед презентације поглавља СРМ Репорта у раној фази седнице СРМ-а, као део редовно заказаних скупова, да би се помогло свим учесницима да разумеју садржај СРМ Репорта;

3 да поднесе извештај о резултатима таквих консултација за следећи WRC,

*позива Директора Бироа за Развој Телекомуникација*

да сарађује са Директором Бироа за Радиокомуникације у спровођењу ове Резолуције.

**MOD** СОМ6/301/1 (В10/326/17) (R6/410/70)

## РЕЗОЛУЦИЈА 80 (Rev.WRC-07)

### **На шта обратити пажњу приликом примене принципа уграђених у ИТУ Статут**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*имајући у виду*

- a) да Чланови 12 и 44 ИТУ Статута утврђују основне принципе коришћења радио-фреквенцијског спектра и геостационарног сателита и других сателитских орбита;
- b) да су ти принципи укључени у Правилник о радиокомуникацијама;
- c) Члан I Споразума између Уједињених Нација и ИТУ-а одређује да “Уједињене Нације признају ИТУ (у даљем тексту Унију) за специјализовану агенцију одговорну за

предузимање таквих акција које могу бити у складу са њиховом основним средствима да остваре тако постављене захтеве”;

d) да, у складу са Nos. **11.30**, **11.31** и **11.31.2**, примедбе треба да буду размотрене поштујући Правилник о радиокомуникацијама, учујући одредбу која се односи на основне принципе, одговарајућа правила процедура развијених за ту сврху;

e) да WRC-97 налаже Борду за Правилник о радиокомуникацијама да развије у оквиру Nos. **11.30**, **11.31** и **11.31.2**, правила за процедуре које ће да се следе у сврху сагласности са принципима у No. **0.3** Преамбуле Правилника о радиокомуникацијама;

f) да је Борд, у складу с Резолуцијом **80 (WRC-97)**, поднео извештај за WRC-2000 сугерирајући могућа решења и наводећи да је, након проучавања Правилника о радиокомуникацијама, закључио да тренутно нема одредби које повезују формално обавештавање или процедуре координације са принципима наведеним у No. **0.3** Преамбуле Правилника о радиокомуникацијама;

g) да је Правна поткомисија Комисије за мирно коришћење свемира Генералне Скупштине Уједињених Нација направила нацрт одредаба у том смислу,

*примајући к знању*

a) да, у складу с одредбама No. 127 Конвенције, Конференција може давати инструкције Секторима Уније;

b) да ће, према No. 160С Конвенције, Саветодавно тело за радиокомуникације (RAG) преиспитати сваку материју добивену од Конференције;

c) RRB извештај за WRC-2000 (види Анекс 1);

d) RRB извештај за WRC-03 (види Анекс 2);

e) да су неке ствари идентификоване у извештају под *примајући к знању c*) биле разрешене пре WRC-07,

*одлучује*

1 налаже се Сектору за Радиокомуникације, у складу са No. 1 Члана 12 ИТУ Статута, да направиспроведе за процедуре мерења и анализу примене основних принципа садржаних у Члану 44 ИТУ Статута;

2 налаже се RRB-у да размотри и преиспита могуће препоруке и одредбе нацрта и које повезују формално обавештавање, процедуре координације и регистрације са принципима садржаним у Члану 44 Конституције и No. **0.3** Преамбуле Правилника о радиокомуникацијама, и да извести сваку будућу Светску конференцију о радиокомуникацијама у вези са овом Резолуцијом;

3 налаже се Директору Бироа за Радиокомуникације да поднесе свакој будућој Светској конференцији о радиокомуникацијама детаљан извештај о напретку акције подузете овом Резолуцијом,

*позива*

1 остале органе Сектора за Радиокомуникације, посебно RAG, да учини релевантан допринос Директору Бироа за Радиокомуникације за укључивање његовог извештаја у сваку будућу Светску конференцију о радиокомуникацијама;

2 администрације да учествују у студијама поменутих у *одлучује 1* и у раду RRB-а како је дано детаљније у *одлучује 2*.

## АНЕКС 1 НА РЕЗОЛУЦИЈУ 80 (Rev.WRC-07)

### RRB Репорт за WRC-2000

У RRB Извештају за WRC-2000<sup>1</sup>, неколико чланова Борда запазило је извесне тешкоће које би администрације могле да имају, посебно администрације земаља у развоју, као што су:

- “први-доспео први-обрађен” концепт ограничава и каткада спречава приступ и коришћење неких фреквенцијских опсега и позиција орбите;
- релативни недостатак за земље у развоју у координацији преговора због различитих разлога као што је недостатак ресурса и стручности;
- примећене разлике у конзистентности примене Правилника о радиокомуникацијама;
- слање сателита “на папиру” што ограничава приступ опцијама;
- повећано коришћење опсега из Плана из Додатка **30** и **30А** од стране регионалних, мултиканалних система, што може да промени основно коришћење тих Плана да се омогући равноправан приступ свим земљама;
- значајно кашњење у обради у Бироу за радиокомуникације дешава се због врло сложених захтеваних процедура и великог броја поднесених пријава; та закашњења доприносе закашњењу координације од 18 месеци што би могло да се продужи на три године и да креира несигурну правну ситуацију, додатно кашњење у процесу координације који администрације не могу да савладају, и могућег губитка доделе због истека времена за одређивање намене;
- сателитски системи могу већ да се нађу у орбити пре комплетирања координације;
- статутарни временски оквири, као они у No. **11.48**, често могу бити недовољни за земље у развоју да могу да комплетирају правне захтеве као и дизајн, конструкцију и лансирање сателитских система;
- непостојање одредби о међународном надгледању које би потврдиле пуштање у рад сателитске мреже (доделе и орбите).

## АНЕКС 2 РЕЗОЛУЦИЈЕ 80 (Rev.WRC-07)

### RRB Репорт за WRC-03

У RRB Извештају за WRC-03<sup>2</sup>, начини да се задовоље *одлучује* 2 Резолуције **80 (WRC-2000)** обезбеђени су како следи:

- посебне мере за земље које подносе своју прву пријаву за сателит:
  - на посебној основи, специјална пажња могла би да се пружи земљама које подносе своју прву пријаву за сателитски систем, узимајући у обзир специјалне потребе земаља у развоју;
  - таква разматрања требало би да узму у обзир следеће:
    - утицај на друге администрације;

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<sup>1</sup> Овај извештај може да се нађе у Документу 29 за WRC-2000.

<sup>2</sup> Овај извештај може да се нађе у Адендumu 5 Документа 4 за WRC-03.

- сателитску службу система (на.пр. FSS, MSS, BSS);
- фреквенцијски опсег обухваћен пријавом;
- систем је намењен да задовољи директне потребе дотичних земаља;
- повећање правног временског лимита за пуштање у рад:
  - могло би да се специфицирају услови под којим екстензијама може бити додељен по изузетној основи земљама у развоју кад нису у стању да комплетирају захтеве у прописаном времену, тако да довољно времена за дизајн, изградњу и лансирање сателитских система може да се обави;
  - услови креирани у претходном параграфу требали би да буду укључени у Правилник о радиокомуникацијама као одредбе које би омогућиле да додели екстензију.

**MOD** PLEN/422/1

## РЕЗОЛУЦИЈА 86 (Rev.WRC-07)

### Имплементација Резолуције 86 (Rev. Маракеш, 2002) Конференције Опуномоћеника

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

*a)* да је Конференција Опуномоћеника (Маракеш, 2002) дискутовала о Резолуцији 86 (Минеаполис, 1998) и одлучила о захтеву за WRC-03 да одреди област и критеријуме које ће да користе будуће Светске конференције о радиокомуникацијама (WRCs) у примени Резолуције 86 (Rev. Маракеш, 2002);

*b)* Конференција Опуномоћеника (Анталија, 2006) позвала је WRC-07 да размотри Резолуцију 86 (Маракеш, 2002) и да извести о резултатима 2010 Конференцију Опуномоћеника,

*препознајући*

да Борд за Правилник о Радиокомуникацијама даје сугестије за трансформацију садржаја Пословника у регулаторни текст у складу са Nos. **13.0.1** и **13.0.2** Члана **13** Правилника о радиокомуникацијама,

*примајући к знању*

да администрације такође желе да дају предлоге за трансформацију садржаја Пословника у регулаторни текст за укључивање у Правилник о Радиокомуникацијама,

*одлучује да позове будуће светске конференције о радиокомуникацијама*

1 да размотре све предлоге који се баве недостацима и побољшањима у напредним публикацијама, координацијом, обавештавањем и бележењем процедура Правилника о радиокомуникацијама за доделе фреквенција који се односе на свемирске службе које је Борд идентификовао и укључио у Пословник или које су идентификовале администрације или Биро за радиокомуникације, како спада;

2 да осигура да процедуре, и одговарајући додаци Правилника о радиокомуникацијама одражавају најновије технологије, колико год је могуће

*позива администрације*

да размотре, у склопу припрема за PP-10, одговарајуће акције у вези са Резолуцијом 86 (Rev. Маракеш, 2002).

**MOD** COM6/209/1 (B2/213/3) (R1/221/8)

## РЕЗОЛУЦИЈА 95 (Rev.WRC-07)

### **Генерални преглед Резолуција и Препорука светских административних радио конференција и светских радиокомуникационих конференција**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да је важно одржавати Резолуције и Препоруке бивших светских административних радио конференција и светских конференција о радиокомуникацијама под константним преиспитивањем, да би биле актуелне;

b) да извештаји Директора Бироа за Радиокомуникације поднесени бившим конференцијама пружају добру основу за генерални преглед Резолуција и Препорука бивших конференција;

c) да су неки принципи и смернице неопходни за будуће конференције за третирање Резолуција и Препорука бивших конференција које нису везане за дневни ред Конференције,

*одлучује да позове будуће компетентне светске конференције о радиокомуникацијама*

1 да преиспитају Резолуције и Препоруке бивших конференција које су у вези са дневним редом Конференције с погледом на могућу ревизију, замену или укидање истих, и предузму одговарајућу акцију;

2 да преиспитају Резолуције и Препоруке бивших конференција које нису у вези са неком тачком дневног реда Конференције с погледом на:

- укидање оних Резолуција и Препорука које су одрадиле своју сврху или нису више потребне;
- преиспитивање потребе за оним Резолуцијама и Препорукама, или делом истих, које захтевају ИТУ-Р студије на којима није било напретка у времену између задња два периода између конференција;
- ажурирање и мењање Резолуција и Препорука, или делова истих који нису више актуелни, и да се исправе очигледни пропусти, неконзистентности и двозначности или правописне грешке и изврши било какво подешавање;

3 на почетку конференције, да се одлучи који комитет конференције има примарну одговорност да преиспита сваку Резолуцију и Препоруку која се односи на горепоменуте *одлучује 1 и 2*

*налаже се Директору Бироа за радиокомуникације*

1 да предводи генерално преиспитивање Резолуција и Препорука бивших конференција и, након консултације са Саветодавном групом за радиокомуникације и Председником и Потпредседником Студијске групе за радиокомуникације, поднесе извештај другој седници Скупа за припрему конференције (СРМ) у погледу *одлучује 1 и 2*, укључујући наговештај било које тачке дневног реда у вези с тиме;

2 да укључи у горњи извештај, уз сарадњу са Председником Студијске групе за радиокомуникације, извештај о напретку ITU-R студија по стварима које су захтеване у Резолуцијама и Препорукама бивших конференција, али које нису стављене на дневни ред наредне две конференције,

*позива администрације*

да даду свој допринос у имплементацији ове Резолуције за СРМ,

*позива Скуп за припрему конференције*

да укључи, у свој извештај, резултате генералног преиспитивања Резолуција и Препорука претходних конференција, базирано на доприносу администрација за СРМ, да би се олакшало праћење будућим WRC-овима.

**ADD** COM6/406/1

## РЕЗОЛУЦИЈА 97 (WRC-07)

### **Привремена примена неких одредби из Правилника о радиокомуникацијама према ревизији на WRC-07 и укинуће неких резолуција и препорука**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је ова Конференција усвојила делимичну ревизију Правилника о радиокомуникацијама (RR) у складу са условима рада која ће ступити на снагу 1.1.2009.;
- b) да неке од одредби, са изменама и допунама ове конференције, треба да буду примењене привремено од ранијег датума;
- c) да као генерално правило, нове и ревидиране резолуције и препоруке ступају на снагу у тренутку потписивања Финалних аката конференције;
- d) да као генерално правило, резолуције и препоруке које је WRC одлучио да потисне бивају укинуте у тренутку потписивања Финалних аката конференције,

*одлучује*

1 да од 17.11.2007., следеће одредбе од RR, како је ревидирано или постављено на овој конференцији, требају привремену примену: No. **5.4B06** и придружене намене у табели из Члана **5** ваздухопловној мобилној (R) служби у опсегу 960-1 164 MHz, Nos, **5.328B** и **5.329A** и придружене намене у Табели из Члана **5** радионавигационој сателитској служби, Nos. **5.379B** и придружене намене у Табели Члана **5** мобилној сателитској служби, No. **5.517** и придружене намене у Табели Члана **5** радиодифузној сателитској и фиксној сателитској службама, No. **5.538** и придружене намене у Табели Члана **5** фиксној сателитској служби, **5.VA01** и придружене намене у Табели Члана **5** фиксној и мобилној службама сателитског (пасивно) истраживања Земље, **5.VA02** и придружене намене у Табели Члана **5** фиксној и мобилној службама сателитског (пасивно) истраживања Земље, **5.VA03** и придружене намене у Табели Члана **5** фиксној и фиксној сателитској службама, **5.403** и придружене намене у Табели Члана **5** мобилној сателитској, осим ваздухопловне мобилне сателитске, служби, **5.414** и придружене намене у Табели Члана **5** мобилној сателитској служби, **5.415** и придружене намене у Табели Члана **5** фиксној сателитској служби, **5.416** и придружене намене у Табели Члана **5** радиодифузној сателитској служби, **5.418** и придружене намене у Табели Члана **5** радиодифузној сателитској и радиодифузној службама, **5.419** и придружене намене у Табели Члана **5** мобилној сателитској служби, **5.420** и придружене намене у Табели

Члана **5** мобилној сателитској, изузев ваздухопловне мобилне сателитске службе, **5.420А** и придружене намене у Табели Члана **5** ваздухопловној мобилној сателитској служби, **5.4А01** и придружене намене у Табели Члана **5, 9.2В.1, 9.14, 9.38.1, 9.41** Члана **9, А.11.6, 11.15, 11.43А, 11.46, 11.47** Члана **11, 21.16.19, 21.16.х, 21.16.у**, Табеле **21-2**, Табеле **21-4**, No. **22.2**, Анекса 2 Додатка **4**, Табеле 5-1 и 5-2 Додатка **5**, Табеле 10 додатка 7, Додатак **30**, Додатак **30А**, Додатак **30В**, Додатак **42**;

2 да од 17.11.2007., No. **5.518**, која је потиснута на овој конференцији, треба да буде укинута;

3 да од 1.2.2009., No. **5.199**, која је потиснута на овој конференцији, треба да буде укинута;

*одлучује такође*

1 да укине следеће резолуције од 17.11.2007.:

Резолуција <b>21 (Rev.WRC-03)</b> ,	Резолуција <b>415 (WRC-03)</b> ,
Резолуција <b>56 (Rev.WRC-03)</b> ,	Резолуција <b>527 (WARC-92)</b> ,
Резолуција <b>57 (WRC-2000)</b> ,	Резолуција <b>544 (WRC-03)</b> ,
Резолуција <b>79 (WRC-2000)</b> ,	Резолуција <b>545 (WRC-03)</b> ,
Резолуција <b>87 (WRC-03)</b> ,	Резолуција <b>670 (WRC-03)</b> ,
Резолуција <b>88 (WRC-03)</b> ,	Резолуција <b>728 (Rev.WRC-2000)</b> ,
Резолуција <b>89 (WRC-03)</b> ,	Резолуција <b>738 (WRC-03)</b> ,
Резолуција <b>96 (WRC-03)</b> ,	Резолуција <b>740 (WRC-03)</b> ,
Резолуција <b>105 (Orb-88)</b> ,	Резолуција <b>742 (WRC-03)</b> ,
Резолуција <b>132 (WRC-97)</b> ,	Резолуција <b>745 (WRC-03)</b> ,
Резолуција <b>139 (WRC-2000)</b> ,	Резолуција <b>746 (WRC-03)</b> ,
Резолуција <b>141 (WRC-03)</b> ,	Резолуција <b>747 (WRC-03)</b> ,
Резолуција <b>146 (WRC-03)</b> ,	Резолуција <b>802 (WRC-03)</b> ,
Резолуција <b>228 (Rev.WRC-03)</b> ,	Резолуција <b>803 (WRC-03)</b> ,
Резолуција <b>230 (WRC-03)</b> ,	Резолуција <b>952 (WRC-03)</b>
Резолуција <b>340 (WRC-97)</b> ,	
Резолуција <b>353 (WRC-03)</b> ,	
Резолуција <b>414 (WRC-03)</b> ,	

2 да укине следеће препоруке од 17.11.2007.:

Препорука <b>14 (Mob-87)</b> ,	Препорука <b>606 (Mob-87)</b> ,
Препорука <b>318 (Mob-87)</b> ,	Препорука <b>705</b> ,
Препорука <b>517 (Rev.WRC-03)</b> ,	Препорука <b>722 (WRC-03)</b> ,
Препорука <b>604 (Rev.Mob-87)</b> ,	Препорука <b>723 (WRC-03)</b> ,
Препорука <b>605 (Rev.Mob-87)</b> ,	Препорука <b>800 (WRC-03)</b> ;

3 да укине Резолуцију **51 (Rev.WRC-2000)** од 1.1.2010.

**MOD** COM5/284/6 (B8/293/13) (R5/336/3)

### РЕЗОЛУЦИЈА 122 (Rev.WRC-07)

#### **Коришћење опсега 47.2-47.5 GHz и 47.9-48.2 GHz од стране платформи на великој висини у фиксној служби и осталим службама**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је опсег 47.2-50.2 GHz додељен фиксној, мобилној и фиксној сателитској служби на ко-примарној основи;
- b) да је WRC-97 донела одредбе за рад станица на платформи на великој висини (HAPS), такође познатој као стратосферска појачала, у фиксној служби у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz;
- c) да ће успостављање стабилног техничког и правног окружења промовисати коришћење свих ко-примарних служби у опсегу 47.2-47.5 GHz и 47.9-48.2 GHz;
- d) да су системи који користе HAPS у поодмаклој фази развоја и да су неке земље већ обавестиле ИТУ о таквим системима у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz;
- e) да Препоруке ИТУ-R F.1500 садрже карактеристике система у фиксној служби који користе HAPS у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz;
- f) да док одлука о распоређивању HAPS-а може бити донесена на националној основи, таква распоређивања може утицати на суседне администрације и операторе ко-примарних служби;
- g) да је ИТУ-R комплетирао студије које се баве расподелом међу системима који користе HAPS у фиксној служби и осталим типовима система у фиксној служби у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz;
- h) да је ИТУ-R комплетирао студије о међусобној компатибилности HAPS система у 47.2-47.5 GHz и 47.9-48.2 GHz опсезима и радио астрономској служби у опсегу 48.94-49.04 GHz;
- i) да No. **5.552** налаже администрацијама да предузму све практичне кораке да се резервише за фиксну сателитску службу (FSS) коришћење опсега 47.2-49.2 GHz за спојне везе за радиодифузну сателитску службу (BSS) која ради у опсегу 40.5-42.5 GHz, и да ИТУ-R студије указују да HAPS у фиксној служби може да ради поред тих спојних веза;
- j) да су техничке карактеристике очекиваних BSS спојних веза и FSS гетвеј типа станице сличне;
- k) да је ИТУ-R комплетирао студије који се баве расподелом између система који користе HAPS у фиксној служби и фиксној сателитској служби,

*препознајући*

- a) да се на дуге стазе очекује да опсеги 47.2-47.5 GHz и 47.9-48.2 GHz буду затражени за HAPS операције код гетвеј и свеприсутних терминал апликација, за које већ неколико администрација има пријављене системе Бироу за радиокомуникације;

b) да идентификација заједничких подопсега за свеприсутне терминал апликације на земљи користећи услугу фиксне службе може да олакша HAPS распоређивање и дељење са осталим примарним сервисима у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz;

c) да Препорука ITU-R SF.1481-1 и Препорука ITU-R SF.1843 даје информацију о изводљивости HAPS система у фиксној служби делећи са FSS;

d) да су ITU-R студије HAPS операција у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz намењене за фиксну службу закључиле да, у намери дељења са FSS (Земља-свемир), максимална е.и.г.р. густина емитовања ка свемиру HAPS терминала на земљи у опсезима треба, у условима чистог неба, бити 6.4 dB(W/MHz) за покривање градског подручја (UAC), 22.57 dB(W/MHz) за покривање приградског подручја (SAC) и 28 dB(W/MHz) за покривање сеоског подручја (RAC), и да ове вредности могу да се повећају за највише 5 dB за време кише;

e) да су ITU-R студије поставиле специфичне вредности снаге густине флукса које треба да буду на међународним границама да се олакша обострани споразум о условима сељења за HAPS са осталим врстама фиксне службе у суседној земљи;

f) да су FSS сателитске мреже и системи са промерима Земаљске антене од 2.5 метра или више, које раде као гетвеј станице у стању да коегзистирају са свеприсутним HAPS терминалима,

*одлучује*

1 да због олакшања коегзистенције са FSS (Земља-свемир), максимална е.и.г.р. густина емисије свеприсутних HAPS терминала на земљи не сме да прелази следеће нивое у условима чистог неба:

6.4 dB(W/MHz)            за UAC        ( $30^\circ < \theta \leq 90^\circ$ )

22.57 dB(W/MHz)        за SAC        ( $15^\circ < \theta \leq 30^\circ$ )

28 dB(W/MHz)            за RAC        ( $5^\circ < \theta \leq 15^\circ$ )

где је  $\theta$  елевациони угао терминала на земљи у степенима;

2 да максимална густина емисије специфицирана у *одлуци* 1 може бити повећана, користећи технику компензације фединга, за највише 5 dB за време кише;

3 да дијаграм зрачења HAPS терминала на земљи у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz треба да одговара следећим дијаграмима зрачења антенског снопа:

$$G(\varphi) = G_{max} - 2.5 \times 10^{-3} \left( \frac{D}{\lambda} \varphi \right)^2 \quad \text{за} \quad 0^\circ < \varphi < \varphi_m$$

$$G(\varphi) = 39 - 5 \log(D/\lambda) - 25 \log \varphi \quad \text{за} \quad \varphi_m \leq \varphi < 48^\circ$$

$$G(\varphi) = -3 - 5 \log(D/\lambda) \quad \text{за} \quad 48^\circ \leq \varphi \leq 180^\circ$$

где је:

$G_{max}$ : максимално појачање антене (dBi)

$G(\varphi)$ : појачање (dBi) у односу на изотропну антену

$\varphi$ : угао отклона од осе (степени)

$D$ : antenna diameter }  
 $\lambda$ : wavelength } изражено у истим јединицама

$$\varphi_m = \frac{20\lambda}{D} \sqrt{G_{max} - G_1} \quad \text{степени}$$

$G_1$ : појачање предњег режња

$$= 2 + 15 \log (D/\lambda) \text{ (dBi)};$$

4 да у сврху заштите фиксних бежичних система суседних администрација од ко-каналне интерференције, HAPS систем који ради у фреквенцијским опсезима 47.2-47.5 GHz и 47.9-48.2 GHz не сме да прелази следеће вредности снаге густине флукса на површини Земље на границама неке администрације, осим ако је дат изричит HAPS:

-141	dB(W/(m <sup>2</sup> · MHz))	за	0° ≤ δ < 3°
-141 + 2(δ - 3)	dB(W/(m <sup>2</sup> · MHz))	за	3° ≤ δ ≤ 13°
-121	dB(W/(m <sup>2</sup> · MHz))	за	13° < δ ≤ 90°

где је δ упадни угао над хоризонталном равни у степенима;

5 да, у сврху заштите радио астрономских станица које раде у опсегу 48.94-49.04 GHz од нежељених HAPS емисија у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz, удаљеност раздвајања између радио астрономске станице и тачке на Земљи испод HAPS платформе мора бити већа од 50 km;

6 да администрације које планирају да имплементирају HAPS систем у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz морају да објаве фреквенцијске доделе подносећи све обавезне податке из Додатка 4 Бироу на проверу сагласности у односу на горенаведене одлуке 1, 2, 3, 4 и 5 у погледу на њихово регистровање у MIFR;

7 да администрације треба да најаве нове елементе за најаве које се односе на *инструкцију 1 за Директора Бироа за радиокомуникације* у намери да се омогући да Биро изврши испитивања,

*позива администрације*

које намеравају да разместе HAPS системе у фиксној служби у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz да размотре спецификацију коришћења опсега 47.2-47.35 GHz и 47.9-48.05 GHz за свеприсутне HAPS терминале,

*налаже се Директору Бироа за радиокомуникације*

1 да одржава и процесира најаве у вези HAPS које је Биро примио пре 20. октобра 2007. и привремено забележио у MIFR, само до 1. јануара 2012., осим ако је обавештена администрација информисала Биро пре тог датума да је дотична додела почела да ради и доставиле комплетан скуп елемената података Додатка 4;

2 да испита све HAPS доделе у фиксној служби објављене пре 20. октобра 2007. и примени одредбе из одлука 1, 2, 3, 4 и 5 и одговарајуће методологије калкулација укључене у Препоруке ITU-R F.1820 и Препоруке ITU-R SF.1843.

**MOD** COM6/269/2 (B7/283/8) (R5/336/4)

## РЕЗОЛУЦИЈА 143 (Rev.WRC-07)

### Смернице за имплементацију у применама велике густине у фиксној сателитској служби у фреквенцијским опсезима идентификованих за те примене

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да захтев за глобалне широкопојасне комуникационе сервисе стално расте широм света, као они које пружају примене велике густине у фиксној сателитској служби (HDFSS);
- b) да су HDFSS системи карактерисани са флексибилним, брзим и свеprisутним распоређивањем великог броја економичних свемирских станица које користе мале антене имајући сличне техничке карактеристике;
- c) да је HDFSS један напредан широкопојасни концепт комуникационе примене који ће да омогући приступ широком кругу широкопојасних телекомуникационих примена подржаних фиксним телекомуникацијским мрежама (укључујући Интернет), и тако ће да надопуни остале телекомуникационе системе;
- d) да, као код других FSS система, HDFSS нуди велики потенцијал за брзо успостављање телекомуникационе инфраструктуре;
- e) да HDFSS примене могу да буду остварене помоћу сателита за било коју орбиту;
- f) да технике за смањење интерференције јесу и биће настављене у ИТУ-R да олакшају коегзистенцију међу HDFSS земаљских станица и копнених служби;
- g) да до данас, студије о практичности имплементације слабљења интерференције још нису завршене за све HDFSS земаљске станице,

*примећујући*

- a) да No. **5.516B** идентификује опсега за HDFSS;
- b) да у неким од тих опсега, FSS намене су ко-примарне са наменама фиксних и мобилних служби, као и са другим службама;
- c) да ова идентификација не спречава коришћење ових опсега другим службама или другим FSS применама, и не поставља приоритет у тим Правилима о радиокомуникацијама међу корисницима опсега;
- d) да у опсегу 18.6-18.8 GHz, FSS намена је ко-примарна са Сателитском службом истраживања Земље (EESS) (пасивном) уз ограничења Nos. **5.522A** и **5.522B**;
- e) да се радио астрономска посматрања изводе у опсегу 48.94-49.04 GHz , и да таква осматрања захтевају заштиту у назначеним радио астрономским станицама;
- f) да ко-фреквенцијска подела између предајних HDFSS земаљских станица и копнених служби је отежана у истом географском подручју;
- g) да ко-фреквенцијска подела између пријемних HDFSS земаљских станица и копнених станица у истом географском подручју може бити олакшана имплементацијом технике слабљења интерференције , ако је практично;

*h)* да је много FSS система већ одавно пуштено у рад са другим типовима земаљских станица и карактеристика, или је планирано да буде пуштено у рад у неким од фреквенцијских опсега идентификованих за HDFSS у No. **5.516B**;

*i)* да се очекује да HDFSS станице у тим опсезима буду постављене у многим градским, приградским и руралним подручјима глобално на великом простору;

*j)* да опсег 50.2-50.4 GHz, суседни од опсега 48.2-50.2 GHz (Земља-свемир) идентификован за HDFSS у Региону 2, је намењен за EESS (пасивно),

*препознајући*

*a)* да у случајевима где FSS земаљске станице користе опсега које деле на ко-примарној основи са копненим службама, Правилник о радиокомуникацијама условљава да земаљске FSS станице морају бити појединачно пријављене Бироу када њихове контуре координације захватају територију друге администрације;

*b)* да, као последица њихових генералних карактеристика, очекује се да ће координација HDFSS земаљских станица са станицама фиксне службе на индивидуалној основи за сваки положај бити тежак и дуг процес;

*c)* да, због смањења оптерећења за администрације, оне могу да се споразумеју о поједностављеним процедурама координације и одредбама за велик број сличних HDFSS земаљских станица придружених одређеном сателитском систему;

*d)* да хармонизовани светски опсеги за HDFSS би могли олакшати имплементацију за HDFSS, помажући на тај начин глобални приступ и економски обим,

*препознајући даље*

да HDFSS примене уграђене у FSS мреже и системе јесу предмет свих одлука Правилника за радиокомуникације које се односе на FSS, као што је координација и обавештавање сходно Члановима **9** и **11**, укључујући било који захтев за координацију са копненим службама других земаља и одлукама по Члановима **21** и **22**,

*одлучује*

да би администрације које примењују HDFSS требало да разматрају следеће смернице:

*a)* прављење неких или свих фреквенцијских опсега идентификованих у No. **5.516B** доступних за HDFSS примене;

*b)* приликом прављења фреквенцијских опсега доступним по *одлуци a)*, треба водити рачуна:

- да HDFSS размештање може бити поједностављено у опсезима који се не деле са земаљским службама;
- у опсезима који се деле са копненим службама, на утицај који ће будуће размештање копнених станица имати на постојећи и будући развој за HDFSS, и будуће размештање HDFSS земаљских станица имати на постојећи и будући развој копнених служби;

*c)* да се узму у обзир релевантне техничке карактеристике које се примењују на HDFSS, како је идентификовано у ITU-R Препорукама (на пр. Препоруке ITU-R S.524-9, ITU-R S.1594 и ITU-R S.1783);

*d)* да се узму у обзир постојећи и планирани FSS системи, са различитим карактеристикама, у фреквенцијским опсезима у којима је HDFSS имплементиран у складу са горњом *одлуком a)* и условима специфицираним у No. **5.516B**,

*позива администрације*

- 1 да посвете дужну пажњу добицима због хармонизованог коришћења спектра за HDFSS на глобалној основи, узимајући у обзир коришћење и планирано коришћење тих опсега од свих осталих служби којима су ти опсежи намењени, као и другим типовима FSS примена;
- 2 да размотре имплементацију поједностављених процедура и одлука које олакшавају распоређивање HDFSS система у неким или свим опсезима идентификованим у No. **5.516B**;
- 3 да кад разматрају распоређивање HDFSS система у горњем делу опсега 48.2-50.2 GHz, да по потреби узму у обзир потенцијални утицај таквог распоређивања на сателитске пасивне службе у суседном опсегу 50.2-50.4 GHz, и да учествују у ITU-R студијама компатибилности између тих служби, узимајући у обзир No. **5.340**;
- 4 да размотре, горе дати *позив администрацијама* 3, и где је практично, почетак распоређивања HDFSS земаљских станица у нижем делу опсега 48.2-50.2 GHz.

**MOD** COM6/251/2 (B5/267/2) (R3/292/100)

**РЕЗОЛУЦИЈА 144 (Rev.WRC-07)**

**Посебни захтеви географски малих или уских земаља у којима раде земаљске станице у фиксној сателитској служби у опсегу 13.75-14 GHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је WARC-92 направио једну додатну намену фиксној сателитској служби (FSS) (Земља-свемир) у опсегу 13.75-14 GHz;
- b) да се тај опсег дели са радиолокацијском и радионавигационом службом;
- c) да следећи одлуку WRC-2000 и комплетирање ITU-R студија, WRC-03 је оживео и ревидирао услове дељења за службе у том опсегу и прихватио нове прописе који регулишу дељење између FSS, радиолокационе и радионавигационе службе (види No. **5.502**);
- d) да ти ревидирани услови дељења додатно дозвољавају операције геостационарних FSS станица у опсегу 13.75-14 GHz са антенама пречника између 1.2 m и 4.5 m,

*препознајући*

- a) да ће ти услови дељења из No. **5.502** значити да ће земље које су географски мале или уске имати значајне тешкоће при распоређивању геостационарних FSS земаљских станица у том опсегу са антенама пречника између 1.2 m и 4.5 m;
- b) да у намери да се још више олакша дељење између FSS и поморских радиолокационих система који раде у радиолокационој служби, може да буде потреба за развојем техничких и оперативних метода;
- c) да те техничке и оперативне методе могу да буду коришћене да дозволе већи размештај FSS земаљских станица у опсегу 13.75-14 GHz у сагласности са No. **5.502** а да штите радиолокациону службу,

*одлучује*

- 1 да настави позивати ITU-R, да настави своје студије као хитну ствар, у погледу развоја ITU-R Препорука, које ће успоставити техничке или оперативне методе које ће још

више олакшати дељење и можда дозвољавати већу флексибилност у распоређивању FSS земаљских станица у опсегу 13.75-14 GHz, поштујући No. **5.502**, и које такође могу бити коришћене као основа за успостављање билатералних споразума између заинтересованих администрација;

2 да администрације географски малих или уских земаља могу да прекораче ограничења FSS земаљских станица у снази густине флуksа на нултој надморској висини у No. **5.502** ако су такве операције у сагласности са билатералним споразумима администрација које постављају поморске радиолокационе системе у опсегу 13.75-14 GHz, св у намери да се пружи дужна пажња администрацијама географски малих или уских земаља,

*подстиче*

администрације које постављају поморске и копнене мобилне радиолокационе системе у опсегу 13.75-14 GHz да брзо постигну билатералне споразуме у вези рада FSS земаљских станица у том опсегу са администрацијама географски малих или уских земаља које постављају те FSS земаљске станице, све у намери да се укаже дужна пажња администрацијама географски малих и уских земаља,

*позива*

1 администрације које постављају поморске и копнене мобилне радиолокационе системе у опсегу 13.75-14 GHz да учествују активно у ITU-R студијама које се односе на длуку 1;

2 администрације географски малих и уских земаља да такође учествују у горепоменутим студијама.

**MOD** COM5/284/5 (B8/293/14) (R5/336/5)

#### РЕЗОЛУЦИЈА 145 (Rev.WRC-07)

### **Коришћење опсега 27.9-28.2 GHz и 31-31.3 GHz за станице на платформама на великим висинама у фиксној служби**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a)* да је WRC-97 донео одлуке за рад станица на платформама на великим висинама (HAPS), такође познатим као стратосферски репетитори, у  $2 \times 300$  MHz делу за намене фиксне службе у опсезима 47.2-47.5 GHz и 47.9-48.2 GHz;
- b)* да је WRC-97 усвојио No. **4.15A** који специфицира да емитовања од или ка HAPS-у морају да се врше у опсезима посебно означеним у Члану **5**;
- c)* да су у WRC-2000, неколико земаља у Региону 3 и једна земља у Региону 1 изразиле потребу за нижим фреквенцијским опсегом за HAPS због претераног слабљења за време кише које се јавља на 47 GHz у тим земљама;
- d)* да неке земље у Региону 2 су такође изразиле интерес за коришћење фреквенцијског опсега нижег од оних на који су узети у обзир под *a*);
- e)* да је, у намери да се прилагоди потребама које су изразиле земље под *c*), WRC-2000 усвојио Nos. **5.537A** и **5.543A**, које су модификоване у WRC-03 и поново у WRC-07 да се одобри коришћење за HAPS у фиксној служби у опсегу 27.9-28.2 GHz и у опсегу 31-31.3 GHz у неким земљама Региона 1 и 3 на основу нешкодљиве интерференције и без протекције;

- f) да су опсежи 27.9-28.2 GHz и 31-31.3 GHz већ врло оптерећени или још више у плану да буду коришћени од знатног броја различитих служби и различитих примена у фиксној служби;
- g) да иако одлука о размештању за HAPS може бити донета на националној бази, то размештање може да утиче на суседне администрације, нарочито у малим земљама;
- h) да је 31.3-31.8 GHz опсег намењен радио астрономској служби, сателитској служби истраживања Земље (пасивно) и служби истраживања свемира (пасивно), и да је WRC-03 изменио No. **5.543A** ради спецификације нивоа сигнала што би заштитило Сателитску пасивну службу и радио астрономске станице;
- i) да је ITU-R повео студије које се баве дељењем међу системима који користе HAPS у фиксној служби и осталих типова система у фиксној служби у опсезима 27.9-28.2 GHz и 31-31.3 GHz доводећи до Препоруке ITU-R F.1609;
- j) да ће резултати ITU-R студија показују да, у опсезима 27.9-28.2 GHz и 31-31.3 GHz, дељење међу системима који користе HAPS у фиксној служби и осталих конвенционалних система у фиксној служби у истом подручју захтевати одговарајуће технике спречавања интерференције да буду развијене и примењене;
- k) да је ITU-R повео студије које се баве компатибилношћу међу системима који користе HAPS и пасивне службе у опсегу 31.3-31.8 GHz доводећи до Препорука ITU-R F.1570 и ITU-R F.1612;
- l) да је ITU-R Урадио Препоруку ITU-R SF.1601 која садржи методологије за израчунавање интерференције система фиксне службе која користи HAPS према GSO FSS системима у опсегу 27.9-28.2 GHz;
- m) да би HAPS технички захтеви требало да и даље буду проучавани са циљем да се одреде одговарајуће мере за заштиту фиксне службе и осталих ко-примарних служби у опсегу 27.9-28.2 GHz,

*одлучује*

- 1 да, без обзира на No. **4.15A**, у Региону 2 коришћење HAPS у оквиру намене за фиксну службу у опсезима 27.9-28.2 GHz и 31-31.3 GHz опсезима не сме узроковати штетне сметње, нити тражити заштиту због тога, другим станицама служби које раде у складу са Табелом Намена Фреквенција из Члана 5, и даље, да ће развој тих других служби бити настављен без ограничења од HAPS радећи сходно тој Резолуцији;
- 2 да било које коришћење HAPS из намене за фиксну службу на 27.9-28.2 GHz сходно горњој одлуци 1 мора бити ограничено на рад у смеру HAPS-земља, и да било које коришћење HAPS из намене за фиксну службу на 31-31.3 GHz мора бити ограничено на рад у смеру земља-HAPS;
- 3 да системи који користе HAPS у опсегу 31-31.3 GHz, у складу с горњом одлуком 1, не смеју да узрокују штетне сметње радио астрономској служби која је примарно у намени у опсегу 31.3-31.8 GHz, узимајући у обзир критеријум заштите дат у одговарајућој ITU-R Препоруци у RA серији. Да би се осигурала заштита Сателитске пасивне службе, ниво густине нежељене снаге антена на HAPS земаљским станицама у опсегу 31.3-31.8 GHz мора бити ограничен на  $-106 \text{ dB(W/MHz)}$  у условима чистог неба и може да се повећа до  $-100 \text{ dB(W/MHz)}$  под кишним условима да се ублажи фединг због кише, тако да ефективни утицај на пасивни сателит не превазилази утицај под условима чистог неба;
- 4 да администрације излистане у Nos. **5.537A** и **5.543A** које намеравају да имплементирају системе који користе HAPS у фиксној служби у опсезима 27.9-28.2 GHz и

31-31.3 GHz морају да траже изричит пристанак заинтересованих администрација у односу на њихове станице примарних служби да би се осигурало да су услови из Nos **5.537A** и **5.543A** задовољени, и оне администрације у Региону 2 које намеравају да имплементирају системе који користе HAPS у фиксној служби у тим опсезима морају да траже изричит пристанак заинтересованих администрација у односу на њихове станице служби које раде у складу са Табелом Намена Фреквенција из Члана **5** да се осигура да услови из *одлука* 1 и *одлука* 3 буду задовољени;

5 да администрације које планирају да имплементирају HAPS систем сходно горњој одлуци 1 морају да објаве доделе подносећи све обавезне елементе из Додатка **4** Бироу за радиокомуникације на проверу сагласности са *одлуком* 3 и 4 горе,

*позива ITU-R*

1 да настави да ради студије о одговарајућим техникама ублажавања интерференције за ситуације напоменуте под *j*);

2 да развије заштитне критеријуме за мобилну службу која је примарна у намени у фреквенцијским опсезима 27.9-28.2 GHz и 31-31.3 GHz из HAPS у фиксној служби.

**ADD** COM5/344/5 (B14/365/49) (R7/411/225)

### РЕЗОЛУЦИЈА 147 (WRC-07)

#### **Лимити снаге густине флуksа за неке системе у фиксној сателитској служби користећи високо нагнуте орбите које имају апогеј висину већу од 18000 км и нагнутост орбите између 35° и 145° у опсегу 17.7-19.7 GHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да се опсег 17.7-19.7 GHz много користи у многим земљама за фиксну службу (FS) примене укључујући мрежну инфраструктуру мобилних комуникација;

b) да се у опсегу 17.7-19.7 GHz, налазе планирани или постојећи не-геостационарни (не-GSO) системи фиксне сателитске службе (FSS) користећи сателите са високо нагнутим орбитама који имају висину апогеја већу од 18000 км и нагнутост орбите између 35° и 145°;

c) да је у том фреквенцијском опсегу, ITU-R повео студије на утицај на FS станице од pfd произведен или ће да буде произведен од не-GSO FSS система од типова описаних у *узимајући у обзир b*);

d) да један од типова система из *узимајући у обзир b*) под ITU подношење имена USCSID-P, је објављено и дато на коришћење под примењивим нивоима снаге густине флуksа (pfd) за 17.7-19.7 GHz опсег у Табели **21-4**:

$$-115 \quad \text{dB(W/(m}^2 \cdot \text{MHz)) за } 0^\circ \leq \delta < 5^\circ$$

$$-115 + 0.5(\delta - 5) \quad \text{dB(W/(m}^2 \cdot \text{MHz)) за } 5^\circ \leq \delta \leq 25^\circ$$

$$-105 \quad \text{dB(W/(m}^2 \cdot \text{MHz)) за } 25^\circ < \delta \leq 90^\circ$$

где је  $\delta$  упадни угао изнад хоризонталне равни у степенима,

*препознајући*

1 да су студије постављене у ITU-R, система описаних у *узимајући у обзир b*), показале да системи описани *узимајући у обзир d*) не користе штетне сметње фиксној служби у опсегу 17.7-19.7 GHz;

2 да један FSS систем типа описаног у *узимајући у обзир d)* ради од 1995. на  $-115/-105$  dB(W/(m<sup>2</sup> · MHz)) нивоима и није било никакве жалби на штетње сметње свакој станици било којој станици фиксне службе било које администрације,

*одлучује*

да у опсезима 17.7-19.7 GHz, FSS свемирске станице које сада раде у систему типа описаног у *узимајући у обзир d)* и за које су напредне публикацијске информације примљене у Биро пре 5.6.2003., као и свемирске станице са истим параметрима у будућим обавештењима за систем за замену, треба да наставе да буду предмет ограничења снаге густине флукса:

$$-115 \quad \text{dB(W/(m}^2 \cdot \text{MHz)) за } 0^\circ \leq \delta < 5^\circ$$

$$-115 + 0.5(\delta - 5) \quad \text{dB(W/(m}^2 \cdot \text{MHz)) за } 5^\circ \leq \delta \leq 25^\circ$$

$$-105 \quad \text{dB(W/(m}^2 \cdot \text{MHz)) за } 25^\circ < \delta \leq 90^\circ$$

где је  $\delta$  упадни угао изнад хоризонталне равни у степенима.

**ADD** COM5/384/9 (B16/401/9)

### РЕЗОЛУЦИЈА 148 (WRC-07)

## Сателитски системи претходно излистани у Делу В Плана Додатка 30В (WARC Orb-88)

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да је WARC Orb-88 усвојила План за фиксну сателитску службу у фреквенцијским опсезима 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz и 12.75-13.25 GHz садржаних у Додатку **30В (WARC Orb-88)**;

b) да, када је План усвојен, неки сателитски системи у истим фреквенцијским опсезима били су у фази координације и већ су били записани у MIFR, или је постојала информација у односу на напредне публикације примљена од Бироа за радиокомуникације пре 8.8.1985., и у свим случајевима излистано је у Делу В Плана на WARC Orb-88;

c) да у оригиналним одредбама Додатка **30В (WARC Orb-88)**, сателитски системи споменути *узимајући у обзир b)* горе реферисани су као “постојећи системи”;

d) да сателитски системи идентифицирани у *узимајући у обзир b)* јесу укључени у Листу Додатка **30В** или сторнирани, тако да је Део В Плана празан;

e) да је, због тога, ова Конференција потиснула Део В Плана у додатку **30В**,

*препознајући*

a) да § 9.2 Додатка **30В (WARC Orb-88)** показује да “Постојећи системи излистани у Делу В Плана могу да наставе рад још максимално 20 година након датума ступања на снагу овога Додатка”, и отуда период рада сателитских система у Делу В Плана истиче после 16.3.2010.;

b) да су неке администрације изразиле жељу да продуже рад тих система након рока споменутог у *препознајући a)*;

c) да су сателитски системи напоменути у *узимајући у обзир b)* компатибилни са сателитским мрежама у Додатку **30В**,

*одлучује*

- 1 да објављени период важења додела за “постојеће системе” како је назначено у *узимајући у обзир c)* за које објављен период важења истиче пре 16.5.2011. треба бити продужен до тог датума;
- 2 да администрације које намеравају да и даље користе доделе “постојећим системима” како је наведено у *узимајући у обзир c)* после 16.3.2010. треба да о томе информишу Биро за радиокомуникације пре 16.3.2008., напомињући о којим доделама се ради;
- 3 да, након што је администрација обавестила и поступила у складу са *одлучује 2*, доделе “постојећим системима” како је назначено у *узимајући у обзир c)* могу да наставе рад у сагласности са објављеним периодом важности, укључујући продужење омогућено у *одлучује 1*, по потреби;
- 4 да нека администрација желећи да још продужи објављени период важности, продужен под *одлучује 1*, ако је примењиво, доделу “постојећим системима” назначено у *узимајући у обзир c)*, треба да информише Биро сходно томе више од три године пре истека објављеног периода важности, продуженог према *одлучује 1*, ако је примењиво, и ако су карактеристике те доделе остале непромењене, Биро треба да измени, како је затражено, објављени период важења и да публикује ту информацију у Специјалном делу свога Међународног циркулара за информације о фреквенцијама (BR IFIC),

*налаже Бироу за радиокомуникације*

- 1 да избрише из Главног регистра и Листе, доделе “постојећим системима”, како је назначено у *узимајући у обзир c)* након истека њиховог објављеног периода важности, или ако администрација која је најавила не успе да усклади са *одлучује 2* горе;
- 2 да израчуна здружени *C/I* “постојећих система” како је назначено у *узимајући у обзир c)* без узимања у обзир интерференцију између тих система;
- 3 да предузме потребне акције у складу са *одлучује 1* и 4.

**ADD** COM5/385/103 (B18/405/108)

## РЕЗОЛУЦИЈА 149 (WRC-07)

### Имплементација одлука WRC-07 у односу на Додатак 30В Правилника о радиокомуникацијама

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је WARC Orb-88 прихватио План за фиксну сателитску службу у фреквенцијским опсезима 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz и 12.75-13.25 GHz како је садржано у Додатку **30В (WARC Orb-88)**;
- b) да је ова Конференција ревидирала Додатак **30В** План и придружене регулаторне процедуре;
- c) да је ова Конференција прихватила нове техничке параметре, критеријуме дељења и придружене методе израчунавања које су укључене или назначене у Анексима Додатка **30В (Rev. WRC-07)**;
- d) да је приликом ревизије регулаторних процедура, ова Конференција одлучила да принцип гарантованог приступа спектралним ресурсима за све државе чланице Уније мора

да се одржи и, као последица тога, највиши приоритет требало би да се даје поднесцима из земаља који немају националне алотменте у Плану, или нека додела у Листи произлази из конверзије неког алотмента;

e) да код регулаторних одредби усвојених на WARC Orb-88 и ревидираних на следећој конференцији, поднесци од Држава чланица које немају национални алотмент у Плану, или нека додела у Листи произлази из конверзије неког алотмента процесирани су да би се примиле заједно са осталим поднесцима;

f) да, као резултат одлука ове Конференције, велики број Правила за Процедуре развијене респектујући примене процедура из Додатка **30В** треба да буде поново прегледан;

g) да, у закључку ове Конференције, налази се велики број поднесака под Додатком **30В** који чека да буде процесирани,

*препознајући*

a) да Биро за радиокомуникације треба јасне инструкције са ове Конференције како да имплементује Додатак **30В (Rev.WRC-07)** и како да процесира поднеске који су примљени, али нису још процесирани;

b) да се, од успостављања WARC Orb-88 Плана, географска ситуација неких ИТУ Држава чланица променила;

c) да се неке земље још нису придружиле, или могу да се придруже, Унији као Држава чланица, немају национални алотмент нити неку доделу у Листи, која проистиче из конверзије једног алотмента;

d) да Биро за радиокомуникације треба неко време да модификује свој софтвер да се имплементирају нови критеријуми прихваћени на овој Конференцији,

*одлучује*

1 да ревидирани Додатак **30В** као што је усвојен на овој Конференцији треба да ступи на снагу од 17.11.2007;

2 да према WRC-07, Биро треба да ажурира и публикује референтну ситуацију Члана **30В** Плана и Листе, од 17.11.2007., базирано на одлукама ове Конференције;

3 да једноулазни *C/I* од 25 dB и један здружени *C/I* од 21 dB треба да буду примењени кад се процесирају захтеви од нових Држава Чланица примљени пре 17.11.2007. под Чланом 7 Додатка **30В**;

4 да од 17.11.2007. Биро треба да користи ревидирани Додатак **30В** као што је усвојен на овој Конференцији у свом испитивању поднесака примљених након Конференције исто као поднеске примљене пре 17.11.2007, али још не процесирани у то време<sup>1</sup>;

5 да администрација земље која се прикључила Унији као Држава чланица и нема национални алотмент у Плану или доделу у Листи која проистиче из конверзије алотмента, треба да има право да захтева од Бироа да искључи њену територију из сервисне зоне алотмента или доделе, након чега Биро треба сходно томе да искључи територију без негативног ефекта на остатак зоне сервисирања и затим поново прорачуна нову референтну ситуацију за Додатак Плана и Листе;

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<sup>1</sup> Са изузетком оних случајева идентификованих у ревидираном Додатку **30В** усвојеном на овој Конференцији.

6 да администрације, у сагласности са Чланом 44 ИТУ Статута, прегледају своје поднеске под Додатком **30В** примљене пре 17.11.2007. који још нису процесирани, у погледу смањења броја поднесака, и да назначе Бироу мреже од којих се више не захтева да буду у разматрању и процесирању под Чланом 6 Додатка **30В**;

7 да за поднеске примљене под Додатком **30В** пре 17.11.2007. који још нису процесирани, администрације могу да смање е.и.г. густину да задовоље лимите Анекса 3 и дају нове вредности пре провере из Бироа под § 6.3 Члана 6 Додатка **30В (Rev.WRC-07)**;

8 да ургирају администрацијама<sup>2</sup> да учине крајње напоре да подесе пријаве примљене од нових Држава Чланица од ИТУ.,

*налаже Борду за Правилник о радиокомуникацијама*

1 да преиспита текућа Правила процедура и направи неопходне ревизије;

2 да припреми неопходна Правила процедура као одговор на могућу неконзистентност или потешкоће које сусреће Биро за радиокомуникације приликом примене Додатка **30В (WRC-07)**;

3 у складу са Nos. **13.01** и **13.02**, извести следећу Светску конференцију о радиокомуникацијама о свим могућим модификацијама у Правилнику о радиокомуникацијама да разреши недоследности или потешкоће које се сусрећу у примени процедура Додатка **30В (WRC-07)**,

*налаже Директору Бироа за радиокомуникације*

1 о ревидираним процедурама Додатка **30В (WRC-07)** да размотре захтеване последичне измене Одлуке Савета 482;

2 да саопшти администрацијама детаље методе интерполације имплементираних за испитивања под Анексом 4 Додатка **30В (Rev.WRC-07)**;

3 да предузме све могуће мере да би се учинио доступан, не касније од 17.11.2008, софтвер за примену ревидираних Анекса 3 и 4 Додатка **30В (Rev.WRC-07)**,

*позива администрације*

чија се географска ситуација променила да процене техничке параметре њихових алотмента у вези с принципима из Додатка **30В (Rev. WRC-07)**.

**MOD** COM4/332/74 (B13/347/171) (R7/411/213)

## РЕЗОЛУЦИЈА 212 (Rev.WRC-07)

### **Имплементација међународних мобилних телекомуникација у опсезима 1885-2 025 MHz и 2110-2 200 MHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да Међународне мобилне телекомуникације (ИМТ) садржи ИМТ-2000 и ИМТ Напредни;

b) да је ИТУ-R, за WRC-97, препоручио приближно 230 MHz да га користе земаљске и сателитске компоненте ИМТ-2000;

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<sup>2</sup> Оне администарције које су дале неповољни налаз у односу на поднесак нових држава чланица.

c) да су ИТУ-Р студије предвиделе да би додатни спектар требао да се подрже будући сервиси ИМТ-Напредног и да се прилагоде будући захтеви корисника и постављање мрежа;

d) да је ИТУ-Р препознао да су свемирске технике интегрални део од ИМТ;

e) да је, у No. **5.388**, WARC-92 идентификовао опсеге за прилагођавања извесних мобилних сервиса, који се сада зову ИМТ,

*примећује*

a) да су земаљске компоненте ИМТ већ биле постављене или је разматрано да се поставе у опсезима 1 885-2 025 MHz и 2 110-2 200 MHz;

b) да би доступност ИМТ сателитских компоненти у опсезима 1 980-2 010 MHz и 2 170-2 200 MHz истовремено са ИМТ земаљском компонентом у опсезима идентификованих у No. **5.388** унапредила укупну имплементацију и привлачност за ИМТ,

*одлучује*

да администрације које имплементирају ИМТ:

a) треба да учине потребне фреквенције доступне за развој система;

b) треба да користе те фреквенције код ИМТ имплементације;

c) треба да користе релевантне међународне техничке карактеристике, како је идентификовано у ИТУ-Р и ИТУ-Т Препорукама,

*позива администрације*

да посвете код ИМТ имплементације дужну пажњу прилагођавању других сервиса који раде у тој области,

*позива ИТУ-Р*

да наставе своје студије у погледу развоја подесних и прихватљивих техничких карактеристика за ИМТ које ће олакшати коришћење и роминг широм света, и осигурати да ИМТ може такође задовољити телекомуникационе потребе земаља у развоју у руралним срединама.

**MOD** COM6/338/1 (B12/346/15) (R6/410/72)

## РЕЗОЛУЦИЈА 221 (Rev.WRC-07)

### **Коришћење Станица на платформама на великим висинама за ИМТ у опсезима**

#### **1 885-1 980 MHz, 2 010-2 025 MHz и 2 110-2 170 MHz у Регионима 1 и 3 и 1 885-1 980 MHz и 2 110-2 160 MHz у Региону 2**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да су опсеги 1 885-2 025 MHz и 2 110-2 200 MHz идентификовани у No. **5.388** као предвиђени за коришћење широм света за ИМТ, укључујући опсеге 1 980-2 010 MHz и 2 170-2 200 MHz за ИМТ земаљске и сателитске компоненте ИМТ;

b) да је станица на платформама на великим висинама (HAPS) дефинисана у No. **1.66А** као “станица смештена на објекту на висини од 20 до 50 км и на специфицираној, номиналној, фиксној тачки релативно према Земљи”;

- c) да HAPS може да пружи нове видове IMT сервиса са минималном мрежном инфраструктуром будући да је у могућности пружања услуга на великом подручју уз густо покривање;
- d) да је HAPS коришћење као базне станице у IMT земаљској компоненти опционално за администрације, и да такво коришћење не би требало да има било какав приоритет у односу на земаљско IMT коришћење;
- e) да, у складу са No. **5.388** и Резолуцијом **212 (Rev.WRC-97)**, администрације могу да користе опсеге идентификоване за IMT, укључујући опсеге на које се односи Резолуција, за станице примарних служби коме су намењени;
- f) да су ти опсежи намењени фиксној и мобилној служби на ко-примарној основи;
- g) да, у сагласности са No. **5.388A**, HAPS може да буде коришћен као базне станице у оквиру IMT земаљске компоненте у опсезима 1 885-1 980 MHz, 2 010-2 025 MHz и 2 110-2 170 MHz у Регионима 1 и 3 и 1 885-1 980 MHz и 2 110-2 160 MHz у Региону 2. Њихово коришћење за IMT апликације које користе HAPS као базне станице не спречава коришћење тих опсега од било које друге станице у службама којима су намењени и не установљава приоритет у Правилнику о радиокомуникацијама;
- h) да је ITU-R проучавао дељење и координацију између HAPS и других станица у оквиру IMT, разматрао компатибилност за HAPS у оквиру IMT са неким службама којима су намењени суседни опсежи, и одобрио Препоруку ITU-R M.1456;
- i) да су радио интерфејси IMT HAPS компатибилни са Препоруком ITU-R M.1457;
- j) да је ITU-R упутила на дељење између система који користе HAPS и неких постојећих система, посебно PCS (персонални комуникацијски систем), MMDS (вишеканални дистрибуциони систем са више тачака) и системи фиксне службе, који тренутно раде у неким земљама у опсезима 1 885-2 025 MHz и 2 110-2 200 MHz;
- k) да су HAPS станице предвиђене да емитују у опсегу 2 110-2 170 MHz у Региону 1 и 3 и у опсегу 2 110-2 160 MHz у Региону 2;
- l) да администрације које планирају да имплементирају HAPS као једну IMT базну станицу могу имати потребу да размењују информације, на билатералној основи, са другим заинтересованим администрацијама, укључујући податке који описују HAPS карактеристике на много детаљнији начин него подаци укључени у Анексе 1А и 1В Додатка **4**, како је напоменуто у Анексу на ту Резолуцију,

*одлучује*

1 да:

1.1 у сврху заштите IMT мобилне службе у суседним земљама од ко-каналне интерференције, HAPS који ради као једна IMT базна станица не сме да прелази ко-каналну снагу густине флуksа (pfd) од  $-117 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  на површини Земље изван граница државе осим ако изричит споразум заинтересоване администрације није постигнут у време најаве за HAPS;

1.2 један HAPS који ради као IMT базна станица не сме да емитује изван фреквенцијских опсега 2 110-2 170 MHz у Регионима 1 и 3 и 2 110-2 160 MHz у Региону 2;

1.3 у Региону 2, у сврху заштите MMDS станица у неким суседним земљама у опсегу 2 150-2 160 MHz од ко-каналне интерференције, HAPS који ради као IMT базна станица не сме да прелази следећи ко-канални pfd на површини Земље изван граница државе осим ако изричит споразум заинтересоване администрације није постигнут у време најаве за HAPS;

- $-127 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  за упадни угао ( $\theta$ ) мањи од  $7^\circ$  изнад хоризонталне равни;
- $-127 + 0.666 (\theta - 7) \text{ dB(W/(m}^2 \cdot \text{MHz))}$  за упадни угао између  $7^\circ$  и  $22^\circ$  изнад хоризонталне равни; и
- $-117 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  за упадни угао између  $22^\circ$  и  $90^\circ$  изнад хоризонталне равни;

1.4 у неким земљама (види No. **5.388B**), у сврху заштите фиксне и мобилне службе, укључујући ИМТ мобилне станице, на њиховим територијама од ко-каналне интерференције коју узрокује HAPS радећи као ИМТ базна станица у складу са No. **5.388A** у суседним земљама, треба да се примене ограничења из **5.388B**;

2 да ограничења која се односе на ову Резолуцију треба да се примене на све HAPS који раде у складу са No. **5.388A**;

3 да администрације које желе да имплементирају HAPS у оквиру земаљског ИМТ система треба да задовоље следеће:

3.1 у сврху заштите ИМТ станица које раде у суседним земљама од ко-каналне интерференције, HAPS који ради као базна станица у оквиру ИМТ треба да користи антене чији дијаграми зрачења задовољавају следеће:

$$G(\psi) = G_m - 3(\psi/\psi_b)^2 \quad \text{dBi} \quad \text{за} \quad 0^\circ \leq \psi \leq \psi_1$$

$$G(\psi) = G_m + L_N \quad \text{dBi} \quad \text{за} \quad \psi_1 < \psi \leq \psi_2$$

$$G(\psi) = X - 60 \log(\psi) \quad \text{dBi} \quad \text{за} \quad \psi_2 < \psi \leq \psi_3$$

$$G(\psi) = L_F \quad \text{dBi} \quad \text{за} \quad \psi_3 < \psi \leq 90^\circ$$

где:

$G(\psi)$  : појачање за угао  $\psi$  од главног смера снопа (dBi)

$G_m$  : максимално појачање у главном режњу (dBi)

$\psi_b$  : пола од 3 dB ширине снопа у разматраној равни (3 dB испод  $G_m$ ) (степени)

$L_N$  : ниво ближег бочног режња (dB) релативно према главном појачању захтеван дизајном система, који има максималну вредност  $-25 \text{ dB}$

$L_F$  : ниво даљег бочног режња,  $G_m - 73 \text{ dBi}$

$$\psi_1 = \psi_b \sqrt{-L_N/3} \quad \text{степени}$$

$$\psi_2 = 3.745 \psi_b \quad \text{степени}$$

$$X = G_m + L_N + 60 \log(\psi_2) \quad \text{dBi}$$

$$\psi_3 = 10^{(X-L_F)/60} \quad \text{степени}$$

3 dB ширина снопа ( $2\psi_b$ ) се процењује на:

$$(\psi_b)^2 = 7442/(10^{0.1G_m}) \quad \text{степени}^2;$$

3.2 у сврху заштите мобилних земаљских станица у оквиру сателитске компоненте ИМТ од интерференције, HAPS који ради као ИМТ базна станица, не треба да прелази, изван властитог опсега, pfd од  $-165 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$  на површини Земље у опсезима 2 160-2 200 MHz у Региону 2 и 2 170-2 200 MHz у Регионима 1 и 3;

3.3 HAPS који ради као ИМТ базна станица, у сврху заштите фиксних станица од интерференције, не треба да прелази следећа ограничења за  $p_{fd}$ , изван властитог опсега, на површини Земље у опсезима 2 025-2 110 MHz:

- $-165 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  за упадне углове ( $\theta$ ) мање од  $5^\circ$  изнад хоризонталне равни;
- $-165 + 1.75 (\theta - 5) \text{ dB(W/(m}^2 \cdot \text{MHz))}$  за упадне углове између  $5^\circ$  и  $25^\circ$  изнад хоризонталне равни; и
- $-130 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  за упадне углове између  $25^\circ$  и  $90^\circ$  изнад хоризонталне равни;

4 да, за олакшавање консултација између администрација, администрације које планирају да имплементирају HAPS као ИМТ базну станицу треба да испоруче заинтересованим администрацијама додатне податке излистане у Анексу на ову Резолуцију, ако се тако затражи;

5 да администрације које планирају да имплементирају HAPS као ИМТ базну станицу треба да пријаве доделу подносећи све захтеване податке из Додатка 4 Бироу за радиокомуникације на испитивање сагласности са одлукама 1.1, 1.3 и 1.4 горе;

6 да, од 5.07.2003., Биро и администрације привремено примењују Nos. **5.388А** и **5.388В** како је ревидирано од WRC-03 за фреквенцијске доделе за HAPS напоменуто у овој Резолуцији, укључујући оне примљене пре тог датума али још не процесирани од стране Бироа,

*позива ITU-R*

да развије, по хитном поступку, једну ITU-R Препоруку која даје техничка упутства за олакшавање консултација са суседним администрацијама.

## АНЕКС НА РЕЗОЛУЦИЈУ 221 (Rev.WRC-07)

### **Карактеристике за HAPS који ради као ИМТ базна станица у фреквенцијским опсезима датим у Резолуцији 221 (Rev.WRC-07)**

#### **А Генералне карактеристике које треба да буду обезбеђене за станицу**

##### **А.1 Идентитет станице**

- a) Идентитет станице
- b) Земља

##### **А.2 Датум почетка коришћења**

Датум (стварни или предвиђени, како је одговарајуће) почетка коришћења фреквенцијске доделе (нове или модификоване).

##### **А.3 Администрација или оперативна агенција**

Симболи администрације или оперативне агенције и за адресу администрације којој се обраћа за хитне ствари у погледу интерфејса, квалитета емитовања и питања која се односе на технички рад станице. (види Члан 15).

##### **А.4 Информација о позицији HAPS-а**

- a) Номинална географска дужина за HAPS

- b) Номинална географска ширина за HAPS
- c) Номинална висина за HAPS
- d) Планирана дужинска и ширинска толеранција за HAPS
- e) Планирана толеранција висине за HAPS

#### **A.5 Споразуми**

Ако је одговарајуће, симбол земље администрације или администрације која представља групу администрација са којима је споразум постигнут, укључујући где је споразум превазишао ограничења прописана у Резолуцији **221 (Rev.WRC-07)**.

### **В Карактеристике које треба да буду обезбеђене за сваки антенски сноп**

#### **В.1 HAPS антенске карактеристике**

- a) Максимално изотропско појачање (dBi).
- b) Контура HAPS антенског појачања нацртана на мапи површине Земље.

### **С Карактеристике које треба да буду обезбеђене за сваку фреквенцијску доделу за HAPS антенски сноп**

#### **С.1 Фреквенцијски опсег**

#### **С.2 Карактеристике густине снаге емисије**

Максимална вредност максималне густине снаге (dB(W/MHz)), упросечена за најгори 1 MHz који је примила антена.

### **Д Израчунато pfd ограничење произведено преко сваке земље у видном пољу HAPS-а**

Максимални pfd израчунати на површини Земље унутар територија неке администрације изнад којег HAPS може да буде у видном пољу и изнад којег израчунати pfd нивои прелазе лимите назначене у *одлукама* 1.1, 1.3 и 1.4 Резолуције **221 (Rev.WRC-07)**.

**MOD** PLEN/408/5 (B24/419/1)

#### **РЕЗОЛУЦИЈА 222 (Rev.WRC-07)**

### **Коришћење опсега 1 525-1 559 MHz и 1 626.5-1 660.5 MHz за мобилну сателитску службу, и студије да се обезбеди дугорочна доступност за ваздухопловну мобилну сателитску (R) службу**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да су пре WRC-97, опсеги 1 530-1 544 MHz (свемир-Земља) и 1 626.5-1 645.5 MHz (Земља-свемир) били намењени поморској мобилној сателитској служби у опсезима 1 545-1 555 MHz (свемир-Земља) и 1 646.5-1 656.5 MHz (Земља-свемир) били намењени на ексклузивној основи ваздухопловној мобилној сателитској (R) служби (AMS(R)S) у већини земаља;
- b) да је WRC-97 наменио опсеге 1 525-1 559 MHz (свемир-Земља) и 1 626.5-1 660.5 MHz (Земља-свемир) мобилној сателитској служби (MSS) да олакша додељивање спектра многобројним MSS системима на флексибилан и ефикасан начин;

- c) да је WRC-97 усвојио No. **5.353A** за давање приоритета захтевима прилагођења спектра и заштиту од неприхватљивих проблема са интерференцијом, ванредне ситуације и сигурним комуникацијама за Светски поморски систем за опасност и безбедност (GMDSS) у опсезима 1 530-1 544 MHz и 1 626.5-1 645.5 MHz и No. **5.357A** за давање приоритета захтевима за прилагођење спектра и заштити за AMS(R)S од неприхватљиве интерференције омогућујући емитовање порука приоритетним категоријама 1 до 6 у Члану **44** у опсезима 1 545-1 555 MHz и 1 646.5-1 656.5 MHz;
- d) да је AMS(R)S један од основних елемената ICAO CNS/ATM да омогући сигурност и регуларност лета у цивилном ваздушном саобраћају,  
*узимајући у обзир такође*
- a) да се координација између сателитских мрежа захтева на билатералној основи у складу с Правилником о радиокомуникацијама, и, у опсезима 1 525-1 559 MHz (свемир-Земља) и 1 626.5-1 660.5 MHz (Земља-свемир), координација се делимично помаже регионалним мултилатералним скуповима;
- b) да, у тим опсезима, оператори геостационарног сателитског система тренутно користе метод планирања капацитета на мултилатералним састанцима за координацију, уз вођство и подршку њихових администрација, да периодично координирају приступ спектру потребном за прилагођавање њихових захтева;
- c) да су захтеви за спектар код MSS мрежа, укључујући GMDSS и AMS(R)S, тренутно прилагођени кроз методу планирања капацитета и да то, у опсезима на које се Nos. **5.353A** или **5.357A** примењују, та метода, и остале методе могу помоћи у прилагођавању очекиваног повећања захтева за спектар за GMDSS и AMS(R)S;
- d) да је Извештај ITU-R M.2073 закључио да приоритети и право прече куповине унутар система између различитих мобилних сателитских система није практично и, без значајнијег напретка у технологији, није вероватно да ће бити изводљиво због техничких, функционалних и економских разлога. Он сумира да приоритети и унутар системско право прече куповине у реалном времену не би повећало ефикасност коришћења спектра у поређењу са садашњом ситуацијом, али би сигурно суштински закомпликовало процес координације и структуру мреже;
- e) да постоји повећана тражња за спектром за AMS(R)S и не-AMS(R)S од стране неколико мобилних сателитских система у опсезима 1 525-1 559 MHz и 1 626.5-1 660.5 MHz, и да примена ове Резолуције може да утиче на пружање услуга не-AMS(R)S система у мобилној сателитској служби;
- f) да будући захтеви за AMS(R)S и GMDSS спектар могу тражити додатне намене,  
*препознајући*
- a) да је апсолутни приоритет за све телекомуникације које се тичу сигурности живота на мору, земљи и у ваздуху или у свемиру дат у No. 191 у ITU Статута;
- b) да је Међународна организација за цивилно ваздухопловство (ICAO) усвојила Стандарде и Препоручену праксу (SARPs) за сателитске комуникације и летилице у складу са Конвенцијом о Међународној цивилној авијацији;
- c) да све комуникације у ваздушном саобраћају дефинисане у Додатку 10 за Конвенцију о Међународној цивилној авијацији буду унутар приоритетних категорија 1 до 6 Члана **44**;

d) да Табела 15-2 Апендикса **15** идентификује опсере 1 530-1 544 MHz (свемир-Земља) и 1 626.5-1 645.5 MHz (Земља-свемир) за опасност и позивање у поморској мобилној сателитској служби, као и за рутинске не-сигурносне сврхе,

*одлучује*

1 да, код координације фреквенција за MSS у опсезима 1 525-1 559 MHz и 1 626.5-1 660.5 MHz, администрације треба да осигурају спектар потребан за опасност, ванредне ситуације и сигурносне комуникације GMDSS, како је разрађено у Члановима **32** и **33**, у опсезима на које се No. **5.353A** односи, и за AMS(R)S комуникације унутар приоритетних категорија 1 до 6 Члана **44** у опсезима где су No. **5.357A** примене прилагођене;

2 да администрације треба да осигурају коришћење најновијих техничких достигнућа, да би постигле најфлексибилнију и практичну употребу генеричких намена;

3 да администрације треба да осигурају да MSS оператори који имају саобраћај који није везан за сигурност препусте капацитете, како и када је потребно, да прилагоде захтеве за спектар за опасност, ванредне ситуације и сигурност комуникација GMDSS, како је разрађено у Члановима **32** и **33**, и за AMS(R)S комуникације у оквиру приоритетних категорија 1 до 6 Члана **44**; то би могло да буде постигнуто унапред кроз процес координације у *одлуци* 1, и, кад је потребно, на остале начине ако су ти начини наведени као резултати студија у *позивима ITU-R*,

*позива ITU-R*

да поведе, у време кад то разматра WRC-11, одговарајуће техничке, оперативне, и регулаторне студије да би се осигурало дугорочно располагање спектром за ваздухопловне мобилне сателитске (R) службе (AMS(R)S) укључујући:

(i) простудирати, хитно, постојеће и будуће захтеве за спектром ваздухопловне мобилне сателитске (R) службе;

(ii) проценити да ли дугорочни захтеви за AMS(R)S могу бити задовољени у оквиру постојећих намена с респектом на No. **5.357A** задржавајући непромењене генеричке намене за мобилну сателитску службу у опсезима 1 525-1 559 MHz и 1 626.5-1 660.5 MHz, и без постављања непотребних ограничења на постојеће системе који раде у складу са Правилником о радиокомуникацијама;

(iii) комплетирати студије о изводљивости и практичности техничких средстава, осим процеса координације поменутог у *одлукама* 1 или средствима која се разматрају у Извештају ITU-R M.2073, да би се осигурао адекватан приступ спектру ради прилагођења AMS(R)S захтевима, како је горе напоменуто у *одлукама* 3, стално узимајући у обзир најновија техничка достигнућа да би се максимизирало ефикасност спектра;

(iv) ако процене поменуте у *позива ITU-R* (i) и (ii) индицирају да ти захтеви не могу бити задовољени, простудирати постојеће MSS намене или могуће, нове намене само да би се задовољило захтеве ваздухопловне мобилне сателитске (R) службе за комуникације са приоритетним категоријама 1 до 6 Члана **44**, за глобални и целовит рад цивилне авијације водећи рачуна потребу да се избегну непотребна ограничења на постојећим системима и другим сервисима,

*позива WRC-11*

да узме у обзир горње резултате ITU-R студија и да предузме одговарајућу акцију по том питању, задржавајући непромењену генеричку алокацију за мобилну сателитску службу у опсезима 1 525-1 559 MHz и 1 626.5-1 660.5 MHz,

*позива*

Међународну организацију за цивилну авијацију (ИКАО), Међународну поморску организацију (ИМО), Међународну организацију за ваздушни саобраћај (ИАТА), заинтересоване администрације и организације да учествују у студијама напоменутих горе у *позивима ITU-R*.

**MOD** COM4/332/82 (B13/347/172) (R7/411/214)

## РЕЗОЛУЦИЈА 223 (Rev.WRC-07)

### Додатни фреквенцијски опсези означени за ИМТ

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a)* да су Међународне мобилне телекомуникације (ИМТ), укључујући ИМТ-2000 и ИМТ-Напредни, ИТУ визија глобалног мобилног приступа;
- b)* да ИМТ системи омогућују телекомуникационе сервисе на светској основи независно од места, мреже или коришћеног терминала;
- c)* да ИМТ омогућује велик избор телекомуникационих сервиса подржаних фиксним телекомуникационим мрежама (на пр. PSTN/ISDN, брзи Интернет), и другим сервисима који су специфични за мобилне кориснике;
- d)* да техничке карактеристике за ИМТ-2000 су специфициране у ИТУ-R и ИТУ-T Препорукама, укључујући Препоруку ИТУ-R М.1457, која садржи детаљну спецификацију радио интерфејса за ИМТ-2000;
- e)* да развој ИМТ-а прати ИТУ-R;
- f)* да је WRC-2000 концентрисао преиспитивање захтева за спектар за ИМТ-2000 на опсега испод 3 GHz;
- g)* да је на WARC-92, 230 MHz спектра означено за ИМТ-2000 у опсезима 1 885-2 025 MHz и 2 110-2 200 MHz, укључујући опсеге 1 980-2 010 MHz и 2 170-2 200 MHz за сателитске компоненте за ИМТ-2000, у No. **5.388** и одредбама Резолуције **212 (Rev.WRC-07)**;
- h)* да је након WARC-92 био огроман развој у мобилним комуникацијама укључујући растући захтев за широкопојасне мултимедијске могућности;
- i)* да се опсези означени за ИМТ тренутно користе за мобилне системе или примене у другим Радиокомуникационим службама;
- j)* да се Препоруке ИТУ-R М.1308 односе на развој постојећих мобилних комуникационих система за ИМТ-2000, и да се Препоруке ИТУ-R М.1645 односе на развој ИМТ система и трасирају њихов будући развој;
- k)* да су хармонизовани опсези за ИМТ широм света пожељни да би се постигао глобални роинг и добици економског обима;
- l)* да су опсези 1 710-1 885 MHz и 2 500-2 690 MHz намењени различитим службама у сагласности са релевантним одредбама Правилника о радиокомуникацијама;
- m)* да су опсези 2 300-2 400 MHz намењени мобилној служби на ко-примарној основи у три ИТУ Региона;

- n)* да је опсег 2 300-2 400 MHz, или његов део, коришћен екстензивно од бројних администрација за друге службе укључујући ваздухопловно мобилну службу за телеметрију у складу са релевантним одлукама у Правилнику о радиокомуникацијама;
- o)* да је ИМТ већ био распоређен или се планирало да то буде у неким земљама у опсегу 1 710-1 885 MHz, 2 300-2 400 MHz и 2 500-2 690 MHz и опрема је лако доступна;
- p)* да су опсеги, или делови опсега, 1 710-1 885 MHz, 2 300-2 400 MHz и 2 500-2 690 MHz означени да их користе администрације које желе да имплементирају ИМТ;
- q)* да ће технолошки напредак и потребе корисника промовисати иновације и убрзати постављање напредних комуникационих примена за кориснике;
- r)* да технолошке промене могу довести до даљег развоја комуникационих примена, укључујући ИМТ;
- s)* да је правремена доступност спектра важна за подршку будућим применама;
- t)* да су ИМТ системи предвиђени да омогуће повећане брзине преноса података и капацитет који би могао захтевати веће ширине опсега;
- u)* да су ИТУ-Р студије предвиделе да ће требати додатни спектар да подржи будуће ИМТ сервисе и да прилагоди будуће захтеве корисника и постављања мреже,

*наглашавајући*

- a)* да флексибилност мора да се приушти администрацијама:
  - да одреде, на националном нивоу, колко спектра да се учини доступно за ИМТ из означених опсега;
  - да развију властите транзиционе планове, ако је потребно, да се надовежу на своје специфичне поставе постојећих система ;
  - да имају могућност за назначене опсеге да буду коришћени од свих служби којима је тај опсег намењен;
  - да одреде динамику доступности и коришћења опсега назначених за ИМТ, да би задовољили посебне захтеве корисника и остало што се разматра на националној основи;
- b)* да посебне потребе земаља у развоју треба да буду задовољене;
- c)* да Препорука ИТУ-Р М.819 описује циљеве које задовољава ИМТ-2000 да би задовољио потребе земаља у развоју,

*примећујући*

- a)* Резолуције **224 (Rev.WRC-07)** и **225 (Rev.WRC-07)**, које се такође односе на ИМТ;
- b)* да ће импликације дељења између сервиса који деле опсеге назначене за ИМТ у **Но. 5.384А**, као релевантне, требати да се још проуче у ИТУ-Р;
- c)* да студије у вези доступности опсега 2 300-2 400 MHz за ИМТ треба да се изводе у много земаља, и да добијени резултати утичу на коришћење тих опсега у тим земљама;
- d)* да, због различитих захтева, неће све администрације требати све ИМТ опсеге назначене за ИМТ на тој Конференцији или, због коришћења с њихове стране и инвестирања у постојеће сервисе, неће бити у стању да имплементирају ИМТ у свим тим опсезима;
- e)* да спектар за ИМТ означен на Конференцији не може у потпуности да задовољава очекивања неких администрација;

- f) да мобилни комуникациони системи који су тренутно у раду могу еволуирати у ИМТ у њиховим постојећим опсезима;
- g) да службе као фиксна, мобилна (друга генерација система), операције у свемиру, истраживање свемира и ваздухопловна мобилна јесу у раду или планиране у опсегу 1 710-1 885 MHz, или у деловима тога опсега;
- h) да у опсегу 2 300-2 400 MHz, или деловима тога опсега, постоје службе као фиксна, мобилна, аматерска, радиолокациона које су сада у раду или су планиране да буду у раду у будућности;
- i) да службе као радиодифузна сателитска, радиодифузна сателитска (звук), мобилна сателитска и фиксна (укључујући дистрибуцијске/комуникационе системе у више тачака) јесу у раду или у плану у опсегу 2 500-2 690 MHz, или у деловима тога опсега;
- j) да назначавање неколико опсега за ИМТ дозвољава администрацијама да одаберу најбољи опсег или делове опсега за своје околности;
- k) да је ИТУ-Р назначио додатни рад да означи будуће развоје у ИМТ;
- l) да се очекује да ИМТ-2000 радио интерфејс, како је дефинисан у Препоруци ИТУ-Р М.1457 да еволуира у оквиру ИТУ-Р више од онога што је у почетку специфицирано, да омогући побољшане услуге и услуге веће од оних предвиђених у почетним имплементацијама;
- m) да означавање опсега за ИМТ не успоставља приоритете у Правилнику о радиокомуникацијама и не спречава коришћење опсега за било коју примену из службе за коју је намењен;
- n) да одредбе из Nos. **5.317А**, **5.384А** и **5.388** не спречавају администрације да изаберу да имплементирају друге технологије у фреквенцијским опсезима означеним за ИМТ, засновано на националним захтевима,

*препознајући*

да би за неке администрације једини начин да имплементирају ИМТ била прерасподела спектра, која захтева значајне финансијске инвестиције,

*одлучује*

1 да позове администрације које имплементирају ИМТ или планирају да имплементирају да ИМТ буде доступан, базирано на захтевима корисника и другим разматрањима на националној бази, додатни опсеци или делови опсега изнад 1 GHz назначено у No. **5.384А** за земаљску компоненту од ИМТ; дужна пажња треба бити поклоњена добицима хармонизованог коришћења спектра за земаљску компоненту од ИМТ, узимајући у обзир службе којима је тај фреквенцијски опсег сада намењен;

2 да потврди да разлике у текстовима у Nos. **5.384А** и **5.388** не производе разлике у правном статусу,

*позива ИТУ-Р*

1 да проучи утицај дељења ИМТ-а са осталим применама и сервисима у опсегу 2 300-2 400 MHz и имплементацију, дељење и фреквенцијске аранжмане за ИМТ у опсегу 2 300-2 400 MHz;

2 да развије хармонизоване фреквенцијске аранжмане за опсег 2 300-2 400 MHz за рад земаљске компоненте ИМТ-а, узимајући у обзир резултате студија о дељењу;

3 да настави студије о даљем побољшању за ИМТ, укључујући одредбе за примене базиране на Интернет протоколу (IP) које могу захтевати неизбалансиране радио ресурсе између мобилних и базних станица;

4 да настави да усмерава да се осигура да ИМТ може да задовољи телекомуникационе потребе земаља у развоју и руралних средина у контексту горепомнутих студија;

5 да укључи ове фреквенцијске аранжмане и резултате тих студија у једну или више ИТУ-Р Препорука,

*такође позива ИТУ-Р*

да одмах започне ове студије.

**MOD** (R9/425/17)

### РЕЗОЛУЦИЈА 224 (Rev.WRC-07)

#### **Фреквенцијски опсези за земаљске компоненте Међународних мобилних телекомуникација испод 1 GHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да Међународне мобилне телекомуникације (ИМТ) јесте изворни назив, обухватајући обоје ИМТ-2000 и ИМТ-Напредни (види Резолуцију ИТУ-Р 56);
- b) да су ИМТ системи намењени да омогуће телекомуникационе сервисе на светском нивоу, независно од места, мреже или коришћеног терминала;
- c) да се делови опсега 806-960 MHz екстензивно користе у три Региона за мобилне системе;
- d) да су ИМТ системи већ распоређени у опсегу 806-960 MHz у неким земљама три Региона;
- e) да неке администрације планирају коришћење опсега 698-862 MHz, или делова тога опсега, за ИМТ;
- f) да, као резултат транзиције из аналогне у дигиталну земаљску телевизију неке земље планирају да направе или већ праве опсег 698-862 MHz, или делове тог опсега, доступан за примене у мобилној служби (укључујући везе према горе);
- g) да је опсег 450-470 MHz намењен мобилној служби на примарној основи у три Региона и да су мобилни ИМТ системи већ распоређени у неким земљама три Региона;
- h) да су резултати студије дељења за опсег 450-470 MHz садржани у Извештају ИТУ-Р М.2110;
- i) да целуларни мобилни системи у три Региона у опсезима испод 1 GHz раде користећи разне фреквенцијске аранжмане;
- j) да тамо где трошковни разлози налажу инсталацију мањег броја базних станица, као у руралним и/или слабо насељеним подручјима, опсези испод 1 GHz у принципу су погодни за имплементацију мобилних система укључујући ИМТ;
- k) да су опсези испод 1 GHz важни, нарочито за неке земље у развоју и земље где су економска решења за малу густину насељености неопходна;

- l)* да Препорука ИТУ-Р М.819 описује циљеве које треба да задовољи ИМТ-2000 да би задовољио потребе земаља у развоју, и да би им помогао да премосте разлику између њихових комуникацијских могућности и оних у развијеним земљама;
- m)* да Препорука ИТУ-Р М.1645 такође описује циљеве у вези покривања за ИМТ, *препознајући*
- a)* да еволуција мобилних мрежа на целуларној основи за ИМТ може бити олакшана ако је дозвољено да еволуира у оквиру њихових садашњих фреквенцијских опсега;
- b)* да се опсег 450-470 MHz и делови опсега 746-806 MHz и 806-862 MHz екстензивно користе у многим земљама од различитих других земаљских мобилних система и примена, укључујући јавну заштиту, радиокомуникације за помоћ у случају несреће (види Резолуцију **646 (WRC-03)**);
- c)* да постоји потреба, у многим земљама у развоју и земљама са великим областима где је мала густина становништва, за економичном имплементацијом ИМТ-а, и да карактеристике простирања фреквенцијских опсега испод 1 GHz назначене у Nos **5.XXX\*** и **5.317A** имају за резултат веће ћелије;
- d)* да је опсег 450-470 MHz, или делови тога опсега, такође намењен службама које нису мобилна служба;
- e)* да је опсег 460-470 MHz такође намењен метеоролошкој сателитској служби у сагласности са No. **5.290**;
- f)* да је фреквенцијски опсег 470-806/862 MHz такође намењен радиодифузној служби на примарној основи у сва три Региона и да га та служба претежно користи, и да се Споразум GE06 примењује у свим земљама у Региону 1, осим Монголије и Исламске Републике Иран у Региону 3;
- g)* да Споразум GE06 садржи одредбе за земаљску радиодифузну службу и остале примарне земаљске службе, План за дигиталну телевизију, и листу станица других примарних земаљских служби;
- h)* да се очекује да ће прелаз са аналогне на дигиталну телевизију вероватно резултовати ситуацијом где ће опсег 470-806/862 MHz бити коришћен екстензивно и за аналогне и за дигиталне емисије и да захтеви за спектром за време прелазног периода могу бити чак и већи него кад је само био аналогни радиодифузни систем;
- i)* да временски оквир и прелазни период за пребацивање са аналогне на дигиталну телевизију не морају бити једнаки у свим земљама;
- j)* да након пребацивања са аналогне на дигиталну телевизију, неке администрације могу одлучити да користе цели опсег 698-806/862 MHz или његове делове за друге службе за које је намењен на примарној основи, нарочито за мобилну службу за имплементацију ИМТ-а, док у другим земљама радиодифузна служба ће наставити да ради у том опсегу;
- k)* да у опсегу 470-862 MHz, или деловима тог опсега, постоји једна намена на примарној основи за фиксну службу;
- l)* да је, у неким земљама, опсег 698-806/862 MHz намењен мобилној служби на примарној основи;

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\* Белешка Секретаријата: Ова фуснота се односи на 450-470 MHz.

m) да је опсег 645-862 MHz намењен на примарној основи ваздухопловној радионавигационој служби у земљама наведеним у No. **5.312**;

n) да ће компатибилност мобилне службе са радиодифузном, фиксном и ваздухопловном радионавигационом службом у опсегу на који се односе *препознавања к)* и м) захтевати даље студије у ITU-R,

*наглашавајући*

a) да је за све администрације земаљска радиодифузија витални део комуникационе и информационе инфраструктуре;

b) да флексибилност мора да се приушти администрацијама:

- да одлуче, на националној основи, колико спектра да буде доступно за ИМТ из назначених опсега, узимајући у обзир текуће коришћење спектра и потребе других примена;
- да развију властите транзиционе планове, ако је потребно, да се надовежу на своје специфичне поставе постојећих система;
- да имају могућност за назначене опсега да буду коришћени од свих служби којима је тај опсег намењен;
- да одреде динамику доступности и коришћења опсега назначених за ИМТ, да би задовољили посебне захтеве корисника и остало што се разматра на националној основи;

c) да посебне потребе и национални услови и околности у развијеним земљама, укључујући најмање развијене земље, презадужене сиромашне земље са великом територијом и територијама са малим бројем претплатника, морају да буду задовољене;

d) да дужна пажња треба бити поклоњена користи од хармонизованог коришћења спектра за земаљске ИМТ компоненте, водећи рачуна о текућем и планираном коришћењу тих опсега од свих служби којима су ти опсега намењени;

e) да коришћење фреквенцијских опсега испод 1 GHz за ИМТ такође помаже да се премосте разлике између ретко насељених подручја и густо насељених подручја у различитим земљама;

f) да означавање неког опсега за ИМТ не спречава коришћење тог опсега другим службама и применама којима је намењен;

g) да је коришћење опсега 470-862 MHz за радиодифузну службу и остале примарне службе такође покривено GE06 Споразумом;

h) да захтеви различитих служби којима је опсег намењен, укључујући мобилну и радиодифузну службу, требају да се узму у обзир,

*одлучује*

1 да администрације које уводе или планирају да уведу ИМТ, размотре коришћење опсега назначених за ИМТ испод 1 GHz и могућност еволуције мобилних мрежа на целуларној основи за ИМТ, у фреквенцијским опсезима назначеним у Nos **5.XXX\*** и **5.317A**, на основу потреба корисника и других разматрања;

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\* Белешка Секретаријата: Ова фуснота се односи на 450-470 MHz.

2 да се подстичу администрације да узимају у обзир резултате ИТУ-Р студија напоменутих горе у *позива ИТУ-Р*, и сваку препоручену меру приликом увођења примене /система у опсезима 790-862 МНз у Региону 1 и Региону 3, у опсегу 698-806 МНз у Региону 2, и у администрацијама споменутих у No. **5.YYY**;

3 да би администрације требале узети у обзир потребу за заштитом постојећих и будућих радиодифузних станица, аналогних и дигиталних, у 470-806/862 МНз опсегу, као и осталих примарних земаљских служби;

4 да администрације које планирају да уведу ИМТ у опсезима споменутих у *одлукама 2* треба да изврше координацију са свим суседним администрацијама пре увођења;

5 да у Региону 1 (осим Монголије) и у Исламској Републици Ирану увођење станица мобилне службе треба бити предмет примена процедура садржаних у Споразуму GE06. У том процесу:

a) администрације које постављају станице за које се не захтева координација, или које немају претходну сагласност оних администрација које могу бити погођене, не смеју да узрокују неприхватљиву интерференцију, нити да траже заштиту због ње, станицама радиодифузне службе администрација које раде у сагласности са GE06 Споразумом. Треба да се закључи писмени пристанак како се захтева под § 5.2.6 из GE06 Споразума;

b) администрације које постављају станице за које се не захтева координација, или које немају претходну сагласност оних администрација које могу бити погођене, не могу да се буне нити да спрече ставку у GE06 плану или уписивање у MIFR додатних будућих радиодифузних расподела и намена било које друге администрације у GE06 Плану у односу на те станице;

6 да, у Региону 2, увођење ИМТ-а треба бити предмет одлуке сваке администрације у преласку са аналогне на дигиталну телевизију,

*позива ИТУ-Р*

1 да проучи могуће коришћење опсега 790-862 МНз у Региону 1 и у Региону 3, опсег 698-806 МНз у Региону 2 и у администрацијама поменутих у No. **5.YYY** у Региону 3 за нове мобилне и радиодифузне примене, укључујући утицај на GE06 Споразум, где је могуће, и да сачини ИТУ-Р Препоруке како да се заштите службе којима су сада ти опсежи намењени, укључујући радиодифузну службу и посебно GE06 План, као ажуриран, и његове будуће надоградње;

2 у фреквенцијским опсезима споменутих у *позива ИТУ-Р 1*, да проучи компатибилност између мобилних система са различитим техничким карактеристикама и пружи смернице за било какав утицај који нова разматрања могу да имају на спектралне аранжмане;

3 да укључи резултате студија поменутих у *позива ИТУ-Р 2*, и посебно мере хармонизације за ИМТ, у једну или више ИТУ-Р Препорука до 2010.;

4 да развије хармонизоване фреквенцијске аранжмане за опсег 450-470 МНз за рад земаљских ИМТ компонената, узимајући у обзир горепоменути, *узимајући у обзир h*).

*позива Директора Сектора за развој телекомуникација*

да привуче пажњу Сектора за развој телекомуникација на ову Резолуцију.

MOD COM4/332/79 (B13/347/173) (R7/411/215)

## РЕЗОЛУЦИЈА 225 (Rev.WRC-07)

### Коришћење додатних фреквенцијских опсега за сателитску компоненту ИМТ-а

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да су опсеги 1 980-2 010 MHz и 2 170-2 200 MHz означени за коришћење за сателитску компоненту Међународних мобилних телекомуникација (ИМТ) кроз No. **5.388** и Резолуцију **212 (Rev.WRC-07)**;
- b) Резолуције **212 (Rev.WRC-07)**, **223 (WRC-07)** и **224 (WRC-07)** о имплементацији земаљских и сателитских компоненти ИМТ-а;
- c) да су опсеги 1 518-1 544 MHz, 1 545-1 559 MHz, 1 610-1 626.5 MHz, 1 626.5-1 645.5 MHz, 1 646.5-1 660.5 MHz, 1 668-1 675 MHz, 2 483.5-2 500 MHz, 2 500-2 520 MHz и 2 670-2 690 MHz намењени на ко-примарној основи мобилним сателитским службама и осталим службама у складу са Правилником о радиокомуникацијама;
- d) да комуникације у сврхе опасности, ванредне ситуације и безбедности Светских поморских система за опасност и безбедност и ваздухопловне мобилне сателитске службе имају приоритет над свим осталим мобилним сателитским комуникацијама у складу са Nos. **5.353А** и **5.357А**,

*препознајући*

- a) да су службе као радиодифузна сателитска, радиодифузна сателитска (звук), мобилна сателитска, фиксна (укључујући дистрибуцијске/комуникационе системе од тачке до тачке) и мобилне, у раду или у плану да раде у опсегу 2 500-2 690 MHz, или у деловима тога опсега;
- b) да су друге службе, као што је мобилна служба, радиоастрономска служба и радиодетерминациона сателитска служба у раду или планиране у складу са Табелом намене фреквенција, у опсезима 1 518-1 559/1 626.5-1 660.5 MHz, 1 610-1 626.5/2 483.5-2 500 MHz и 1 668-1 670 MHz, и у деловима тих опсега, и да се ти опсеги, или делови тих опсега интензивно користе у неким земљама за апликације другачије него што је ИМТ сателитска компонента, и да студије о дељењу које води ИТУ-Р још нису завршене;
- c) да студије о могућем дељењу и координацији између сателитске компоненте ИМТ-а и земаљске компоненте ИМТ-а, мобилних сателитских примена и осталих примена велике густине у другим службама као што су комуникацијски/дистрибуцијски системи у опсезима 2 500-2 520 MHz и 2 670-2 690 MHz, нису још завршене;
- d) да су опсеги 2 520-2 535 MHz и 2 655-2 670 MHz намењени мобилној сателитској, осим ваздухопловне мобилне сателитске, служби за рад ограничен унутар националних граница, сходно Nos. **5.403** и **5.420**;
- e) Резолуцију ИТУ-Р 47 о студијама које се раде за сателитске технологије радио емисија за ИМТ,

*одлучује*

- 1 да, осим фреквенцијских опсега назначених у *узимајући у обзир а)* и одлукама 2, фреквенцијски опсеги 1 518-1 544 MHz, 1 545-1 559 MHz, 1 610-1 626.5 MHz,

1 626.5-1 645.5 MHz, 1 646.5-1 660.5 MHz, 1 668-1 675 MHz и 2 483.5-2 500 MHz могу бити коришћени од администрација које желе да имплементирају сателитску компоненту ИМТ-а, предмет регулаторних одредби које се односе на мобилну сателитску службу у тим фреквенцијским опсезима;

2 да опсежи 2 500-2 520 MHz и 2 670-2 690 MHz назначени за ИМТ у No. **5.384A** и намењени мобилној сателитској служби могу бити коришћени од администрација које желе да имплементирају сателитску компоненту ИМТ-а; међутим, зависно о захтевима корисника, може се десити на дуже стазе да администрације одлуче да користе те опсеге за земаљску компоненту ИМТ-а (види Преамбулу ИТУ Статута);

3 да ово означавање фреквенцијских опсега за сателитску компоненту ИМТ-а не спречава коришћење ових опсега од стране било које примене у службама којима је намењен нити ствара приоритет у Правилнику о радиокомуникацијама,

*позива ИТУ-Р*

1 да проучи питања дељења и координације у горепоменутом опсезима у односу на коришћење намена мобилне сателитске службе за сателитску компоненту ИМТ-а и коришћење тог спектра од осталих служби којима је намењен, укључујући радиодетерминациону сателитску службу;

2 да поднесе извештај о резултатима ових студија будућој конференцији о радиокомуникацијама,

*позива директора Сектора за развој телекомуникација*

да привуче пажњу Сектора за развој телекомуникација на ову Резолуцију.

**ADD** PLEN/408/18 (B24/419/18)

### РЕЗОЛУЦИЈА 231 (WRC-07)

#### **Додатне намене мобилној сателитској служби уз делимично фокусирање на опсеге између 4 GHz and 16 GHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да је ИТУ проучила захтеве спектра за сателитску компоненту ИМТ за период 2010-2020, и резултати си садржани у Извештају ИТУ-Р М.2077;

b) да резултати у Извештају ИТУ-Р М.2077 показују недостатак доступног спектра за сателитску компоненту од ИМТ у смеру Земља-свемир од између 19 и 90 MHz за годину 2020;

c) да резултати у Извештају ИТУ-Р М.2077 показују недостатак доступног спектра за сателитску компоненту од ИМТ у смеру свемир-Земља од између 144 и 257 MHz за годину 2020;

d) да MSS системи који нису део сателитске компоненте од ИМТ могу такође захтевати додатни спектар,

*одлучује да позове ИТУ-Р*

да комплетира, за WRC-11, студије о могућим опсезима за нове намене мобилној сателитској служби у смеру Земља-свемир и свемир-Земља, са делимичним фокусирањем на распон 4 GHz до 16 GHz, узимајући у обзир дељење и компатибилност, без постављања неоправданих ограничења постојећим службама у том опсегу,

*позива администрације*

да учествују у студијама дајући допринос ITU-R.

**MOD** COM4/296/56 (B9/305/58) (R5/336/6)

### РЕЗОЛУЦИЈА 331 (Rev.WRC-07)

#### **Прелаз на Светски поморски систем за опасност и безбедност (GMDSS)**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*примећујући*

да се од свих бродова предмета Међународне конвенције за безбедност живота на мору (SOLAS), 1974, према допуни, захтева да буду опремљени за Светски поморски систем за опасност и безбедност (GMDSS),

*примећујући такође*

- a) да је извршен број администрација подузео кораке да уведе GMDSS и за класе пловила које нису предмет за SOLAS, 1974, према допуни;
- b) да повећан број пловила који нису предмет за SOLAS, 1974, према допуни, искоришћава технике и фреквенције GMDSS-а прописане у Поглављу VII;
- c) да је ова Конференција изменила Поглавље VII да омогући одржавање међусобне оперативности између бродова опремљених за GMDSS и бродова који нису још потпуно опремљени за GMDSS;
- d) да би могла постојати потреба за одржавање постојећих служби за опасност и безбедност лоцираних на обали за примање говорних позива опасности, ванредне ситуације и безбедности на VHF каналу 16 тако да би пловила која нису предмет за SOLAS, 1974, уз допуне и која још не користе технике и фреквенције GMDSS-а била у стању да привуку пажњу и добију помоћ од тих служби;
- e) да Међународна поморска организација (ИМО) размишља да SOLAS бродови, на мору, буду обавезни да слушају VHF канал 16, и у блиској будућности, у намери да се омогући:
  - обавештења на опасност и комуникацијски канал за не-SOLAS бродове; и
  - комуникација између командних мостова;
- f) да је ИМО позвао администрације да захтевају од свих пловила по мору под националном заставом, и подстакла сва пловила која добровољно држе VHF радио опрему да буду опремљени са опремом за пренос и пријем обавештења на опасност помоћу DSC-а на VHF каналу 70;
- g) да Правилник о радиокомуникацијама захтева од GMDSS бродова да слушају одговарајуће DSC фреквенције за опасност;
- h) да специјалне одредбе у постојећем Правилнику о радиокомуникацијама означавају VHF канал 16 као међународни канал за опште позивање за радиотелефонију;
- i) да је неколико администрација успоставило системе Службе за праћење пловила (VTS) и захтева да њихова пловила слушају локални VTS канал;
- j) да бродови за које захтева SOLAS да имају радио станицу буду опремљени с DSC, и многа пловила која су предмет националних захтева за превоз такође су опремљена са

DSC, али већина бродова која има радио станицу на добровољној основи нема још DSC опрему;

k) слично томе, многе администрације су успоставиле службу опасности и безбедности базирану на DSC мониторингу, али већина станица у пристаништу, пилотских станица и осталих оперативних обалских станица нису још опремљене са DSC опремом;

l) да Nos **52.190** до **52.192** и **52.232** до **52.234** дозвољавају фреквенцију 2 182 kHz и канал 16 да се користи за позив и одговор,

*препознајући*

a) да, како је горе напоменуто у *примењујући такође a), b), f), j) и k)*, станице у поморској мобилној служби повећано искоришћавају фреквенције и технике GMDSS-а;

b) да је ова Конференција усвојила одредбе за опасност, ванредне ситуације и сигурносне позиве путем радиотелефоније на VHF каналу 16, захтевајући од бродова, где је угодно, да стално слушају VHF канал 16;

c) потребу да се одржавају обалске службе за опасност, и безбедност за пријем говорних позива за опасност, ванредне ситуације и безбедност на VHF каналу 16 за неколико година након ове Конференције тако да би пловила која нису предмет SOLAS, 1974, према допуни, и још не користе технике и фреквенције GMDSS-а, била у стању да привуку пажњу и добију помоћ од тих служби до времена када ће да учествују у GMDSS;

d) потребу горе поменуто у *примењујући такође d)* за одржавањем постојећих обалских служби за опасност, ванредне ситуације и безбедност на VHF каналу 16,

*одлучује*

1 да задржи одредбе које дозвољавају коришћење VHF канала 16 и фреквенцију 2 182 kHz за опште говорне позиве;

2 позива све администрације да помогну у побољшању сигурности на мору са:

- подстицањем свих пловила да финализују прелаз на GMDSS што пре је могуће;
- подстицањем, где је подесно, успостављање одговарајућих обалских постројења за GMDSS, или на индивидуалној основи или са другим релевантним странама у подручју;
- подстицањем свих пловила која носе поморску VHF опрему да се опреме са DSC на VHF каналу 70 што пре је могуће, узимајући у обзир релевантне одлуке ИМО;
- подстицањем пловила да ограниче властиту употребу VHF канала 16 и фреквенције 2 182 kHz за звање ако није прека потреба, констатујући одредбе из No. **52.239**;

3 да обалске станице које формирају део обалских аранжмана у подручју у коме се врши пријем позива за опасност путем радиотелефоније на VHF каналу 16 треба да одржавају ефикасно слушање на VHF каналу 16. Такво слушање треба да буде објављено на Листи Обалских станица и Станица специјалних служби;

4 да администрације могу да ослободе своје бродске станице и обалске станице од слушања на VHF каналу 16 у вези говорних позива за опасност, ванредне ситуације и безбедност, у складу са релевантним одлукама ИМО и ИТУ на захтеве слушања на каналу 16, узимајући у обзир GMDSS радио систем у подручју од интереса;

кад раде тако, администрације би требале:

- да информишу ИМО о својим одлукама и пошаљу у ИМО детаље о подручју од интереса;
- информишу Генералног секретара о неопходним детаљима за укључивање у Листу обалских станица и Станица специјалних служби,  
*позива ИТУ-Р*

да прати развој и промене у GMDSS-у, нарочито:

- захтеве за посматрање;
- обавештења о опасности;
- захтеве превоза,

и да извести светску конференцију о радиокомуникацијама када наредна рационализација Поглавља VII треба бити разматрана,

*одлучује такође*

да Генерални секретар треба да осигура да такви аранжмани и детаљи који се тичу разматраног подручја буду напоменути у одговарајућим поморским публикацијама,

*налаже Генералном секретару*

да скрене пажњу на ову Резолуцију Међународној поморској организацији, Међународној организацији за цивилно ваздухопловство, и Међународном удружењу IALA.

**MOD** COM4/332/178 (B14/365/43) (R7/411/217)

### РЕЗОЛУЦИЈА 339 (Rev.WRC-07)

#### **Координација NAVTEX служби**

Светска Конференција о радиокомуникацијама (Женева, 2007),

...

*налаже се Генералном секретару*

1 да позове ИМО да омогући да ИТУ добија информације на регуларној основи о радној координацији за NAVTEX службе на фреквенцијама 490 kHz, 518 kHz и 4 209.5 kHz,

*налаже Директору Бироа за радиокомуникације*

да објави ову информацију у *Листи обалских станица и Станица специјалних служби* (Листа IV) (види No. 20.7).

**MOD** COM4/380/73 (B17/404/68)

### РЕЗОЛУЦИЈА 351 (Rev.WRC-07)

#### **Преглед фреквенцијских и каналских аранжмана у HF опсезима намењених поморској мобилној служби садржано у Додатку 17 с погледом на побољшање ефикасности кроз употребу нове дигиталне технологије од стране поморске мобилне службе**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*примећујући*

a) да увођење нове дигиталне технологије у поморску мобилну службу (MMS) не сме да наруши комуникације у сврхе опасности и безбедности у HF опсезима укључујући

оне које је поставила Међународна конвенција о безбедности живота на мору (SOLAS), 1974, уз допуне;

b) да измене направљене у Додатку **17** не би смеле нашкодити будућем коришћењу тих фреквенција или могућности система или новим применама захтеваним за коришћење за MMS;

c) да потреба за коришћењем нових дигиталних технологија у MMS-у убрзано расте;

d) да ће коришћење нових дигиталних технологија на HF фреквенцијама намењеним за MMS направити могуће боље одговарање на надолazeће захтеве за новим сервисима;

e) да су HF опсези намењени за MMS за A1A Морзеову телеграфију и ускопојасно директно писање (NBDP) садржано у Додатку **17** значајно неискоришћени у садашње време;

f) да постоје нове HF технологије за размену података способне да испоручују поморске безбедносне информације;

g) да Међународна поморска организација (ИМО) подржава фреквенције из Додатка **15**, које се односе на NBDP, да буду задржане још у блиској будућности;

h) да ИТУ Сектор за радиокомуникације води текуће студије да побољша ефикасно коришћење тих опсега,

*констатујући*

a) да су различите дигиталне технологије већ развијене и у употреби су у HF опсезима у неколико радиокомуникационих служби;

b) да су нови поморски HF протоколи за пренос података већ развијени и у раду су користећи Додатак **17** фреквенције и друге фреквенције изван Додатка **17**,

*одлучује*

да позове [WRC-11] да размотре потребне измене у Додатку **17** да би се увело коришћење нових технологија за MMS, у сагласности са *позива ИТУ-R*,

*позива ИТУ-R*

да финализује студије које су у току:

- да идентификује сваку потребну измену у фреквенцијској табели садржаној у Додатку **17**;
- да идентификује све потребне прелазне аранжмане за увођење нових дигиталних технологија и све потребне измене у том смислу у Додатку **17**;
- да препоручи како дигиталне технологије могу да се уведу а истовремено да се осигура сагласност са захтевима за опасност и безбедност,

*подстиче државе чланице*

док придонесе имплементацији ове Резолуције, нека узму у обзир друге модификације Чланова и Додатака ако је потребно

*налаже се Генералном секретару*

да скрене пажњу на ову Резолуцију Међународној поморској организацији, Међународној организацији за цивилно ваздухопловство, и Међународном удружењу IALA, Међународном комитету за поморски радио (CIRM), Међународној електротехничкој комисији (IEC).

**ADD** COM4/332/179 (B14/365/47) (R7/411/223)

## РЕЗОЛУЦИЈА 354 (WRC-07)

### Процедуре у телефонији за опасност и безбедност 2 182 kHz

Светска Конференција о радиокомуникацијама (Женева, 2007),

*констатујући*

a) захтева да сви бродови предмет Међународне конвенције за безбедност живота на мору (SOLAS), 1974, према допуни, буду опремљени за Светски поморски систем за опасност и безбедност (GMDSS);

b) да неки бродови који нису предмет SOLAS, 1974, према допуни, не требају да користе технике и фреквенције од GMDSS преписане у Поглављу VII и могу желети да наставе коришћење процедура телефоније за комуницирање у сврхе опасности и безбедности на 2 182 kHz до времена када ће бити у стању да учествују у GMDSS;

c) да неке администрације могу да имају потребу да одржавају обалну радиотелефонску службу за опасност и безбедност на 2 182 kHz тако да пловила која нису предмет за SOLAS, 1974, према допуни, и још не користе технике и фреквенције од GMDSS моћи ће да добију помоћ од тих служби до времена кад буду могла да учествују у GMDSS,

*узимајући у обзир*

да јима потребе за неке посебне смернице за коришћење радиотелефоније на 2 182 kHz за комуникације у сврхе опасности и безбедности,

*одлучује*

1 да бродови, кад су у опасности или ангажовани у хитним или безбедносним комуникацијама на 2 182 kHz користе процедуре радиотелефоније садржане у Анексу ове Резолуције;

2 да обалске станице, у намери да одржавају комуникацију са не-GMDSS бродовима који су у опасности или ангажовани у хитним или безбедносним комуникацијама на 2 182 kHz користе процедуре радиотелефоније садржане у Анексу ове Резолуције.

## АНЕКС НА РЕЗОЛУЦИЈУ 354 (WRC-07)

### Процедуре радиотелефоније за опасност и безбедност на 2 182 kHz\*

#### ДЕО А1 – ГЕНЕРАЛНО

§ 1 Фреквенције и технике специфициране у овој Резолуцији могу да се користе у поморској мобилној служби за станице<sup>1</sup> за које национална и интернационална регулатива не захтева да одговарају GMDSS опреми и за комуникације тих станица и ваздухоплова. Међутим, станице поморске мобилне службе, кад додатно одговарају било којој опреми коју

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\* Комуникације за опасност и безбедност укључују позиве за опасност, ванредне ситуације и сигурност.

<sup>1</sup> Ове ситуације могу да укључују координационе центре за спашавање. Израз “Координациони центар за спашавање” како је дефинисан у ICMSR (1979) односи се на установу одговорну за промоцију и ефикасну организацију служби тражења и спасавања и координацију и вођење тражења и спашавања унутар датог региона.

користе станице које раде у сагласности са одредбама специфицираним у Поглављу VII, требале би, кад користе ту опрему, ускладити се са одговарајућим одредбама тога Поглавља.

§ 2 1) Ниједна одредба ове Резолуције не спречава коришћење за мобилне станице или мобилне земаљске станице кад је опасност свих средстава на располагању да се привуче пажња, јави своја позиција и добије помоћ.

2) Ниједна одредба ове Резолуције не спречава коришћење на ваздухоплову или бродовима ангажованим у операцијама претраге и спашавања, у посебним околностима, свих средстава на располагању да се асистира мобилним станицама или мобилним земаљским станицама кад је опасност.

3) Ниједна одредба ове Резолуције не спречава коришћење од стране копнених и обалских станица, у ванредним околностима, свих средстава на располагању да се асистира мобилним станицама или мобилним земаљским станицама кад је опасност (види такође No. 4.16).

§ 3 У случајевима опасности, ванредне ситуације и безбедности комуникације радиотелефонијом треба да се врше полако, и јасно, свака реч јасно изговорена да се олакша репродукција.

§ 4 Кратике и сигнали из Препоруке ITU-R M.1172 и Фонетског алфабета и сликовног кода из Додатка 14 требало би користити кад је примењиво<sup>2</sup>.

§ 5 Комуникације у сврхе опасности, ванредне ситуације и безбедности могу такође да се раде коришћењем DSC и сателитских техника и/или телеграфије директног писања, у складу са одредбама специфицираним у Поглављу VII и одговарајућим ITU-R Препорукама.

§ 6 Мобилне станице<sup>3</sup> поморске мобилне службе могу да комуницирају у сврху безбедности са станицама ваздухопловне мобилне службе. Такве комуникације треба да се раде на ауторизованим фреквенцијама, и под специфицираним условима, у Секцији I Дела A2 (види такође § 2 1)).

§ 6A Мобилне станице ваздухопловне мобилне службе могу да комуницирају у сврхе опасности и безбедности са станицама поморске мобилне службе у сагласности са одредбама ове резолуције.

§ 7 Сваки ваздухоплов за кога национална или међународна регулатива захтева да комуницира у сврхе опасности, ванредне ситуације и безбедности са станицама поморске мобилне службе треба бити у стању да предаје и прима класу J3E емисија код коришћења носеће фреквенције 2 182 kHz или носеће фреквенције 4 125 kHz.

## ДЕО А2 – ФРЕКВЕНЦИЈЕ ЗА ОПАСНОСТ И БЕЗБЕДНОСТ

### Секција I – Доступност фреквенција

A – 2 182 kHz

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<sup>2</sup> Коришћење Стандардних морских комуникацијских фраза и, где постоје језичне потешкоће, Међународног кода сигнала, обоје публикувано од Међународне поморске организације, такође се препоручује.

<sup>3</sup> Мобилне станице које комуницирају са станицама аеронаутичких мобилних (R) служби у опсезима додељеним аеронаутичким мобилним (R) службама треба да буду у складу са одредбама регулатива које се односе на ту службу као и одговарајућим специјалним споразумима између администрација које се баве регулативом аеронаутичких мобилних (R) служби.

§ 1 1) Носећа фреквенција 2 182 kHz је међународна фреквенција за опасност за радиотелефонију; може да је користе станице на броду, ваздухоплову и чамцима за спашавање кад се тражи помоћ од поморских служби. Користи се за позиве у опасности, саобраћај у опасности, за хитне сигнале и хитне поруке и за сигурносне сигнале. Безбедносне поруке требало би да се емитују, кад је практично, на радној фреквенцији, након претходне најаве на 2 182 kHz. Класа емисије која ће да се користи за радиотелефонију на фреквенцији 2 182 kHz треба да је J3E. Саобраћај у опасности на 2 182 kHz након пријема позива у опасности коришћењем DSC требало би да води рачуна да неко бродовље у близини можда неће моћи да проми тај саобраћај.

2) Ако порука за опасност на носећој фреквенцији 2 182 kHz није још потврђена, позив у опасности и порука могу да се емитују поново на носећој фреквенцији 4 125 kHz или 6 215 kHz, према могућности.

3) Међутим, бродске станице и ваздухоплов који не могу да емитују или на носећој фреквенцији 2 182 kHz или на носећим фреквенцијама 4 125 kHz или 6 215 kHz могу користити било коју другу доступну фреквенцију на којој би неко могао да их чује.

4) Бродске станице које користе носећу фреквенцију 2 182 kHz за опасност и слање упозорења за пловидбу могу да емитују један звучни алармни сигнал<sup>4</sup> кратког трајања у сврху привлачења пажње на поруку која ће да следи.

*B – 4 125 kHz*

§ 2 1) Носећа фреквенција 4 125 kHz се користи као суплемент носећој фреквенцији 2 182 kHz у сврху опасности и безбедности и за позив и одговор. Ту фреквенцију такође користи радиотелефонија за саобраћај у опасности и безбедност.

2) Носећа фреквенција 4 125 kHz може бити коришћена за комуникацију ваздухоплова са станицама поморске мобилне службе за опасност и безбедност, укључујући претрагу и спашавање.

*C – 6 215 kHz*

§ 3 Носећа фреквенција 6 215 kHz се користи као суплемент носећој фреквенцији 2 182 kHz у сврху опасности и безбедности и за позив и одговор. Ту фреквенцију такође користи радиотелефонија за саобраћај у опасности и безбедност.

## **Секција II – Заштита фреквенција за опасност и безбедност**

*A – Генерално*

§ 4 Горе описане тестне емисије на било којој фреквенцији за опасност и безбедност треба да се држе на минимуму и, где год је практично, треба да се изводе са вештачким антенама или са смањеном снагом.

§ 5 Пре емитовања на било којој фреквенцији идентификованој за комуникације у сврхе опасности и безбедности, станица треба да слуша на дотичној фреквенцији да буде сигурна да никаква порука опасности није послата (види Препоруку ИТУ-Р М.1171). То се не односи на станице у опасности.

*B – 2 182 kHz*

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<sup>4</sup> Алармни сигнали могу да садрже звучне сигнале са фреквенцијама од 1300 Hz, 2200 Hz или обе. Различити типови тона могу да се користе да би се сигнализирани типови порука које следе као и алармни сигнал на крају у дужини од 10 секунди како би се идентификовала предаја обалској станици.

§ 6 1) Осим за емисије ауторизоване на носећој фреквенцији 2 182 kHz и на фреквенцијама 2 174.5 kHz, 2 177 kHz, 2 187.5 kHz и 2 189.5 kHz, сви преноси на фреквенцијама између 2 173.5 kHz и 2 190.5 kHz су забрањени (види такође Додатак 15).

2) За олакшавање пријема сигнала опасности, све емисије на 2 182 kHz требали би бити држани на минимуму.

### **Секција III – Надзирање на фреквенцијама за опасност**

*A – 2 182 kHz*

§ 7 1) Обалне станице могу да надзиру на носећој фреквенцији 2182 kHz ако то одреди њихова администрација. Такве доделе требало би да буду назначене на Листи обалских станица и станица специјалних служби.

2) Бродске станице које не одговарају опреми компатибилној са GMDSS подстичу се да држе максимално изводљиво надзирање на носећој фреквенцији 2 182 kHz.

*B – 4 125 kHz, 6 215 kHz*

§ 8 Обалске станице могу да одржавају додатно надзирање, ако је дозвољено, на носећим фреквенцијама 4 125 kHz и 6 215 kHz. Такве доделе требале би да буду назначене у Листи обалских станица и станица специјалних служби.

## **ДЕО А3 – КОМУНИКАЦИЈЕ У СЛУЧАЈУ ОПАСНОСТИ**

### **Секција I – Генерално**

§ 1 Генералне одредбе за комуникације у случају опасности налазе се у Секцији I Члана 32 (види Nos. 32.1, 32.3, и 32.4).

### **Секција II – Сигнал за опасност, позив и порука**

§ 2 Радиотелефонијски сигнал за опасност, позив и порука описани су у Секцији II Члана 32 (види Nos. 32.13Bbis, 32.9, 32.13B, 32.13C, и 32.13D).

### **Секција III – Процедуре**

§ 3 Након емисије радиотелефонијом поруке за опасност, од мобилне станице може да се затражи да пошаље одговарајуће сигнале, који следе позивни знак или другу идентификацију, да дозволи станицама за одређивање смера да одреде њену позицију. Тај захтев може да буде поновљен у честим интервалима ако је потребно.

§ 4 1) Порука за опасност, којој је претходио позив за опасност, треба бити понављана у интервалима док се не прими одговор.

2) Интервали требају да буду довољно дуги да дају времена станицама за одговор, у њиховим припремама, да стартују апаратуру за слање.

§ 5 Ако мобилна станица у опасности не прими одговор на поруку за опасност коју је послала на фреквенцији за опасност, Порука може бити поновљена на било којој другој доступној фреквенцији на којој би могла да привуче пажњу.

### **Секција IV – Емитовање поруке за опасност за предају, који врши станица која није у опасности**

§ 6 Радиотелефонијске процедуре за емитовање поруке за опасност за предају од станице која сама није у опасности налазе се у Секцији II Члана 32 (види Nos. 32.16 to 32.19A и 32.19D до 32.19F).

### Секција V – Пријем и потврда поруке за опасност

§ 7 Процедуре које се односе на пријем и потврду поруке за опасност налазе се у Секцији II Члана 32 (види Nos. 32.23, 32.26, 32.28, 32.29, 32.30 и 32.35).

### Секција VI – Саобраћај у опасности

§ 8 Радителефонијске процедуре које се односе на саобраћај у опасности налазе се у Секцији III Члана 32 (види Nos. 32.39 до 32.42, 32.45 до 32.47, 32.49 до 32.52 и 32.54 до 32.59).

§ 9 1) Свака потврда пријема поруке за опасност мобилне станице треба, по наређењу особе одговорне за брод, ваздухоплов или друго возило, да пошаље следеће информације у приказаном поретку што пре је могуће:

- своје име;
- своју позицију;
- брзина којом она напредује, и приближно време које ће јој требати да дође до мобилне станице у опасности;
- додатно, ако се позиција брода у опасности покаже сумњива, бродске станице би такође требало да пошаљу, кад је могуће, стварно стање брода у опасности.

2) Пре слања поруке специфициране у § 9 1), станица треба да осигура да неће да интерферира са емисијама других станица које су у бољој позицији да пруже брзу помоћ станици у опасности.

## ДЕО А4 – КОМУНИКАЦИЈЕ У СВРХЕ ВАНРЕДНЕ СИТУАЦИЈЕ И БЕЗБЕДНОСТИ

### Секција I – Комуникације у сврхе ванредне ситуације

§ 1 Радиотелефонијске процедуре за комуникације у сврхе ванредне ситуације налазе се у Секцији I и II Члана 33 (види Nos. 33.1 до 33.7 и 33.8, 33.8b до 33.9a и 33.11 до 33.16).

### Секција II – Комуникације у сврхе безбедности

§ 2 Радиотелефонијске процедуре за комуникације у сврхе безбедности налазе се у Секцији I и IV Члана 33 (види Nos. 33.31, 33.31C, 33.32, 33.34 до 33.35 и 33.38B).

ADD COM4/332/180 (B14/365/48) (R7/411/224)

## РЕЗОЛУЦИЈА 355 (WRC-07)

### Садржај, формат и периоде публикација за службу везану за поморство

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да Додатак 16 специфицира документе који треба да се налазе уз станице на бродовима или ваздухопловима;
- b) да Члан 20 специфицира наслове, садржај, припреме, и допуне публикација службе и он-лајн информационе системе;
- c) да станице у поморској мобилној служби имају рстући захтев да поседује свеже информације у публикацијама и он-лајн информационим системима,

*констатујући такође*

- a) да су администрације изразиле потребу за успостављање функционалне серије публикација за службу што би побољшало безбедност на бродовима;
- b) да је ова Конференција модификовала релевантне одредбе, које се тичу припрема и допуна публикација службе и он-лајн информационе системе у Члану **20**;
- c) да је ова Конференција одлучила да уједини извесне Листе, раније споменуте у Члану **20**;
- d) да је ова Конференција такође одлучила да модификује захтеве превоза као што је предвиђено у Додатку **16**;
- e) да ће бити прелазни период до 31.12.2010., за време којег ће Биро за радиокомуникације наставити да издаје публикације службе у њиховом пређашњем формату,

*препознајући*

- a) да је ова Конференција усвојила измене с обзиром на наслове и садржај Листе IV као и Листе V у публикацијама службе;
- b) да администрације могу да ослободе бродове обавезе ношења докумената захтеваних у Додатку **16 (Rev.WRC-07)**,

*одлучује да позове администрације*

- 1 да редовно подносе измене информација за уписивање у ITU-поморске базе података у складу са одредбом **20.16**;
- 2 да помогну у побољшању поморске безбедности придоносећи континуираном раду с обзиром на садржај, формат и периодичност публикација поморске службе

*позива ITU-R*

- 1 да поведе студије са активним учешћем Бироа за комуникације у погледу развоја функционалне серије Публикација поморских служби (Листе IV и V), што ће побољшати безбедност живота на мору;
- 2 да комплетира те студије до 31.12.2010. (види констатујући такође e));
- 3 да поведе студије у погледу развоја практичног и кориснички-угодног формата текућег Приручника за коришћење од стране поморских мобилних и поморских мобилних сателитских служби;
- 4 да периодички ажурира текст овог Приручника ради покривања најновијег развоја,

*налаже Директору Бироа за радиокомуникације*

- 1 да публикује публикације поморске службе у текућем формату у прелазном периоду до 31.12.2010., и после тог датума у новом формату на шест службених језика Уније у складу са *позива ITU-R 2* горе;
- 2 да извести следећу Светску конференцију о радиокомуникацијама о будућој рационализацији Листе IV и V и Приручника, и да укључи резултате студија о будућој рационализацији тих докумената у извештају Директора Бироа за радиокомуникације,

*налаже Генералном секретару*

да стави ову Резолуцију на увид Међународној поморској организацији, Међународној организацији за цивилно ваздухопловство и међународном удружењу (IALA).

**ADD** COM4/380/57 (B17/404/73)

## РЕЗОЛУЦИЈА 356 (WRC-07)

### **ITU регистрација информације поморске службе**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да одредбе из No. **20.16** Члана **20** захтевају од администрација да обавесте Биро за радиокомуникације о информацијама о раду које се налазе у Листи обалских станица и Станица специјалних служби (Листа IV) и Листи бродских станица и Додела идентитета поморске мобилне службе (Листа V);

b) да је ова Конференција модификовала Члан **19** да се обезбеди за доделу идентитет поморске мобилне службе (MMSI) авионима за претрагу и помоћ, аутоматски идентификациони систем (AIS) помагала за навигацију, и чамци за спашавање придружени матичном броду;

c) да одредбе из No. **20.15**, међутим, дају Бироу за радиокомуникације овлашћења да мења садржај и форму ове информације уз консултацију са администрацијама;

d) да је Међународна поморска организација (ИМО) већ идентификовала, у Резолуцији А.887(21) усвојеној 25.11.1999., информације које треба да се укључе у базу података за претрагу и спашавање, укључујући:

- идентификациони број пловила (ИМО број или национални регистарски број);
- Идентитет поморске мобилне службе (MMSI);
- радио позивни знак;
- име, адреса и телефонски број и, ако је примењиво, број факса, особе на копну за контакт у случају ванредне ситуације ;
- алтернативни 24-сатни број телефона за ванредне ситуације;
- капацитет за лица на пловилу (путници и посада),

*одлучује да наложи Директору Бироа за радиокомуникације*

да се одржавају он-лајн информациони системи да дозволе спасилачким координационим центрима да имају непосредан приступ овој информацији 24 часа дневно, 7-дана на недељној основи,

*позива ITU-R*

да консултује администрације, ИМО, ИКАО, ИАЛА, ИНО да се идентификују елементи за инкорпорацију у ITU он-лајн информационе системе,

*позива Генералног секретара*

да комуницира о овој Резолуцији са ИМО, ИКАО, ИАЛА, и ИНО.

**ADD** PLEN/408/6 (B24/419/7)

## РЕЗОЛУЦИЈА 357 (WRC-07)

### Разматрање регулаторних одредби и намена спектра за коришћење од стране побољшаног поморског сигурносног система за бродове и луке

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да постоји растућа потреба, на глобалној основи, да се побољша идентификација бродова и терета, праћење, и надгледање као и сигурност и безбедност бродова и пристаништа;
- b) да усвајање Међународног сигурносног кода за бродове и пристанишна постројења (ISPS) од стране Међународне поморске организације (IMO), нарочито Конвенције о сигурности живота на мору (SOLAS), Поглавље XI-2, о специјалним мерама за побољшање поморске сигурности, захтева системе који зависе о спектру широког распона;
- c) да увођење универзалног аутоматског идентификационог система на бродовима (AIS) потпомаже поморску сигурност и нуди потенцијално побољшање сигурности за бродове и пристаништа и поморску безбедност;
- d) да студије у оквиру ИТУ-Р показују да додатни AIS канали у мобилној сателитској служби могу бити потребни да унапреде и прилагоде глобалне могућности праћења бродова;
- e) да напредни поморски HF системи преноса података могу бити коришћени за слање сигурносних упозорења и безбедносних информација, и примање сличних информација и информација идентификације и праћења (LRIT) широког распона од бродова у подручјима света која немају сателитску покривеност;
- f) да би коришћење постојећих намена поморске мобилне, где је практично, за сигурност бродова и пристаништа и унапређење поморске безбедности, било препоручљиво, посебно где се захтева међународна интероперабилност;
- g) да додатне студије у оквиру ИТУ-Р о спектрално ефикасним радио технологијама могу да се захтевају да реше те вишезначне захтеве за спектром;
- h) да потребе за ИТУ Сервисним публикацијама и специфичним ревизијама садржаја, формата и структуре тих публикација, може бити захтевано за подршку поморске сигурности и безбедносних система,

*констатујући*

- a) Резолуцију **342 (Rev.WRC-2000)**: “Нове технологије за пружање повећане ефикасности у коришћењу опсега 156-174 MHz од станица поморске мобилне службе”;
- b) Резолуцију **351 (Rev.WRC-07)**: “Преглед фреквенцијских и каналских аранжмана у HF опсегу намењеном поморској мобилној служби садржано у Додатку 17 у погледу побољшања ефикасности кроз коришћење нове дигиталне технологије од стране поморске мобилне службе ”,

*препознајући*

- a) да постоји глобални захтев за побољшање поморске сигурности, безбедности бродова и пристаништа путем система овисним о спектру;
- b) да ће постојеће и будуће технологије за Систем сигурности и упозоравања за бродове (SSAS), уведен као резултат ISPS Кода назначено у *узимајући у обзир b*), захтевати

комуникационе везе широког распона и мреже између мобилних станица на бродовима и обали;

c) да, због важности тих радио веза у осигуравању безбедног и сигурног рада међународног бродарства и трговине, оне морају бити отпорне на интерференцију;

d) да ће бити потребне студије да пружи базу за разматрање промена у регулативи, укључујући додатне намене и препоруке, направљене да прилагоде захтеве за спектром за сигурност бродова и пристаништа, конзистентним са заштитом постојећих служби;

e) да су ИТУ и међународне организације за стандарде иницирале одговарајуће студије о спектрално ефикасној технологији,

*одлучује*

1 да WRC-11 узме у обзир измене и допуне на одредбе Правилника о радиокомуникацијама неопходним да омогући рад системе бродске и пристанишне сигурности и поморске безбедности;

2 да WRC-11 узме у обзир додатне намене поморске мобилне службе испод 1 GHz за подршку захтевима идентификованим у *одлучује* 1;

3 да WRC-11 узме у обзир додатне намене поморске мобилне сателитске службе у фреквенцијским опсезима намењеним поморској мобилној служби између 156 и 162.025 MHz за подршку захтевима идентификованим у *одлучује* 1,

*позива ИТУ-Р*

1 да поведе, као хитну ствар, студије да се одреде захтеви за спектром и потенцијални фреквенцијски опсежи подесни да подрже системе бродске и пристанишне сигурности и напредне системе поморске безбедности;

2 да студије из *позива ИТУ-Р* 1 требало би да укључе примењивост спектрално ефикасних технологија, и студије о дељењу и компатибилности са службама које већ имају намене у потенцијалном спектру за системе сигурности бродова и безбедности пристаништа,

*позива*

све чланове Сектора за радиокомуникације, Међународну поморску организацију (ИМО), Међународну организацију за стандардизацију (ISO), Међународну електротехничку комисију (IEC), и међународно удружење IALA да дају допринос овим студијама,

*налаже Генералном секретару*

да стави ову Резолуцију на увид ИМО, ISO, IEC, IALA и осталим заинтересованим међународним и регионалним организацијама.

**MOD** COM4/318/7 (B11/329/39) (R6/410/73)

### РЕЗОЛУЦИЈА 413 (Rev.WRC-07)

#### **Коришћење опсега 108-117.975 MHz од стране ваздухопловне мобилне (R) службе**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) за ваздухопловну радионавигациону службу (ARNS);

b) текуће захтеве FM радиодифузних система који раде у фреквенцијском опсегу 87-108 MHz;

- c) да су дигитални радиодифузни системи за звук способни да раде у фреквенцијском опсегу 87-108 MHz како је описано у Препоруци ITU-R BS.1114;
- d) потребу ваздухопловне заједнице да се омогући додатни сервис унапређењем навигационих система кроз Радиокомуникациону везу за пренос података ;
- e) потребу радиодифузне заједнице да омогући дигиталне земаљске радиодифузне сервисе за звук;
- f) да је ова намена урађена на овој Конференцији знајући да су студије у току, с обзиром на техничке карактеристике, критеријуме дељења и могућности дељења;
- g) потребу ваздухопловне заједнице да омогући додатне сервисе за радиокомуникације, везано за безбедност и регуларност лета, у опсегу 112-117.975 MHz;
- h) да је ова Конференција модификовала намену опсега 112-117.975 MHz за ваздухопловне мобилне (R) службе (AM(R)S) да би се учинио доступан тај фреквенцијски опсег за нове AM(R)S системе, и тиме омогућила даљи технички напредак, инвестиције и постављања;
- i) да фреквенцијски опсег 117.975-137 MHz тренутно намењен за AM(R)S достиже засићење у неким подручјима у свету;
- j) да та нова намена има намеру да подржи увођење примена и концепата у вођењу ваздушног саобраћаја који су интензивнији у погледу количине података, и који могу подржати везе за пренос података којима иду ваздухопловни подаци критични за безбедност;
- k) да су потребне додатне информације о новим технологијама које ће да се користе, величину потребног спектра, карактеристике и могућности/услови дељења, и због тога студије се хитно захтевају о томе који ће AM(R)S системи да се користе, величину потребног спектра, карактеристике и услови за дељење са ARNS системима,

*препознајући*

- a) да предност треба да се да ARNS раду у фреквенцијском опсегу 108-117.975 MHz;
- b) да, у складу са Анексом 10 Конвенције Међународне организације за цивилно ваздухопловство (ICAO) о међународном цивилном ваздухопловству, сви ваздухопловни системи морају задовољавати стандарде и препоручену праксу (SARPs) захтева;
- c) да у оквиру ITU-R, критеријум компатибилности између FM радиодифузних система који раде у фреквенцијском опсегу 87-108 MHz и ARNS који раде у фреквенцијском опсегу 108-117.975 MHz већ постоје, како је напоменуто у најновијој верзији Препоруке ITU-R SM.1009;
- d) да су сва питања компатибилности између FM радиодифузних система и ICAO стандардних система на земљи за емитовање радионавигационих сателитских сигнала за диференцијалну корекцију такође поменута,

*констатујући*

- a) да ваздухопловни системи конвергирају ка радиокомуникационој вези за пренос података да би подржали ваздухопловну навигацију и надзорне функције, што треба да буде прилагођено у постојећи радио спектар;
- b) да неке администрације планирају да уведу дигитални радиодифузни систем за звук у фреквенцијском опсегу од око 87-108 MHz;

c) да никакав критеријум компатибилности тренутно не постоји између FM радиодифузног система који ради у фреквенцијском опсегу 87-108 MHz и планираних додатних ваздухопловних система у суседном опсегу 108-117.975 MHz користећи авион за емитовање;

d) да никакав критеријум компатибилности тренутно не постоји између дигиталних радиодифузног система за звук способних да раде у фреквенцијском опсегу од око 87-108 MHz и ваздухопловних служби у опсегу 108-117.975 MHz,

*одлучује*

1 да било који системи ваздухопловне мобилне (R) службе који раде у опсегу 108-117.975 MHz не смеју да узрокују штетне сметње, нити да траже заштиту због ARNS система који раде у складу с међународним стандардима за ваздухопловство;

2 да било који AM(R)S системи планирани да раде у фреквенцијском опсегу 108-117.975 MHz морају, као минимум, задовољавати FM захтеве радиодифузног имунитета садржане у Анексу 10 од ИКАО Конвенције о Међународном цивилном ваздухопловству за постојеће ваздухопловне радионавигационе системе који раде у том фреквенцијском опсегу;

3 да AM(R)S системи који раде у опсегу 108-117.975 MHz не смеју постављати додатна ограничења радиодифузној служби нити узроковати штетне сметње станицама које раде у опсезима намењеним за радиодифузну службу у фреквенцијском опсегу 87-108 MHz и Но. 5.43 се не примењује на системе поменуте у *препознајућу d*);

4 да фреквенције испод 112 MHz не могу бити коришћене за AM(R)S системе изузимајући ИКАО системе назначене у *препознајућу d*);

5 да било који AM(R)S који ради у фреквенцијском опсегу 108-117.975 MHz треба да задовољава SARPs захтеве објављене у Анексу 10 од ИКАО Конвенције о Међународном цивилном ваздухопловству;

6 да би WRC-11 требао узети у обзир, на основу резултата ITU-R студија споменутих под *позива ITU-R*, сваку наредну регулаторну мету да олакша увођење нових AM(R)S система,

*позива ITU-R*

1 да проучи сва питања у вези са компатибилношћу између радиодифузних и AM(R) служби која могу настати код увођења AM(R)S система у опсегу 112-117.975 MHz, и да развије нове или ревидиране ITU-R Препоруке како одговара;

2 да проучи сва питања у вези са компатибилношћу између радиодифузних и AM(R) служби у опсегу 108-117.975 MHz која могу настати код увођења одговарајућег дигиталног радиодифузног система звука, описано у Препоруци ITU-R BS.1114, и да развије нове или ревидиране ITU-R Препоруке како одговара;

3 да извести WRC-11 о резултатима тих студија,

*налаже Генералном секретару*

да скрене пажњу ИКАО на ову Резолуцију.

**ADD** COM4/296/7 (B9/305/59) (R5/336/9)

## РЕЗОЛУЦИЈА 416 (WRC-07)

### Коришћење опсега 4 400-4 940 MHz и 5 925-6 700 MHz од једне ваздухопловне мобилне телеметријске примене у мобилној служби

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да постоји потреба да се омогући глобални спектар мобилној служби за широкопојасне ваздухопловне мобилне телеметријске (АМТ) системе;
- b) да се воде студије у ИТУ-Р које се тичу дељења и компатибилности АМТ за тестирање лета са осталим службама у опсезима 4 400-4 940 MHz и 5 925-6 700 MHz;
- c) да на основу резултата тих студија, у опсезима 4 400-4 940 MHz и 5 925-6 700 MHz, техничке и оперативне мере примењене на АМТ у сврху тестирања лета олакшавају дељење са осталим службама и применама у тим опсезима;
- d) да је ефикасност спектра побољшана у ситуацијама где нове примене могу бити сагласно имплементоване у јако окупираним опсезима;
- e) да је широка распрострањеност земаљских станица фиксне сателитске службе (FSS) у опсегу 5 925-6 425 MHz и у мањем обиму у опсегу 6 425-6 700 MHz;
- f) да је широка распрострањеност станица фиксне службе у опсезима 4 400-4 940 MHz и 5 925-6 700 MHz;
- g) да на извесним локацијама, доступност спектра биће лимитирана због његовог екстензивног коришћења од стране разних служби, док на другим локацијама, то не мора бити случај;
- h) да постоје различите технике које могу побољшати дељење између ко-примарних служби, као што је фреквенцијско или географско одвајање;
- i) да је WRC-07 усвојио Nos. **5.4B01** и **5.4B02**,

*препознајући*

- a) да су опсежи 4 400-4 500 MHz и 4 800-4 940 MHz намењени фиксним и мобилним службама на примарној основи;
- b) да су опсежи 4 500-4 800 MHz намењени фиксној, фиксној сателитској (свемир-Земља), и мобилним службама на ко-примарној основи;
- c) да су опсежи 4 800-4 990 MHz намењени радио астрономској служби на секундарној основи широм света и да се No. **5.149** примењује;
- d) да су опсежи 4 825-4 835 MHz из *препознајући c)* намењени на примарној основи радио астрономији у Аргентини, Аустралији и Канади (види No. **5.443**);
- e) да се No. **5.442** примењује на АМТ за операције тестирање лета у опсегу 4 825-4 835 MHz;
- f) да је опсег 5 925-6 700 MHz намењен фиксној, фиксној сателитској (Земља-свемир), и мобилним службама на ко-примарној основи;
- g) да коришћење опсега 4 500-4 800 MHz (свемир-Земља) од стране FSS треба да је у сагласности са одредбама Додатка **30B** (види No. **5.441**);
- h) да одредбе за координацију земаљских и свемирских служби постоје у правилнику о радиокомуникацијама,

*одлучује*

1 да у опсезима 4 400-4 940 MHz и 5 925-6 700 MHz, администрације које ауторизују АМТ у сврху тестирања лета за Nos **5.4B01**, **5.442** и **5.4B02** треба да искористе следеће критеријуме:

- емисије ограничене на пренос од станица на летилицама, види No. **1.83**;
- у тим опсезима, АМТ у ваздухопловној мобилној служби не сматра се применом безбедносне службе као за No. **1.59**;
- највиша е.и.р. густина телеметријске предајне антене не треба да прелази  $-2.2 \text{ dB(W/MHz)}$ ;
- емисије ограничене на означена подручја тестирања лета, где су подручја за тестирање лета ваздушни простори које су администрације означиле за тестирање лета;
- у раду АМТ ваздухопловних станица планирано је у кругу 500 км територије једне администрације код које је опсег 4 825-4 835 MHz намењен радиоастрономији на примарној основи (види No. **5.443**), консултација са том администрацијом да се одлучи да ли су које специјалне мере потребне да се спречи интерференција њиховим радиоастрономским посматрањима;
- у опсезима 4 400-4 940 MHz и 5 925-6 700 MHz, билатерална координација предајне АМТ авионске станице у односу на пријемне фиксне и мобилне станице мора се извршити ако ће АМТ ваздухопловна станица радити у кругу 450 км од пријемних фиксних и мобилних станица друге администрације. Следећа процедура требало би да се користи да се установи да ли ће пријемник фиксне или мобилне службе у кругу 450 км у подручју тестирања лета примати прихватљив ниво интерференције:
  - да се установи да ли оса главног снопа антене примајуће фиксне или мобилне станице, изван удаљености од 450 км, пролази унутар 12 км означеног подручја које користе предајне ваздухопловне станице, где је та удаљеност мерена ортогонално од пројекције лука главне осе на површину Земље ка најближој граници пројекције подручја тестирања лета на површину Земље;
  - ако лук главног снопа не пресеца подручје испитивања лета или било коју тачку унутар 12 км од центра, интерференција би могла да се прихвати. Иначе, даље дискусије за билатералну координацију би биле потребне;

2 да администрације које ауторизују АМТ за Nos **5.4B01**, **5.442** и **5.4B02** у опсезима 4 400-4 940 MHz и 5 925-6 700 MHz захтевају употребу техничких и /или оперативних мера за АМТ где је потребно за олакшавање дељења са другим службама и применама у тим опсезима.

**ADD** COM4/318/10 (B11/329/43) (R6/410/78)

## РЕЗОЛУЦИЈА 417 (WRC-07)

### Коришћење опсега 960-1 164 MHz од ваздухопловне мобилне (R) службе

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је ова Конференција наменила опсег 960 до 1 164 MHz ваздухопловној мобилној (R) служби (AM(R)S) да би учинила доступним тај фреквенцијски опсег за нове AM(R)S системе, и на тај начин омогућити будући технички развој, инвестиције и размештај;
- b) текућу намену фреквенцијског опсега 960-1 164 MHz ваздухопловној радионавигационој служби (ARNS);
- c) коришћење опсега 960-1 215 MHz од ARNS је резервисано на светској основи за операције и развој помоћних ваздухопловних електронских уређаја за ваздушну навигацију и свако директно повезано постројење на земљи према No. **5.328**;
- d) да нове технологије треба да се развију да подрже комуникације и ваздушну навигацију, укључујући примене за ваздушно и земаљско надгледање;
- e) да те нове намене имају за циљ да подрже увођење примена и концепата у вођењу ваздушног саобраћаја који је интензиван у смислу преноса података и који би могле да подрже податковне везе које носе ваздухопловне податке критичне за безбедност;
- f) да у земљама излистаним у No. **5.312** фреквенцијски опсег 960-1 164 MHz такође користе системи у ARNS за које стандарди и препоручена пракса (SARPs) није била развијена нити публикована од стране Међународна организација за цивилно ваздухопловство (ICAO);
- g) да уз то фреквенцијски опсег 960-1 164 MHz се такође користи од не-ICAO система који раде у ARNS који имају карактеристике сличне онима као ICAO стандардна опрема за мерење удаљености;
- h) да је та намена урађена знајући да студије напредују с обзиром на техничке карактеристике, критеријуме дељења и могућности дељења;
- i) да фреквенцијски опсег 117.975-137 MHz тренутно намењен за AM(R)S, достиже zasiћење у неким подручјима у свету, тако да тај опсег не би био у стању да прихвати додатне медије - и пренос података на велике даљине;
- j) да су потребне додатне информације о новим технологијама које ће да се користе, осим AM(R)S система идентификованих у *узимајући у обзир c)*, количина потребног спектра, и карактеристике и могућности /услови дељења. Због тога, хитно су потребне студије на којим AM(R)S системима ће бити коришћење, количина потребног спектра и карактеристике и услови дељења са ARNS системима,

*препознајући*

- a) да предност мора бити дата ARNS раду у фреквенцијском опсегу 960-1 164 MHz;
- b) да Анекс 10 Конвенције ICAO садржи SARPs за ваздухопловне радионавигационе и радиокомуникационе системе коришћене од међународног цивилног ваздухопловства;
- c) да су сва питања компатибилности између ICAO (UAT) и других система који раде у истом фреквенцијском опсегу, искључујући систем идентификован у *узимајући у обзир f)*, адресирана;

d) да у фреквенцијском опсегу 1 024-1 164 MHz услови дељења су комплекснији него у опсегу 960-1 024 MHz,

*констатујући*

да искључујући систем идентификован у *констатујући c*), не постоје тренутно критеријуми компатибилности између AM(R)S система предложених за операције у фреквенцијском опсегу 960-1 164 MHz и постојећих ваздухопловних система у опсегу,

*одлучује*

1 да сваки AM(R)S систем који ради у фреквенцијском опсегу 960-1 164 MHz треба да задовољи SARPs захтеве публиковане у Анексу 10 од ICAO Конвенције о међународном цивилном ваздухопловству;

2 да сви AM(R)S системи који раде у опсгу 960-1 164 MHz не смеју да узрокују штетне сметње, нити да траже заштиту због тога, и не смеју да постављају ограничења на рад и планирани развој ваздухопловних радионавигационих система у истом опсегу;

3 да студије компатибилности између AM(R)S система који раде у опсегу 960-1 164 MHz и ARNS система у *узимајући у обзир f*) и *g*) треба да буду вођене да развију услове дељења да омогуће да су услови из *одлучује 2* задовољени, и да су ITU-R Препоруке развијене како треба;

4 да о резултату студија према *одлучује 3* треба да се извести WRC-11 и одлуку треба да прихвати WRC-11 да преиспита, ако треба, регулаторне провизије у *одлучује 2* узимајући у обзир захтеве безбедности од ARNS система идентификованих у *узимајући у обзир f*) и *g*) и потребу да се на глобалном нивоу олакша рад AM(R)S-а у складу са ICAO стандардима;

5 да фреквенције у опсегу 960-1 164 MHz не треба да користи AM(R)S систем, осим за AM(R)S систем идентификован у *препознајући c*), док сва потенцијална питања компатибилности са ARNS и, ако је потребно, радионавигационе сателитске службе (RNSS) у суседном опсегу буде решена, такође узимајући у обзир *препознајући d*),

*позива*

администрације и ICAO, у сврху вођења ITU-R студија споменутих у *одлучује 3* и *5*, да се обезбеде за ITU-R техничке и радне карактеристике система који су укључени,

*позива ITU-R*

1 да поведе студије у складу са *одлучује 3* и *5* о радним и техничким средствима да олакша дељење између AM(R)S система који раде у опсегу 960-1 164 MHz и ARNS система идентификованим у *имајући у виду f*) и *g*);

2 да поведе студије у складу са *одлучује 5* о радним и техничким средствима да олакша дељење између AM(R)S система који раде у опсегу 960-1 164 MHz и RNSS који раде у опсегу 1 164-1 215 MHz;

3 да извести о резултатима студија WRC-11,

*налаже Генералном секретару*

да стави ову Резолуцију на увид ICAO.

**ADD** COM4/380/9 (B17/404/69)

**РЕЗОЛУЦИЈА 418 (WRC-07)**

**Коришћење опсега 5 091-5 250 MHz од стране ваздухопловне мобилне службе за примене у телеметрији**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да постоји потреба да се обезбеди глобални спектар мобилној служби за широкопојасне ваздухопловне телеметријске системе;
- b) да је рад авионских станица предмет националних и међународних правила и регулативе;
- c) да је фреквенцијски опсег 5 030-5 150 MHz намењен ваздухопловној радионавигационој служби на примарној основи;
- d) да је намена опсега 5 091-5 250 MHz фиксној сателитској служби (Земља-свемир) ограничена на спојне везе не-геостационарних сателитских система у мобилној сателитској служби;
- e) да је опсег 5 000-5 150 MHz такође намењен ваздухопловној мобилној сателитској (R) служби на примарној основи, и предмет је споразума постигнутог под No. **9.21**;
- f) да је ова Конференција наменила опсег 5 091-5 150 MHz ваздухопловној мобилној служби на примарној основи према No. **5.4B03**;
- g) да је опсег 5 150-5 250 MHz такође намењен мобилној, осим ваздухопловне мобилне, служби на примарној основи;
- h) да је ова Конференција додатно наменила опсег 5 150-5 250 MHz ваздухопловној мобилној служби на примарној основи, према No. **5.4B04**;
- i) да се ваздухопловна мобилна телеметрија (АМТ) у ваздухопловној мобилној служби не сматра федном применом безбедносне службе како је дефинисано у No. **1.59**,

*констатујући*

- a) да резултати студија вођених у складу са Резолуцијом **230 (Rev.WRC-03)** показују флексибилност коришћења опсега 5 091-5 250 MHz за ваздухопловну мобилну службу на примарној бази, ограничено на емисије телеметрије за тестирање лета, под извесним условима и аранжманима;
- b) да би идентификација од ИТУ-R техничких и радних захтева за авионске станице које раде у опсегу 5 091-5 250 MHz требала да спречи неприхватљиву интерференцију другим службама;
- c) да опсег 5 091-5 150 MHz треба да се користи за рад међународног стандардног микроталасног система за слетање (MLS) за прецизно прилажење и слетање;
- d) да MLS може да се заштити кроз имплементацију једне адекватне одвајајуће удаљености између предајника ваздухопловне службе да подржи телеметријске и MLS примаоце;
- e) да су ИТУ-R студије генерисале методе, описане у Извештају ИТУ-R М.2118, за осигуравање компатибилности и дељења између ваздухопловне мобилне службе и фиксне сателитске службе радећи у опсегу 5 091-5 250 MHz, што резултује у интерференцији од не

више од 1%  $\Delta T_{satellite}/T_{satellite}$  од АМТ емисије авионске станице ка пријемницима свемирских бродова фиксне сателитске службе;

f) да је метод за олакшавање дељења између MLS и ваздухопловне мобилне службе садржан у Препоруци ИТУ-Р М.1829;

g) да Препорука ИТУ-Р М.1828 омогућава техничке и радне захтеве за авионске станице ваздухопловне мобилне службе, ограничене на емисије за телеметрију и тестирање лета;

h) да су ИТУ-Р студије компатибилности изведене за АМТ, ограничене на тестирање лета; такве примене служе за тестирање авиона за време некомерцијалних летова у сврху развоја, процене и/или сертификавања авиона у ваздушном простору означеном од администрација за ту сврху,

*препознајући*

a) да предност треба дати MLS у складу са No. **5.444** у фреквенцијском опсегу 5 030-5 091 MHz;

b) да су студије изведене унутар ИТУ-Р у погледу дељења и компатибилности АМТ за тестирање лета са осталим службама у опсегу 5 091-5 250 MHz;

c) да Резолуције **[COM4/4] (WRC-07)** и **[COM4/8] (WRC-07)** такође омогућују смернице за коришћење опсега 5 091-5 150 MHz од ваздухопловне мобилне службе,

*одлучује*

1 да администрације које су одабрале да имплементирају АМТ треба да ограниче АМТ примене на идентификоване у *констатујући h)* у опсегу 5 091-5 250 MHz, и треба да користе критеријуме постављене унапред у Анексу 1 ове Резолуције;

2 да pfd ограничења у §§ 3 и 4 Анекса 1 ове Резолуције која штите земаљске службе могу бити превазиђена на територији сваке земље чија администрација на то пристане,

*позива ИТУ-Р*

да настави проучавање услова и аранжмана прописаних у *констатујући a)*.

**ADD** COM4/380/10 (B17/404/70)

### АНЕКС 1 НА РЕЗОЛУЦИЈУ 418 (WRC-07)

1 Код имплементације ваздухопловне мобилне телеметрије (АМТ), администрације треба да искористе следеће критеријуме:

- лимит емисија само за оне од авионских станица (види No. **1.83**);
- рад ваздухопловних телеметријских система у оквиру опсега 5 091-5 150 MHz треба да буде координиран са администрацијама које воде микроталасне системе за слетање (MLS) и чија територија се налази унутар удаљености  $D$  од АМТ подручја лета, где је  $D$  одређено следећом једначином:

$$D = 43 + 10^{(127.55 - 20 \log(f) + E)/20}$$

Где је:

$D$ : раздвајајућа удаљеност (km) након које треба координација

$f$ : минимална фреквенција (MHz) коју користи АМТ систем

$E$ : вршна еквивалентна изотропска израчена густина снаге (dBW у 150 kHz) предајника на авиону.

2 За заштиту фиксне сателитске службе (FSS), телеметријска авионска станица у опсегу 5 091-5 250 MHz треба да буде управљана на такав начин да за један предајник авионске станице снага густине флуksа је лимитирана на  $-198.9 \text{ dB(W/(m}^2 \cdot \text{Hz))}$  у FSS сателитској орбити за свемирски брод користећи пријемне антене покривања Земље. Такав pfd лимит по авионском предајнику изведен је под претпоставком да је FSS сателитска орбита на 1 414 km висине и да тотал од 21 ко-фреквенцијских АМТ предајника раде конкурентно унутар видног поља FSS сателита. У случају мање од 21 АМТ ко-фреквенцијски предајници који раде истовремено у видном пољу сателита, предајна снага треба бити прилагођена тако да не прелази здружени pfd на сателиту од  $-185.7 \text{ dB(W/(m}^2 \cdot \text{Hz))}$ , што одговара  $\Delta T_{\text{satellite}}/T_{\text{satellite}}$  од 1%.

3 За заштиту мобилне службе у 5 150-5 250 MHz фреквенцијском опсегу, максимални pfd произведен на површини Земље од емисија из једне авионске станице једног система ваздухопловне мобилне службе, ограничено на емисије телеметрије за тестирање лета, не треба да пређе:  $-79.4 \text{ dB(W/(m}^2 \cdot 20 \text{ MHz))} - G_r(\theta)$ .

$G_r(\theta)$  представља појачање пријемне антене мобилне службе према елевационом углу  $\theta$  и дефинише се на следећи начин:

Бежични приступ систему елевације антенског снопа

Елевациони угао, $\theta$ (степени)	Појачање $G_r(\theta)$ (dBi)
$45 < \theta \leq 90$	-4
$35 < \theta \leq 45$	-3
$0 < \theta \leq 35$	0
$-15 < \theta \leq 0$	-1
$-30 < \theta \leq -15$	-4
$-60 < \theta \leq -30$	-6
$-90 < \theta \leq -60$	-5

4 За заштиту ваздухопловне мобилне (R) службе (АМ(R)S) у фреквенцијском опсегу 5 091-5 150 MHz, максимална pfd произведена на површини Земље, где АМ(R)S може бити постављен у складу са No. **5.4B03**, од емисија од једне авионске станице једног система ваздухопловне мобилне службе, ограничено на емисије телеметрије за тестирање лета, не треба да пређе:  $-89.4 \text{ dB(W/(m}^2 \cdot 20 \text{ MHz))} - G_r(\theta)$ .

$G_r(\theta)$  представља појачање пријемне антене мобилне службе према елевационом углу  $\theta$  и дефинише се на следећи начин:

$$G_r(\theta) = \max[G_1(\theta), G_2(\theta)]$$

$$G_1(\theta) = 6 - 12 \left( \frac{\theta}{27} \right)^2$$

$$G_2(\theta) = -6 + 10 \log \left[ \left( \max \left\{ \frac{|\theta|}{27}, 1 \right\} \right)^{-1.5} + 0.7 \right]$$

Где је:

$G(\theta)$ : појачање у односу на изотропску антену (dBi)

$\theta$ : апсолутна вредност елевационог угла у односу на угао максималног појачања (стуђеви).

**ADD** COM4/380/11 (B17/404/71)

**РЕЗОЛУЦИЈА 419 (WRC-07)**

**Разматрања коришћења опсега 5 091-5 150 MHz од ваздухопловне мобилне службе за извесне ваздухопловне примене**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) текућу намену опсега 5 091-5 150 MHz фиксној сателитској (FSS) (Земља-свемир), која је ограничена на спојне везе не-геостационарних сателитских система у мобилној сателитској служби;

b) текуће намене фреквенцијског опсега 5 000-5 150 MHz ваздухопловној мобилној сателитској (R) служби, према споразуму постигнутом под No. **9.21**, и ваздухопловној радионавигационој служби (ARNS);

c) да је ова Конференција наменила опсег 5 091-5 150 MHz ваздухопловној мобилној служби (AMS) на примарној основи, према No. **5.4B03**,

*препознајући*

a) да је предност дата микроталасном систему за слетање (MLS) у складу са No. **5.444** у фреквенцијском опсегу 5 030-5 091 MHz;

b) Резолуција **114 (Rev.WRC-03)** се примењује на услове дељења између FSS и ARNS у опсегу 5 091-5 150 MHz;

c) да Резолуције **418 (WRC-07)** и **748 (WRC-07)** такође дају смернице за коришћење опсега 5 091-5 150 MHz од AMS,

*констатујући*

- да Препорука ИТУ-R М.1827 описује методе за осигурање компатибилности између AMS за ваздухопловне сигурносне примене и FSS који ради у опсегу 5 091-5 150 MHz,

*одлучује*

1 да коришћење AMS за ваздухопловне примене описане горе у *констатујући* буде ограничено на станице које омогућују поверљиве радиокомуникације намењене системима који се користе за одговор на прекид у раду авиона који није био одобрен од одговарајућих ауторитета;

2 да AMS станице за такве ваздухопловне примене треба да буду дизајниране да раде у складу са Препоруком ИТУ-R М.1827;

3 да администрације, кад раде доделе, треба да осигурају да захтеви у вези ваздухопловне мобилне (R) службе имају предност над онима од AMS за примене описане горе у *одлучује* 1 и 2.

**ADD** COM4/380/12 (B17/404/72)

**РЕЗОЛУЦИЈА 420 (WRC-07)**

**Разматрања фреквенцијског опсега између 5 000 и 5 030 MHz за ваздухопловну мобилну (R) службу за површинске примене на аеродромима**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) текућу намену фреквенцијског опсега 5 000-5 010 MHz за ваздухопловну мобилну сателитску (R) службу (AMS(R)S), према споразуму постигнутом под No. **9.21**, ваздухопловна радионавигациона служба (ARNS) и радионавигациона сателитска служба (RNSS) (Земља-свемир);
- b) текућу намену фреквенцијског опсега 5 010-5 030 MHz за AMS(R)S, према споразуму постигнутом под No. **9.21**, ARNS и RNSS (свемир-Earth и свемир-свемир);
- c) текућу намену фреквенцијског опсега 4 990-5 000 MHz радио астрономској служби;
- d) да је ова Конференција додатно наменила опсег 5 091-5 150 MHz ваздухопловној мобилној (R) служби (AM(R)S), за коришћење од система који раде у складу са међународним ваздухопловним стандардима, ограничених на површинске примене на аеродромима;
- e) да је Међународна организација за цивилно ваздухопловство (ICAO) у процесу идентификације техничких и радних карактеристика таквих AM(R)S система, и да почетна процена придружених захтева за спектар износи приближно 60-100 MHz у неким деловима опсега 5 000-5 150 MHz (Извештај ITU-R M.2120);
- f) да опсег 5 091-5 150 MHz не може да омогући довољне капацитете спектра да задовољи захтев идентификован у *имајући у виду e*), и на тај начин додатни спектар може бити потребан;
- g) да су захтеви заштите за радио астрономску службу дати у Препоруци ITU-R RA.769,

*препознајући*

- a) да су RNSS намене у тим опсезима урађене на WRC-2000;
- b) да RNSS сада ради у смеру Земља-свемир у опсегу 5 000-5 010 MHz, и треба приступ свемир-Земља наменама у 5 010-5 030 MHz за службу и спојне везе на дужи рок;
- c) да су RNSS и AM(R)S системи планирани у 5 GHz опсегу још у развоју, и да техничке карактеристике и операциони параметри за те системе нису потпуно успостављени унутар ITU-R;
- d) да заштита RNSS и радио астрономске службе мора прво бити демонстрирана пре него додатне службе могу да добију намене у опсезима између 5 000-5 030 MHz;
- e) да тренутно нема договорених студија унутар ITU-R за AM(R)S да се осигура заштита за RNSS и радио астрономску службу,

*одлучује*

- 1 да ITU-R истражи приоритетно, AM(R)S захтеве за спектром за површинске примене у опсегу 5 GHz, да би се установило да ли могу бити задовољени у опсегу 5 091-5 150 MHz;
- 2 да ITU-R даље истражи, ако је потребно, изводљивост намене за AM(R)S за површинске примене на аеродромима, проучи техничка и радна питања у вези заштите за RNSS у опсезима између 5 000 и 5 030 MHz и за радиоастрономску службу у опсегу 4 990-5 000 MHz од AM(R)S, и развије одговарајуће Препоруке;
- 3 да WRC-11 узме у обзир резултате ових студија и предузме одговарајуће мере,

*позива*

- 1 администрације и ИКАО да доставе техничке и радне карактеристике за АМ(Р)S потребне за проучавање компатибилности, и да активно учествују у студијама;
- 2 администрације да доставе техничке и радне карактеристике и критеријуме заштите за RNSs потребне за проучавање компатибилности, и да активно учествују у студијама,

*налаже Генералном секретару*

да скрене пажњу на ову Резолуцију ИКАО.

**ADD** PLEN/408/2 (B24/419/5)

## РЕЗОЛУЦИЈА 421 (WRC-07)

### **Разматрање одговарајућих регулаторних одредби за рад система беспилотних летилица**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a)* да се очекује да глобално коришћење система беспилотних летилица (UAS) значајно порасте у блиској будућности;
- b)* да беспилотне летилице треба да раде беспрекорно са летилицама са пилотом у заједничком ваздушном простору и да постоји потреба да се обезбеди глобално хармонизовани спектар за ту сврху;
- c)* да за безбедан лет UAS треба поуздане комуникационе везе и придружени спектар, нарочито за удаљеног пилота да управља и контролише лет и да се преносе комуникације контроле ваздушног саобраћаја;
- d)* да за безбедан лет UAS неопходно треба напредне технике да открије и прати оближњи авион, терен и препреке за навигацију да се омогући да UAS избегне те објекте на начин еквивалентан оном како постиже летилица с посадом;
- e)* да су сателитске радиокомуникације део UAS операција, нарочито за пребацивање емитовања иза хоризонта и одржавања сигурности лета;
- f)* да постоји потреба за заштитом постојећих служби;
- g)* да неке примене UAS укључују емисије оптерећене великим протоком података од летилице до удаљених станица,

*препознајући*

- a)* да ће UAS радити у истом окружењу као летилице с посадом;
- b)* да ће неки UAS радити испод или изнад садашњег конвенционалног ваздушног саобраћаја летилица с посадом, укључујући у специфична окружења недоступна летилицама с посадом, као што су вулкани, урагани, загађене или озрачене зоне;
- c)* да су потребне студије да пруже основу за узимање у обзир регулаторних измена, укључујући додатне намене, да се прилагоде захтеви за спектар UAS конзистентно са заштитом садашњих служби;
- d)* да било која нова намена не би смела да поставља неоправдана ограничења службама којима су ти опсези намењени;

e) да ова тачка дневног реда није предвиђена да се користи за идентификацију опсега за коришћење UAS, већ само да предложи, ако је неопходно, нове намене или модификације постојећих намена да се прилагоде UAS,

*одлучује*

да WRC-11 узме у обзир, на основу резултата ITU-R студија:

1 захтеве спектра и могуће регулаторне мере, укључујући додатне намене, да подржи удаљене пилоте у командовању и контроли система беспилотних летилица и пребацивање комуникација контроле ваздушног саобраћаја, како је споменуто у *узимајући у обзир c*);

2 захтеве спектра и могуће регулаторне мере, укључујући додатне намене, да се подржи сигуран рад система беспилотних летилица што није покривено у *одлучује 1*, како је напоменуто у *узимајући у обзир d*),

*позива ITU-R*

1 да у време за WRC-11 поведе неопходне студије које воде до техничких, регулаторних и радних препорука Конференцији, омогућујући тој Конференцији да одлучи о одговарајућим наменама за рад UAS;

2 да би студије напоменуте у *позива ITU-R 1* требале да укључе и студије о дељењу и компатибилности са службама које већ имају намене у тим опсезима;

3 да сачини извештај или препоруку, према потреби, како да се прилагоде радиокомуникацијски захтеви за UAS оптерећење,

*позива такође*

ИКАО, IATA, администрације и друге организације заинтересоване да учествују у студијама назначеним у *позива ITU-R* горе,

*налаже Генералном секретару*

да скрене пажњу на ову Резолуцију ИКАО.

**MOD** COM4/380/74 (B19/413/25)

### РЕЗОЛУЦИЈА 517 (Rev.WRC-07)

#### **Увођење дигитално модулисаног емитовања у опсезима високе фреквенције 3 200 kHz и 26 100 kHz намењених за радиодифузну службу**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да су дигиталне технике уведене у многе постојеће службе;

b) да дигиталне технике дозвољавају ефективније коришћење фреквенцијског спектра него технике са два бочна опсега (DSB);

c) да дигиталне технике омогућују да се побољша квалитет на пријему;

d) релевантне делове Додатка **11** који се тичу спецификације дигиталног система у HF радиодифузној служби;

e) да је ITU-R, у својој Препоруци ITU-R BS.1514, препоручио карактеристике система за дигитални радиодифузни систем звука у радиодифузним опсезима испод 30 MHz;

- f) да се очекује од дигиталних модулацијских техника да омогуће начин да се постигне оптимални баланс између квалитета звука, техничке поузданости везе и ширине опсега;
- g) да дигитално модулисано емитовање може, у општем случају, омогућити много ефикасније покривање него амплитудно модулисано емитовање, коришћењем мање фреквенција истовремено и с мањом снагом;
- h) да би могло бити економски привлачно, користећи садашњу технологију, да се конвертују модерни конвенционални DSB радиодифузни системи на дигитални рад у складу са *узимајући у обзир d)*;
- i) да су неки DSB предајници коришћени у техникама дигиталне модулације без модификације предајника;
- j) да ИТУ-Р успоставља нова проучавања о развоју радиодифузије која користи дигитално модулисано емитовање у опсезима намењеним радиодифузној служби испод 30 MHz;
- k) да би могао бити потребан дуги период за увођење дигиталне радиодифузије, *узимајући у обзир колико кошта замена предајника и пријемника,*

*одлучује*

1 да треба да се подстиче рано увођење дигитално модулисаног емитовања како је препоручио ИТУ-Р у HF опсезима између 3 200 kHz и 26 100 kHz намењених за радиодифузну службу;

2 да дигитално модулисано емитовање мора да буде у складу са карактеристикама специфицираним у одговарајућим деловима Додатка **11**;

3 да кад год нека администрација замени неку DSB емисију са емисијом која користи технику дигиталне модулације, треба да осигура да ниво интерференције не буде већи него што је био код оригиналне DSB емисије, и треба да користи RF заштитне вредности специфициране у Резолуцији **543 (WRC-03)** и Препоруци **517 (Rev.WRC-03)**;

4 да наставак коришћења DSB емитовања може бити преиспитан на некој будућој светској конференцији о радиокомуникацијама на основу искустава администрација са увођењем дигиталних радиодифузних HF служби,

*налаже Директору Бироа за радиокомуникације*

да сакупи и проследи будућој компетентној светској конференцији о радиокомуникацијама позивајући се на *одлучује 4* последњу доступну компетирану статистику о глобалној дистрибуцији дигиталних HF радиодифузних пријемника и предајника,

*позива ИТУ-Р*

да настави властита истраживања о дигиталним техникама за HF радиодифузију с погледом на помоћ у развоју ове технологије за будуће коришћење,

*позива администрације*

да подстичу укључивање у сваку нову HF радиодифузију предајнике који су пуштени у рад после 1.1.2004. са могућностима да понуде дигиталну модулацију,

*такође позива администрације*

1 да помогну Директору Бироа за радиокомуникације достављајући релевантне статистичке податке и да учествују у ИТУ-Р студијама са тематиком везаном за развој и

увођење дигитално модулисаног емитовања у HF опсега између 3 200 kHz и 26 100 kHz намењене за радиодифузну службу;

2 да пружи обавештења произвођачима предајника и пријемника о најновијим резултатима релевантних ITU-R студија о спектрално ефикасним модулационим техникама подесним за коришћење на HF, као и информације напоменуте у *узимајући у обзир d) и e)*, и подстичу доступност јефтинијих дигиталних пријемника.

**MOD** COM6/340/1 (B14/365/45) (R7/411/220)

### РЕЗОЛУЦИЈА 525 (Rev.WRC-07)

#### **Увођење телевизијских система високе резолуције радиодифузне сателитске службе у опсегу 21.4-22.0 GHz у Регионима 1 и 3**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да је WARC-92 променио намену опсега 21.4-22.0 GHz у Регионима 1 и 3 у корист радиодифузне сателитске службе (BSS) да буде уведена после 1.4.2007.;

b) да су до 1.4.2007. постојеће службе које раде у опсегу 21.4-22.0 GHz у Регионима 1 и 3 у складу са Табелом намене фреквенција биле одређене да наставе рад без штетне сметње од других служби;

c) да након 1.4.2007. увођење телевизијских система високе резолуције (HDTV) у том опсегу треба да буде регулисано на флексибилан и подједнак за све начин до времена када ће будућа компетентна светска конференција о радиокомуникацијама усвојити коначне одредбе у ту сврху у складу са Резолуцијом **507 (Rev.WRC-03)**;

d) да су процедуре захтеване под условима предвиђеним горе у *узимајући у обзир c)*,  
*узимајући у обзир такође*

a) да су технике за ублажавање слабљења због кише за BSS већ развијене и дате у Препоруци ITU-R ВО.1659;

b) да је у опсегу 21.4-22.0 GHz у Регионима 1 и 3, референтна снага густине флукса за BSS развијена и дата у Препоруци ITU-R ВО.1776;

c) да је у опсегу 21.4-22.0 GHz у Регионима 1 и 3, развијен критеријум за дељење унутар службе за геостационарне BSS системе и дат у Препоруци ITU-R ВО.1785;

d) да су у опсегу 21.4-22.0 GHz у Регионима 1 и 3, развијени системски параметри за BSS између 17.3 GHz и 42.5 GHz и придружене спојне везе и дате у Извештају ITU-R ВО.2071,

*констатујући*

a) да се Препорука ITU-R ВТ.1201 бави екстремно високим резолуцијама слике (EHRI);

b) да Препорука ITU-R ВТ.1769 садржи вредности параметара за растућу хијерархију дигиталних формата слике за велике екране за производњу и размену међународних програма;

c) да, у будућим BSS системима у опсегу 21.4-22.0 GHz, HDTV примене могу да укључе такве EHRI примене какве су приказане у Извештају ITU-R ВТ.2042,

*препознајући*

да би могле постојати неке сателитске службе које су увеле у рад HDTV системе у овом опсегу пре 1.4.2007. без утицаја на функционисање постојећих служби,

*одлучује*

да усвоји привремене процедуре садржане у Анексу на овај документ,

*позива све администрације*

да се усагласе са горњим процедурама,

*налаже Бироу за радиокомуникације*

да примени горње процедуре.

## АНЕКС НА РЕЗОЛУЦИЈУ 525 (Rev.WRC-07)

### **Привремене процедуре за увођење система радиодифузне сателитске службе (HDTV) у опсегу 21.4-22.0 GHz у Регионима 1 и 3**

#### **Секција I – Опште одредбе**

1 Све службе осим радиодифузне сателитске службе (BSS) у опсегу 21.4-22.0 GHz у Регионима 1 и 3, које раде у складу са Табелом намена фреквенција могу да раде ако не узрокују штетне сметње BSS (HDTV) системима нити траже заштиту од тих система. Треба да се разуме да увођење у рад неког BSS (HDTV) система у опсегу 21.4-22.0 GHz у Регионима 1 и 3 треба да буде регулисано једном привременом процедуром на флексибилан и подједнак за све начин до датума о коме ће одлучити WRC-11.

#### **Секција II – Привремене процедуре које се односе на BSS (HDTV) системе**

2 У сврху увођења и рада BSS (HDTV) система у опсегу 21.4-22.0 GHz у Регионима 1 и 3 пре него следећа конференција донесе одлуке о коначним процедурама, све релевантне одредбе из Чланова **9** до **14** осим No. **9.11** треба да се примењују.

3 Администрације требају, до крајњих могућности, тражити начин да осигурају да BSS (HDTV) системи у раду уведени у опсегу 21.4-22.0 GHz у Регионима 1 и 3 имају карактеристике које узимају у обзир студије ITU-R-а за припрему WRC-11.

**MOD** COM5/307/32 (B11/329/41) (R6/410/75)

## РЕЗОЛУЦИЈА 547 (Rev.WRC-07)

### **Модификација колоне “Примедбе” у Табелама из Члана 9А Додатка 30А и Члана 11 Додатка 30**

#### **Правилника о радиокомуникацијама**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

*a)* да је ова Конференција модификовала колоне “Примедбе” у Табелама из Члана 9А Додатка **30А** и Члана 11 Додатка **30** на основу резултата студија Бироа за радиокомуникације;

*b)* да је ова Конференција модификовала Табеле, укључене у Члан 9А Додатка **30А** и Члана 11 Додатка **30**, које специфицирају дотакнуте мреже или оне које их дотичу, земаљске станице или снопове администрација, на основу резултата студија Бироа за радиокомуникације;

*c)* да би било добро да се модификују Табеле поменуте у *узимајући у обзир b)* да се одразе промене у статусу мрежа фиксне сателитске службе и модификације карактеристика, садржаних у овим Табелама,

*препознајући*

*a)* да интегритет Плана Региона 2 и његове пратеће одредбе мора бити сачуван;

*b)* да компатибилност између радиодифузне сателитске службе (BSS) у Регионима 1 и 3 и других служби у сва три Региона мора бити осигурана,

*одлучује*

да, у сврху смањења броја дотакнутих и оних који дотичу администрација или мрежа, Биро ће водити захтеване анализе пратећи све промене у карактеристикама и свако изостављање намене садржано у Табелама 1А и 1В Члана 9А Додатка **30А** и у Табелама 2, 3 и 4 Члана 11 Додатка **30**,

*налаже Директору Бироа за радиокомуникације*

да извести WRC-11 и наредне светске конференције о радиокомуникацијама о резултатима примене ове Резолуције, у погледу модификације колона “Примедбе” у Табелама Члана 9А Додатка **30А** и Члана 11 Додатка **30** као и табеле, садржане у истим Члановима, које специфицирају дотакнуте или оне који их дотичу мреже, земаљске станице или снопове администрација.

**ADD** COM4/211/6 (B3/224/36) (R2/266/25)

#### РЕЗОЛУЦИЈА 549 (WRC-07)

### Коришћење фреквенцијског опсега 620-790 MHz за постојеће доделе станицама радиодифузне сателитске службе

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

*a)* да је регионална Конференција о радиокомуникацијама (Женева, 2006) (RRC-06) усвојила је један Споразум и придружене Планове за дигиталну земаљску радиодифузију за Регион 1, осим Монголије, и Исламске Републике Ирана, у фреквенцијским опсезима 174-230 MHz и 470-862 MHz;

*b)* да је велик број најава поднесен Бироу за радиокомуникације за сателитске системе и мреже у опсегу 620-790 MHz под No. **5.311** Плана радиокомуникација (Издање 2004);

*c)* да многе администрације имају велику инфраструктуру за предају и пријем аналогних и дигиталних телевизијских сигнала између 620 MHz и 790 MHz;

*d)* да је потребно да се заштите земаљске службе као што је земаљска телевизијска радиодифузија, фиксне, мобилне и ваздухопловне радионавигационе службе у опсегу 620-790 MHz (види такође Nos. **5.293**, **5.300**, **5.309** и **5.312**);

*e)* да као резултат прелаза са аналогне на дигиталну земаљску телевизијску радиодифузију, неке земље планирају да учине доступним делове тог опсега за примене у мобилној служби,

*препознајући*

- a) да су у сагласности са No. **5.311**, две фреквенцијске доделе BSS станицама, “STATSIONAR-T” и “STATSIONAR-T2”, у опсегу 620-790 MHz објављене и дане на коришћење и да њихов датум давања на коришћење је потврђен пре 5.07.2003.;
- b) да је ова Конференција обрисала No. **5.311**, у светлу захтева за заштиту земаљских телевизијских система и других земаљских система споменутим у *узимајући у обзир a)* до e) горе;
- c) да, према записима Бироа, није било жалби на било какве штетне сметње на те две доделе, нити је тражена заштита за њих од земаљских телевизијских система било које администрације;
- d) да, Резолуцијом 1 (RRC-06) о радиодифузној сателитској служби у опсегу 620-790 MHz, RRC-06 *одлучује да позове Светску конференцију о радиокомуникацијама 2007* “да се предузму потребне и неопходне мере да се ефективно заштите радиодифузни Планови усвојени од RRC-06 и њихове наредне еволуције од GSO-BSS и/или не-GSO BSS мрежа система који нису пуштени коришћење пре 5.07.2003.”,

*препознајући такође*

да постоји потреба да се ауторизују те две фреквенцијске доделе BSS станицама да наставе своје операције у омогућавању радиодифузне сателитске службе у њеним намераваним подручјима,

*одлучује*

- 1 да фреквенцијске доделе BSS станицама, “STATSIONAR-T” и “STATSIONAR-T2”, како је описано у *препознајући a)* и записано у MIFR са повољним налазом, треба дозволити наставак рада у периоду важења дотичних додела ако тако одлуче обавештене администрације;
- 2 да подношење фреквенцијских додела које се односе на радиодифузну сателитску службу у опсегу 620-790 MHz, које је примио Биро за радиокомуникације под Члановима **9** и/или **11**, као што може бити случај, другачијих од оних из *одлучује 1*, треба да буде враћено администрацији која их је поднела,

*налаже се Директору Бироа за радиокомуникације*

да имплементује ову Резолуцију.

**ADD** COM4/380/77 (B19/413/28)

**РЕЗОЛУЦИЈА 550 (WRC-07)**

**Информације које се односе на високофреквенцијску радиодифузну службу**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је ова Конференција прегледала случај за олакшавање загушења у извесним HF опсезима намењеним радиодифузној служби;
- b) да је ова Конференција одлучила да одржава садашњу Табелу намене фреквенција у HF опсезима, у погледу брзог развоја и коришћена опсега од свих служби;
- c) да, као део генералне транзиције, односно удаљавања од аналогних емисионих система, дигитална модулација се уводи у HF радиодифузни опсег;

d) да заједно са другим службама које користе HF опсеге, радиодифузна служба има сталну потребу да преиспитује ефективност њеног коришћења спектра,

*констатујући*

да се Резолуција **517 (Rev.WRC-07)** бави увођењем дигитално модулисаних емисија у HF опсегу намењеном радиодифузној служби,

*констатујући такође*

да је ITU-R Студијска група 6 припремила широки извештај, именован Извештај ITU-R BS.2105 “Информације које се односе на HF радиодифузну службу”,

*одлучује да позове ITU-R*

да настави студије о HF радиодифузији узимајући у обзир:

- техничке и радне факторе,
- дигиталне емисије, укључујући како ће увођење тих емисија утицати на HF радиодифузне захтеве и рад,

*позива администрације и чланове сектора*

да активно учествују у горепоменутом студијама дајући допринос за ITU-R.

**ADD** PLEN/408/9 (B24/419/10)

### РЕЗОЛУЦИЈА 551 (WRC-07)

#### **Коришћење опсега 21.4-22 GHz за радиодифузну сателитску службу и придружених опсега спојних веза у Регионима 1 и 3**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да је WARC-92 наменио опсег 21.4-22.0 GHz у Регионима 1 и 3 радиодифузној сателитској служби и намена је ступила на снагу 1.4.2007.;

b) да после 1.4.2007. увођење BSS (HDTV) система у том опсегу требало би да буде регулисано на флексибилан и равноправан начин до времена кад будућа компетентна светска конференција о радиокомуникацијама усвоји дефинитивне одредбе у ту сврху у складу са Резолуцијом **507 (Rev.WRC-03)**;

c) да је привремено коришћење тог опсега од радиодифузне сателитске службе предмет одредби Резолуције **525 (Rev.WRC-07)**;

d) да будући BSS системи у опсегу 21.4-22.0 GHz могу да омогуће примене изузетно високе резолуције слике (EHRI) како је показано у Препоруци ITU-R BT.1201 и Извештају ITU-R BT.2042;

e) да је, на основу својих студија, ITU-R успоставио основне радне параметре BSS система у том опсегу, укључујући методе превазилажења слабљења у земљама са много кише (Препорука ITU-R VO.1659 и Извештај ITU-R VO.2071);

f) да је у опсегу 21.4-22.0 GHz у Регионима 1 и 3, референтна снага густине флуksа за BSS развијена и дата у Препоруци ITU-R VO.1776;

g) да су у опсегу 21.4-22.0 GHz у Регионима 1 и 3, критеријуми дељења међу службама за GSO BSS системе развијени и дати у Препоруци ITU-R VO.1785;

- h)* да планирање *a priori* није неопходно и требало би га избегавати јер замрзава приступ, према технолошким претпоставкама насталих у време планирања, и тако спречава флексибилно коришћење које узима у обзир захтеве реалног света и технички развој;
- i)* да су привремени аранжмани за коришћење опсега на принципу први дошао први послужен ;
- j)* да је потребна наредна студија за употребу спектра у опсегу 21.4-22.0 GHz у Регионима 1 и 3,

*констатујући*

да Резолуција **525 (Rev.WRC-07)** идентификује привремене процедуре за увођење HDTV BSS система у опсегу 21.4-22 GHz у Регионима 1 и 3,

*одлучује*

1 да ИТУ-Р настави техничке и регулаторне студије о хармонизацији коришћења спектра, укључујући методологије за планирање, координацијске процедуре или друге процедуре, и BSS технологије, у припремама за WRC-11, у опсегу 21.4-22 GHz и опсеге за придружене спојне везе у Регионима 1 и 3, водећи рачуна о *узимајући у обзир h) и i)*;

2 да WRC-11 прегледа резултате студија и одлучи о коришћењу опсега 21.4-22 GHz и придружених опсега за спојне везе у Регионима 1 и 3,

*позива администрације*

да учествују у ИТУ-Р студијама дајући допринос.

**MOD** COM6/341/23 (B14/365/46) (R7/411/221)

### РЕЗОЛУЦИЈА 609 (Rev.WRC-07)

## **Заштита система ваздухопловне радионавигационе службе од еквивалентне снаге густине флуksа коју производе мреже радионавигационе сателитске службе и системи у фреквенцијском опсегу 1 164-1 215 MHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

*d)* да је WRC-03 одредио да заштита ARNS од штетних сметњи може да се постигне ако вредност еквивалентне  $pfd$  ( $epfd$ ) произведена од свих свемирских станица свих RNSS (свемир-Земља) система у 1 164-1 215 MHz опсегу не прелази ниво од  $-121.5 \text{ dB(W/m}^2\text{)}$  у сваком 1 MHz опсегу;

*i)* да је WRC-03 одлучио да примени одредбе о координацији из Nos. **9.12**, **9.12A** и **9.13** на RNSS системе и мреже за које су комплетне информације о координацији и обавештавању, како треба, примљене у Биро после 1.1.2005.,

*одлучује*

5 да би се дозволило да више RNSS система раде у фреквенцијском опсегу 1 164-1 215 MHz, ни једном појединачном RNSS систему не сме бити дозвољено да користи целокупну допуштену интерференцију горе специфицирану у *одлучује* 1 у сваком 1 MHz из 1 164-1 215 MHz опсега (види Препоруке **608 (Rev.WRC-07)**);

8 да администрације које учествују на консултационом састанку треба да означе једну администрацију која ће да обавести Биро о свим скупним одлукама о дељењу урађеним у горепоменутој примени у *одлучује 2*, без обзира да ли такве одлуке резултују у било каквој модификацији публикованих карактеристика њихових система или мрежа респективно (види Препоруку **608 (Rev.WRC-07)**);

9 администрације где раде или је у плану да раде ARNS системи у опсегу 1 164-1 215 MHz треба да учествују, ако одговара, у дискусијама и одлучивањима у вези *одлучује*;

10 да методологија и референтни најгори случај за ARNS антену система садржан у Препоруци ITU-R M.1642-2 мора бити коришћен од администрација за израчунавање скупног *epfd* произведеног од свих свемирских станица у оквиру свих RNSS система у опсегу 1 164-1 215 MHz,

*налаже Бироу за радиокомуникације*

1 да суделује у консултационим састанцима споменутих под *одлучује 6* и да прати пажљиво резултате *epfd* израчунавања поменутих у *одлучује 1*;

2 да установи да ли је *pdf* ниво у *препоручује 1* из Препоруке **608 (Rev.WRC-07)** премашен од било које свемирске станице и да извести о томе шта је установио учеснике консултационог скупа;

3 да публикује у Међународном циркулару информација о фреквенцијама (BR IFIC), информације које се односе на *одлучује 8* и *налаже Бироу за радиокомуникације 2*,

...

#### АНЕКС НА РЕЗОЛУЦИЈУ 609 (Rev.WRC-07)

#### Критеријуми за примену Резолуције 609 (Rev.WRC-07)

...

**ADD** PLEN/408/10 (B24/419/11)

#### РЕЗОЛУЦИЈА 611 (WRC-07)

#### Коришћење дела VHF опсега за радиолокациону службу

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a)* да је опсег испод 300 MHz примарно намењен земаљским службама;
- b)* да радиолокациона служба нема глобалне примарне намене у опсегу 30-300 MHz;
- c)* да је фреквенцијски опсег 138-144 MHz намењен радиолокационој служби на примарној основи у региону 2, фреквенцијски опсег 216-225 MHz је намењен радиолокационој служби на секундарној основи у Региону 2, и фреквенцијски опсег 223-230 MHz је такође намењен за радиолокациону службу на секундарној основи у региону 3;
- d)* текуће регионалне намене радиолокационој служби се користе на бази дељења са другим службама, нарочито са фиксном и мобилном службама;
- e)* да због екстензивног развоја радиодифузне службе у фреквенцијским опсезима 174-230 MHz и 470-862 MHz постоји растућа потреба за прилагођењем постојеће радиолокационе службе која ради у тим опсезима на другачије фреквенцијске опсеге, истовремено побољшавајући технике смањења интерференције и увођења модерних технологија;

- f) да се јављају потребе за повећаном резолуцијом и распоном за рад радара;
- g) да се пропација VHF радиоталаса одвија добро кроз јоносферу, омогућајући на тај начин примене детектовања различитих објеката у свемиру укључујући удаљено детектовање у свемиру и детекцију астероида, као и за дефинисање позиција природних и вештачких Земаљских сателита, путем радиолокационих система са Земље;
- h) да Препорука ИТУ-Р М.1372 идентификује технике смањења интерференције које побољшавају компатибилност између радарских система;
- i) да за рад радиолокације иза хоризонта у VHF фреквенцијски распон технички није изводљив;
- j) да су текуће потребе за радиолокационе системе за детекцију свемирских објеката са земаљских локација у делу опсега 30-300 MHz базиране на системима ширине опсега од 2 MHz, међутим намене са већим фреквенцијским распоном могу омогућити флексибилност и олакшати дељење са осталим службама;
- k) да, за обезбеђивање адекватног спектра за нове радарске системе, постоји потреба за наменом на примарној основи глобално додатног спектра у фреквенцијском распону 30-300 MHz,

*препознајући*

- a) да је важно да се обезбеди да се радарима за радиолокацију може управљати сагласно са постојећим примарним службама које имају намене у деловима VHF опсега;
- b) да је ИТУ-Р иницирао студије као одговор на ИТУ-Р Питање 237/8 о карактеристикама и критеријумима заштите за радаре који раде у радиолокационој служби у фреквенцијском опсегу 30-300 MHz,

*одлучује*

- 1 да узме у обзир на WRC-11 примарне намене радиолокационој служби у деловима опсега 30-300 MHz за имплементацију нових примена у радиолокационој служби, са не већим опсегом од 2 MHz, узимајући у обзир резултате ИТУ-Р студија;
- 2 да увођење нових система у радиолокациону службу треба избегавати у фреквенцијским опсезима 156.4875-156.8375 MHz и 161.9625-162.0375 MHz, који се користе за примене код несрећа и безбедност у поморској мобилној служби,

*позива ИТУ-Р*

- 1 да настави да проучава, као хитну ствар, техничке карактеристике, критеријуме заштите, и друге факторе, да осигура да радиолокациони системи могу да раде компатибилно са системима који раде у складу са Табелом у служби у опсегу из фреквенцијског распона 30-300 MHz;
- 2 да укључи резултате горњих студија у једну или више нових или постојећих ИТУ-Р Препорука, по могућности;
- 3 да комплетира те студије на време за WRC-11.

**ADD** PLEN/408/11 (B24/419/12)

**РЕЗОЛУЦИЈА 612 (WRC-07)**

**Коришћење радиолокационе службе између 3 и 50 MHz за подршку океанографске радарске операције на високим фреквенцијама**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a)* да постоји растући интерес, на глобалној основи, за операције високофреквенцијских океанографских радара за мерење услова на површини мора уз обалу за подршку еколошких, океанографских, метеоролошких, климатолошких, поморских и за смањивање несреће операција;
- b)* да су високофреквенцијски океанографски радар такође познати у делу света као HF океански радар, HF радар за детектовање висине таласа или HF радар за таласе на површини;
- c)* да високофреквенцијски океанографски радар раде коришћењем пропагације земаљских таласа;
- d)* да технологија високофреквенцијских океанографских радара има примене у глобалном поморском домену обавештавања дозвољавајући даљинску детекцију површинских пловила, што доноси добробит глобалној сигурности и безбедности бродарства и пристаништа;
- e)* да рад високофреквенцијских океанографских радара пружа добробит друштву кроз еколошку заштиту, приправност за катастрофе, јавну здравствену заштиту, побољшане метеоролошке операције, повећану приобалну и поморску безбедност и побољшање националних економија;
- f)* да високофреквенцијски океанографски радар раде на експерименталној основи широм света, омогућавајући разумевање спектралних потреба и разматрање дељења спектра, као и разумевање добробити коју ти системи пружају;
- g)* да између 3 и 50 MHz, не постоје намене за радиолокацију;
- h)* да перформансе и потребе за подацима диктирају регије спектра које могу да користе системи високофреквенцијских океанографских радара за надгледања океана,  
*препознајући*
  - a)* да високофреквенцијски океанографски радар раде на експерименталној основи већ више од 30 година;
  - b)* да аутори експерименталних система имплементирају технике да направе најефективније коришћење спектра и смање сметње другим радио службама;
  - c)* да је циљ Питања ИТУ-Р 240/8 да проучи најподесније фреквенцијске опсеге за рад високофреквенцијских океанографских радара узимајући у обзир обоје, потребе радарског система и безбедност постојећих служби;
  - d)* да високофреквенцијски океанографски радар раде са вршним нивоима снаге од отприлике 50 W,

*одлучује*

1 да позове ИТУ-Р да идентификује примене система високофреквенцијских океанографских радара између 3 и 50 MHz, укључујући потребе ширине опсега, потребне делове тог опсега за те примене, и остале карактеристике неопходне да воде студије дељења;

2 да позове ИТУ-Р да поведе анализе дељења између примена радиолокационе службе идентификованих под *одлучује* 1 и постојећих служби у опсезима идентификованих да буду подесни за рад високофреквенцијских океанографских радарских система;

3 да, ако је потврђена компатибилност под *одлучује* 2, да препоручи да WRC-11 размотри намене радиолокационој служби у неколико подесних опсега између 3 и 50 MHz, како је одређено у ИТУ-Р студијама, сваки опсег да не прелази 600 kHz, за рад океанографских радара,

*позива администрације*

да дају допринос студијама дељења између радиолокационе службе и постојећих служби у деловима опсега 3 до 50 MHz идентификованих као подесне за рад високофреквенцијских океанографских радара,

*позива ИТУ-Р*

да комплетира неопходне студије, као хитну ствар, узимајући у обзир садашње коришћење намењеног опсега, у погледу на презентовање, у одговарајуће време, техничких информација које ће вероватно бити потребне као један од основа за рад WRC-11,

*налаже Генералном секретару*

да стави ову резолуцију на пажњу Међународној поморској организацији (ИМО), Светској метеоролошкој Организацији (WMO) и осталим заинтересованим међународним и регионалним организацијама.

**ADD** PLEN/408/13 (B24/419/14)

### РЕЗОЛУЦИЈА 613 (WRC-07)

#### **Глобалне примарне намене радиодетерминационој сателитској служби у фреквенцијском опсегу 2 483.5-2 500 MHz (свемир-Земља)**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да одређивање положаја и времена коришћењем сателитских система нуди велике друштвене добробити, на пример, омогућујући ефикасност у коришћењу транспорта, банкарству и локалним услугама;

b) да тачност позиције и времена у смислу преноса од предмета из свемира и јиносферског кашњења може бити побољшана коришћењем више фреквенција;

c) да је опсег 2 483.5-2 500 MHz намењен глобално фиксној, мобилној и мобилној сателитској (свемир-Земља) службама на примарној основи;

d) да је опсег 2 400-2 500 MHz такође направљен за индустријске, научне и медицинске (ISM) примене. Радиокомуникационе службе које раде у том опсегу морају да прихвате штетну интерференцију коју могу проузроковати ове примене. ISM опрема која ради у тим опсезима предмет је одредби из No. **15.13**;

e) да је опсег 2 483.5-2 500 MHz такође намењен радиолокацији на примарној основи у Регионима 2 и 3 и на секундарној основи у Региону 1;

f) да је опсег 2 483.5-2 500 MHz већ намењен радиодетерминационој сателитској служби на примарној основи у Региону 2 и на секундарној основи у Региону 3, и то у додатку No. **5.371** специфицира секундарну намену у Региону 1 и No. **5.400** примарну намену у 22 земље Региона 1 и 3;

g) да системи у радиодетерминационој сателитској служби (RDSS) већ користе опсег 2 483.5-2 500 MHz (свемир-Земља) у деловима Региона 3 да омогуће одређивање позиције и времена;

h) да је у Европи радионавигациони сателитски систем у развоју и тежи да користи опсег 2 483.5-2 500 MHz као одговор на растућу потребу јавних крајњих корисника за применама за одређивање позиције и времена,

*препознајући*

a) да мобилни сателитски системи који користе опсег 2 483.5-2 500 MHz омогућују телекомуникационе услуге у многим удаљеним подручјима;

b) да су други опсези доступни за радиодетерминациону и радионавигациону сателитске службе,

*констатујући*

да предложене намене немају сврху да спрече развој других служби у истом фреквенцијском опсегу али да се то уради на регулисан начин. ИТУ-R може требати да развије одговарајуће критеријуме дељења, узимајући у обзир друге службе унутар опсега,

*одлучује да позове ИТУ-R*

да поведе, и заврши на време за WRC-11, одговарајуће техничке, радне и регулаторне студије које би довеле до техничких и процедуралних одредби за Конференцију омогућујући јој да одлучи да ли је глобална примарна намена за радиодетерминациону сателитску службу у фреквенцијском опсегу 2 483.5-2 500 MHz (свемир-Земља) компатибилна са другим службама у опсегу,

*позива администрације*

да учествују у студијама дајући допринос ИТУ-R.

**ADD** PLEN/408/16 (B24/419/16)

## РЕЗОЛУЦИЈА 614 (WRC-07)

### **Коришћење опсега 15.4-15.7 GHz од стране радиолокационе службе**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да ваздухопловна радионавигациона служба (ARNS) има намену на примарној основи у фреквенцијском распону 15.4-15.7 GHz;

b) да је радионавигациона служба безбедносна служба коришћена стално или привремено за очување људских живота (RR **1.59**);

c) да у сагласности са **4.10** Државе чланице треба да препознају да безбедносни аспекти радионавигације и осталих сигурносних служби захтевају посебне мере да се

осигура независност од штетних сметњи; зато је неопходно узети тај фактор у обзир код додела и коришћења фреквенција;

d) да мобилни аспект ваздухопловне радионавигационе службе може захтевати да станице те службе буду коришћене на неспецифичним тачкама;

e) да фиксна сателитска служба има намену на примарној основи у фреквенцијском распону 15.43-15.63 GHz узимајући у обзир ограничења из No. **5.511A**, као и опсега 15.4-15.43 и 15.63-15.7 GHz узимајући у обзир ограничења из No. **5.11D**;

f) да не постоје ICAO-стандардни ARNS системи који раде у том опсегу и да они ARNS системи који користе тај опсег јесу радари који имају сличне техничке и радне карактеристике као радиолокациони системи;

g) да, за пружање адекватног спектра за нове радарске системе, постоји потреба да се намени на примарној основи глобални додатни спектар у опсегу 15.4-15.7 GHz за радиолокациону службу;

h) да хитне потребе за повећаном резолуцијом и распоном тачности требају већу ширину опсега за емисије;

i) да су радиолокационе службе које користе систем емисија ниског радног циклуса, сканирајуће снопове и редукцију интерференције приказале компатибилан рад са радионавигационим радарима у неколико опсега (2 900-3 100 MHz, 9 000-9 200 MHz и 9 300-9 500 MHz) кроз много година;

j) да радари у радиолокационој служби раде на примарној основи глобално у опсегу 15.7-17.3 GHz;

k) да Препорука ITU-R M.1372 идентификује технике смањења интерференције што унапређују компатибилност између радарских система;

l) да Извештај ITU-R M.2076 садржи факторе даљег слабљења за радиолокациону интерференцију радионавигационим радарима у 9 GHz опсегу, од којих се многи примењују у опсегу 15.4-15.7 GHz;

m) да Препорука ITU-R M.1730 даје информацију о техничким карактеристикама и критеријумима безбедности за радиолокациону службу у опсегу 15.7-17.3 GHz,

*препознајући*

a) да је важно омогућити да радиолокациони радари могу да раде компатибилно са постојећим примарним службама имајући намене у опсегу 15.4-15.7 GHz и са радиоастрономском службом (RAS) у суседном опсегу 15.35-15.40 GHz;

b) да би могла бити потребна једна глобална примарна намена да се пружи онима који развијају радарске системе који раде у радиолокационој служби, поверењу произвођача и инвеститора да ће њихови системи имати регулаторску сигурност за глобални рад;

c) да сигурносни аспекти радионавигационе службе у RR **1.59** захтевају специјалне мере да осигурају независност од штетне интерференције у складу са RR **4.10**,

*одлучује*

да се узме у обзир на WRC-11 једна примарна намена радиолокационој служби у опсегу 15.4-15.7 GHz, водећи рачуна о резултатима ITU-R студија,

*позива ITU-R*

- 1 да проучи, као хитну ствар, техничке карактеристике, критеријуме заштите, и остале факторе да се осигура да радиолокациони системи могу радити компатибилно са системима у ваздухопловној навигацијској служби и фиксним сателитским службама у опсегу 15.4-15.7 GHz, водећи рачуна о безбедносној природи ваздухопловне радионавигационе службе;
- 2 да проучи, као хитну ствар, компатибилност између радиолокационе службе у опсегу 15.4-15.7 GHz и RAS у суседном опсегу 15.35-15.40 GHz;
- 3 да укључи резултате горњих студија у једну или више нових или постојећих ITU-R Препорука;
- 4 да комплетира ове студије на време за WRC-11.

**MOD** COM6/258/1 (B5/267/3) (R3/292/101)

**РЕЗОЛУЦИЈА 644 (Rev.WRC-07)**

**Радиокомуникациони ресурси за рано упозоравање, ублажавање катастрофа и хуманитарну помоћ**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да су администрације биле позване да предузму све практичне кораке да олакшају брзо распоређивање и ефективно коришћење телекомуникационих ресурса за рано упозоравање, ублажавање катастрофа и хуманитарну помоћ редукујући и, где је могуће, уклањање регулаторних баријера и јачајући глобалну, регионалну и међуграничну кооперацију између држава;
- b) да потенцијал модерних комуникацијских технологија као основно средство за ублажавање катастрофа и хуманитарну помоћ и да је витална улога телекомуникација и ICT за сигурност и сигурност радника хуманитарне помоћи на терену;
- c) посебне потребе земаља у развоју и посебне захтеве становника који живе у високоризичним подручјима изложених катастрофама, као и оних који живе у забаченим крајевима;
- d) рад који изводи Сектор за стандардизацију телекомуникација у стандардизацији заједничког протокола за упозоравање (CAP), кроз одобрење релевантне CAP Препоруке;
- e) да, под Стратегијским планом Уније 2008-2011, “подстицање ефективног коришћења телекомуникација/ICT и модерних технологија за време критичних хитних случајева, као основни део раног упозоравања на катастрофу, ублажавање, управљање и стратегије помоћи, у светлу убрзаних корака промена у глобалној околини и од линија деловања WSIS”, сматра се једним од три главна приоритета за ITU у том периоду;
- f) да је главнина земаљских мрежа у погођеним крајевима оштећена за време недавних катастрофа,

*препознајући*

- a) Члан 40 Статута, о приоритетима телекомуникација у смислу сигурности живота;
- b) Члан 46 Статута, о позивима и порукама у несрећи;

c) No. 91 Туниске агенде за Информационо друштво усвојено на другој фази Светског скупа о информационом друштву и у делимичној одлуци с): “Радећи експедитивно према успостављању праћења на стандардној основи и светском систему за рано упозоравање повезаних са националним и регионалним мрежама и олакшавајући хитан одговор на несрећу у целом свету, нарочито у регионима високог ризика”;

d) Резолуцију 34 (Rev.Doha, 2006) Светске конференције о развоју телекомуникација о улози телекомуникација /ICT у раном упозоравању и ублажавању несрећа и хуманитарној помоћи, као и ITU-D Питање 22/2 “Коришћење ICT-а за управљање у несрећи, ресурсима и активним и пасивним системом у свемиру за откривање што се примењују на несреће и помоћи у ванредној ситуацији ”;

e) Резолуцију 36 (Rev. Antalya, 2006) Конференције опуномоћеника о телекомуникацијама /информацијама и комуникацијским технологијама у служби хуманитарне помоћи;

f) Резолуцију 136 (Antalya, 2006) Конференције опуномоћеника о коришћењу телекомуникационих /информацијских и комуникацијским технологијама за праћење и управљање у несрећи и хитним ситуацијама за рано упозоравање, спречавање, ублажавање и олакшавање;

g) Резолуцију ITU-R 53 Скупштине за Радиокомуникације (Женева, 2007), о коришћењу радиокомуникација у одговору на катастрофу и олакшавање;

h) Резолуцију ITU-R 55 Скупштине за Радиокомуникације (Женева, 2007), о ITU-R студијама о предвиђању катастрофа, откривању, ублажавању и отклањању,

*констатујући*

блиски однос ове Резолуције са Резолуцијом **646 (WRC-03)** о јавној заштити и отклањању катастрофа и Резолуцијом **[COM6/2] (WRC-07)** о смерницама за управљање спектром за радиокомуникације за ванредне ситуације и помоћ у катастрофи, и потребу за координацијом активности из ових Резолуција да би се спречило било какво могуће преклапање,

*одлучује*

1 да ITU Сектор за радиокомуникације (ITU-R) настави да проучава, као хитну ствар, оне аспекте радиокомуникација /ICT који су релевантни за рано упозоравање, ублажавање катастрофа и хуманитарну помоћ, као што су децентрализовани видови телекомуникација који су одговарајући и генерално доступни, укључујући аматерска земаљска и сателитска радио постројења, мобилни и преносиви сателитски терминали, као и коришћење пасивних сензорних система смештених у свемиру;

2 да ургира ITU-R Студијским групама, узимајући у обзир опсег студија/активности у току које се настављају на Резолуцију ITU-R 55 Скупштине за Радиокомуникације (Женева, 2007), да убрза њихов рад, нарочито у области предвиђања катастрофа, откривања, ублажавања и отклањања,

*налаже Директору Бироа за радиокомуникације*

1 да подрже администрације њиховом послу примене обе Резолуције 36 (Rev. Antalya, 2006) и 136 (Antalya, 2006), као и Конвенције из Тампереа;

2 да сарађује, по потреби, са Радном групом Уједињених нација за хитне телекомуникације (WGET);

3 да активно учествује, и придонеси ИТУ Глобалном форуму за ефективну употребу телекомуникација/ICT за управљање код несрећа: спасавање живота (Женева, 10-12 Децембар 2007);

4 да учествује, и придонеси, Телекомуникацијама за ублажавање и олакшавање катастрофа – Панел партнерства за координацију (PCP-TDR);

5 да синхронизује активности између ове Резолуције, Резолуције **646 (WRC-03)** и Резолуције **[COM6/2] (WRC-07)** да се спречи могуће преклапање.

**ADD** COM6/258/2 (B5/267/5) (R3/292/106)

### РЕЗОЛУЦИЈА 647 (WRC-07)

#### **Смернице за управљање спектром за радиокомуникације ванредне ситуације и ублажавање катастрофа<sup>1</sup>**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) Конвенција из Тампереа о одредбама за телекомуникационе ресурсе за ублажавање несрећа и операција олакшавања (Тампере, 1998)<sup>2</sup>, један међународни уговор депонован код Генералног секретара Уједињених нација, позива државе чланице, кад је могуће, и у сагласности са њиховим националним законима, да развију и имплементирају мере за олакшање доступности телекомуникационих ресурса за такве операције;

b) да неке администрације могу имати различите радне потребе и захтеве за спектром за ванредну ситуацију и примене за ублажавање несрећа, зависно о околностима;

c) да непосредна доступност раније идентификованих и раније координираних фреквенција и/или флексибилних технологија спектра да омогуће готово моменталне одлуке за коришћење доступног спектра, јесте важно за успешне телекомуникације у врло раној фази интервенције хуманитарне помоћи за ублажавање несрећа,

*препознајући*

a) Резолуција 36 (Rev. Antalya, 2006) Конференције опуномоћеника о информационо-комуникационим технологијама (ICTs) у служби хуманитарне помоћи;

b) Резолуција 136 (Antalya, 2006) Конференције опуномоћеника о коришћењу информационо-комуникационих технологија за посматрање и вођење у ванредне ситуације и катастрофе за рано упозоравање, превенцију, ублажавање и олакшавање;

c) Резолуција 34 (Rev.Doha, 2006) Светске конференције за развој телекомуникација (WTDC) о улози телекомуникација/ICT у раном упозоравању и смањењу несрећа и хуманитарној помоћи, као и ИТУ-D Question 22/2 “Искоришћавање ICT за управљање код

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<sup>1</sup> Термин “радиокомуникације за ванредне ситуације и ублажавање катастрофа“ односи се на радиокомуникације које користе агенције и организације које се баве озбиљним поремаћајем функционисања друштва, што представља значајну широко распрострањену претњу људским животима, здрављу, сиромаштву или околини, било да је узроковано несрећом, природним феноменима или људском активношћу, и да ли се појавило изненада или као резултат комплексних, дуготрајних процеса.

<sup>2</sup> Међутим, један број земаља није ратификовао Конвенцију из Тампереа.

несрећа, ресурсима, и активним и пасивним системима за читавање смештених у свемиру како се примењују на ванредне ситуације и олакшавање несрећа”;

- d) Резолуција 48 (Doha, 2006) WTDC о јачању кооперације између регулатора телекомуникација;
- e) Резолуција **644 (Rev.WRC-07)** о Радиокомуникационим ресурсима за рано упозоравање, умањивање несреће и операције олакшавања;
- f) Програм 6 (Неразвијене земље и мале острвске земље у развоју, и комуникације за ванредне ситуације), ревидирана верзија онога што је усвојено на WTDC (Doha, 2006);
- g) Резолуција **646 (WRC-03)** о јавној безбедности и ублажавању несреће;
- h) Препорука ITU-R M.1637, која нуди смернице за олакшавање глобалне циркулације радиокомуникационе опреме у ванредним ситуацијама и ублажавању несреће;
- i) Извештај ITU-R M.2033, који садржи информације о неким опсезима или њиховим деловима који су означени за операције ублажавања несреће,

*свесни*

прогреса направљеног у регионалним организацијама широм света, и посебно у регионалним организацијама за телекомуникације, о стварима које се односе на планирање комуникација у ванредним ситуацијама и одговор,

*препознајући такође*

- a) Резолуцију ITU-R 55 Скупштине за радиокомуникације (Geneva, 2007), која позива ITU-R Студијске групе да узму у разматрање обим студија/активности у току, наведених у Анексу Резолуције, и да развије смернице које се односе на управљање радиокомуникацијама у предвиђању несрећа, откривању, смањивању и олакшавању, заједнички и кооперативно, у оквиру ITU и са организацијама изван Уније, да би се избегао ефекат дуплицирања посла;
- b) Резолуција ITU-R 53 Скупштине за радиокомуникације (Geneva, 2007), која налаже Директору Бироа за радиокомуникације да помогне државама чланицама у њиховом припремању активности за радиокомуникације у ванредним ситуацијама као што је излиставање тренутно доступних фреквенција за коришћење у ванредним ситуацијама за укључивање у базу података коју одржава Биро,

*констатујући*

- a) да кад се деси несрећа, агенције за олакшавање несреће су обично прве на сцени користећи своје свакодневне комуникационе системе, али да у већини случајева друге агенције и организације могу такође бити укључене у операцијама олакшавања несреће;
- b) да постоји критичан захтев да се изврши хитан одабир спектра, укључујући фреквенцијску координацију, дељење и поновну употребу спектра, унутар подручја несреће;
- c) да би национално планирање спектра за ванредне ситуације и ублажавање несреће, требало узимати у обзир потребу за кооперацијом и билатералном консултацијама са осталим заинтересованим администрацијама што би могло бити олакшано хармонизацијом спектра и /или спектрално флексибилном технологијом, као и договорена упутства за управљање спектром која се односе на ублажавање несреће и планирање ванредне ситуације;

d) да за време несреће, радиокомуникациона постројења могу бити разрушена или оштећена и национална регулаторна тела могу да не буду у стању да пруже потребне сервисе за управљање спектром за распоређивање радио система за операције ублажавања несреће;

e) да идентификација доступности фреквенција у оквиру индивидуалне администрације у смислу која опрема да се користи, или коришћење спектрално флексибилне опреме која дозвољава рад у разним сценаријима приступа спектру, може олакшати интероперативност и/или рад између мрежа, уз обострану кооперацију и консултацију, нарочито у националним, регионалним и прекограничним ванредним ситуацијама и активностима ублажавања несреће,

*констатујући такође*

a) да треба приуштити флексибилност агенцијама за ублажавање несреће и организацијама, у коришћењу садашњих и будућих радиокомуникација, тако да се олакшају њихове хуманитарне операције;

b) да је у интересу администрација и агенција за ублажавање несреће и организација да имају приступ ажурираним информацијама о националним плановима за спектар за ванредне ситуације и ублажавања несреће,

*одлучује*

1 да подстиче администрације да узму у обзир глобални и/или регионални фреквенцијски опсег /распон за ванредне ситуације и ублажавања несреће кад предузимају своје национално планирање и да саопште ти информацију Бироу;

2 да подстиче администрације да одржавају доступне фреквенције за коришћење у врло раној фази интервенције хуманитарне помоћи за ублажавања несреће,

*налаже Директору Бироа за радиокомуникације*

1 да се помогне државама чланицама у припремним активностима за њихове комуникације за ванредне ситуације успостављајући базу података тренутно расположивих фреквенција за коришћење у ванредним ситуацијама, које нису лимитиране онима излистаним у Резолуцији **646 (WRC-03)**, и издавањем једног одговарајућег списка, узимајући у обзир Резолуцију ИТУ-Р 53 Скупштине за радиокомуникације (Geneva, 2007);

2 да се одржава база података и олакша он-лајн приступ томе за администрације, национална регулаторна тела, агенцијама за ублажавања несреће и организацијама, посебно Координатору Уједињених нација за ублажавања несреће, у сагласности са радним процедурама развијеним за ситуације несреће;

3 да се сарађује са уредом Уједињених нација за координацију хуманитарних послова и другим организацијама, по потреби, у развоју и ширењу стандардних радних процедура и релевантне праксе управљања спектром за коришћење у ситуацији несреће;

4 да узме у обзир све релевантне активности друга два ИТУ Сектора и Генерални секретаријат;

5 да извести о прогресу из ове резолуције наредну Светску конференцију о радиокомуникацијама,

*позива ИТУ-Р*

да поведе студије по потреби, као хитну ствар, у подршци успостављању одговарајућих упутстава за управљање спектром за примену у ванредним ситуацијама и операцијама ублажавања несреће,

*ургира администрацијама*

1 да учествују у припремним активностима за комуникације у ванредним ситуацијама, описаним горе, и да доставе релевантне информације Бироу које се тичу њихових националних намена и праксе управљања спектром за ванредне ситуације и радиокомуникације за ублажавање несреће, узимајући у обзир резолуцију ИТУ-Р 53 Скупштине за радиокомуникације (Geneva, 2007);

2 да помогне у одржавању базе података ажурном саветујући Биро на сталној основи о свакој промени горезахтеваних информација.

**ADD** PLEN/408/12 (B24/419/13)

**РЕЗОЛУЦИЈА 671 (WRC-07)**

**Препознавање система у служби метеоролошке помоћи у фреквенцијском распону испод 20 kHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да системи детекције муња које користе метеоролошке организације јесу дуго постојеће, пасивне примене које имају стварни значај за безбедност живота, дајући упозорења на екстремне временске прилике целом низу организација и корисника укључујући хитне службе, ваздухопловство, одбрану, комуналне услуге и јавност;
- b) да иако удари муње емитују електромагнетне таласе у целом распону фреквенција, пропагационе карактеристике испод 20 kHz чине фреквенцијски распон од око 9 kHz до 20 kHz најподеснији за детекцију;
- c) да за избегавање интерференције у неким деловима света, централна фреквенција садашње међународне мреже станица за детекцију муња, која је била центрирана на 9.765625 kHz од 1939., недавно је морала да се помакне на 13.733 kHz;
- d) да други системи за детекцију муња често користе комбинацију од UHF и LF фреквенција, али то даје ограничење покривање него системи који раде на VLF фреквенцијама;
- e) да се очекује да би требало између 30 и 40 пријемних станица на VLF фреквенцијама за глобално покривање;
- f) да ти системи коегзистирају са службама које нећ имају намене у потенцијалном спектру за системе у метеоролошкој помоћној служби у знатаном периоду времена без интерференције,

*препознајући*

- a) да је прецизна локација муње важна за јавну сигурност. Као и опасности од самог удара муње, грмљавина може да резултује у интензивним падавинама са пратећом поплавом, јаким залеђивањем, променљивим ветром, турбуленцијом и ударима ветрова;
- b) да недавни случајеви интерференције повећавају бригу да системи за детекцију муња можда неће бити у стању да одрже квалитет услуге или да пруже глобално покривање осим ако се пружи признање тим системима у Правилнику о радиокомуникацијама, и координација са другим службама се направи како треба;
- c) да је пасивно коришћење за сада слабо заштићено;

*d)* да је пожељно да се намене фреквенције метеоролошкој помоћној служби за системе детекције муња буду у спектру који се не дели са системима велике снаге,

*констатујући*

*a)* да је 3 dB ширина опсега постојећих система детекције муња приближно 2.5 kHz и зато једна намена између 3 и 5 kHz ширине опсега била би потребна;

*b)* да предложена намена нема сврху да спречи развој других служби у истом фреквенцијском опсегу али да се то постигне на регуларан начин. ИТУ-R би можда требао да развије одговарајуће критеријуме дељења, узимајући у обзир обе службе, унутар опсега и поред опсега,

*одлучује*

1 да позове ИТУ-R да поведе, и заврши на време за WRC-11, потребне студије које би довеле до техничких и процедуралних препорука Конференцији омогућујући јој да одлучи о одговарајућој методи за пружање признања дуго постојећим системима, укључујући могућност да се уради намена метеоролошкој помоћној служби у фреквенцијском распону испод 20 kHz;

2 да студије из *одлучује* 1, без постављања ограничења на постојеће службе које раде у складу са Правилником о радиокомуникацијама, треба да укључе студије дељења и компатибилности са службама које већ имају намене у потенцијалном спектру за системе метеоролошке помоћне службе узимајући у обзир потребе других служби,

*позива администрације*

да учествују у студијама дајући допринос ИТУ-R.

**ADD** PLEN/408/17 (B24/419/17)

## РЕЗОЛУЦИЈА 672 (WRC-07)

### **Екстензије намена метеоролошкој сателитској служби у опсегу 7 750-7 850 MHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

*a)* да је опсег 7 750-7 850 MHz намењен фиксној, метеоролошкој сателитској служби (свемир-Земља) и мобилним службама;

*b)* да се тај опсег тренутно користи од не-геостационарних метеоролошких сателита поларне орбите емитујући типично на начин слања много силових података великим станицама на Земљи;

*c)* максимално време контакта између сателитских и одговарајућих станица на Земљи дешава се на великим висинама резултујући оптималном распоредом таквих земаљских станица на великим висинама на северној и јужној хемисфери;

*d)* да потребе за ширином опсега за пренос података од сензора високе резолуције на новој генерацији не-геостационарних метеоролошких сателита планираних да буду лансирани у временском оквиру 2017-2020 јесу веће од 100 MHz;

*e)* да би проширење садашње намене за 50 MHz било неопходно да се прилагоди потребама будућег преноса података;

f) да је опсег 7 850-7 900 MHz намењен потпуно истим службама као опсег 7 750-7 850 MHz и био би први кандидат за проширење текуће намене метеоролошкој сателитској служби;

g) да су ITU-R студије вођене пре WRC-97 установиле да дељење између метеоролошке сателитске службе и фиксне службе је могуће са широким маргинама резултујући у намени опсега 7 750-7 850 MHz,

*препознајући*

1 да су подаци добијени помоћу тих метеоролошких сателита есенцијалних за глобалну прогнозу времена, климатске промене и предвиђање опасности;

2 да постојећи системи треба да буду прописно заштићени,

*одлучује*

1 да позове ITU-R да поведе анализе дељења између не-геостационарних метеоролошких сателита који раде у смеру свемир-Земља и фиксних и мобилних служби у опсегу 7 850-7 900 MHz у погледу на проширења текуће намене у смеру свемир-Земља за овај опсег;

2 да препоручи да WRC-11 прегледа резултате студија под *одлучује* 1;

3 да учини одговарајуће измене у Табели намена фреквенција у односу на *одлучује* 1, на основу предлога администрација,

*позива администрације*

да дају допринос студијама дељења између метеоролошке сателитске службе и фиксне и мобилне службе у фреквенцијском распону 7 850-7 900 MHz,

*позива ITU-R*

да комплетира неопходне студије, узимајући у обзир садашње коришћење намењених опсега, у погледу презентовања резултата на WRC-11.

**ADD** COM6/409/1 (B22/416/4)

## РЕЗОЛУЦИЈА 673 (WRC-07)

### **Коришћење радиокомуникација за примене посматрања Земље**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да *in situ* и удаљене могућности посматрања Земље овисе о доступности радио фреквенција код великог броја радио служби, даозвољавајући широком распону пасивних и активних примена на сателитским платформама или оним на земљи;

b) да сакупљање и размена података посматрања Земље јесте есенцијално за одржавање и побољшање тачности временских прогноза што доприноси заштити живота, чувању имовине и одрживог развоја у свету;

c) да су подаци посматрања Земље такође есенцијални за посматрање и предвиђање климатских промена, за предвиђање, посматрање и ублажавање катастрофа, за повећање разумевања, моделирања и верификовање свих аспеката климатских промена, и за прављење одговарајуће политике;

d) да се посматрање Земље такође користи за добијање релевантних података који се тичу природних ресурса, што је посебно значајно за добробит земаља у развоју;

e) да се посматрање Земље изводи за добробит целокупне међународне заједнице и целокупног човечанства, дели се између многих земаља и генерално је доступно бесплатно,

*препознајући*

a) да § 20 с) Акционог плана Светског скупа о Информацијском друштву (Женева, 2003), о е-околини, позива на успостављање система за праћење, користећи информацијске и комуникационе технологије (ICT), за прогнозу и посматрање утицаја природних и вештачких катастрофа, посебно у земљама у развоју, најмање развијеним и малим економијама;

b) Резолуција 34 (Rev. Doha, 2006) Светске конференције за развој телекомуникација, о улози телекомуникација /ICT у раном упозоравању и ублажавању несрећа и хуманитарној помоћи;

c) ITU-D Питање 22/2 “Коришћење ICT за управљање приликом несрећа, ресурсе и активне и пасивне системе детекције смештене у свемиру као што се примењују на ситуације олакшавања несрећа и ванредне ситуације ”,

*констатујући*

a) да се примене посматрања Земље раде путем сателита за истраживање Земље (активно и пасивно), метеоролошког сателита, метеоролошке помоћи и радиолокационих служби;

b) да су неки основни пасивни фреквенцијски опсези покривени са No. **5.340**,

*констатујући такође*

a) да је важност радиокомуникационих примена посматрања Земље наглашена од стране многих међународних тела као што је Група за посматрање Земље (GEO), Светска метеоролошка организација (WMO) и Међувладин панел о климатским променама (IPCC) и да би сарадња ITU-R са тим телима могла бити важна;

b) да делимично, GEO предводи светска настојања да се изгради Глобални систем система за посматрање Земље (GEOSS) да омогући свеобухватно и координирано посматрање Земље од хиљада инструмената широм света, трансформишући прикупљене податке у виталне информације за друштво и човечанство;

c) да GEOSS пружа широк распон социјалних бенефита, укључујући управљање несрећама и аспекте који се односе на људско здравље, енергију, климу, воду, време, екосистеме, агрикултуру и биоразноврсност;

d) да је преко 90 процената природних несрећа везано за климу или време;

e) да неке есенцијалне операције пасивног посматрања Земље тренутно имају сметње које резултују у погрешним подацима или чак у комплетном губитку података;

f) да иако су метеоролошки и посматрања Земље сателити тренутно вођени од малог броја земаља, подаци и/или одговарајуће анализе које резултују из њиховог рада јесу дистрибуирани и коришћени глобално, делимично од стране националних служби за време у развијеним и земљама у развоју и од организација везаних за климатске промене,

*одлучује да позове ITU-R*

да поведе студије о могућим средствима да побољша препознавање есенцијалне улоге и глобалне важности примена радиокомуникација у посматрању Земље и знање и разумевање администрација у односу на коришћење и добробит од тих примена,

*налаже Директору Бироа за радиокомуникације*

да укључи резултате тих студија у свој Извештај за WRC-11 у сврху разматрања адекватних мера у одговору на *одлучује да позове ITU-R* горе, констатујући да ниједна нова намена ни додатна заштита не би била циљ таквих студија,

*позива администрације*

да активно учествују у студијама дајући допринос ITU-R.

**MOD** COM6/251/3 (B5/267/4) (R3/292/102)

### РЕЗОЛУЦИЈА 703 (Rev.WRC-07)

#### **Метод прорачуна и критеријуми интерференције препоручених од ITU-R за дељење фреквенцијских опсега између свемирских радиокомуникација и земаљских радиокомуникација или између свемирских радиокомуникационих служби**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a)* да, у фреквенцијским опсезима које деле са једнаким правом свемирске и земаљске радиокомуникационе службе, потребно је наметнути извесна техничка ограничења и процедуре координације на сваки сервис где је дељење да се ограничи међусобна интерференција;
- b)* да, у фреквенцијским опсезима које деле свемирске станице смештене на геостационарним сателитима, неопходно је наметнути процедуре координације у сврху ограничавања међусобне интерференције;
- c)* да су методе прорачуна и критеријуме интерференције у вези процедура координације из *узимајући у обзир a) и b)* базиране на ITU-R Препорукама;
- d)* да, признавајући успешно дељење фреквенцијских опсега од стране свемирских и земаљских радиокомуникационих служби, и континуалног побољшавања у свемирској технологији и оној на Земљиним сегменту, свака Скупштина за Радиокомуникације је побољшала неке техничке критеријуме које је препоручивала претходна Скупштина;
- e)* да је ITU Скупштина за Радиокомуникације одобрила процедуру за одобравање Препорука између Скупштина за Радиокомуникације;
- f)* да Статуу признаје право државама чланицама да праве специјалне аранжмане по телекомуникацијским стварима; међутим, такви аранжмани не смеју бити у супротности са Статутом, Конвенцијом или регулативом из анекса уз то, докле год су могуће штетне сметње радио службама других земаља;
- g)* да коришћење ове резолуције може смањити потребу за присаједињењем по назаци ITU-R Препорука,  
*мишљење је*
  - a)* да ће будуће одлуке ITU-R-а вероватно направити будуће измене у методама прорачуна и критеријумима интерференције;
  - b)* да би администрације требале кад год је могуће да примењују ITU-R Препоруке о критеријумима дељења приликом планирања система за коришћење у фреквенцијским опсезима који се деле са једнаким правима између свемирских и земаљских радиокомуникационих служби, или између свемирских радиокомуникационих служби,

*позива администрације*

да дају допринос Радиокомуникационим студијским групама, пружајући информације о практичним резултатима и искуству о дељењу између земаљских и свемирских радиокомуникационих служби или између свемирских служби, што помаже да се постигне напредак у процедурама координације, методама прорачуна и прагова штетних сметњи, и на тај начин оптимизује доступне орбиталне /спектралне ресурсе,

*одлучује*

1 да Директор Бироа за радиокомуникације, у консултацији са Председником Студијске групе, треба да годишње припреми листу која идентификује релевантне новоодобрене ITU-R Препоруке које се односе на дељење између свемирских и земаљских радиокомуникационих служби, или између свемирских радиокомуникационих служби;

2 да Директор Бироа за радиокомуникације треба, једном годишње, да публикује ту листу електронски за информацију свим администрацијама.

**MOD** COM4/380/76 (B19/413/27)

**РЕЗОЛУЦИЈА 729 (Rev.WRC-07)**

**Употреба фреквенцијски адаптивних система у MF и HF опсезима\***

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да ће ефикасност коришћења спектра бити повећана коришћењем фреквенцијски адаптивних система у MF и HF опсезима које деле фиксне и мобилне службе;

b) да су пробања и постављања фреквенцијски адаптивних система била у току за време задњих 30 година и показала ефикасност таквих система и побољшала ефикасност спектра;

c) да је таква побољшана ефикасност постигнута кроз:

- краће време позивања и побољшање квалитета емитовања путем селекције најподеснијег канала за доделу;
- смањене окупираности канала, дозвољавајући истим каналима да их користе различите мреже, а смањујући вероватноћу штетних сметњи;
- минимизацију снаге предајника потребну за сваку емисију;
- континуирану оптимизацију емисија захваљујући софистицијацији система;
- једноставан рад коришћењем интелигентне периферијске опреме;
- мању потребу за вештим радио операторима;

d) да након WRC-95, Биро за радиокомуникације не предузима више испитивања у погледу вероватноће штетних сметњи узрокованих новим доделама уписаним у Master International Frequency Register (MIFR) у непланираним опсезима испод 28 MHz;

e) да је WRC-97 увео средство за нотификацију додела у блоку;

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\* Потребно је скренути пажњу на ову Резолуцију ITU-D Студијској групи 2.

f) да ће фреквенцијски адаптивни системи активно доприносити избегавању интерференције јер, кад се други сигнал примети у каналу, фреквенцијски адаптивни систем ће да се помери на другу фреквенцију,

*одлучује*

1 да, у овлашћивању рада фреквенцијски адаптивних система у фиксним и мобилним службама у MF и HF опсезима, администрације требају:

1.1 да не дају доделе у оним опсезима:

- којима се управља према Додатку **25** Плана (алотмент) намене фреквенција за поморску мобилну службу или Додатка **27** Плана (алотмент) намене фреквенција за ваздухопловну мобилну (R) службу;
- који се деле на ко-примарној основи са радиодифузном службом, радиодетерминационом службом или аматерским службама;
- намењеним за радио астрономску службу;

1.2 да избегавају коришћења која могу дотицати фреквенцијске доделе укључујући сигурносне службе, урађена у складу Nos. **5.155**, **5.155A** и **5.155B**;

1.3 да узму у обзир сваку фусноту примењиву на предложене опсеге и импликације у вези са компатибилношћу;

2 да фреквенцијски адаптивни системи треба да аутоматски ограниче једновремено коришћење фреквенција на минимум потребан за захтеве комуницирања;

3 да би, у погледу избегавања штетних сметњи, фреквенцијски адаптивни системи требали да процене заузетост канала пре и за време преноса;

4 да Биро буде обавештен о доделама за фреквенцијски адаптивне системе у складу са одредбама Члана **11** и Додатка **4**.

**MOD** PLEN/408/15 (B24/419/2)

### РЕЗОЛУЦИЈА 734 (Rev.WRC-07)

#### **Студије за идентификацију спектра за гејтвеј линкове за станице на платформама на великим висинама у опсегу од 5 850 до 7 500 MHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да ИТУ има сврху између осталог “да промовише ширење добробити од нових телекомуникационих технологија на све становнике света” (No. 6 Статута);

b) да системи базирани на новим технологијама које користе станице на платформама на великим висинама (HAPS) могу потенцијално да се користе за разне примене као што је обезбеђивање високог капацитета услуга у градским и руралним подручјима;

c) да треба направити одредбе у Правилнику о радиокомуникацијама за постављање HAPS-а у специфичне опсеге, укључујући да као базне станице опслужују ИМТ-2000 мреже (Члан **11**);

d) да је пожељно да постоје адекватне одредбе за гејтвеј линкове који служе за рад HAPS-ова;

e) да ИТУ-Р проучава дељење спектра између НАПС-а као фиксне службе са осталим фиксним службама и са фиксним сателитским службама у много вишим опсезима, као и регулаторно разматрање да се избегне интерференција са службама у суседним земљама,  
*препознајући*

a) да ИТУ-Р проучава дељење НАПС-а са фиксним службама у делу опсега од 6 GHz што резултује у Препоруци ИТУ-Р F.1764, која даје методологију за рачунање интерференције која би могла бити коришћена за студије дељења између система фиксне службе и НАПС-а;

b) да би у неким подручјима опсеги могли бити засићени са коришћењима друге фиксне службе и било би пожељно да постоји већа флексибилност у избору спектра за гетвеј операције у подршци НАПС- мрежама;

c) да је Светски скуп о Информационом друштву подстакао развој и примену технологија у настајању да олакша развој инфраструктуре и мрежа широм света, а посебно се фокусирао на недовољно опслужене регионе и подручја;

d) да се намене опсега 5 925–6 425 MHz за фиксну сателитску службу јако много користе за везу Земља-свемир омогућујући телекомуникационе сервисе, и да је то посебно важно за развој инфраструктуре у развијеним земљама, кроз постављање VSAT капацитета;

e) да више од 160 геостационарних сателита, тренутно у раду, користи фреквенције у опсегу 5 850-6 725 MHz и такво коришћење ће наставити да расте у будућности;

f) да се No. 5.441 у опсегу 6 725-7 025 MHz користи за везе према горе у FSS Плану Додатка **30B** Правилника о радиокомуникацијама (види No. 5.441), и, док је опсег 5 150-5 250 коришћен за везу према горе за негеостационарне сателитске системе (види No. 5.447A);

g) да ће емисије Земља-свемир у FSS описани у “*признајући*” d), e) и f) горе имати нивое много веће од оних у НАПС системима и зато имати потенцијал који узрокује интерференцију НАПС пријемницима на земљи или на платформи;

h) да у погледу на *препознавајући* g), НАПС коришћење фреквенција од око 6 GHz може бити ограничено садашњим FSS предајним Земљиним станицама док заштита НАПС пријемника може ограничити будуће распоређивање тих FSS земаљских станица,

*одлучује*

1 да позове ИТУ-Р да прошири студије о дељивости, с погледом да се идентификују два канала од 80 MHz сваки за гетвеј везе НАПС-а у опсегу од 5 850 до 7 500 MHz, у опсезима већ намењеним фиксној служби, истовремено осигуравајући заштиту постојећих служби;

2 да препоручи WRC-11 да прегледа проширене студије, с погледом да се донесе одговарајућа одлука за постављање НАПС гетвеј линкова да опслужују релевантну стратосферске операције базних станица и подршку тим мрежама,

*подстиче администрације*

да активно придонесе студијама о дељењу у складу са овом Резолуцијом.

MOD COM5/265/7 (B6/268/96) (R5/336/7)

### РЕЗОЛУЦИЈА 739 (Rev.WRC-07)

#### **Компатибилност између радио астрономске службе и активних свемирских служби у неким суседним и блиским фреквенцијским опсезима**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да су суседне или блиске намене примарних служби урађене за радиоастрономску службу, и за разне свемирске службе, као што је фиксна сателитска служба (FSS), радионавигациона сателитска служба (RNSS), мобилна сателитска служба (MSS) и радиодифузна сателитска служба (BSS), у даљем тексту као “активне свемирске службе”;
- b) да су, у многим случајевима, фреквенције коришћене за радио астрономску службу (RAS) изабране су за проучавање природних појава производећи радио емисије на фреквенцијама одређеним законима природе, тако да помицање фреквенције да се избегне или ублаже проблеми интерференције није могуће;
- c) да Извештај ITU-R SM.2091 пружа методологију за вођење, и оквир за документовање резултата студија компатибилности између активних свемирских служби и парова опсега радио астрономске службе;
- d) да Извештај ITU-R SM.2091 такође омогућује резултате студија компатибилности између радиоастрономске службе и активне свемирске службе у неким суседним и блиским опсезима;
- e) да одговарајуће консултације између администрација имају потенцијал да воде развој иновативних решења и брзо постављање система;
- f) да, из техничких или оперативних разлога, више строгих наметнутих емисионих ограничења него општих ограничења у Додатку 3 могу бити захтевани да заштите RAS од активних служби у специфичним опсезима,

*констатујући*

- a) да додатно оптерећење од предузимања било каквих техничких испитивања не би требало да се стави Бироу за радиокомуникације;
- b) да консултациона процедура, садржана у овој Резолуцији, не би представљала додатно оптерећење Бироу;
- c) да Препорука ITU-R M.1583 пружа методологију на основу еквивалентне снаге густине флукса (erfd) концепту за израчунавање интерференције која резултује нежељеним емисијама од негеостационарних (не-GSO) сателитских система од MSS или RNSS у радиоастрономским станицама;
- d) да Препорука ITU-R S.1586 пружа методологију базирану на erfd концепту за израчунавање интерференције која потиче од нежељених емисија од не-GSO система од FSS у радиоастрономским станицама;
- e) да методологија описана у овим Препорукама може такође бити коришћена за студије случаја не-GSO система у BSS;
- f) да Препорука ITU-R RA.1631 омогућује антенском снопу да се користи за анализе компатибилности између не-GSO система и RAS станица, базирано на erfd концепту;

- g) да Препорука ИТУ-Р RA.1513 омогућује прихватљиве нивое губитака података радиоастрономским посматрањима, тврдећи посебно да проценат губитака података узрокована од било ког система треба да буде мањи од 2%;
- h) да неки од резултата документованих у Извештају ИТУ-Р SM.2091 могу бити коришћени као праг за иницирање консултационе процедуре;
- i) да би резултати успешне консултације између заинтересованих администрација осигурали да су интереси обе, активне и радиоастрономске службе узети у обзир;
- j) да мере подузете од активних свемирских служби да заштите радиоастрономске станице од интерференције могу резултовати у повећаном коштању и/или смањеним могућностима тих служби;
- k) да обрнуто, не предузимајући такве мере може резултовати у додатним трошковима рада и смањеном радном ефикасношћу за дотичне радиоастрономске станице;
- l) да имплементација додатних мера за ублажавање интерференције на радиоастрономској станици може повећати трошкове рада и смањити ефективност посматрања;
- m) да обрнуто, не имплементирање таквих мера може наметнути активним свемирским службама додатно трошковано оптерећење и смањење могућности службе,

*препознајући*

- a) да нежељене емисије које производе станице активних свемирских служби могу узроковати неприхватљиву интерференцију станицама RAS-a;
- b) да, иако неке нежељене емисије из предајника на свемирским станицама могу бити контролисане кроз пажљиво дизајниране методе и одговарајуће тестне процедуре, друге нежељене емисије, као што су ускопојасне убачене емисије, генерисане неконтролисаним и/или непредвидивим физичким механизмима, једино могу бити детектоване након лансирања свемирског брода;
- c) да постоји неизвесност у процедурама пре лансирања о нивоима нежељених емисија;
- d) да је потребно осигурати подједнаку расподелу оптерећења за постизање компатибилности између активних свемирских служби и RAS-a;
- e) да за оне случајеве где се срећу потешкоће у задовољавању вредности из Анекса 1, консултациона процедура би требала да се користи да се реше потешкоће,

*одлучује*

- 1 да нека администрација предузме све разумне кораке да осигура да било која свемирска станица или сателитски систем дизајниран и конструисан да ради у опсезима из Анекса 1 задовољи вредности дате за било коју радио астрономску станицу која ради у одговарајућим опсезима идентификованим у овом Анексу;
- 2 да у случају да је за време конструкције и пре лансирања установљено да, након разматрања свих разумних средстава, нежељене емисије из свемирске станице или сателитског система не могу задовољити вредности дате у Анексу 1, администрација која је најавила свемирску станицу или сателитски систем контактира, што пре је могуће, администрацију која води радиоастрономску станицу да потврди да *одлучује* 1 ће бити испуњено, и да заинтересована администрација уђе у процес консултације у намери да се постигне обострано прихватљиво решење;

3 да у случају, након лансирања свемирске станице администрација која води радиоастрономску станицу установи да, због неочекиваних околности, свемирска станица или сателитски систем не задовољава вредности за нежељене емисије дате у Анексу 1 на тој радиоастрономској станици, она контактира администрацију која је најавила свемирску станицу или сателитски систем тако да администрација која је најавила свемирску станицу или сателитски систем потврђује да је *одлучује* 1 задовољено, и заинтересоване администрације улазе у консултациони процес у намери да се идентификују следећи кораци у погледу постизања обострано прихватљиве солуције;

4 да радиоастрономске станице које се узимају у обзир у примени *одлучује* 1, 2 и 3 јесу оне које раде у фреквенцијском опсегу идентификованом у Анексу 1 и које су најављене пре датума пријема напредне публиковане информације о свемирској станици или сателитском систему на који се Резолуција односи;

5 да свемирске станице или сателитски системи који се разматрају у примени *одлучује* 1 до 4 горе јесу они који су дизајнирани да раде у фреквенцијским опсезима свемирске службе излистане у табелама Анекса 1 за које напредне публиковане информације (API) су примљене у Бироу након ступања на снагу Финалних аката одговарајуће конференције, како је специфицирано у тим табелама;

6 да је циљ консултационог процеса у *одлукама* 1, 2 и 3 да се постигне обострано прихватљиво решење, користећи као смернице Извештај ITU-R SM.2091 и било које друге ITU-R Препоруке које заинтересоване стране сматрају релевантним;

7 да Биро не треба да ради испитивања и проналажења у односу на ту Резолуцију под Члановима **9** или **11**,

*позива администрације*

1 да предузму све потребне и практичне кораке, од фазе дизајнирања па напред, да се осигура да су нежељене емисије минимизирани од свемирских станица које су планиране да раде у једној или више намена за свемирске службе, да се избегне прекорачење прага нежељених емисија идентификованих у Анексу 1 на било којој астрономској станици;

2 да се предузму сви практични кораци, од фазе дизајнирања па напред, да се минимизира осетљивост радиоастрономских станица на интерференцију и да се узме у обзир потреба да се имплементирају мере за ублажавање интерференције.

## АНЕКС 1 НА РЕЗОЛУЦИЈУ 739 (Rev.WRC-07)

### **Нивои прага нежељених емисија**

Нивои прага нежељене емисије који се примењују на геостационарне свемирске станице дати су у Табели 1-1 у смислу густине флуksа снаге (pfd) у референтном опсегу произведеном на радио астрономској станици.

У табели 1-1 нивои прага нежељене емисије дати у четвртој, шестој и осмој колони (придружени референтном опсегу садржаном у суседним колонама) требали би да буду задовољени од стране сваке геостационарне свемирске станице која ради у опсезима индицираним у другој колони на радиоастрономској станици која ради у опсегу споменутом у трећој колони.

Нивои прага нежељене емисије примењиви на свемирске станице не-геостационарних система дати су у Табели 1-2 у смислу еквивалентне густине флуksа снаге (epfd), произведеног на радио астрономској станици у референтном опсегу од свих свемирских станица у не-геостационарном сателитском систему који је видљив дотичној радио астрономској станици, није превазиђен за време датог процента времена, преко целог неба.

У Табели 1-2  $erfd$  вредност дата у четвртој, шестој и осмој колони (придružена референтном опсегу садржаном у суседним колонама) требала би да буде задовољена од стране свих свемирских станица не-геостационарног сателитског система који ради у опсезима назначеним у другој колони на радио астрономској станици која ради у опсегу споменутом у трећој колони. Вредност  $erfd$  на датој радиоастрономској станици треба да буде израчуната користећи антенски сноп и RAS максимално антенско појачање дато у Препоруци ITU-R RA.1631. Смернице за рачунање  $erfd$  могу бити у Препорукама ITU-R S.1586 и ITU-R M.1583. Упадни углови радиоастрономских станица који се узимају у обзир у  $erfd$  израчунавању јесу они већи од минималног упадног угла  $\theta_{min}$  радиотелескопа. У одсуству такве информације вредност  $5^\circ$  треба да се узме. Процент времена за време којег  $erfd$  ниво не сме да буде превазиђен поменут је у Примедби <sup>(1)</sup> Табеле 1-2.

Неки делови Извештаја ITU-R SM.2091 показују нивое нежељених емисија у радио астрономским опсезима који неки сателитски системи, према дизајну, не прелазе.

ТАБЕЛА 1-1

**pfd** прагови нежељених емисија од било које геостационарне свемирске станице на радио астрономској станици

Свемирска служба	Опсег свемирске службе	Радио астрономски опсег	Један тањир, посматрања континуума		Један тањир, посматрања спектралних линија		VLBI		Услов примене: API је примљен од Бироа након ступања на снагу Финалних аката од:
			pfd <sup>(1)</sup>	Референтна ширина опсега	pfd <sup>(1)</sup>	Референтна ширина опсега	pfd <sup>(1)</sup>	Референтна ширина опсега	
			(MHz)	(MHz)	(dB(W/m <sup>2</sup> ))	(MHz)	(dB(W/m <sup>2</sup> ))	(kHz)	
MSS (свемир-Земља)	387-390	322-328.6	-189	6.6	-204	10	-177	10	WRC-07
BSS MSS (свемир-Земља)	1 452-1 492 1 525-1 559	1 400-1 427	-180	27	-196	20	-166	20	WRC-03
MSS (свемир-Земља ) MSS (свемир-Земља )	1 525-1 559 1 613.8- 1 626.5	1 610.6-1 613.8	NA	NA	-194	20	-166	20	WRC-03
RNSS (свемир-Земља )	1 559-1 610	1 610.6-1 613.8	NA	NA	-194	20	-166	20	WRC-07
BSS FSS (свемир-Земља )	2 655-2 670	2 690-2 700	-177	10	NA	NA	-161	20	WRC-03
FSS (свемир-Земља )	2 670-2 690	2 690-2 700 (у Регионима 1 и 3)	-177	10	NA	NA	-161	20	WRC-03
	<b>(GHz)</b>	<b>(GHz)</b>	-	-	-	-	-	-	
BSS	21.4-22.0	22.21-22.5	-146	290	-162	250	-128	250	WRC-03 за VLBI, и WRC-07 за друге типове посматрања

NA: Није применљиво, мерења овог типа нису рађена у овом опсегу.

<sup>(1)</sup> Интегрисано преко референтне ширине опсега са временом интеграције 2 000 s.

ТАБЕЛА 1-2

epfd прагови<sup>(1)</sup> за нежељене емисије од свих свемирских станица не-GSO сателитског система на радио астрономској станици

Свемирска служба	Опсег свемирске службе	Радио астрономски опсег	Један тањир, посматрања континуума		Један тањир, посматрања спектралних линија		VLBI		Услов примене: API је примљен од Бироа након ступања на снагу Финалних аката од:
			epfd <sup>(2)</sup>	Референтна ширина опсега	epfd <sup>(2)</sup>	Референтна ширина опсега	epfd <sup>(2)</sup>	Референтна ширина опсега	
			(MHz)	(MHz)	(dB(W/m <sup>2</sup> ))	(MHz)	(dB(W/m <sup>2</sup> ))	(kHz)	
MSS (свемир-Земља )	137-138	150.05-153	-238	2.95	NA	NA	NA	NA	WRC-07
MSS (свемир-Земља )	387-390	322-328.6	-240	6.6	-255	10	-228	10	WRC-07
MSS (свемир-Земља )	400.15-401	406.1-410	-242	3.9	NA	NA	NA	NA	WRC-07
MSS (свемир-Земља )	1 525-1 559	1 400-1 427	-243	27	-259	20	-229	20	WRC-07
RNSS (свемир-Земља ) <sup>(3)</sup>	1 559-1 610	1 610.6-1 613.8	NA	NA	-258	20	-230	20	WRC-07
MSS (свемир-Земља )	1 525-1 559	1 610.6-1 613.8	NA	NA	-258	20	-230	20	WRC-07
MSS (свемир-Земља )	1 613.8-1 626.5	1 610.6-1 613.8	NA	NA	-258	20	-230	20	WRC-03

NA: Није примењиво, мерења овог типа нису рађена у овом опсегу .

<sup>(1)</sup> Ти epfd прагови не би требало да буду пређени за више од 2% времена.

<sup>(2)</sup> Интегрисано преко референтне ширине опсега са временом интеграције 2000 s.

<sup>(3)</sup> Ова Резолуција се не примењује на текуће и будуће доделе радионавигационог сателитског система GLONASS/GLONASS-M у опсегу 1 559-1 610 MHz, без обзира на датум примања одговарајућих информација за координацију и најаву, према потреби. Заштита радиоастрономске службе у опсегу 1 610.6-1 613.8 MHz је осигурана и наставиће да буде у складу са билатералним споразумом између Руске Федерације, администрације која најављује GLONASS/GLONASS-M систем, и IUCAF, и наредним билатералним споразумима са другим администрацијама.

**MOD** COM5/230/8 (B4/234/7) (R3/292/104)

**РЕЗОЛУЦИЈА 744 (Rev.WRC-07)**

**Дељење између мобилне сателитске службе (Земља-свемир) и фиксних и мобилних служби у опсегу 1 668.4-1 675 MHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је WRC-03 урадио глобалну намену за мобилну сателитску службу (MSS) (Земља-свемир) у опсегу 1 668-1 675 MHz и једну глобалну намену за MSS (свемир-Земља) у опсегу 1 518-1 525 MHz;
- b) да је опсег 1 668.4-1 675 MHz такође намењен фиксним и мобилним службама;
- c) да због услова дељења између MSS (свемир-Земља) и ваздухопловне мобилне службе за телеметрију у опсегу 1 518-1 525 MHz (види No. **5.348B**), MSS операције у САД-у вероватно нису изводљиве;
- d) да горња ограничења MSS-а у опсегу 1 518-1 525 MHz због тога ограничавају могуће коришћење опсега 1 668-1 675 MHz за MSS у САД;
- e) да је опсег 1 670-1 675 MHz коришћен у Канади и САД-у за фиксне и мобилне службе;
- f) да неке администрације раде са преносивим радио релејним системом 1 668.4-1 675 MHz који би радили као део намена фиксних или мобилних служби;
- g) да се дељење између мобилне службе и мобилне сателитске службе (Земља-свемир) у опсегу 1 668.4-1 675 MHz проучава у Препоруци ITU-R M.1799,

*одлучује*

- 2 да је коришћење опсега 1 668.4-1 675 MHz од стране система у мобилној служби лимитирано на преносиве радио релејне системе;
- 2 да администрације које користе преносиве радио релејне системе требало би да узму у обзир Препоруку ITU-R M.1799, која каже да, за адекватну заштиту MSS мрежа, е.и.р. преносивих радио релејних станица не би требало да пређе  $-27$  dB(W/4 kHz) у опсегу 1 668.4-1 675 MHz у смеру геостационарне орбите;
- 3 да од 1.12015. администрације које користе такве системе у мобилној служби треба да ограниче е.и.р. густину спектра израчену у смеру геостационарне орбите ових система на  $-27$  dB(W/4 kHz) у опсегу 1 668.4-1 675 MHz;
- 4 да, у опсегу 1 670-1 675 MHz, станице у MSS не треба да захтевају заштиту од станица у фиксним и мобилним службама које раде у Канади и САД;
- 5 да се одлуке 1, 2 и 3 не односе на станице у фиксним и мобилним службама које раде у Канади и САД.

**ADD** COM4/318/11 (B11/329/42)

## РЕЗОЛУЦИЈА 748 (WRC-07)

### Компатибилност између ваздухопловне мобилне (R) службе и фиксне сателитске службе (Земља-свемир) у опсегу 5 091-5 150 MHz

Светска Конференција о радиокомуникацијама (Женева, 2007),

*констатујући*

- a) да је намена опсега 5 091-5 150 MHz фиксној сателитској служби (FSS) (Земља-свемир) ограничена на спојне везе не-геостационарних сателитских (не-GSO) система у мобилној сателитској служби (MSS);
- b) да је фреквенцијски опсег 5 000-5 150 MHz тренутно намењен ваздухопловној мобилној сателитској (R) служби (AMS(R)S), према споразуму направљеном под No. **9.21**, и ваздухопловној радионавигационој служби (ARNS);
- c) да је ова Конференција наменила опсег 5 091-5 150 MHz ваздухопловној мобилној служби (AMS) на примарној основи према No. **5.4B03**;
- d) да је Међународна организација за цивилно ваздухопловство (ICAO) у процесу идентификације техничких и радних карактеристика нових система који раде у AM(R)S у опсегу 5 091-5 150 MHz;
- e) да је компатибилност једног AM(R)S система, која се користи за ваздухоплове на писти, и FSS демонстрирана у опсегу 5 091-5 150 MHz;
- f) да ИТУ-R студије испитују потенцијално дељење између AMS примена и показују да здружена интерференција од ваздухопловне безбедности, ваздухопловне телеметрије и AM(R)S не би требала да буде већа од  $3\% \Delta T_s/T_s$ ;
- g) да фреквенцијски опсег 117.975-137 MHz тренутно намењен AM(R)S достиже засићење у извесним подручјима у свету, и због тога тај опсег не би био у стању да подржи додатне примене на писти аеродрома;
- h) да су те нове намене намењене да подрже увођење примена и концепата у вођењу ваздушног саобраћаја који је интензиван у смислу протока података, и које ће подржати податковне везе које носе податке критичне за безбедност ваздухоплова,

*препознајући*

- a) да у фреквенцијском опсегу 5 030-5 091 MHz предност треба да има микроталасни копнени систем (MLS) у складу са No. **5.444**;
- b) да ИCAO публикује признате међународне ваздухопловне стандарде за AM(R)S системе;
- c) да се Резолуција **114 (Rev.WRC-03)** примењује на услове дељења између FSS и ARNS у опсегу 5 091-5 150 MHz,

*констатујући*

- a) да број FSS захтеваних предајних станица може бити ограничен;
- b) да коришћење опсега 5 091-5 150 MHz од стране AM(R)S треба да осигура заштита текућег или планираног коришћења тог опсега од FSS (Земља-свемир);
- c) да ИТУ-R студије описују методе за осигурање компатибилност између AM(R)S и FSS операција у опсегу 5 091-5 150 MHz, а компатибилност је приказана за AM(R)S систем наведен у *узимајући у обзир e*),

*одлучује*

- 1 да било који АМ(Р)S системи који раде у опсегу 5 091-5 150 MHz не смеју да узрокују штетне сметње, нити захтевати заштиту због тога, системима који раде у ARNS;
- 2 да било који АМ(Р)S системи који раде у фреквенцијском опсегу 5 091-5 150 MHz треба да задовоље SARPs захтеве публиковане у Анексу 10 од ICAO Конвенцији о међународном цивилном ваздухопловству и захтеви Препоруке ITU-R M.1827 да се осигура компатибилност са FSS системима који раде у том опсегу;
- 3 да, делимично да се задовоље одредбе од No. **4.10**, координацијска удаљеност у односу на станицу у FSS која ради у опсегу 5 091-5 150 MHz треба да је базирана на осигурању да сигнал примљен на АМ(Р)S станици од FSS предаје не прелази  $-143 \text{ dB(W/MHz)}$ , где захтевани губици основног преноса треба да буду одређени користећи методе описане у Препорукама ITU-R P.525-2 и ITU-R P.526-10,

*позива*

- 1 администрације да допуне техничке и операционе критеријуме неопходне за студије дељења за АМ(Р)S, и да активно учествују у тим студијама;
- 2 ICAO и друге организације да активно учествују у тим студијама,

*налаже Генералном секретару*

да стави ову Резолуцију на увид ICAO.

**ADD** (R9/425/18)

## РЕЗОЛУЦИЈА 749 (WRC-07)

### **Студије о коришћењу опсега 790-862 MHz од мобилних примена и других служби**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да су повољне карактеристике пропагације опсега 470-806/862 MHz добре да омогуће економична решења за покривање, укључујући велика подручја са малом густином становништва;
- b) да рад радиодифузних станица и базних станица у истом географском подручју може да креира проблеме инкомпатибилности;
- c) да се, према Резолуцији **646 (WRC-03)**, опсежи 764-776 MHz и 794-806 MHz сада користе у неким земљама за Јавну безбедност и олакшање несрећа (PPDR); и опсежи 806-866 MHz (у Региону 2) и 806-824 MHz и 851-869 MHz (у Региону 3) су сада идентификовани за PPDR;
- d) да су многе заједнице неки пут мање покривене сервисима него урбани центри;
- e) да помоћне примене за радиодифузију деле опсег 470-862 MHz са радиодифузном службом у сва три Региона, и очекује се да наставе рад у том опсегу;
- f) да је потребно да се адекватно обезбеди, *inter alia*, земаљска телевизијска радиодифузија и други системи у том опсегу

*препознајући*

- a) да је, у Члану 5 Правилника о радиокомуникацијама, опсег 790-862 MHz, или део тог опсега, намењен, и користи се на примарној основи, за службе које нису радиодифузија;

- b) да је фреквенцијски опсег 470-806/862 MHz намењен радиодифузној служби на примарној основи у сва три Региона и користи га претежно та служба, и да се споразум GE06 примењује у свим земљама Региона 1 осим Монголије и једне земље у Региону 3;
- c) да се очекује да ће прелаз од аналогне на дигиталну телевизију да резултује ситуацијом где ће опсег 790-862 MHz да се користи за обе, аналогне и дигиталне земаљске емисије; и да захтев за спектром за време прелазног периода може бити чак и већи него при самосталној употреби аналогног радиодифузног система;
- d) да тренутак преласка на дигитално може резултовати у приликама за спектар за многе примене;
- e) да ће време преласка на дигитално вероватно да варира од земље до земље;
- f) да би за коришћење спектра за различите службе требало водити рачуна о потреби за студијама дељења;
- g) да Правилник о радиокомуникацијама омогућује да идентификација датог опсега за ИМТ не спречава коришћење тога опсега од било које примене служби којима је намењен и не поставља приоритет у Правилник о радиокомуникацијама;
- h) да GE06 Споразум садржи одредбе за земаљску радиодифузну службу и друге земаљске службе, План за дигиталну TV, и Листу осталих примарних земаљских служби,  
*констатујући*

да Резолуција ИТУ-R 57 омогућава принципе за процес развоја ИМТ-Напредног и тај процес је планиран да стартује после ове Конференције,

*наглашавајући*

- a) да је коришћење опсега 470-862 MHz од стране радиодифузних и осталих примарних служби такође покривено GE06 Споразумом;
- b) да захтеви различитих служби којима је опсег намењен, укључујући мобилну и радиодифузну службу, треба да се узму у обзир,  
*одлучује*

1 да позове ИТУ-R да поведе студије дељења за Регионе 1 и 3 у опсегу 790-862 MHz између мобилне службе и других служби да би се заштитиле службе за које је фреквенцијски опсег сада намењен;

2 да позове ИТУ-R да извести о резултатима студија из *одлучује* 1 на разматрање WRC-11 да се предузму одговарајуће мере,

*позива администрације*

да учествују у студијама дајући допринос ИТУ-R.

*позива Директора Бироа за развој телекомуникација*

да скрене пажњу Сектору за развој телекомуникација на ову резолуцију.

**ADD** COM5/372/7 (B15/396/15)

## РЕЗОЛУЦИЈА 750 (WRC-07)

### **Компатибилност између сателитске службе истраживања Земље (пасивно) и релевантне активне службе**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да су примарне намене урађене разним свемирским службама као што је фиксна сателитска (Земља-свемир), служба операција у свемиру ((Земља-свемир) и међусателитска служба и/или земаљским службама као што је фиксна служба, мобилна служба и радиолокациона служба, у даљем тексту “активна служба”, у опсезима суседним или блиским онима намењеним сателитској служби истраживања Земље (EESS) (пасивно) према Но. **5.340**;
- b) да нежељене емисије активних служби имају потенцијал да узрокују неочекивану интерференцију сензорима EESS (пасивно);
- c) да, због техничких или радних разлога, генерални лимити у Додатку **3** могу бити недовољни у заштити (пасивно) у специфичним опсезима;
- d) да су, у многим случајевима, фреквенције коришћене за сензоре EESS (пасивно) изабране за проучавање природних феномена производећи радио емисије на фреквенцијама одређеним законима природе, и због тога померање фреквенције да се избегну или смање интерференцијски проблеми није могуће;
- e) да је опсег 1 400-1 427 MHz коришћен за мерење влажности земљишта, и такође за мерење салинитета и вегетацијске биомасе на површини мора;
- f) да је дугорочна заштита EESS у опсезима 23.6-24 GHz, 31.3-31.5 GHz, 50.2-50.4 GHz и 52.6-54.25 GHz витална за прогнозу времена и управљање код катастрофа, и мерења на неколико фреквенција морају бити рађена истовремено да би се изоловао и извукао сваки посебни допринос;
- g) да, у много случајева, суседни или блиски опсези пасивних служби се користе и наставиће да се користе за различите примене активних служби;
- h) да је потребно да се осигура равномерна расподела оптерећења за постизање компатибилности између активних и пасивних служби које раде у суседним или блиским опсезима,

*констатујући*

- a) да су студије компатибилности између релевантних активних и пасивних служби које раде у суседним или блиским опсезима документоване у Извештају ITU-R SM.2092;
- b) да Препорука ITU-R RS.1029 даје критеријуме интерференције за сателитско удаљено пасивно читавање,

*констатујући даље*

да, у сврху ове Резолуције:

- комуникација тачка-тачка се дефинише као радиокомуникација преко везе, на пример радио релејна веза, између две станице смештене на специфицираним фиксним тачкама;
- комуникација тачка-тачка дефинише се као радиокомуникација преко веза између једне станице смештене на специфицираној фиксној тачки (званој такође “hub

станција”) и више станица смештених на специфицираним фиксним тачкама (званим такође “станице клијенти”),

*констатујући*

да студије документоване у Извештају ITU-R SM.2092 не разматрају комуникационе везе тачка-више тачака у фиксној служби у опсезима 1 350-1 400 MHz и 1 427-1 452 MHz,

*одлучује*

1 да нежељене емисије станица стављених у употребу у опсезима и службама излистаним у Табели 1-1 ниже не смеју да пређу одговарајуће лимите из те табеле, према специфицираним условима;

2 да ургира администрацијама да предузму све разумне кораке да осигурају да нежељене емисије станица активних служби у опсезима и служби излистаних у Табели 1-2 ниже не прелазе препоручене максималне нивое садржане у тој табели, примећујући да EESS (пасивни) сензори омогућују глобална мерења која користе свим земљама, чак и ако тим сензорима не управљају њихове земље;

3 да Биро за радиокомуникације не треба да ради испитивања или налажења у погледу сагласности са овом Резолуцијом под Чланом **9** или **11**.

ТАБЕЛА 1-1

EESS (пасивно) Опсег	Активна служба Опсег	Активна служба	Лимити максималног нивоа снаге емисије станица активне службе у специфицираној ширини опсега унутар EESS (пасивно) опсега <sup>1</sup>
23.6-24.0 GHz	22.55-23.55 GHz	Међусателитска	-36 dBW у било којем 200 MHz EESS (пасивно) опсега за не-геостационарне (не-GSO) системе међусателитске службе (ISS) за које је комплетна напредна публикована информација примљена у Биро пре 1.1.2020., и -46 dBW у било којем 200 MHz EESS (пасивно) опсега за не-GSO ISS системе за које је комплетна напредна публикована информација примљена у Биро на и после 1.1.2020.
31.3-31.5 GHz	31-31.3 GHz	Фиксна (искључујући HAPS)	За станице дате на коришћење после 1.1.2012: -38 dBW у било којем 100 MHz EESS (пасивно) опсега. Овај лимит се не примењује на станице које су ауторизоване пре 1.1.2012.
50.2-50.4 GHz	49.7-50.2 GHz	Фиксна сателитска (E-s) <sup>2</sup>	За станице дате на коришћење после датума ступања на снагу Финалног акта WRC-07: -10 dBW у 200 MHz EESS (пасивно) опсега за земаљске станице које имају антенско појачање једнако или веће од 57 dBi -20 dBW у 200 MHz EESS (пасивно) опсега за земаљске станице које имају антенско појачање мање од 57 dBi
50.2-50.4 GHz	50.4-50.9 GHz	Фиксне сателитске (E-to-s) <sup>2</sup>	За станице дате на коришћење после датума ступања на снагу Финалног акта WRC-07: -10 dBW у 200 MHz EESS (пасивно) опсега за земаљске станице које имају антенско појачање једнако или веће од 57 dBi -20 dBW у 200 MHz EESS (пасивно) опсега за земаљске станице које имају антенско појачање мање од 57 dBi
52.6-54.25 GHz	51.4-52.6 GHz	Фиксна	За станице дате на коришћење после датума ступања на снагу Финалног акта WRC-07: -33 dBW у 100 MHz EESS (пасивно) опсега

<sup>1</sup> Под нивоом снаге нежељене емисије овде се сматра ниво мерен на антенском прикључку.

<sup>2</sup> Ови лимити примењују се у условима чистог неба. За време фединга, ти нивои могу бити превазиђени користећи контролу снаге за везу према горе.

ТАБЕЛА 1-2

EESS (пасивно) Опсег	Активна служба Опсег	Активна служба	Препоручени максимални ниво снаге емисије станица активне службе у специфицираној ширини опсега унутар EESS (пасивно) опсега <sup>1</sup>
1 400-1 427 MHz	1 350-1 400 MHz	Радиолокациона <sup>2</sup>	-29 dBW у 27 MHz EESS (пасивно) опсега
		Фиксна	-45 dBW у 27 MHz EESS (пасивно) опсега за тачка-тачка
		Мобилна	-60 dBW у 27 MHz EESS (пасивно) опсега за станице мобилних служби осим преносивих радио релејних станица -45 dBW у 27 MHz EESS (пасивно) опсега за преносиве радио релејне станице
	1 427-1 429 MHz	Свемирске операције (E-c)	-36 dBW у 27 MHz EESS (пасивно) опсег
	1 427-1 429 MHz	Мобилна осим ваздухопловне мобилне	-60 dBW у 27 MHz EESS (пасивно) опсега за станице мобилне службе изузев преносиве радио релејне станице <sup>3</sup> -45 dBW у 27 MHz EESS (пасивно) опсега за преносиве радио релејне станице
		Фиксна	-45 dBW у 27 MHz EESS (пасивно) опсега за тачка-тачка
	1 429-1 452 MHz	Мобилна	-60 dBW у 27 MHz EESS (пасивно) опсега за станице мобилне службе изузев преносиве радио релејне станице <sup>3</sup> -45 dBW у 27 MHz EESS (пасивно) опсега за преносиве радио релејне станице -28 dBW у 27 MHz EESS (пасивно) опсега за ваздухопловне телеметријске станице <sup>4</sup>
		Фиксна	-45 dBW у 27 MHz EESS (пасивно) опсега за тачка-тачка
31.3-31.5 GHz	30.0-31.0 GHz	Фиксна сателитска (E-s) <sup>5</sup>	-9 dBW у 200 MHz EESS (пасивно) опсега за земаљске станице које имају антенско појачање веће или једнако 56 dBi -20 dBW у 200 MHz EESS (пасивно) опсега за земаљске станице 56 dBi

<sup>1</sup> Под нивоом снаге нежељене емисије овде се сматра ниво мерен на антенском прикључку.

<sup>2</sup> Под средња снага овде се сматра тотална снага мерена на антенском прикључку (или на неком еквиваленту) у опсегу 1 400-1 427 MHz, упросечена по периоду реда 5 секунди.

<sup>3</sup> Станице мобилне службе за бежичне системе, укључујући оне сагласне са Препоруком ITU-R M.1457 или IMT стандардима, вероватно задовољавају тај ниво снаге нежељених емисија.

<sup>4</sup> Опсег 1 429-1 435 MHz је такође намењен ваздухопловној мобилној служби у осам администрација Региона 1 на примарној бази искључиво за сврхе ваздухопловне телеметрије у оквиру њихових националних територија (RR No. 5.342).

<sup>5</sup> Препоручени максимални нивои примењују се у условима чистог неба. За време фединга, ти нивои могу бити превазиђени од стране земаљских станица кад користе контролу снаге за везу према горе.

**ADD** COM5/373/4 (B15/396/16)

## РЕЗОЛУЦИЈА 751 (WRC-07)

### Коришћење фреквенцијског опсега 10.6-10.68 GHz

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је фреквенцијски опсег 10.6-10.7 GHz намењен сателитској служби истраживања Земље (EESS) (пасивној) и служби истраживања свемира (пасивној) на примарној основи;
- b) да је опсег 10.6-10.7 GHz од примарног значаја за мерење кише, снега, стања мора, океанског ветра и влажности земљишта;
- c) да тај фреквенцијски опсег користе пасивни сензори за студије природних феномена производећи радио емисије на фреквенцијама фиксираним по природи ствари, и због тога померање фреквенције да се избегне или ублажи проблем није могуће;
- d) да свако ограничење рада пасивних сензора у опсегу 10.68-10.7 GHz које покрива Но. **5.340** би деградирало осетљивост тих сензора;
- e) да је фреквенцијски опсег 10.6-10.68 GHz такође намењен мобилној, осим ваздухопловне мобилне, и фиксној служби на примарној основи;
- f) да искуство показује да EESS (пасивни) сензори који тренутно раде у опсегу 10.6-10.68 GHz сусрећу високе нивое интерференције од емисија активних служби у неким деловима света;
- g) да су студије показале да одговарајући критеријуми дељења примењиви на обе, пасивне и активне службе, би редуковали ту интерференцију на ниво који би дозволио пасивним сензорима да успешно раде, истовремено дозвољавајући наставак рада активних служби у истом опсегу,

*констатујући*

да, у сврху ове Резолуције:

- комуникација од тачка-тачка као радиокомуникација путем везе, на пример радиорелејне везе, између две станице лоцираним на специфицираним фиксним тачкама;
- комуникација тачка-више тачака дефинише се као радиокомуникација путем веза између једне станице лоциране на специфицираној фиксној тачки (такође звана “хаб станица”) и једног броја станица лоцираних на специфицираним фиксним тачкама (такође зване “клијент или корисничке станице”);
- аутоматска контрола предајне снаге (АТРС) је техника у којој излазна снага микроталасног предајника аутоматски варира да компензује услове простирања на неком путу; код нормалних услова простирања, АТРС одржава излазну снагу предајника на ниском нивоу; АТРС је карактерисана својим опсегом, који је дефинисан као разлика између максималне и минималне вредности предајне снаге, и нема утицаја на дизајн одговарајуће везе,

*одлучује*

1 да ургира администрацијама да предузму све разумне кораке да се усагласе са критеријумима дељења у Табелама 1 до 4 садржаним у Анексу 1 ове Резолуције код пуштања

у рад станица у сателитској служби истраживања Земље (пасивно), фиксној служби и мобилној, изузев ваздухопловне мобилне, служби, констатујући да EESS (пасивно) сензори омогућују мерења широм света која користе свим земљама, чак иако тим сензорима не управља њихова земља;

2 да Биро за радиокомуникације не треба да ради било каква испитивања или изналажења у односу на сагласност са овом Резолуцијом под Чланом 9 или 11.

### АНЕКС 1 НА РЕЗОЛУЦИЈУ 751 (WRC-07)

### Критеријуми дељења у опсегу 10.6-10.68 GHz

ТАБЕЛА 1

#### Сателитска служба истраживања Земље (пасивно)

Параметар	Вредност
Упадни угао (дефинисан као угао на површини Земље између локалног вертикалног и смера пасивног сензора)	$\leq 60^\circ$
Просторна резолуција (дефинисана као максимални пресек пасивног сензора $-3$ dB контура на површини Земље)	$\leq 50$ km (Види Примедбу 1)
Ефикасност главног снопа (дефинисана као енергија главне и компоненти унакрсно поларизованих у оквиру регије 2.5 пута $-3$ dB снопа, релативно укупној енергији по свим угловима)	$\geq 85\%$ (Види Примедбу 1)

ПРИМЕДБА 1 – Ови параметри се једино примењују на реални отвор EESS (пасивно) система.

ТАБЕЛА 2

#### Станице система од тачка-тачка у фиксној служби

Параметар	Вредност
Максимални упадни угао	$20^\circ$
Максимална предајна снага на антенском прикључку	$-15$ dBW (Види Примедбе 2 и 3)

ПРИМЕДБА 2 – У случају система тачка-тачка који користе АТРС, максимална предајна снага на антенском прикључку може бити повећана за вредност која одговара АТРС опсегу, до максимума  $-3$  dBW.

ПРИМЕДБА 3 – У случају фиксне службе тачка-тачка коришћене за једносмерне преносе радиодифузних апликација, максимална снага предајника на антенском прикључку може бити повећана до  $-3$  dBW. За такве апликације, ургира се администрацијама да ограниче е.и.р. ван главне осе изван  $20^\circ$  елевације до нивоа  $-10$  dBW.

ТАБЕЛА 3

Станице система тачка-више тачака у фиксној служби

Параметар	Вредност
<b>Хаб станице</b> (Види Примедбу 4)	
Максимална снага предајника на антенском прикључку	-7 dBW
Максимална изван осе е.и.г.р. изнад 20° од хоризонталне равни	-6 dBW
Максимална изван осе е.и.г.р. изнад 45° од хоризонталне равни	-11 dBW
Максимална изван осе е.и.г.р. at 90° од хоризонталне равни	-13 dBW
<b>Корисничке станице</b> (Види Примедбу 4)	
Максимални угао елевације	20°
Максимална снага предајника на антенском прикључку	-8 dBW
Максимална изван осе е.и.г.р. изнад 45° од хоризонталне равни	-18 dBW
	(Види Примедбу 5)

NOTE 4 –Администрације које планирају постављања тачка-више тачака у опсегу 10.6-10.68 GHz, у пару са другим фреквенцијским опсегом, подстичу се да поставе једино повратне везе (на пр. емисије од корисничких станица) у опсегу 10.6-10.68 GHz.

NOTE 5 – У случају система од тачка-више тачака који користе АТРС, максимална снага предајника на антенском прикључку може да се повећа за вредност која одговара АТРС опсегу, до максимално -3 dBW.

ТАБЕЛА 4

Станице у мобилној служби

Параметар	Вредност
Максимална снага предајника на антенском прикључку	-17 dBW (Види Примедбу 6)

ПРИМЕДБА 6 – У случају система мобилне службе који се користе за радиодифузне примене, максимална снага предајника на антенском прикључку може бити повећана до -3 dBW. За такве примене, ургира се администрацијама да ограниче изван осе е.и.г.р. изнад 20° елевације на ниво -10 dBW.

**ADD** COM5/373/8 (B15/396/17)

РЕЗОЛУЦИЈА 752 (WRC-07)

**Коришћење фреквенцијског опсега 36-37 GHz**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је фреквенцијски опсег 36-37 GHz намењен за Сателитску службу истраживања Земље (EESS) (пасивно) и служби за истраживање свемира (пасивно) на примарној основи;
- b) да је опсег 36-37 GHz најинтересантнији за мерење кише, снега, леда у океану испаравања вода;
- c) да тај фреквенцијски опсег користе пасивни сензори за проучавање природних феномена који стварају радиоемисије на фреквенцијама одређеним законима природе, и зато помицање фреквенције да би се избегли и ослабили проблеми интерференције није могуће;
- d) да је фреквенцијски опсег 36-37 GHz такође намењен фиксној и мобилној служби на примарној основи;
- e) да EESS (пасивно) која ради у опсегу 36-37 GHz може бити погођена интерференцијом од емисија система активних служби;
- f) да су студије показале да би одговарајући критеријуми дељења примењиви на обе службе, пасивну и активну, редуковали интерференцију на ниво који би дозволио пасивним

сензорима да раде успешно у том опсегу, истовремено дозвољавајући наставак рада активних служби у истом опсегу,

*констатујући*

да, у сврху ове Резолуције:

- да је комуникација тачка-тачка дефинисана као радиокомуникација омогућена везом, на пример радио-релејном везом, између две станице смештене на специфицираним фиксним тачкама;
- да је комуникација тачка-више тачака дефинисана као радиокомуникација омогућена везама између једне станице смештене на специфицираној фиксној тачки (такође звана “хаб станица”) и неколико станица смештених на специфицираним фиксним тачкама (такође зване “клијент или корисничке станице”);
- аутоматска контрола предајне снаге (АТРС) јесте техника у којој излазна снага микроталасног предајника аутоматски варира да компензује услове на путу простирања; у нормалним условима простирања, АТРС одржава снагу предајника на ниском нивоу; АТРС је карактерисана њеним опсегом, који се дефинише као разлика између максималних и минималних вредности предајне снаге,

*одлучује*

1 да у сврху олакшавања дељења између активних и пасивних служби у опсегу 36-37 GHz, EESS (пасивно) станице пуштене у рад након датума ступања на снагу Финалних аката WRC-07 треба да одговарају критеријумима дељења садржаним у Табели 1 Анекса 1 ове Резолуције;

2 да у сврху олакшавања дељења између активних и пасивних служби у опсегу 36-37 GHz, станице система тачка-тачка у фиксној служби пуштене у рад након 1.1.2012. треба да одговарају критеријумима дељења садржаним у Табели 2 Анекса 1 ове Резолуције;

3 да у сврху олакшавања дељења између активних и пасивних служби у опсегу 36-37 GHz, станице система тачка-више тачака у фиксној служби пуштене у рад након датума ступања на снагу Финалних аката WRC-07 треба да одговарају критеријумима дељења садржаним у Табели 2 Анекса 1 ове Резолуције;

4 да у сврху олакшавања дељења између активних и пасивних служби у опсегу 36-37 GHz, станице у мобилној служби пуштене у рад након датума ступања на снагу Финалних аката WRC-07 треба да одговарају критеријумима дељења садржаним у Табели 3 Анекса 1 ове Резолуције;

5 да Биро за радиокомуникације не треба да ради испитивања и тражења у вези сагласности са овом Резолуцијом под Члановима **9** или **11**.

АНЕКС 1 РЕЗОЛУЦИЈЕ 752 (WRC-07)  
Критеријуми дељења у опсегу 36-37 GHz

ТАБЕЛА 1

Сателитска служба истраживања Земље (пасивно)

Параметар	Вредност
Упадни угао (дефинисан као угао на површини Земље између локалне вертикале и смера пасивног сензора)	$\leq 60^\circ$
Просторна резолуција (дефинисана као максимални пресек контуре пасивног сензора $-3$ dB на површини Земље)	$\leq 50$ km (Види Примедбу 1)
Ефикасност главног снопа (дефинисана као енергија главних и унакрсно поларизованих компонената унутар 2.5 пута $-3$ dB регионе снопа, релативно на укупну енергију унутар свих углова)	$\geq 92\%$ (Види Примедбу 1)

ПРИМЕДБА 1 – Ови параметри се једино примењују на реални отвор EESS (пасивно) система.

ТАБЕЛА 2

Фиксна служба

Параметар	Вредност
Максимални упадни угао	$20^\circ$
<b>Системо тачка-тачка</b> Максимална предајна снага на антенском прикључку	$-10$ dBW (Види Примедбу 2)
<b>Системи тачка-више тачака</b> Максимална предајна снага на антенском прикључку хаб станица Максимална предајна снага на антенском прикључку клијент станица	$-5$ dBW $-10$ dBW (Види Примедбу 2)

ПРИМЕДБА 2 – У случају система фиксне службе који користе АТРС, максимална предајна снага на антенском прикључку може бити повећана за вредност која одговара АТРС опсегу, до максимално  $-7$  dBW.

ТАБЕЛА 3

Мобилна служба

Параметар	Вредност
Максимална предајна снага на антенском прикључку	$-10$ dBW (Види Примедбу 3)

ПРИМЕДБА 3 – Максимална предајна снага на антенском прикључку може бити повећана до  $-3$  dBW за станице које се користе з јавну безбедност и управљање у несрећама.

**ADD** PLEN/408/7 (B24/419/8)

**РЕЗОЛУЦИЈА 753 (WRC-07)**

**Коришћење опсега 22.55-23.15 GHz од стране службе истраживања свемира**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да постоји растући интерес у свету за свеобухватно истраживање свемира посебно у вези Месеца;

b) да ће мисије истраживања Месеца, испитујући терен, околину и потенцијална места за слетање, бити роботизоване у догледној будућности, а с људском посадом на дуге стазе;

c) да је примарна намена за службу истраживања свемира (свемир-Земља) у опсегу 25.5-27.0 GHz додана у Табелу намене фреквенција да подржи широк распон мисија истраживања свемира;

d) да ће емисије службе истраживања свемира (свемир-Земља) у опсегу 25.5-27.0 GHz бити коришћене да подрже мисије службе истраживања свемира у орбити близу Земље, укључујући мисије у транзиту на Месецу, ка Месецу и у близини Месеца;

e) да ће емисије службе истраживања свемира (свемир-Земља) у опсегу 25.5-27.0 GHz бити коришћене за обоје, добијање научних података и глас/видеокомуникације са Земљом;

f) да постоји потреба за опсегом за пратећу везу према горе службе истраживања свемира (Земља-свемир) за слање података мисији, команди и контролних веза за мисије истраживања Месеца;

g) да због потенцијално много конкурентних система за истраживање и захтева и захтевима за великом ширином опсега тих система, нарочито оних за подршку мисијама с посадом, предвиђања су да ће требати укупна ширина опсега за од најмање неколико стотина MHz;

h) да је опсег 22.55-23.15 GHz довољно далеко од опсега 25.5-27.0 GHz да омогући адекватну фреквенцијску сепарацију;

i) да је опсег 22.55-23.55 GHz коришћен за комуникационе сателитске системе за везу са корисничким сателитима (везе за прослеђивање) у постојећим примарним наменама међусателитске службе;

j) да је опсег 22.55-23.15 GHz логичан пратећи опсег да обезбеди неопходну ширину опсега за везу према горе и коришћењем истог опсега као комуникациони сателитски системи у *узимајући у обзир i*) за радиокомуникације у смеру Земља-свемир, омогућује степен редундансе и покривање које се може показати витално за будуће мисије,

*препознајући*

1 да је опсег 22.55-23.55 GHz намењен фиксној, међусателитској и мобилној службама;

2 да међусателитске везе за прослеђивање у опсегу 22.55-23.55 GHz јесу упарене са међусателитским повратним везама у опсегу 25.25-27.5 GHz;

3 да не-GSO везе међусателитске службе раде већ неколико година и очекује се да ће да наставе радити у опсегу 23.183-23.377 GHz и да се те везе све више користе у ванредним ситуацијама и природних катастрофа;

4 да системи из *препознајући* 1 треба да буду заштићени и њихови будући захтеви се узимају у обзир,

*одлучује*

1 да позове ITU-R да поведе студије дељења између система истраживачких служби који раде у смеру Земља-свемир и фиксне, међусателитске и мобилне службе у опсегу 22.55-23.15 GHz, и да предложи одговарајуће критеријуме дељења за неку намену служби истраживања свемира у смеру Земља -свемир;

2 да позове WRC-11 да прегледа резултате студија под *одлучује* 1 и узме у обзир укључивање критеријума дељења у оквиру Правилника о радиокомуникацијама и одговарајуће модификације у Табели намене фреквенција,

*позива администрације*

да дају допринос студијама дељења између службе истраживања свемира и фиксне, међусателитске и мобилне службе у опсегу 22.55-23.15 GHz,

*позива ITU-R*

да комплетира неопходне студије, као хитну ствар, узимајући у обзир садашње коришћење намењеног опсега, у погледу презентовања, у одговарајуће време, техничких информација које ће вероватно бити потребне као један од основа за рад конференције,

*налаже Генералном секретару*

да стави ову Резолуцију на пажњу заинтересованим међународним и регионалним организацијама.

**ADD** PLEN/408/8 (B24/419/9)

## РЕЗОЛУЦИЈА 754 (WRC-07)

### **Разматрање модификације ваздухопловне компоненте намене мобилној служби у опсегу 37-38 GHz за заштиту других примарних служби у том опсегу**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

*a)* да је опсег 37-38 GHz намењен на примарној основи фиксној, мобилној и служби истраживања свемира (свемир-Земља), и део 37.5-38 GHz тог опсега је такође намењен на примарној основи фиксној сателитској служби (свемир-Земља);

*b)* да нека ваздухопловна мобилна станица може узроковати неприхватљиве сметње пријемницима у фиксној служби (укључујући примене велике густине), као и пријемницима копнене мобилне, поморске мобилне и фиксне сателитске (свемир-Земља у оквиру оптичке видљивости);

*c)* да нека ваздухопловна мобилна станица може узроковати неприхватљиве сметње пријемницима у служби истраживања свемира кад год је она у оптичкој видљивости пријемника, како је наведено у Препоруци ITU-R SA.1016;

d) да сметње од емисија неке ваздухопловне мобилне станице пријемницима земаљске станице службе за истраживање свемира могу знатно превазићи дозвољене нивое сметњи у дужем временском периоду, доводећи тако у опасност свемирску мисију,

*препознајући*

a) да Табела намене фреквенција већ искључује рад ваздухопловних мобилних станица у опсезима 2.29-2.3 GHz, 8.4-8.5 GHz и 22.21-22.5 GHz који су мобилној служби ко-намењени на примарној основи са службом истраживања свемира (свемир-Земља), и у опсегу 31.5-31.8 GHz где је намена мобилне службе на скундарној основи;

b) да Табела намене фреквенција такође већ искључује рад ваздухопловних мобилних станица у многим опсезима који су мобилној служби ко-намењени на примарној основи са фиксном службом, као и у опсегу 11.7-12.5 GHz, или са фиксном службом и фиксном сателитском службом (свемир-Земља), као у опсегу 7 300-7 750 MHz;

c) да RR No. **5.547** показује да је опсег 37-38 GHz доступан за примене велике густине у фиксној служби;

d) да је коришћење опсега 37-38 GHz потребно за подршку растућих захтева за количином података код планираних научних мисија и оних са људском посадом,

*констатујући*

c) да се системи ваздухопловне мобилне службе тренутно нити постављају нити планирају у опсегу 37-38 GHz;

d) да су студије дељења између службе истраживања свемира (свемир-Земља) и ваздухопловне мобилне службе већ почеле,

*одлучује*

1 да позове ИТУ-Р да поведе одговарајуће студије укључујући ваздухопловну мобилну службу и дотичне примарне службе у опсегу 37-38 GHz да се одреди компатибилност ваздухопловне мобилне службе са тим другим службама;

2 да позове WRC-11 да прегледа резултате студија под *одлучује* 1 и узме у обзир укључење свих потребних критеријума компатибилности унутар Правилника о радиокомуникацијама или одговарајућих модификација Табеле намене фреквенција,

*позива ИТУ-Р*

да комплетира неопходне студије, као хитну ствар, узимајући у обзир садашње коришћење намењеног опсега, у погледу презентовања, у одговарајуће време, техничких информација које ће вероватно бити потребне као један од основа за рад конференције,

*позива администрације*

да дају допринос студијама компатибилности између ваздухопловне мобилне службе и других служби у опсегу 37-38 GHz,

*налаже Директору ВР*

да стави ову Резолуцију на пажњу заинтересованим међународним и регионалним организацијама.

**ADD** COM6/338/3 (B12/346/17) (R6/410/80)

## РЕЗОЛУЦИЈА 804 (WRC-07)

### Принципи за постављање дневног реда за светске конференције о радиокомуникацијама

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да у сагласности са No. 118 ИТУ Конвенције, општи делокруг дневних редова за светске конференције о радиокомуникацијама (WRCs) требало би да буде постављен четири до шест година унапред;
- b) Члан 13 ИТУ Статута који се односи на компетенцију и време за WRC и Члан 7 Конвенције који се односи на дневне редове за њих;
- c) да No. 92 Статута и Nos. 488 и 489 Конвенције захтевају да конференције буду фискално одговорне;
- d) да у Резолуцији 71 (Rev. Marrakesh, 2002), која разматра стратегијски план Уније, Конференција опуномоћеника је констатовала растућу комплексност и величину дневних редова светске конференције о радиокомуникацијама;
- e) да Резолуција 80 (Rev. Marrakesh, 2002) Конференције опуномоћеника и Резолуција 72 (Rev. WRC-07) препознају позитиван допринос регионалних и неформалних група и потребу за већом ефикасношћу и фискалном разборитошћу;
- f) релевантне Резолуције пређашњих WRCs,

*констатујући*

- a) да број питања адресираних у дневним редовима за WRCs расте, и да нека питања не би могла бити адекватно решена у времену одређеном за Конференцију, укључујући припреме за конференцију;
- b) да неке тачке дневног реда могу имати већи утицај на будућност радиокомуникација него друге;
- c) да су људски и финансијски ресурси ИТУ ограничени;
- d) да постоји потреба да се ограничи дневни ред конференција, водећи рачуна о потребама земаља у развоју, на начин да главна питања буду третирана једнако и ефикасно,

*одлучује*

да би принципи у Анексу 1 требали бити коришћени код прављења будућих WRC дневних редова,

*одлучује да позове администрације*

- 1 да користе шаблон у Анексу 2 у предлагању тачака дневног реда за WRCs;
- 2 да учествују у регионалним активностима за припрему будућих WRC дневних редова.

### АНЕКС 1 НА РЕЗОЛУЦИЈУ 804 (WRC-07)

#### Принципи за постављање дневног реда за WRCs

Дневни ред конференције треба да укључи:

- 1) тачке које је укључила ИТУ Конференција опуномоћеника;

- 2) тачке о којима је захтевано од Директора Бироа за радиокомуникације да поднесе извештај;
- 3) тачке које се тичу инструкција Борду за Правилник о радиокомуникацијама и Бироу за радиокомуникације о њиховим активностима, и ревизије тих активности.

Генерално, конференција може да укључи у дневни ред будуће конференције неку тачку предложену од групе администрација или једне администрације, ако су сви следећи услови задовољени:

- 1) адресира питање светског или регионалног карактера;
- 2) очекује се да промене у Правилнику о радиокомуникацијама, укључујући WRC Резолуције и Препоруке, могу бити неопходне;
- 3) очекује се да захтеване студије могу бити комплетирани (на пр. да ће одговарајуће ITU-R Препоруке бити усвојене) пре те конференције;
- 4) ресурси придружени предмету држе се унутар распона који је остварљив за Државе чланице и Чланице сектора, Биро за радиокомуникације и ITU-R Студијске групе, Скуп за припрему конференције (CPM) и Специјални комитет.

Колико је могуће, тачке дневног реда произашле из претходних конференција, нормално одбијене у Резолуцијама, и које су узимане у обзир на две конференције за редом, не би требале бити узете у обзир, ако нису оправдане.

У прављењу дневног реда конференције, напори би требали да буду усмерени на:

- a) подстицање регионалне и међурегионалне координације у стварима које треба да се разматрају на припремном процесу за WRC, у складу са Резолуцијом **72 (Rev.WRC-07)** и Резолуцијом 80 (Rev. Marrakesh, 2002) Конференције опуномоћеника;
- b) укључивање, колико је могуће, тачака дневног реда које су припремљене унутар регионалних група, узимајући у обзир једнака права индивидуалних администрација за подношење предлога за тачке дневног реда;
- c) осигуравање да се предлози подносе са индикацијом приоритета;
- d) укључивање у предлоге процене њихових импликација на финансије и остале ресурсе (уз помоћ Бироа за радиокомуникације) да се осигура да се крећу унутар договорених буџетских лимита за ITU-R;
- e) осигуравање да циљеви и обим предложених тачака дневног реда буду комплетни и једнозначни;
- f) узимање у обзир статуса ITU-R студија које се односе на потенцијалне тачке дневног реда пре њиховог разматрања као могуће кандидате за будуће дневне редове;
- g) разликовање између тачака које треба да резултују у изменама Правилника о радиокомуникацијама и оних које се баве само са непретком студија.

## АНЕКС 2 НА РЕЗОЛУЦИЈУ 804 (WRC-07)

### Шаблона за подношење предлога за тачке дневног реда

**Subject:**

**Origin:**

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**Proposal:**

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**Background/reason:**

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**Radiocommunication services concerned:**

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**Indication of possible difficulties:**

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**Previous/ongoing studies on the issue:**

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**Studies to be carried out by:**

**with the participation of:**

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**ITU-R Study Groups concerned:**

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**ITU resource implications, including financial implications (refer to CVI26):**

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**Common regional proposal:** Yes/No

**Multicountry proposal:** Yes/No

**Number of countries:**

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**Remarks**

**ADD** PLEN/408/1 (B24/419/4)

## РЕЗОЛУЦИЈА 805 (WRC-07)

### Дневни ред за 2011 Светску конференцију о радиокомуникацијама

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да у складу са No. 118 ИТУ Конвенције, генерални обим дневног реда за светску конференцију о радиокомуникацијама требао би да буде установљен четири до шест година унапред а финални дневни ред требао би да установи Савет две године пре Конференције;
- b) Члан 13 ИТУ Статута који се односи на компетнтност и планирање светске конференције о радиокомуникацијама и Члан 7 Конвенције који се односи на њихове дневне редове;
- c) релевантне резолуције и препоруке пређашњих светских административних радио конференција (WARCs) и светских конференција о радиокомуникацијама (WRCs),

*препознајући*

- a) да је ова Конференција идентификовала један број ургентних питања која захтевају даља испитивања од WRC-11;
- b) да у припреми овог дневног реда, многе тачке предложене од администрација нису могле бити укључене и морале су бити помакнуте за будуће конференцијске дневне редове,

*одлучује*

да препоручи Савету да ће светска конференција о радиокомуникацијама бити одржана у 2011 у периоду од четири недеље, са следећим дневним редом:

1 на основу предлога од администрација, водећи рачуна о резултатима WRC-07 и Извештају Припремног скупа конференције, и уз дужно поштовање за захтеве постојећих и будућих служби у разматраним опсезима, узети у обзир и предузети одговарајуће мере у односу на следеће тачке:

1.1 узети у обзир и предузети одговарајуће мере у вези захтева администрација да се избришу фусноте њихове земље или да се избрише име њихове земље из фуснота, ако више не треба, узимајући у обзир Резолуцију **26 (Rev.WRC-07)**;

1.2 узети у обзир ИТУ-R студије извршене у складу са Резолуцијом **951 (Rev.WRC-07)**, да се предузму одговарајуће мере с погледом на побољшање међународног регулаторног оквира;

1.3 узети у обзир захтеве за спектар и могуће регулаторне мере, укључујући намене, да би се подржао сигуран рад система беспилотних летилица (UAS), на основу резултата ИТУ-R студија, у складу са Резолуцијом **[COM6/8] (WRC-07)**;

1.4 узети у обзир, на основу резултата ИТУ-R студија, све наредне регулаторне мере да се олакша увођење система нове ваздухопловне мобилне (R) службе (AM(R)S) у опсезима 112-117.975 MHz, 960-1 164 MHz и 5 000-5 030 MHz у складу са Резолуцијама **413 (Rev.WRC-07)**, **[COM4/5] (WRC-07)** и **[COM4/9] (WRC-07)**;

1.5 узети у обзир светску/регионалну хармонизацију спектра за сакупљање електронских новости (ENG), узимајући у обзир резултате ИТУ-R студија, у складу са Резолуцијом **[COM6/5] (WRC-07)**;

- 1.6 прегледати No. **5.565** Правилника о радиокомуникацијама да би се ажурирало коришћење спектра од стране пасивних служби између 275 GHz и 3 000 GHz, у складу са Резолуцијом **950 (Rev.WRC-07)**, и узети у обзир могуће процедуре за оптичке везе у слободном простору, водећи рачуна о резултатима ИТУ-Р студија, у складу са Резолуцијом [**COM6/9**] (**WRC-07**);
- 1.7 узети у обзир резултате ИТУ-Р студија у складу са Резолуцијом **222 (Rev.WRC-07)** да би се осигурала дугорочна доступност спектра и приступ спектру неопходном да се задовоље захтеви ваздухопловне мобилне сателитске (R) службе, и да се предузму потребне мере по том предмету, задржавајући непромењене генеричке намене мобилној сателитској служби у опсезима 1 525-1 559 MHz и 1 626.5-1 660.5 MHz;
- 1.8 узети у обзир напредак ИТУ-Р студија које разматрају техничка и регулаторна питања у односу на фиксну службу у опсезима између 71 GHz и 238 GHz, узимајући у обзир Резолуције **731 (WRC-2000)** и **732 (WRC-2000)**;
- 1.9 ревидирати фреквенцијске и каналске аранжмане Додатка 17 Правилника о радиокомуникацијама, у складу са Резолуцијом **351 (Rev.WRC-07)**, да се имплементирају нове дигиталне технологије за поморску мобилну службу;
- 1.10 испитати захтеве за фреквенцијским наменама у односу на операције система безбедности за бродове и луке и односне регулаторне одредбе, у складу са Резолуцијом [**COM6/10**] (**WRC-07**);
- 1.11 узети у обзир примарне намене службама истраживања свемира (Земља-свемир) унутар опсега 22.55-23.15 GHz, водећи рачуна о резултатима ИТУ-Р студија, у складу са Резолуцијом [**COM6/11**] (**WRC-07**);
- 1.12 обезбедити примарне службе у опсегу 37-38 GHz од интерференције која је резултат рада ваздухопловне мобилне службе, водећи рачуна о резултатима ИТУ-Р студија, у складу са Резолуцијом [**COM6/12**] (**WRC-07**);
- 1.13 узети у обзир резултате ИТУ-Р студија у складу са Резолуцијом [**COM6/13**] (**WRC-07**) и одлучити о употреби спектра у опсегу 21.4-22 GHz за радиодифузну сателитску службу и придружене опсеге за спојне везе у Регионима 1 и 3;
- 1.14 узети у обзир захтеве за нове примене у радиолокационој служби и прегледати намене или регулаторне одредбе за имплементацију радиолокационе службе у подручју 30-300 MHz, у складу са Резолуцијом [**COM6/14**] (**WRC-07**);
- 1.15 узети у обзир могуће намене у подручју 3-50 MHz радиолокационој служби за океанографске радарске примене, водећи рачуна о резултатима ИТУ-Р студија, у складу са Резолуцијом [**COM6/15**] (**WRC-07**);
- 1.16 узети у обзир потребе пасивних система за детекцију муња у метеоролошкој помоћној служби, укључујући могућност једне намене у фреквенцијском подручју испод 20 kHz, и предузети одговарајуће мере, у складу са Резолуцијом [**COM6/16**] (**WRC-07**);
- 1.17 узети у обзир резултате студија дељења између мобилне службе и других служби у опсегу 790-862 MHz у Регионима 1 и 3, у складу са Резолуцијом [**COM4/13**] (**WRC-07**), да се осигура адекватна заштита служби којима су ти фреквенцијски опсежи намењени, и предузму потребне мере;
- 1.18 узети у обзир проширивање постојећих примарних и секундарних намена за радиодетерминациону сателитску службу (свемир-Земља) у опсегу 2 483.5-2 500 MHz да се уради глобална примарна намена, и да се одреде неопходне регулаторне одредбе на основу резултата ИТУ-Р студија, у складу са Резолуцијом [**COM6/17**] (**WRC-07**);

- 1.19 узети у обзир регулаторне мере и њихову релевантност, да би се омогућило увођење софтверски дефинисаних и когнитивних радио система, на основу резултата ITU-R студија, у складу са Резолуцијом [COM6/18] (WRC-07);
- 1.20 узети у обзир резултате ITU-R студија и идентификацију спектра за гејтвеј везе за станице на платформама на великим висинама (HAPS) у опсегу 5 850-7 075 MHz да би се подржао рад у фиксној и мобилној службама, у складу са Резолуцијом **734 (Rev.WRC-07)**;
- 1.21 узети у обзир примарне намене радиолокационој служби у опсегу 15.4-15.7 GHz, водећи рачуна о резултатима ITU-R студија, у складу са Резолуцијом [COM6/19] (WRC-07);
- 1.22 испитати ефекат емисија од уређаја кратког домета на радиокомуникационе службе, у складу са Резолуцијом [COM6/4] (WRC-07);
- 1.23 узети у обзир намену од отприлике 15 kHz у деловима опсега 415-526.5 kHz аматерским службама на секундарној основи, водећи рачуна о потреби заштите постојећих служби;
- 1.24 узети у обзир постојеће намене метеоролошкој сателитској служби у опсегу 7 750-7 850 MHz у погледу проширивања те намене на опсег 7 850-7 900 MHz, лимитирано на не-геостационарне метеоролошке сателите у смеру свемир-Земља, у складу са Резолуцијом [COM6/20] (WRC-07);
- 1.25 узети у обзир могуће додатне намене мобилној сателитској служби, у складу са Резолуцијом [COM6/21] (WRC-07);
- 2 испитати ревидиране ITU-R Препоруке присаједињене по назнаци у Правилнику о радиокомуникацијама које је саопштила Скупштина за радиокомуникације, у складу са Резолуцијом **28 (Rev.WRC-03)**, и одлучити да ли или не ажурирати одговарајуће назнаке у Правилнику о радиокомуникацијама, у складу са принципима садржаним у Анексу 1 Резолуције **27 (Rev.WRC-07)**;
- 3 узети у обзир такве последичне измене и допуне у Правилнику о радиокомуникацијама као што би могло да се захтева у одлукама Конференције;
- 4 у складу са Резолуцијом **95 (Rev.WRC-07)**, прегледати резолуције и препоруке пређашњих конференција у погледу њихових могућих ревизија, замена или укинућа;
- 5 прегледати, и предузети потребне мере, Извештај Скупштине за радиокомуникације поднесен у складу са Nos. 135 и 136 Конвенције;
- 6 идентификовати оне тачке које захтевају хитну акцију Студијске групе за радиокомуникације у припремању следеће светске конференције о радиокомуникацијама;
- 7 узети у обзир могуће промене у одговору на Резолуцију 86 (Rev. Marrakesh, 2002) Конференције опуномоћеника: “Напредне публикације, координација, обавештавање и записивање процедура за фреквенцијске намене које се односе на сателитске мреже”, у складу са Резолуцијом **86 (Rev.WRC-07)**;
- 8 у складу са Чланом 7 Конвенције:
  - 8.1 узети у обзир и одобрити Извештај Директора Бироа за радиокомуникације:
    - 8.1.1 о активностима Сектора за радиокомуникације за време од WRC-07;
    - 8.1.2 о било којим тешкоћама и неконзистентности откривеним у примени Правилника о радиокомуникацијама; и
    - 8.1.3 о акцијама у одговору на Резолуцију **80 (Rev.WRC-07)**;

8.2 препоручити Савету тачке за укључење у дневни ред за следећи WRC, и дати своје погледе на прелиминарни дневни ред за наредну конференцију и могуће тачке дневног реда за будуће конференције, водећи рачуна о Резолуцији [COM6/22] (WRC-07),

*одлучује такође*

да активира Припремни скуп конференције и Специјални комитет за регулаторну /процедуралну материју,

*позива Савет*

да финализује дневни ред и договори сазивање WRC-11, и да иницира што пре је могуће неопходне консултације са државама чланицама,

*налаже Директору Бироа за радиокомуникације*

да уради неопходне аранжмане да сазове састанак Скупа за припрему конференције и да припреми извештај за WRC-11,

*налаже Генералном секретару*

да саопшти ову Резолуцију заинтересованим међународним и регионалним организацијама.

**ADD** PLEN/408/19 (B24/419/19)

## РЕЗОЛУЦИЈА 806 (WRC-07)

### Прелиминарни дневни ред за 2015 Светску конференцију о радиокомуникацијама

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да у сагласности са No. 118 ITU Конвенције, генерални обим дневног реда за WRC-15 требало би да буде постављен четири до шест година унапред;

b) Члан 13 ITU Статута који се односи на компетенцију и време Светске конференције о радиокомуникацијама и Члан 7 Конвенције који се односи на њихов дневни ред;

c) релевантне резолуције и препоруке пређашњих светских административних радио конференција (WARCs) и светских конференција о радиокомуникацијама (WRCs),

*одлучује да прикаже*

да би следеће тачке требале да буду укључене у прелиминарни дневни ред за WRC-15:

1 да предузме потребне мере у односу на оне горуће проблеме које су посебно захтеване од WRC-11;

2 на основу предлога администрација и извештаја Скупа за припрему конференције, и узимања у обзир резултата WRC-11, да размотри и предузме потребне мере у односу на следеће тачке:

2.1 да узме у обзир потребе за спектром и могуће додатне намене спектра у радиодетерминационој служби да подржи рад ваздушних система без посаде (UAS) у неподељеном ваздушном простору;

2.2 да прегледа коришћење опсега 5 091-5 150 MHz од стране фиксне сателитске службе (Земља-свемир) (ограничено на спојне везе не-GSO мобилне сателитске службе) у складу са Резолуцијом 114 (Rev.WRC-03);

3 да испита ревидиране ИТУ-Р Препоруке присаједињене по назнаци у Правилник о радиокомуникацијама саопштено од Скупштине о радиокомуникацијама, у складу са Резолуцијом **28 (Rev.WRC-03)**, и да одлучи да ли или не ажурирати одговарајуће референце у Правилнику о радиокомуникацијама, у складу са принципима садржаним у Анексу 1 Резолуције **27 (Rev.WRC-07)**;

4 да узме у обзир такве последичне измене и допуне у Правилнику о радиокомуникацијама ако буде потребно по одлукама Конференције;

5 у складу са Резолуцијом **95 (Rev.WRC-07)**, да прегледа резолуције и препоруке пређашњих конференција у погледу њихове могуће ревизије, замене или укинућа;

6 да прегледа, и предузме потребне мере, Извештај Скупштине о радиокомуникацијама поднесен у складу са Nos. 135 и 136 Конвенције;

7 да идентификује оне тачке које захтевају хитну акцију радиокомуникационих студијских група;

8 да узме у обзир могуће измене у одговору на Резолуцију 86 (Rev. Marrakesh, 2002) Конференције опуномоћеника: “Напредне публикације, координација, обавештења и бележење процедура за фреквенцијске доделе које се тичу сателитских мрежа”, у складу са резолуцијом **86 (Rev.WRC-07)**;

9 у сагласности са Чланом 7 Конвенције:

9.1 да узме у обзир и одобри Извештај Директора Бироа за радиокомуникације о активностима Сектора за радиокомуникације након WRC-11;

9.2 да препоручи Савету тачке за укључење у дневни ред за следећи WRC,

*позива Савет*

да узме у обзир погледе дате у Резолуцији,

*налаже Директору Бироа за радиокомуникације*

да направи неопходне аранжмане да сазива седнице Скупа за припрему конференције и да припреми извештај за WRC-15,

*налаже генералном секретару*

да преда ову Резолуцију заинтересованим међународним и регионалним организацијама.

**MOD** COM5/287/9 (B8/293/15) (R5/336/8)

### РЕЗОЛУЦИЈА 901 (Rev.WRC-07)

#### **Одређивање сепарације орбиталних лукова за коју би требало да се захтева координација између две сателитске мреже које раде у свемирској служби а нису предмет Плана**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*Позива ИТУ-Р*

...

2 да препоручи, према потреби, орбиталну сепарацију захтевану да се покрене координација међу службама и унутар служби о сателитским службама у фреквенцијским опсезима изнад 3.4 GHz за геостационарне-сателитске (GSO) мреже које нису предмет Плана и нису већ покривене концептом координације лукова специфицираним у No. **9.7**

(GSO/GSO) Табеле 5-1 (Додатак 5), под тачкама 1) до 8) колоне фреквенцијског опсега, и предмет су Секције II Члана 9,

...

**ADD** COM4/392/16 (B19/413/29)

### РЕЗОЛУЦИЈА 903 (Rev. WRC-07)

#### Прелазне мере за неке системе радиодифузне сателитске/фиксне сателитске службе у опсегу 2 500-2 690 MHz

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је ова Конференција ревидирала лимите снаге густине флукса од свемирских станица у Члану 21, Табела 21-4 за опсег 2 500-2 690 MHz;
- b) да је коришћење опсега 2 500-2 690 MHz у Региону 2 и 2 500-2 535 MHz и 2 655-2 690 MHz у Региону 3 од фиксне сателитске службе (FSS) ограничено на националне и регионалне системе, према споразуму постигнутом под No. 9.21 (види No. 5.415 и No. 5.2.1);
- c) да је у опсегу 2 520-2 670 MHz, радиодифузна сателитска служба (BSS) ограничена на националне и регионалне сателитске системе, према споразуму постигнутом под No. 9.21 (види No. 5.416 и No. 5.2.1);
- d) да је у No. 5.384A, опсег 2 500-2 690 MHz идентификован као један од опсега за коришћење администрацијама које желе да имплементирају Међународне мобилне телекомуникације (ИМТ) у складу са Резолуцијом 223 (Rev.WRC-07);
- e) да је, због специфичног националног и регионалног статуса намене примењеног на гореспоменуте свемирске службе, и идентификација за коришћење администрацијама које желе да имплементирају ИМТ, повољно да се примени ревидирани Члан 21, Табела 21-4 лимити у опсегу 2 500-2 690 MHz што раније;
- f) да су извесни свемирски системи у напредној фази развоја и треба да се узму у обзир;
- g) да је тачка дневног реда 1.9 ове Конференције споменула захтев да се не постављају неоправдана ограничења на службе за које је опсег намењен,

*одлучује*

1 да у опсегу 2 500-2 690 MHz свемирске станице сателитских мрежа излистаних у Анексу 1 ове Резолуције не би требало да прелазе следеће pfd вредности:

$-152 \text{ dB(W/m}^2\text{)}$	за	$\delta < 5^\circ$
$-152 + 0.75 (\delta - 5) \text{ dB(W/m}^2\text{)}$	за	$5^\circ \leq \delta \leq 25^\circ$
$-137 \text{ dB(W/m}^2\text{)}$	за	$\delta > 25^\circ$

у било ком 4 kHz опсегу, где је  $\delta$  упадни угао над хоризонталном равни. Лимити у Табели 21-4 се не примењују;

2 да, за системе осим оних адресираних у одлучује 1, Nos 5.418, 5.417A и Резолуције 539, Биро треба да испита сваку координацију и информацију обавештења у односу на одредбе Nos 9.35 и 11.31 (редом) за фреквенцијске доделе у FSS или BSS

примљене у Биро после 14.11.2007. користећи рfd лимите за опсег 2 500-2 690 MHz у Табели **21-4** Члана **21**, како је ревидирано на Конференцији,

*налаже Бироу*

да имплементује одлучује 1 и одлучује 2.

### АНЕКС 1 НА РЕЗОЛУЦИЈУ 903 (WRC-07)

Обавештавајуће администрације	Име свемирске станице	Орбитална позиција	Захтев за координацију Специјална Секција	Датум пријема Информације Напредне Публикације
ARS/ARB	ARABSAT 5A-30.5E	30.50 E	CR/C/1626 M2	10.01.05
ARS/ARB	ARABSAT 5B-26E	26.00 E	CR/C/1627 M2	10.01.05
CHN	CHINASAT-MSB4	115.50 E	CR/C/1448 M1 and CR/C/1448 M2	03.11.03
CHN	CHNBSAT-113E	113.20 E	CR/C/1564 M1 and CR/C/1564 M2	18.06.04
CHN	CHNBSAT-119E	119.00 E	CR/C/1565 M1 and CR/C/1565 M2	18.06.04
IND	INSAT-2(74)	74.00 E	CR/C/1311 and CR/C/1311 M1	07.08.85
IND	INSAT-2(83)	83.00 E	CR/C/1312 and CR/C/1312 M1	07.08.85
IND	INSAT-2(93.5)	93.50 E	CR/C/1313 and CR/C/1313 M1	07.08.85
INS	INDOSTAR-107.7E	107.70 E	CR/C/1940	31.07.06
INS	INDOSTAR-118E	118.00 E	CR/C/1941	31.07.06

**ADD** COM5/230/6 (B4/234/8) (R3/292/105)

### РЕЗОЛУЦИЈА 904 (WRC-07)

#### **Прелазне мере за координацију између мобилне сателитске службе (Земља-свемир) и службе истраживања свемира (пасивно) у опсегу 1 668-1 668.4 MHz за специфични случај**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a)* да је WRC-03 урадио глобалну намену мобилној сателитској служби (MSS) (Земља-свемир) у опсегу 1 668-1 675 MHz и глобалну намену за MSS (свемир-Земља) у опсегу 1 518-1 525 MHz;
- b)* да је опсег 1 660.5-1 668.4 MHz намењен служби истраживања свемира (пасивно);
- c)* да су у опсегу 1 668-1 668.4 MHz, мобилне Земалске станице и станице службе истраживања свемира (пасивно) предмет координације под No. **9.11A**;
- d)* да је релевантни услов за праг координације дат у Додатку **5**;
- e)* да пре WRC-07, Додатак **4** није садржавао релевантну информацију за захтев координације за пасивне службе;

f) да је пре WRC-07, Додатак 4 садржавао све потребне податке за захтев за координацију за MSS системе, и координацијске информације су биле достављене после WRC-03 за неке MSS системе;

g) да постоји један сателитски систем (SPECTR-R) у служби истраживања свемира (пасивно) у опсегу 1 668-1 668.4 MHz за који је релевантна напредна публикована информација саопштена Бироу пре WRC-07, и да је неопходно омогућити неке транзиционе мере за третман те информације од стране Бироа,

*констатујући*

a) да Извештај ITU-R M.2124 садржи процену дељења између мобилне сателитске службе и станице службе истраживања свемира (пасивно) у опсегу 1 668-1 668.4 MHz;

b) да је сателитски систем SPECTR-R придружен RADIOASTRON пројекту, који је један међународни пројекат за свемирску врло дугу основну линију интерферометарског система,

*одлучује*

да, у опсегу 1 668-1 668.4 MHz, системи мобилне сателитске службе који превазилазе релевантан услов прага координације треба да буду координирани са SPECTR-R системом који ради у служби истраживања свемира (пасивно), за који је Биро примио напредну публиковану информацију на 7.12.2005.<sup>1</sup>, омогућујући да Биро прими комплетну координацијску информацију унутар временског ограничења споменутог у No. **9.5D**.

**ADD** COM5/308/22 (B10/326/20) (R6/410/79)

#### РЕЗОЛУЦИЈА 905 (WRC-07)

### Датум ступања на снагу неких одредби Плана за радиокомуникације које се односе на не плаћање такси за покривање трошкова

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да је савет 2005 модификовао Одлуку 482 за примену покривања трошкова сателитских мрежа за сва подношења формулара за сателитске мреже за обавештења за уписивање фреквенцијских намена у MIFR (Члан 11, Члан 5 Додатака **30/30A** и Члана 8 Додатка **30B**) примљено у Биро за радиокомуникације на или након 1. јануара 2006. ако се реферишу на напредне публикације или модификације Плана или Листа (Део А) свемирске службе или захтева за имплементацију Плана фиксне сателитске службе, по потреби, примљено на или након 19. октобра 2002.;

b) да је савет 2005. такође модификовао Одлуку 482 о примени покривања трошкова сателитских мрежа за све захтеве за имплементацију Плана фиксне сателитске службе (Секције IA и III Члана 6 Додатка **30B**) примљено у Биро за радиокомуникације на и након 1. јануара 2006.;

c) да је ова Конференција усвојила неке одлуке у Члану 11, Додатака **30**, **30A** и **30B** које се односе на последице не плаћања такси за покривање трошкова за обавештења за сателитске мреже и имплементацију Плана фиксне сателитске службе (Секције IA и III Члана 6 Додатка **30B**) како је усвојено на Савету у Одлуци 482 (према модификацији),

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<sup>1</sup> API/A/3957 заведено 24. јануара 2006. године.

*препознајући*

да Резолуција 88 (Rev. Marrakesh, 2002) Конференције опуномоћеника препознаје да су одлуке усвојене на WRC-2000 успоставиле везу између права која су стекле државе чланице у примењивању релевантних процедура Правилника о радиокомуникацијама после 7. новембра 1998. и плаћања таксе за покривање трошкова за подношења формулара за сателитске мреже,

*констатујући*

да су фактуре издаване за таксе покривања трошкова за обавештења од 1. јануара 2006, како је наведено у *имајући у виду а) и б)*,

*одлучује*

1 да датум ступања на снагу фуснота А.11.6 наслова Члана **11**, фусноте 17А наслова Члана 5 у Додатку **30**, фусноте 21А наслова Члана 5 у Додатку **30А**, фусноте 1 наслова Члана 6 у додатку **30В** и фусноте 3А наслова Члана 8 у додатку **30В** треба да буде 17. новембра 2007;

2 да попуњавања формулара за сателитске мреже за покривање трошкова обавештења за сателитске мреже у сагласности са Одлуком 482 (модификованом 2005.) као што је сумаризовано у *узимајући у обзир а) и б)* и за које је комплетна информација примљена у Биро за радиокомуникације пре 17. новембра 2007. и одговарајуће фактуре су издате пре тог датума али плаћање још није извршено, треба да се пониште ако уплата није примљена до 17. маја 2008.;

3 да попуњавања формулара за сателитске мреже за покривање трошкова обавештења за сателитске мреже у сагласности са Одлуком 482 (модификованом 2005) као што је сумаризовано у *узимајући у обзир а) и б)* и за које је комплетна информација примљена у Биро за радиокомуникације пре 17. новембра 2007. али одговарајуће фактуре нису издате пре 17. новембра 2007., треба да буду поништене ако плаћање није извршено пре до датума истека специфицираног у фактури,

*налаже Директору Бироа за радиокомуникације*

1 да пошаље, обавештавајућим администрацијама одговорним за сателитске мреже на које се примењује *одлучује* 2 или 3, подсетник који разматра крајње рокове плаћања у Одлуци Савета 482 (модификованом 2005) и последице не плаћања према *одлучује* 2 или 3 не касније од два месеца пре 17. маја 2008. у случају *одлучује* 2, крајњег рока плаћања фактура у случају *одлучује* 3, осим ако је уплата већ примљена;

2 да предузме потребну акцију, по потреби, уважавајући последичне промене у Додатку **30В**.

**ADD** COM6/207/1 (B2/213/4) (R1/221/10)

**РЕЗОЛУЦИЈА 906 (WRC-07)**

**Подношење обавештења за земаљске службе Бироу за радиокомуникације**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

*а)* да је електронски формат за подношење обавештења у вези земаљских служби под Чланом **11** и Планови у анексима на Регионалне споразуме, коришћен у од Бироа за радиокомуникације од Септембра 1994;

- b) да су “BR Распоред високофреквентне радиодифузије” (HFBC Распоред) и “BR Међународни циркулар фреквенцијских информација” (BR IFIC) једине регулаторне публикације које су резултовале применом Поглавља III и придружених Регионалних споразума, и да је HFBC Распоред публикован сваки месец, осим у Јуну, у CD-ROM формату од Јануара 1999, док је BR IFIC публикован сваке две недеље у CD-ROM формату од 11.1.2000. и, потом, за земаљске службе, у DVD-ROM формату од Септембра 2005;
- c) да је од 8.12.1998. подношење HFBC захтева под Чланом 12 било само у електронском формату;
- d) да су од 3.6.2001. за земаљске службе, све форме за обавештења (AP4/II и AP4/III), радио астрономска обавештења (AP4/IV) и напредне публиковане информације (AP4/V и AP4/VI) и информације с дужном пажњом (Резолуција 49 (Rev.WRC-03)) за сателитске мреже и земаљске станице, поднесене Бироу за радиокомуникације сходно Члановима 9 и 11 подношене само у електронском формату;
- e) да су од 7.12.2004., подношења захтева за дигиталну радиодифузију да би се користило за вежбање планирања и развој нацрта плана за другу седницу Регионалне конференције за радиокомуникације за планирање дигиталне земаљске радиодифузије у деловима региона 1 и 3, у фреквенцијским опсезима 174-230 MHz и 470-862 MHz (RRC-06), била једино могуће у електронском формату;
- f) да је RRC-06 одлучио да сва подношења у применама Чланова 4 и 5 GE06 Регионалног споразума треба да буду једино у електронском формату;
- g) да би припрема обавештења за земаљске службе у електронском формату дозволила администрацијама да вреднују податке пре подношења користећи софтверске алате Бироа за радиокомуникације;
- h) да би подношење обавештења за земаљске службе у електронском формату ослободило Биро за радиокомуникације потребе да преписује податке, избегавајући могућност грешака и смањило тежину процесирања података што се захтева од Бироа за радиокомуникације;
- i) да увођење подношења обавештења за земаљске службе једино у електронском формату може да захтева одговарајућу обуку за софтверске алате Бироа за радиокомуникације, нарочито у земљама у развоју;
- j) да за неке администрације, подношења обавештења за земаљске службе једино у електронском формату може да захтева прилагођавање њихових националних процедура и развој одговарајуће електронске опреме;
- k) да би информације у електронском формату могле бити коришћене да испуне захтеве администрацијских база података и олакшају размену информација између администрација са Бироом за радиокомуникације,
- узимајући у обзир такође*
- a) да би коришћење електронског формата за подношење обавештења за земаљске службе Бироу за радиокомуникације редуковало цену;
- b) да би ревизија Додатка 4, на овој Конференцији, олакшала транзицију администрацијама и Бироу за радиокомуникације ка коришћењу електронског формата за подношење обавештења за земаљске службе;
- c) да је Биро за радиокомуникације већ развио један електронски формат за подношење свих типова обавештења за земаљске службе;

d) да је велика већина обавештења за земаљске службе примљена у Биро за радиокомуникације већ поднесена једино у електронском формату,

*одлучује*

1 да од 1.1.2009., подношење обавештења за земаљске службе Бироу за радиокомуникације треба да буде једино у електронском формату;

2 да се подстичу администрације да престану да користе папирната обавештења што пре је могуће и да информишу Биро за радиокомуникације о томе;

3 да се подстичу администрације да користе, што пре је могуће, електронски формат и електронску опрему за измену података за координацију између администрација,

*налаже Директору Бироа за радиокомуникације*

1 да се преради и комплетира спецификацију електронског формата за коришћење за подношење обавештења за земаљске службе, како може да буде захтевано након ревизије Додатка 4 на овој Конференцији;

2 да пружи асистенцију, као што се захтева, свакој администрацији, посебно у транзицији да користи електронски формат за подношење обавештења за земаљске службе;

3 да се укључи у семинаре о радиокомуникацијама одговарајућа обука за коришћење електронског формата за подношење обавештења за земаљске службе,

*налаже Генералном секретару*

да се размотри пружање бесплатног одговарајућег софтвера и/или хардвера за сваку неразвијену земљу која то затражи.

**MOD** PLEN/408/3 (B24/419/3)

## РЕЗОЛУЦИЈА 950 (Rev.WRC-07)

### Разматрање коришћења фреквенција између 275 и 3000 GHz

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да, у Табели намене фреквенцијских опсега, фреквенцијски опсези изнад 275 GHz још су ненамењени;

b) да, без обзира на *узимајући у обзир a)*, No. **5.565** даје одредбе за коришћење фреквенцијског опсега 275-1 000 GHz за експериментисање и развој разних пасивних сервиса и свих других сервиса и препознаје потребу за вођењем даљих истраживања;

c) да No. **5.565** такође даје одредбе за заштиту пасивних служби до, ако буде, тог времена кад Табела намене фреквенцијских опсега може бити проширена;

d) да, поред спектралних линија идентификованим у No. **5.565**, истраживачке активности у опсезима изнад 275 GHz могу препустити друге спектралне линије од интереса, као оне излистане у Препоруци ITU-R RA.314;

e) да унутар различитих Студијских група за радиокомуникације, студије о системима између 275 и 3 000 GHz, укључујући карактеристике система одговарајућих примена, треба да се разматра;

f) да садашње коришћење опсега између 275 и 3 000 GHz углавном се односи на пасивне службе, међутим, са прихваћеним технолошким развојем, опсези могу постати све важнији за одговарајуће примене у активној служби;

g) да студије дељења у ИТУ-Р између пасивних служби и свих осталих служби које раде на фреквенцијама између 275 и 3 000 GHz нису комплетирани;

h) да досадашњи изостанак коришћења опсега 275-3 000 GHz од стране разних активних служби показује опште мишљење да фреквенцијске намене изнад 275 GHz могу бити превремене,

*препознајући*

a) да пропагационе карактеристике на фреквенцијама изнад 275 GHz, као што је атмосферска апсорпција и расејање, има значајан утицај на перформансе активних и пасивних система и захтевају да се проуче;

b) да је потребно да се даље истраже потенцијална коришћења опсега између 275 и 3 000 GHz од одговарајућих примена,

*констатујући*

a) да значајне инфраструктурне инвестиције треба да буду урађене у међународној сарадњи за коришћење опсега између 275 и 3 000 GHz, на пример, ALMA, постројење у изградњи које ће омогућити нове увиде у структуру универзума;

b) да Циркуларно писмо Бироа за радиокомуникације CR/137 идентификује додатну информацију за Биро да забележи карактеристике активних и пасивних сензора за сателитску службу истраживања Земље и сателита за истраживање свемира, у фреквенцијским опсезима испод 275 GHz,

*констатујући такође*

a) да би процес и формат сличан оном датом у *констатујући b)* могао бити коришћен да забележи системе који раде у опсегу од 275 до 3 000 GHz;

b) да ће бележење активних и пасивних система који раде у опсегу од 275 до 3 000 GHz омогућити информације до датума кад, ако буде, одлучено да су промене на Правилнику о радиокомуникацијама потребне,

*одлучује*

1 да се прегледа No. **5.565** Правилника о радиокомуникацијама, изузимајући фреквенцијске намене, да би се ажурирало коришћење спектра између 275 GHz и 3 000 GHz од стране пасивних служби на WRC-11, узимајући у обзир резултате ИТУ-Р студија;

2 да администрације могу да поднесу, за укључење у MIFR, детаље о системима који раде између 275 и 3 000 GHz и које Биро за радиокомуникације може да забележи под Nos. **8.4**, **11.8** и **11.12**,

*позива ИТУ-Р*

да поведе потребне студије за време припрема за WRC-11 у погледу модификације No. **5.565**, укључујући савет за примене погодне за опсег 275-3 000 GHz,

*налаже Директору Бироа за радиокомуникације*

да прихвати поднеске из *одлучује 2*, и да их забележи у MIFR.

**MOD** COM6/301/2 (B10/326/19) (R6/410/76)

**РЕЗОЛУЦИЈА 951 (Rev.WRC-07)**

**Унапређивање међународног регулаторног оквира за спектар**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је радио спектар ограничен ресурс а да је константан пораст и еволуција у захтевима и разноврсности постојећих и будућих примена за радиокомуникације;
- b) да је садашња технолошка околина за неке примене суштински другачија од оне која је преовладала кад су садашњи принципи и дефиниције намена успостављени;
- c) да су прошли WRC-ови били у стању да одговоре на развој споменут под *узимајући у обзир a) и b)* у неким случајевима;
- d) да је велики интерес за рационалном, ефикасном и економичном употребом спектра;
- e) да би намене радиокомуникационим службама требале тежити да постигну најбољи резултат у смислу спектралне ефикасности;
- f) да се појављују апликације у којима су комбиновани елементи различитих радиокомуникационих служби (како је дефинисано у Правилнику о радиокомуникацијама);
- g) да постоји конвергенција радио технологија, пошто иста радиотехнологија може бити коришћена у системима који раде у различитим радиокомуникационим службама или са различитим статусом намене (примарне или секундарне), што би могло имати утицаја на сценарио намена;
- h) да су сличне брзине преноса и квалитет атрибута сервиса доступне са различитим радиокомуникационим системима који раде у различитим радиокомуникационим службама;
- i) да коришћење модерних основних комуникацијских архитектура и протокола, као оних коришћених у радио системима за пренос пакета, омогућава текућим одредбама за различите примене исте платформе да раде у истим фреквенцијским опсезима;
- j) да еволуирајуће и нове радиокомуникационе технологије могу да пруже могућности дељења и могу да воде ка фреквенцијски агилнијој и интерференцијски отпорнијој опреми и због тога флексибилнијем коришћењу спектра;
- k) да те еволуирајуће и нове технологије не морају захтевати сегментацију опсега унутар традиционалног оквира намене спектра;
- l) да би регулаторне процедуре требале бити континуирано процењиване да би удовољиле захтевима администрација,

*препознајући*

- a) да би права администрација да постављају, управљају и обезбеђују службе требала бити водећи принцип;
- b) да су студије, као одговор на Резолуцију **951 (WRC-03)**, показале да свака промена која има намеру да побољша флексибилност администрација у прилагођавању конвергентних служби треба да се базира на комбинацији дефиниција служби, намена и процедура,

*констатујући*

- a) да је једна од сврха Правилника о радиокомуникацијама ефективно управљање и коришћење спектра;
- b) да Светска Конференција о радиокомуникацијама треба нормално да се сазива сваке три до четири године да омогући допуну Правилника о радиокомуникацијама;

c) да су студије инициране под Резолуцијом **951 (WRC-03)** показале потребу за проширењем проучавања,

*одлучује*

2 да под хитно, узимајући у обзир Анексе 1 и 2, ИТУ-Р треба да настави студије, да би се развили концепти и процедуре за унапређење Правилника о радиокомуникацијама да би се задовољиле потребе текућих, долазећих и будућих примена у радиокомуникацијама, водећи рачуна о постојећим службама и коришћењима;

2 да студије поменуте у *одлучује* 1 треба да буду ограничене на генерална питања намена и процедура у односу на генерална решења за управљање спектром, као она која су већ развијена у Додатку 1, уз процес описан у Анексу 2;

3 да позове WRC-11 да узме у обзир резултате тих студија, укључујући дељење и њихов утицај на намене у разматраним фреквенцијским опсезима, и да предузме потребне акције у складу са Анексом 2,

*позива ИТУ-Р*

да поведе потребне студије за време разматрања WRC-11 и у складу са овом Резолуцијом,

*позива администрације*

да активно учествују у студијама са прилозима за ИТУ-Р.

## АНЕКС 1 НА РЕЗОЛУЦИЈУ 951 (Rev.WRC-07)

### **Опције за побољшање међународног регулаторног оквира за спектар\***

Следеће четири опције идентификоване су до сада за развој концепта и процедура за унапређење Правилника о радиокомуникацијама; комбинација тих опција као и друге опције могу такође да се користе.

Опција 1 задржава досадашњу праксу каква јесте.

Опција 2 прегледава и евентуално ревидира текуће дефиниције служби или додаје нову службу на листу дефиниција службе, која би обухватила неколико постојећих.

Опција 3 је увођење нове одредбе у Правилнику о радиокомуникацијам омогућујући супституцију<sup>1</sup> између додала специфичних служби.

Опција 4 је увод у композитне службе у Табели намене фреквенцијских опсега.

ПРИМЕДБА – За Опције 2, 3 и 4, побољшане форме за пријаву уз постојеће из Додатка 4, и/или релевантна подешавања у том Додатку, требало би да се размотре.

### **1 Опција 1: Задржавање досадашње праксе**

Код ове опције сматра се да постоји довољна флексибилност унутар садашњег Правилника о радиокомуникацијама и WRC процеса да задовољи све текуће и вероватне будуће захтеве унутар временског оквира типично постављеног за WRC-ове.

Код ове опције национална регулатива може бити довољна да омогући релевантна решења у околини која се мења.

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\* Даље информације могу да се нађу у Документу 24 за WRC-07.

<sup>1</sup> Овај израз треба да буде појашњен и дефинисан како треба.

Иако нове примене могу да се уведу у краћем временском оквиру, то би могло бити без заштите од штетних сметњи, што не може бити практично за велику већину надлазећих бежичних примена, укључујући ИМТ, научне, јавно безбедносне, радиолокационе, радионавигационе, радиодифузне и фиксне/мобилне/радиодифузне сателитске системе.

Текуће дефиниције службе у Члану 1 Правилника о радиокомуникацијама показују да у принципу омогућују да Правилник о радиокомуникацијама прихвата динамично најновији технолошки развој као ИМТ, NAPS, RLAN, дигиталну TV, јавну безбедност и олакшање несрећа (PPDR) и интересе научне заједнице.

Примећено је, да упркос различитим дефиницијама за фиксне и мобилне (изузев ваздухопловну и поморску) службе, у већини фреквенцијских опсега који су намењени једној од две службе, намењени су такође и оној другој. То показује да је конвергенција већ постигнута у ИТУ Табели Намене фреквенцијских опсега, осим у неким фреквенцијским опсезима, где намене за обе службе могу да се размотре од опсега до опсега за будуће WRC-ове, према захтевима.

## **2 Опција 2: Прегледавање и могућа ревизија неких дефиниција служби**

Код овог приступа, текуће дефиниције служби у Члану 1 Правилника о радиокомуникацијама биле би прегледане да се осигура да оне адекватно и чисто покривају актуелно коришћење, истовремено омогућујући флексибилност за надлазеће технологије. Након интензивних консултација са ИТУ-Р Студијским Групама, тај преглед може да обухвати фиксне и мобилне (изузев ваздухопловну и поморску службу) службе и евентуално друге службе, ако се сматра потребно<sup>2</sup>. То може да доведе до ревизије садашњих дефиниција за те службе и њихово модификовање према потреби.

Могуће промене у дефиницијама службе требале би да буду адресиране с тачке гледишта њихових регулаторних импликација у доделама и коришћењу фреквенција, посебно у ИТУ координацији, обавештавању и процесима записивања, утицају на доделе урађене под садашњим дефиницијама, и утицају на друге службе.

## **3 Опција 3: Увођење нове одредбе у Правилник о радиокомуникацијама омогућујући супституцију између додела специфичних служби**

Код овог приступа, нова одредба би се увела у Правилник о радиокомуникацијама да се омогући супституција између додела специфичних служби. На пример, у контексту фиксне и мобилне (изузев ваздухопловне и поморске) службе, супституција би могла да се примени на исти начин на који се примењује код Nos. 5.485 или 5.492 у контексту фиксне сателитске и радиодифузне сателитске службе.

Користећи пример фиксних и мобилних служби, то би могло да се рефлектује на текућу конвергенцију између служби, адресирајући садашње вишезначности између дефиниција тих служби, олакшавајући правовремено спровођење нових примена, дајући адекватну регулаторну заштиту за такве примене, и штитећи права других администрација наспрам настале интерференције.

Нова одредба која омогућује супституцију могла би бити адресирана с тачке гледишта њеног утицаја на намену и коришћење фреквенција, нарочито приликом ИТУ координације,

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<sup>2</sup> ИТУ-Р студије су показале да је текућа дефиниција фиксне сателитске службе у стању да се прилагоди ноим технологијама и применама у фиксној сателитској служби.

обавештавања и процеса записивања, утицаја на доделе урађене под текућим дефиницијама, и утицаја на друге службе.

#### **4 Опција 4: Увођење композитних служби у Табелу намене фреквенцијских опсега**

Код овог приступа, који би могао да рефлектује конвергенцију између неких радиокомуникационих служби у специфичном фреквенцијском опсегу, Табела намене фреквенцијских опсега (Члан 5 Правилника) могла би да буде измењена замењујући текуће одвојене намене неким радиокомуникационим службама са здруженом наменом за те службе (на пр. специфичан фреквенцијски опсег намењен “фиксној служби” и “копненој мобилној служби” могао би да буде промењен у композитну намену за “фиксну и копнену мобилну службу”). Горњи приступ могао би једино бити примењив ако све разматране службе на које се односи намена за композитни сервис имају једнак регулаторни статус.

Тај приступ омогућио би администрацијама већу флексибилност. У горњем примеру, администрације би се могле одлучити за саму фиксну службу, за саму копнену мобилну службу, за посебне апликације за обе службе на независан начин, или за композитну апликацију која би укључила обе службе. Ова опција не би захтевала никакву ревизију текућих дефиниција дотичних радиокомуникационих служби (на пр. нити за фиксну нити за копнену мобилну службу).

Да се омогући обавештавање и записивање фреквенцијских додела у тако композитној служби, нова класа станице могла би да се уведе под именом “Станица у фиксној и копненој мобилној служби” (са посебним симболом од оних који се користе за фиксну и копнену мобилну службу), са потребном формом обавести, или других адекватних механизма обавештавања.

### **АНЕКС 2 НА РЕЗОЛУЦИЈУ 951 (Rev.WRC-07)**

#### **Смернице за имплементацију ове Резолуције**

##### **Ове смернице садрже три корака:**

1 Корак 1: Проценити различите опције укључујући оне у Анексу 1 у смислу њихове корисности у вези са побољшањем солуција за управљања спектром да се задовоље циљеви ове Резолуције.

2 Корак 2: Развити концепте и процедуре базирани на опцијама процењеним у Кораку 1 укључујући студије дељења на бази од опсега до опсега.

3 Корак 3: Припремити, на основу Корака 2, техничке и регулаторне солуције за разматрање и одговарајућу акцију за WRC-11.

**ADD** COM6/339/2 (B12/346/18) (R6/410/81)

### **РЕЗОЛУЦИЈА 953 (WRC-07)**

#### **Заштита радиокомуникационих служби од емисија радио уређаја кратког домета**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да су радио уређаји кратког домета (SRDs) радио предајници или пријемници, или обоје, и стога се не сматрају индустријским, научним и медицинским (ISM) применама под No. 1.15;

- b) да SRDs, укључујући уређаје који користе технологије ултра широког опсега (UWB), радио фреквенцијске идентификационе уређаје (RFIDs), и остале сличне уређаје, који генеришу и користе радио фреквенције локално;
- c) да SRDs не могу тражити заштиту од сметњи узрокованих радио службама и стога су развијени приоритетно у ISM фреквенцијским опсезима;
- d) да се повећава количина SRDs ширећи се преко различитих фреквенција кроз спектар, као уређаји који користе UWB технологије или RFIDs, итд.;
- e) да у неким случајевима значајна енергија може бити израчена од RFIDs;
- f) да неке радио службе, нарочито оне које користе мале снаге поља, могу осетити штетне сметње од SRDs, посебно RFIDs, ризик који је неприхватљив, посебно у случају радионавигације и осталих безбедносних служби,

*препознајући*

- a) рад који је обавио ITU-R резултирајући у релевантним ITU-R Препорукама (види ITU-R SM.1538, ITU-R SM.1754, ITU-R SM.1755, ITU-R SM.1756, ITU-R SM.1757);
- b) рад који је обавио ITU-T на RFID;
- c) да SRDs, посебно RFIDs, држе обећање за читав низ нових примена које могу пружити добробит корисницима;
- d) да су карактеристике RFIDs, укључујући снагу предајника, стандардизоване у оквиру ISO,

*препознајући такође*

Резолуцију ITU-R 54 Скупштине за радиокомуникације (Geneva, 2007), која одлучује да би ITU-R требао проучити могућности SRDs истовремено осигуравајући заштиту радиокомуникационим службама,

*одлучује*

да, у сврху да радиокомуникационе службе буду адекватно заштићене, захтевају се будуће студије о емисијама од SRDs, унутар и изван фреквенцијских опсега означених у Правилнику о радиокомуникацијама за ISM примене,

*позива ITU-R*

да проучи емисије од SRDs, нарочито RFIDs, унутар и изван фреквенцијских опсега назначених у Правилнику о радиокомуникацијама за ISM примене да се осигура адекватна заштита радиокомуникационих служби,

*позива администрације*

да учествују у студијама дајући допринос ITU-R,

*налаже Директору Бироа за радиокомуникације*

1 да стави ову Резолуцију на пажњу ITU-T, ISO и Међународној електротехничкој комисији;

2 да преда резултате ових студија WRC-11 на разматрање и деловање.

**ADD** COM6/340/2 (B14/365/50) (R7/411/226)

## РЕЗОЛУЦИЈА 954 (WRC-07)

### Хармонизација спектра за коришћење од стране земаљских електронских система за сакупљање новости

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да је коришћење земаљске преносиве радио опреме од помоћних служби радиодифузије, заједнички назване електронско сакупљање новости (ENG), које раде у опсезима намењеним радиодифузији, фиксним и мобилним службама постало важан елемент у свеобухватном покривању широког распона међународних значајних догађаја, укључујући природне катастрофе;
- b) да је WRC-03 иницирао студије које се тичу коришћења спектра и радних карактеристика преносивих и номадских веза за рад земаљских ENG система на глобалној основи, у складу са Препоруком **723 (WRC-03)**;
- c) да је модуларијација и минијатуријација земаљских ENG система повећала преносивост тих система и тако повећала тренд ка прекограничном раду ENG уређаја;
- d) да су техничке карактеристике за телевизију осим радиодифузне, ENG и система које производе електронско поље у фиксним и мобилним службама за коришћење у студијама дељења постављене у ITU-R Препорукама,

*констатујући*

- a) да студије које је предузео ITU-R показују да би национално управљање спектром могло да има користи од глобалног планирања хармонизованог опсега за ENG системе;
- b) да су студије које се односе на ENG у ITU-R базиране на подацима о текућим и прихваћеним ENG захтевима спектра сакупљеним од многих администрација из свих региона;
- c) да неки од фреквенцијских опсега које сада користи ENG имају бројне техничке и радне атрибуте који их чине подесним за континуирано дугорочно коришћење за ENG;
- d) да нижи фреквенцијски опсеги спектра имају тенденцију да пруже боље пропагационе карактеристике на путевима с препрекама, повећавајући на тај начин поузданост ENG веза које раде у тим опсезима,

*препознајући*

- a) да радиодифузни емитери сада имају напредне дигиталне технологије које отварају нове могућности за рад обе, фиксне и мобилне ENG, и да тај развој има импликације које се односе на спектар
- b) да динамичка природа коришћења ENG је покренута планираним, непланираним и непредвидивим догађајима као што су најновије вести, ванредне ситуације и катастрофе;
- c) да се сакупљање новости и електронска продукција типично одвија у околини где неколико телевизијских радиодифузних емитера /организација/мрежа покушава да покрије исти догађај, креирајући захтев за више ENG веза и повећан захтев за приступ спектру у подесним фреквенцијским опсезима;
- d) да је приступ глобално хармонизованом спектру јако пожељан да олакша брзо и мање ограничено распоређивање и рад ENG система од једне земље до друге,

*одлучује*

- 1 да би на основу студија предузетим у ИТУ-Р, WRC-11 требао адресирати изводљивост сакупљања задовољавајућег степена светске /регионалне хармонизације спектра за ENG коришћење у смислу фреквенцијских опсега и подешавајућих распона;
- 2 да би требало да се одреди метод за могућу хармонизацију фреквенцијских опсега и подешавајућих распона за ENG коришћење,

*позива ИТУ-Р*

- 1 да изведе студије о ENG с обзиром на могућа решења за глобалну/регионалну хармонизацију у фреквенцијским опсезима и подешавајућим распонима, узимајући у обзир:
  - доступне технологије за максимално ефикасно и флексибилно коришћење фреквенције;
  - карактеристике система и искуства у раду која олакшавају имплементацију тих решења;
- 2 да укључи у студије, на које се горе реферише, питања дељења и компатибилности са службама којима су већ намењени фреквенцијски опсеги и подешавајући распони који имају потенцијал за употребу за ENG;
- 3 да предложи радне мере да олакша рад ENG опреме конзистентне са глобалном циркулацијом радиокомуникационе опреме, водећи рачуна о Препоруци ИТУ-Р М.1637;
- 4 да извести о резултатима тих студија Светску конференцију о радиокомуникацијама 2011,

*позива администрације*

да учествују у студијама дајући допринос ИТУ-Р.

**ADD** PLEN/408/4 (B24/419/6)

## РЕЗОЛУЦИЈА 955 (WRC-07)

### Разматрање процедура за оптичке линкове у слободном простору

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a)* да се фреквенције изнад 3 000 GHz већ користе за разне оптичке примене од телекомуникационих веза до сателитског даљинског детектовања;
- b)* да оптичке линкове тренутно разматра неколико ИТУ-Р Студијске Групе;
- c)* да Препоруке ИТУ-Р Р.1621, Р.1622, S.1590, RA.1630; SA.1742, SA.1805, и RS.1744 садржи информације које се односе на оптичке линкове у слободном простору и даљинско детектовање;
- d)* да је ИТУ-Р у процесу прављења извештаја с обзиром на могућност и релевантност укључења у Правилник о радиокомуникацијама фреквенцијских опсега изнад 3 000 GHz као и примене у фиксној служби користећи такве фреквенцијске опсеге,

*препознајући*

- a)* да Резолуција 118 (Marrakesh, 2002) Конференције опуномоћеника налаже Директору ВР да извести светску конференцију о радиокомуникацијама о напретку ИТУ-Р студија које разматрају коришћење фреквенција изнад 3 000 GHz;

b) да је ИТУ-Р идентификовао техничке аспекте с обзиром на коришћење оптичких телекомуникација у слободном простору као тачку која захтева хитно проучавање од ИТУ-Р Студијских група,

*одлучује*

да узме у обзир могуће процедуре за оптичке линкове у слободном простору, водећи рачуна о резултатима ИТУ-Р студија које покривају у најмању руку аспект дељења са осталим службама, јасну дефиницију граница опсега и мере за узети у обзир ако се намене различитим службама у Правилнику о радиокомуникацијама изнад 3 000 GHz покажу изводљиве,

*позива ИТУ-Р*

да поведе неопходне студије у време за разматрање од WRC-11.

**ADD** PLEN/408/14 (B24/419/15)

### РЕЗОЛУЦИЈА 956 (WRC-07)

#### **Регулаторне мере и њихова релевантност да омогуће увођење софтверски дефинисаних радио и когнитивних радио система**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да когнитивни радио и самоконфигурирајуће мреже треба да пруже додатну флексибилност и повећану ефикасност целокупном коришћењу спектра;
- b) да ИТУ-Р већ проучава такве напредне радио технологије, њихову функционалност, главне техничке карактеристике, захтеве, перформансе и корисност (Питање ИТУ-Р 241/8);
- c) да студије показују да је софтверски дефинисани радио који користи когнитивне контролне механизме начин постизања боље искоришћености спектра, динамичког управљања спектром, и флексибилно коришћење спектра (Извештај ИТУ-Р М.2064);
- d) да се значајно истраживање и развој одвија о когнитивним радио системима и одговарајућим мрежним конфигурацијама као што су самоконфигурирајуће мреже;
- e) да когнитивни радио системи могу покривати бројне технике радио приступа (RATs);
- f) да когнитивни радио системи укључују самоконфигурирајуће мреже различитих мрежних топологија које су у стању да подесе своје коришћење спектра на основу локално расположивог спектра;
- g) да без икакве информације о положају и карактеристикама других RATs унутар покриваног фреквенцијског распона дохватљивог мобилном терминалу, било би неопходно сканирати целокупан подешавајући распон да би се установило локално коришћење спектра, што би резултовало великим трошењем снаге и времена;
- h) да без додатних средстава, не би било могуће открити употребу само за пријем;
- i) да неке студије показују корисност имајући начина да се помогне у одређивању локалног коришћења спектра, као што је жични и бежични приступ бази података или другим мрежама;

*j)* да неке студије указују на могућу потребу за глобално хармонизованим когнитивним пилотским каналом за подршку, са опсегом мањим од 50 kHz, док друге студије указују да би доступност бази података могла подржати приступ и повезивање, и тако би се подржало коришћење тих система,

*одлучује да позове ITU-R*

1 да проучи да ли има потребе за регулаторним мерама које се односе на примену технологија когнитивног радио система;

2 да проуче да ли има потребе за регулаторним мерама које се односе на примену софтверски дефинисаног радија,

*одлучује такође*

да WRC-11 узме у обзир резултате ових студија и предузме одговарајуће мере.

## **ПРЕПОРУКЕ**

**ADD** COM4/380/78 (B19/413/30)

**ПРЕПОРУКА 206 (WRC-07)**

**Разматрање могућег коришћења интегрисане мобилне сателитске службе и система земаљске компоненте у неким фреквенцијским опсезима идентификованим за сателитску компоненту Међународних мобилних телекомуникација**

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a)* да системи мобилне сателитске службе (MSS) могу да пруже услуге на широком подручју;
- b)* да MSS системи имају ограничен капацитет за пружање поузданих радиокомуникационих услуга у урбаним подручјима на рачун природних или вештачких препрека и земаљска компонента интегрисаног MSS система може ублажити области блокаде, као и дозволити покривање затвореног простора;
- c)* да MSS системи могу побољшати покривање руралних области, постајући тако елемент који може премостити дигиталну поделу у смислу географије;
- d)* да су MSS системи подесни за јавну заштиту и комуникације олакшања месређе, како је наведено у Резолуцији **646 (WRC-03)**;
- e)* да су опсежи 1 525-1 544 MHz, 1 545-1 559 MHz, 1 610-1 626.5 MHz, 1 626.5-1 645.5 MHz, 1 646.5-1 660.5 MHz и 2 483.5-2 500 MHz између оних идентификованих у Резолуцији **225 (Rev.WRC-07)** за администрације које желе да имплементирају сателитску компоненту Међународних мобилних телекомуникација (IMT);
- f)* да су опсежи споменути у *узимајући у обзир e)* намењени на примарној основи мобилним сателитским службама и другим службама и да нису сви намењени мобилној служби;
- g)* да су опсежи 1 980-2 010 MHz и 2 170-2 200 MHz идентификовани за коришћење од стране сателитске компоненте IMT-2000 у складу са Резолуцијом **212 (Rev.WRC-07)**;
- h)* да унутар својих територија у неким деловима опсега идентификованим у *узимајући у обзир e)* и *g)* и у деловима опсега 2 010-2 025 MHz у неким земљама у Региону 2, неке администрације су ауторизовале или планирају да ауторизују операторе MSS система да успоставе интегрисану земаљску компоненту својим MSS системима (“Интегрисани систем”) и под извесним условима одређено на националној основи као:
  - i)* земаљска компонента је комплементарна, и ради као интегрални део MSS система и, заједно са сателитском компонентом, пружа једну интегралну сервисну понуду;
  - ii)* земаљска компонента је контролисана од стране сателитског система управљања ресурсима и мрежама;
  - iii)* земаљска компонента користи исте означене делове фреквенцијског опсега као придружени радни MSS систем;
- i)* да је ИТУ-Р извео студије о дељењу фреквенција и одлучио да коегзистенција између независних система у MSS и система у мобилним службама у истом спектру без штетне интерференције није изводљива у истој или суседним географским подручјима,

*препознајући*

- a) да ИТУ-Р није извео студије о дељењу, техничким или регулаторним питањима у односу на интегрисани МСС и системе земаљске компоненте, али да неке администрације су извеле те студије;
- b) да је радионавигациона сателитска служба у опсегу 1 559-1 610 MHz и радио астрономска служба у опсезима 1 610.6-1 613.8 MHz и 1 660-1 670 MHz треба да буду заштићена од штетних сметњи;
- c) да МСС треба да буде заштићен од штетних сметњи које могу бити узроковане од увођења земаљске компоненте Интегрисаних система;
- d) да је Nos. **5.353А** и **5.357А** примењив на МСС системе у различитим деловима опсега 1 525-1 559 MHz и 1 626.5-1 660.5 MHz у односу на потребе за спектром и поларизацијом комуникација за Глобални поморски систем за несреће и безбедност и ваздухопловну мобилну сателитску (R) службу,

*констатујући*

- a) да могућности комбинованог широкопросторног и урбаног покривања од стране Интегрисаног система може допринети да се задовоље посебне потребе земаља у развоју тако како је напоменуто у Резолуцији **212 (Rev.WRC-07)**;
- b) да су неке администрације које планирају да имплементирају или управо имплементирају Интегрисане системе унутар својих националних територија увеле ограничења, код правила и ауторизационих мера, на е.и.р. густину коју земаљска компонента таквих система може произвести у опсезима намењеним радионавигацијској сателитској служби;
- c) да постоји ограничен број фреквенцијских опсега намењених МСС, да су ти опсежи већ закрчени, и да увођење интегрисаних земаљских компоненти могу у неким случајевима учинити приступ спектру за друге МСС системе врло отежан;
- d) да администрације које имплементирају Интегрисане Системе могу пружити, у билатералним консултацијама администрација, информације о системским карактеристикама земаљске компоненте,

*препоручује*

да позове ИТУ-Р да поведе студије, по могућности, водећи рачуна о постојећим системима и оним предложенима да се користе ускоро и о горњим *узимајући у обзир, признајући и констатујући*,

*позива администрације*

да учествују ако је неопходно у ИТУ-Р студијама *узимајући у обзир препознајући а*).

**ADD** COM4/426/1 (B19/413/30)

## ПРЕПОРУКЕ 207 (WRC-07)

### Будући ИМТ системи

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да се будући развој ИМТ проучава од стране ИТУ-Р у складу са Препоруком ИТУ-Р М.1645 и будуће Препоруке се развијају за ИМТ-Напредни;

- b) да је будући развој ИМТ предвиђен да адресира потребу за већим брзинама преноса податак од оних које пружају тренутно расположиви ИМТ системи;
- c) потребу да се дефинишу захтеви придружени побољшањима у току за будуће ИМТ системе,

*констатујући*

a) да су релевантне ИТУ-Р студије у току за ИМТ-Напредни, нарочито одговори на Питање ИТУ-Р 229-1/8;

b) потребу да се узму у разматрање захтеви примена других служби,

*препоручује*

да се позове ИТУ-Р да проучи по потреби техничка, радна, и питања у вези спектра, да се задовоље циљеви будућих ИМТ система.

**MOD** COM6/341/24 (B14/365/51) (R7/411/227)

### ПРЕПОРУКА 608 (Rev.WRC-07)

### Упутства за консултационе скупове утврђена у резолуцији 609 (Rev.WRC-07)

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

a) да у складу са правилником о радиокомуникацијама (RR), опсег 960-1 215 MHz је намењен на примарној основи ваздухопловној радионавигационој служби (ARNS) у свим ИТУ Регионима;

b) да је WRC-2000 увела ко-примарну намену за радионавигациону сателитску службу (RNSS) у фреквенцијском опсегу 1 164-1 215 MHz (под условима специфицираним у Но. **5.328А**), са привременим ограничењем агрегатне снаге густине флуksа (pfd) произведен од стране свих свемирских станица унутар свих радионавигационих сателитских система на Земљиној површини од  $-115 \text{ dB(W/m}^2\text{)}$  у било ком 1 MHz опсегу за све упадне углове;

c) да је WRC-03 ревидирао то привремено ограничење и одлучио да ниво од  $-121.5 \text{ dB(W/m}^2\text{)}$  у било ком 1 MHz за агрегатни еквивалент pfd (epfd) примењен на све свемирске станице унутар свих RNSS система, узимајући у обзир референтне најгоре карактеристике ARNS антенског система описане у анексу 2 Препоруке ИТУ-Р М.1642-2, адекватан да осигура заштиту за ARNS у опсегу 1 164-1 215 MHz;

d) да је WRC-03 одлучио да ће за достизање циљева у *одлучује* 1 и 2 Резолуције **609 (Rev.WRC-07)**, администрацијама које воде или планирају да воде RNSS системе бити потребан кооперативни пристанак на консултационим скуповима да се достигне ниво заштите за ARNS системе, и треба да се успоставе механизми да се осигура да се свим потенцијалним RNSS систем операторима даје пуни увид у процес, али само реални системи се узимају у обзир у калкулацијама агрегатне epfd,

*препоручује*

1 да у имплементацији *одлучује* 5 Резолуције **609 (Rev.WRC-07)**, у фреквенцијском опсегу 1 164-1 215 MHz, максимална pfd произведена на површини Земље од емисија из свемирских станица у RNSS, за све упадне углове, не би смела да пређе  $-129 \text{ dB(W/m}^2\text{)}$  у било ком 1 MHz опсегу под пропагационим условима у слободном простору;

2 да RNSS карактеристике излистане у Анексу 1, коришћена код примене методологије садржане у Препоруци ITU-R M.1642-2, као и израчунати агрегатни  $erfd$  у  $dB(W/m^2)$  за сваки 1 MHz у распону 1 164-1 215 MHz, требало би да буде доступан у електронском формату консултационим скуповима.

### АНЕКС 1 НА ПРЕПОРУКУ 608 (Rev.WRC-07)

#### Листа карактеристика RNSS система и формат резултата прорачуна $erfd$ који треба да се да Бироу за радиокомуникације за публикување информација

**ADD** COM4/318/4 (B11/329/44) (R6/410/83)

### ПРЕПОРУКА 724 (WRC-07)

#### Коришћење од стране цивилног ваздухопловства фреквенцијских намена на примарној основи за фиксну сателитску службу

Светска Конференција о радиокомуникацијама (Женева, 2007),

*узимајући у обзир*

- a) да руралне и удаљене области често још имају недостатак земаљске комуникационе инфраструктуре која задовољава растуће потребе модерног цивилног ваздухопловства;
- b) да би цена пружања и одржавања такве инфраструктуре могла бити велика, нарочито у удаљеним регионима;
- c) да сателитски комуникациони системи који раде у фиксној сателитској служби (FSS) можда јесу једини медиј који задовољава захтеве Међународне цивилне ваздухопловне организације (ИКАО) за системима комуникације, навигације, надгледања и управљања ваздушним саобраћајем (CNS/ATM), где нека адекватна земаљска инфраструктура није доступна;
- d) да коришћење VSAT система, који раде у FSS и који се постављају на широкој основи у ваздухопловним комуникацијама, има потенцијал да значајно унапреди комуникације између центара контроле лета као и удаљених ваздухопловних станица;
- e) да би успостављање и коришћење сателитских комуникационих система за цивилно ваздухопловство такође донело добробит земљама у развоју и земљама са удаљеним и руралним подручјима омогућујући коришћење VSAT система за не-ваздухопловне комуникације;
- f) да у случајевима идентификованим у *узимајући у обзир e)* неопходно је привући пажњу на важност ваздухопловних комуникација насупрот не-ваздухопловним комуникацијама,

*констатујући*

- a) да FSS није безбедносна служба;
- b) да Резолуција **20 (Rev.WRC-03)** одлучује да наложи Генералном секретару “да подстакне ИКАО да настави своју помоћ земљама у развоју које се труде да побољшају своје ваздухопловне телекомуникације ...”,

*препоручује*

- 1 да администрације, посебно у земљама у развоју и у земљама са удаљеним и руралним подручјима, препознају важност VSAT рада за модернизацију цивилних ваздухопловних телекомуникационих система и подстиче имплементацију VSAT система који би могли подржати обоје ваздухопловне и друге комуникационе потребе;
- 2 да се подстичу администрације у земљама у развоју, до крајњих могућих граница и кад је потребно, да се убрза процес ауторизације да се омогуће ваздухопловне комуникације користећи VSAT технологију;
- 3 да би требало урадити аранжмане за увођење хитне рестаурације службе или алтернативног рутинга у случају прекида VSAT везе придружене ваздухопловним комуникацијама;
- 4 да би администрације које имплементирају VSAT системе у складу са *препоручује* 1 до 3 требале учинити то у сателитским мрежама које раде у фреквенцијским опсезима са примарном наменом сателитским службама;
- 5 да се позове ИСАО, напомињући Резолуцију **20 (Rev.WRC-03)**, да наставе помоћ земљама у развоју да побољшају своје ваздухопловне телекомуникације, укључујући интероперабилност VSAT мрежа, и пруже смернице земљама у развоју како би оне најбоље могле да користе VSAT технологију за ту сврху,

*захтева се од генералног секретара*

да стави ову Резолуцију на пажњу ИСАО.

**Члан 3.**

Овај закон ступа на снагу осмог дана од дана објављивања у „Службеном гласнику РС - Међународни уговори“.