

**Z A K O N**  
**O POTVRĐIVANJU ZAVRŠNIH AKATA SVETSKE KONFERENCIJE O**  
**RADIO-KOMUNIKACIJAMA**  
**(WRC-07)**

**Član 1.**

Potvrđuju se Završna akta Svetske konferencije o radio-komunikacijama (WRC-07), sačinjena 16. novembra 2007. godine u Ženevi, Švajcarska, u originalu na engleskom jeziku.

**Član 2.**

Tekst Završnih akata Svetske konferencije o radio-komunikacijama (WRC-07), u originalu na engleskom jeziku i u prevodu na srpski jezik, glasi:

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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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Sana ZAIRI

Abderrahim KHAFI

Adil ARAMJA

**For the Republic of the Marshall Islands:**

Richard M. RUSSELL

**For the Islamic Republic of Mauritania:**

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**For Mexico:**

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Arturo ROMO RICO

**For the Federated States of Micronesia:**

Jolden J. JOHNNYBOY

**For the Republic of Moldova:**

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**For the Principality of Monaco:**

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**For Mongolia:**

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**For the Republic of Montenegro:**

Vesna JOKIC

Ana VUKCEVIC

**For the Republic of Mozambique:**

Luis REGO

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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

Dinesh K. SHARMA

Kumar J. KARKI

**For the Republic of Niger:**

Abdoulkarim SOUMAILA

**For the Federal Republic of Nigeria:**

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Kilyobas N. BINGA  
Augustine K. NWAULUNE  
Adekunle J. ADEGUNLOYE  
Edwin Chukwuka ANEKE  
Mallam Kamaruddeen MUSA

**For Norway:**

Geir Jan SUNDAL

**For New Zealand:**

David KERSHAW  
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:**

Jonas M. BANTULAKI  
Patrick MASAMBU  
Patrick MWESIGWA  
Geoffrey SENGENDO  
Joanita NAMPEWO

**For the Republic of Uzbekistan:**

Mayram KHALMURATOVA

**For the Islamic Republic of Pakistan:**

Mudassar HUSSAIN  
Mohammad K. NOOR

**For the Republic of Panama:**

Juan A. CASTILLERO C.

**For Papua New Guinea:**

Kila GULO-VUI

**For the Republic of Paraguay:**

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Luis ESCOBAR

**For the Kingdom of the Netherlands:**

Fokko BOS

Chris VAN DIEPENBEEK

**For the Republic of the Philippines:**

Ruel Villa CANOBAS

Pricilla F. DEMITION

**For the Republic of Poland:**

Jacek LOSIK

Krzysztof SLOMCZYNSKI

**For Portugal:**

Maria Luisa MENDES

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**For the State of Qatar:**

Abdulla AL-DOSARI

Yousuf ALKUBAISI

**For the Syrian Arab Republic:**

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Nabil KISRAWI

Naseeb IMAD

Nabil EL-DEBES

Moustafa AJENEH

Mohammed HASSAN

Nizar HAMED

**For the Democratic Republic of the Congo:**

Anaclet KABEMBA KALAMBAY

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Pierre LUNDULA DIMANDJA

**For the Kyrgyz Republic:**

Orozobek KAIYKOV

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

Yong Il RI

**For the Slovak Republic:**

Anton SMITKA

**For the Czech Republic:**

Pavel DVORAK

**For Romania:**

Zoltan SOMODI

**For the United Kingdom of Great Britain and Northern Ireland:**

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**For the Republic of Rwanda:**

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**For the Republic of San Marino:**

Michele GIRI

**For the Republic of Senegal:**

Makhtar FALL

Cheikh Ahmadou T. TOURE

Khalilou NIANE

Pape Cire CISSE

**For the Republic of Serbia:**

Slobodan LAKETA

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Branko BERIC

Slavenko RASAJSKI

Natalija VARAGIC

Marica BUDISIN

**For the Republic of Seychelles:**

George AH-THEW

**For the Republic of Singapore:**

Choon Sai LIM

Yuk Min LIM

Teo JASON

**For the Republic of Slovenia:**

Matjaz JANSKA

**For the Republic of the Sudan:**

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Awad KHALAF ALLA

**For the Democratic Socialist Republic of Sri Lanka:**

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**For the Republic of South Africa:**

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Rosey SEKESE

Ingrid PONI

Peter ZIMRI

**For Sweden:**

Marianne TRESCHOW

Jan-Erik LEIJERKRANS

Anders FREDERICH

**For the Confederation of Switzerland:**

Philippe HORISBERGER

Dirk-Oliver VON DER EMDEN

**For the Republic of Suriname:**

Jettie OLFF

**For the Kingdom of Swaziland:**

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**For the United Republic of Tanzania:**

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Elizabeth M. NZAGI

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**For the Republic of Chad:**

Guirdona MOGALBAYE

**For Thailand:**

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Nantakiat SUTHITHAM

Srisuda PROMMANUWAT

Nattawut ARD-PARU

Worapat PATRAM



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Amporn DEELERDCHAROEN  
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Pranot PAJONGSILVIVAT  
Nopadol LHAOSANGDHAM  
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**For the Togolese Republic:**

Palouki MASSINA  
Sodeglan MAWOUKO GABA

**For Tunisia:**

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Lilia ESSOUSSI  
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**For Turkey:**

Tayfun ACARER

**For Ukraine:**

Petro YATSUK  
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**For the Eastern Republic of Uruguay:**

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**For the Bolivarian Republic of Venezuela:**

Maria Dolores PENA

**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

## Final Protocol

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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 to the other treaties 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 power s conferred on it:

1. that it reserves the right of its Government to take anyactions 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



may be subject to the national regulations of the administration concerned. The characteristics of the equipment used shall conform to those specified in Recommendation ITU-R M.1174-2. (WRC-07)

**MOD** (R9/425/1)

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<b>470-790</b> BROADCASTING  5.149 5.291A 5.294 5.296 5.300 5.302 5.304 5.306 ADD 5.311A 5.312	<b>470-512</b> BROADCASTING Fixed Mobile 5.292 MOD 5.293 <b>512-608</b> BROADCASTING 5.297 <b>608-614</b> RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space) <b>614-698</b> BROADCASTING Fixed Mobile  MOD 5.293 5.309 ADD 5.311A <b>698-806</b> BROADCASTING Fixed MOBILE MOD 5.317A ADD 5.UUU	<b>470-585</b> FIXED MOBILE BROADCASTING 5.291 5.298 <b>585-610</b> FIXED MOBILE BROADCASTING RADIONAVIGATION 5.149 5.305 5.306 5.307 <b>610-890</b> FIXED MOBILE MOD 5.317A ADD 5.YYY BROADCASTING
<b>790-862</b> FIXED BROADCASTING MOBILE except aeronautical mobile ADD 5.XXX MOD 5.317A 5.312 5.314 5.315 MOD 5.316 ADD 5.316A 5.319	MOD 5.293 5.309 ADD 5.311A <b>806-890</b> FIXED MOBILE MOD 5.317A BROADCASTING	
<b>862-890</b> FIXED MOBILE except aeronautical mobile MOD 5.317A BROADCASTING 5.322  5.319 5.323	5.317 5.318	5.149 5.305 5.306 5.307 ADD 5.311A 5.320

**MOD** COM5/264/49 (B6/268/53) (R3/292/53)

**5.290** *Different category of service:* in Afghanistan, Azerbaijan, Belarus, China, the Russian Federation, Japan, Mongolia, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 460-470 MHz to the meteorological-satellite service (space-to-Earth) is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. (WRC-07)

**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**

Allocation to services		
Region 1	Region 2	Region 3
<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**

<b>Allocation to services</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<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	240 cm Recommendation ITU-R BO.1443-2, Annex 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 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** § 20bis 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	<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		<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;">Notice related to</p> <hr/> <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
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	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>		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	

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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		<p style="text-align: center;"><b>For an area in which receiving stations operate</b></p>								
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	the code corresponding to the sound broadcasting transmission system (see the Preface) 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 In the case of a VHF/UHF broadcasting station, required for sound broadcasting assignments, except assignments subject to the GE06 Regional Agreement In the case of an LF/MF broadcasting station, required for an assignment with digital or hybrid modulation	+	+						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		the reference planning configuration (see the Preface) Required for digital sound broadcasting	+							
7.3.9.2		the type of spectrum mask	X							
7.3.9.3		the reception mode (see the Preface) Required for digital television broadcasting	+							
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</b> to <b>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



Column No.	Item identifier	<p style="text-align: center;"><b>Description of data item and requirements</b></p> <p style="text-align: center;"><b>Notice related to</b></p>	<p style="text-align: center;"><b>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</b></p>	<p style="text-align: center;"><b>Broadcasting (sound) stations in the LF/MF bands, for the application of No. 11.2</b></p>	<p style="text-align: center;"><b>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</b></p>	<p style="text-align: center;"><b>Receiving land stations, for the application of No. 11.9 and No. 9.21</b></p>	<p style="text-align: center;"><b>Typical transmitting stations, for the application of No. 11.17</b></p>	<p style="text-align: center;"><b>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)</b></p>	<p style="text-align: center;"><b>Broadcasting stations in the HF bands, for the application of No. 12.16</b></p>	<p style="text-align: center;"><b>Item identifier</b></p>
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

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
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>	+		+					

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
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

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
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

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
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

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
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	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)  In the case of a VHF/UHF broadcasting station, transmitting station, or a receiving land station, required for application of Article 11	+	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	X	X	X	X
2.1.b	an indicator showing whether the antenna beam, under 2.1.a, is fixed or whether it is steerable and/or reconfigurable	X	X	X	X
2.1.c	an indicator showing whether the HAPS antenna tracks the service area	X		X	
2.1.d	an indicator showing whether the antenna beam is individual or composite beam	X	X	X	X
	<b>ANTENNA CHARACTERISTICS</b>				
2.9.g	the maximum co-polar isotropic gain	X	X	X	X
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	X	X		
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>	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>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	
<b>A.2</b>	<b>DATE OF BRINGING INTO USE</b>										<b>A.2</b>	

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	

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.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>				X	X	X				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				X	X	X				A.13.b	
A.13.c	the reference and number of the information in accordance with Article 4 of Appendix <b>30</b>							X			A.13.c	
A.13.d	the reference and number of the information in accordance with Article 4 of Appendix <b>30A</b>								X		A.13.d	
A.13.e	the reference and number of the information in accordance with Article 6 of Appendix <b>30B</b>						X			X	A.13.e	
A.14	<b>FOR STATIONS OPERATING IN A FREQUENCY BAND SUBJECT TO Nos. 22.5C, 22.5D OR 22.5F: SPECTRUM MASKS</b>										A.14	
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					X					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	
<b>A.15</b>	<b>COMMITMENT REGARDING COMPLIANCE WITH ADDITIONAL OPERATIONAL EQUIVALENT POWER FLUX DENSITY, <math>epfd_{\downarrow}</math>, LIMITS</b>										<b>A.15</b>	
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	

Items in Appendix	<p align="center"><b>B - CHARACTERISTICS TO BE PROVIDED FOR EACH SATELLITE ANTENNA BEAM OR EACH 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.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	



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	<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	if a non-elliptical beam, the cross-polar gain contours shall be provided as defined under B.3.b.1							+	+		B.3.b.2	
B.3.c	<b>Antenna radiation patterns:</b>										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	if an elliptical beam, the cross-polar antenna radiation pattern							+	+		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	

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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>											
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>									



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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. <b>1.154</b> and <b>1.155</b>)</p> <p>In the case of a space station submitted in accordance with Appendix <b>30</b> or <b>30A</b>, see § 3.2 of Annex 5 to Appendix <b>30</b></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 <b>30</b> or <b>30A</b>, see § 3.2 of Annex 5 to Appendix <b>30</b></p>		+	+	+	+ <sup>1</sup>	+	+	+		C.6.b	
C.7	<p><b>NECESSARY BANDWIDTH AND CLASS OF EMISSION</b></p> <p>(in accordance with Article <b>2</b> and Appendix <b>1</b>)</p> <p>For advance publication of a non-geostationary-satellite network not subject to coordination under Section II of Article <b>9</b>, changes to this information within the limits specified under C.1 shall not affect consideration of notification under Article <b>11</b></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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	<p>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</p>											
C.8.b.2	<p>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</p>		+	+	+	+	+ <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	<p>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</p>		+	+	+						C.8.b.3.a	
C.8.b.3.b	<p>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</p>		+	+	+						C.8.b.3.b	
C.8.c	<p><b>Minimum power values:</b>  For all space applications except active or passive sensors</p>										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 align="center">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, 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	
<b>C.10</b>	<b>TYPE AND IDENTITY OF THE ASSOCIATED STATION(S)</b>										<b>C.10</b>	

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	(the associated station may be another space station, a typical earth station of the network or a specific earth station) For all space applications except active or passive sensors											
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		the associated transmission gain of the lowest equivalent satellite link noise temperature  These values shall be indicated for the nominal value of the angle of elevation  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			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.)		<p>7) Bands above 17.3 GHz, except those defined in § 3) and 6)</p> <p>8) Bands above 17.3 GHz except those defined in § 4) and 5)</p>	<p>i) Bandwidth overlap, and</p> <p>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 <math>\pm 8^\circ</math> of the nominal orbital position of a proposed network in the FSS (see also Resolution 901 (Rev.WRC-07))</p> <p>i) Bandwidth overlap, and</p> <p>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 <math>\pm 16^\circ</math> 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))</p>		

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		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 <b>27</b> (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	
			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
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
			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
			Long.	Lat.	Major axis	Minor axis	Orientation			Code	Gain	Type	Angle	e.i.r.p.	Designation of emission						
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		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			
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			
TCO	TCO14300	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 Admin. symbol	2 Beam identification	3 Orbital position	4 Boresight		5 Space station antenna characteristics			6 Space station antenna code	7 Shaped beam	8 Space station antenna gain		9 Earth station antenna		10 Polarization		11 e.i.r.p.	12 Power control	13 Designation of emission	14 Identity of the space station	15 Group code	16 Status	17 Remarks
			Long.	Lat.	Major axis	Minor axis	Orientation			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		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							
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			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
Admin. symbol	Beam identification	Orbital position	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							
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**

...

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	
$\varphi_m = \frac{20\lambda}{D} \times \sqrt{G_{max} - G_1}$ degrees		
$\eta$ : antenna efficiency		



**MOD** COM5/385/91 (B18/405/94)

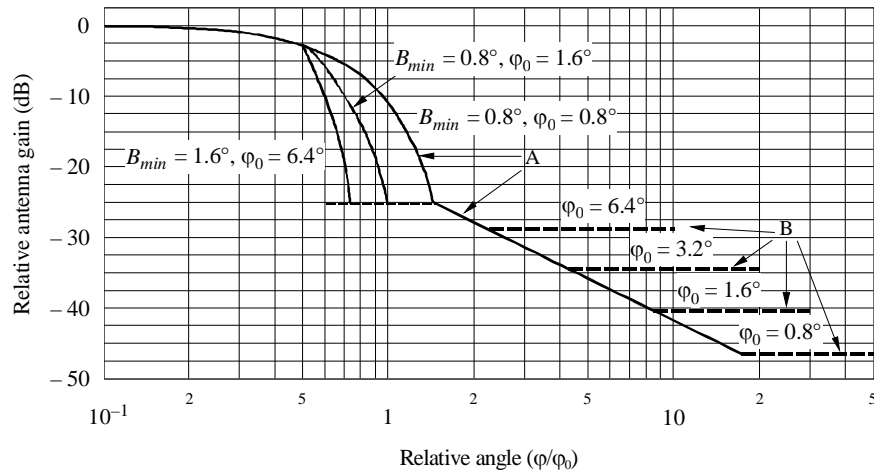
**1.7 Space station characteristics** (WRC-07)

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:

**Error! Objects cannot be created from editing field codes.**

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:

- $-140.0 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  towards any location in the geostationary-satellite orbit located more than  $10^\circ$  from the proposed orbital position in the 6 725-7 025 MHz band, and
- $-133.0 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  towards any location in the geostationary-satellite orbit located more than  $9^\circ$  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  $10^\circ$  in the 4 500-4 800 MHz (space-to-Earth) and 6 725-7 025 MHz (Earth-to-space) bands;
- 1.2  $9^\circ$  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  $(C/N)_u + 9 \text{ dB}^2$ , or any already accepted Earth-to-space single-entry  $(C/I)_u^3$ , 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  $(C/N)_d + 11.65 \text{ dB}^5$ , 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  $(C/N)_t + 7 \text{ dB}^6$ , 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**

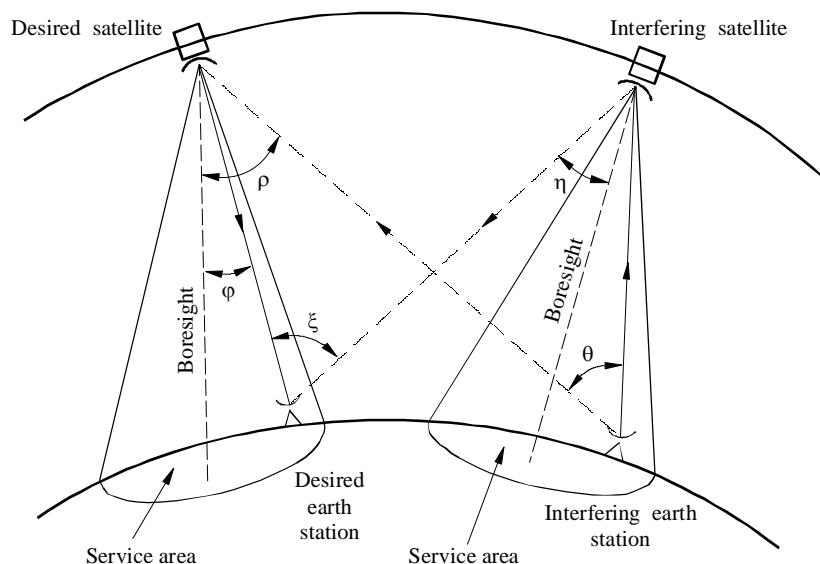
This section describes the method for calculating the single-entry interference potential.

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:

θ, φ, ρ, η, ξ 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  $2 \times 300$  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:

$$\begin{aligned} -115 & \quad \text{dB(W/(m}^2 \cdot \text{MHz)) for } 0^\circ \leq \delta < 5^\circ \\ -115 + 0.5(\delta - 5) & \quad \text{dB(W/(m}^2 \cdot \text{MHz)) for } 5^\circ \leq \delta \leq 25^\circ \\ -105 & \quad \text{dB(W/(m}^2 \cdot \text{MHz)) for } 25^\circ < \delta \leq 90^\circ \end{aligned}$$

where  $\delta$  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 2 182 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  $-121.5 \text{ dB(W/m}^2\text{)}$  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>Studies to be carried out by:</b>
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<b>with the participation of:</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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**Svetske konferencije o radio-komunikacijama**  
**(WRC-2007)**  
Ženeva, 2007

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## Uvod

Svetska konferencija o radio-komunikacijama (Ženeva, 2003) preporučila je, Rezolucijom 802 (**WRC-03**), ITU Savetu da se 2007. godine održi Svetska konferencija o radio-komunikacijama u periodu od četiri nedelje.

Na sednici 2004. godine, Savet je odlučio, Rezolucijom 1227, da će se konferencija održati u Ženevi od 22. oktobra do 16. novembra 2007. godine, i usvojio dnevni red konferencije. Dnevni red, datumi i mesto su usvojeni od strane potrebne većine Država članica Unije.

Svetska konferencija o radio-komunikacijama (**WRC-07**) održana je u Ženevi u utvrđenom periodu, gde se radilo na osnovu dnevnog reda usvojenog od strane Saveta. Usvojena je revizija pravilnika o radio-komunikacijama i pratećih priloga, koje su sastavni deo ovih Završnih Akata.

U skladu sa svojim programom rada, Konferenciji je takođe donela i druge odluke koje se smatraju neophodnim i odgovarajućim, uključujući pregled i reviziju postojećih Rezolucija i Preporuka, koje su sadržane u ovim Završnim Aktima.

Većina odredbi usvojenih od strane **WRC-07**, koje su sadržane u reviziji pravilnika o radio-komunikacijama iz ovog Uvoda, stupa na snagu od 1. januara 2009. godine, dok će se preostale odredbe primenjivati počev od datuma navedenog u Rezoluciji u Članu 59 revidiranih pravilnika o radio-komunikacijama.

Delegati koji su potpisali revizije pravilnika o radio-komunikacijama sadržanih u ovim Završnim Aktima, u skladu sa odobrenjem nadležnih organa njihovih zemalja, izjavljuju da, ukoliko Država članica Unije izrazi rezerve u vezi sa primenom jedne ili više odredaba revidiranih pravilnika o radio-komunikacijama, nijedna druga Država članica nije u obavezi da poštuje ovu odredbu, odnosno odredbe u svojim odnosima sa datom Državom članicom.

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Kao potvrdu ovoga, delegati Država članica Međunarodne unije za telekomunikacije navedene ispod, su u ime svojih nadležnih organa, potpisali jedan primerak ovih Završnih akata. U slučaju spora, francuski tekst je merodavan. Ovaj primerak se deponuje u arhivi Saveza. Generalni sekretar će dostaviti po jednu overenu kopiju svakoj Državi članici Međunarodne unije za telekomunikacije.

Sastavljeno u Ženevi, 16. novembar 2007

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Alžir (Nardona Demokratska Republika) (106)  
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Paragvaj (Republika) (1)  
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Rumunija (10)  
Ruska Federacija (47)  
Ruanda (Republika) (60)  
San Marino (Republika) (13)  
Saudijska Arabija (Kraljevstvo) (30, 85)  
Srbija (Republika) (82)  
Senegal (Republika) (25)  
Singapur (Republika) (7)  
Slovačka (Republika) (10, 82, 92)  
Slovenija (Republika) (10, 82, 92)  
Južna Afrika (Republika) (26)  
Španija (10, 20, 82)  
Sudan (Republika) (65, 85)  
Švedska (10,20,82)  
Švajcarska (Konfederacija) (48, 82, 92)

Sirijska Arapska Republika (63, 85)  
Tadžikistan (Republika) (47)  
Tanzanija (Savezna Republika) (52)  
Tajland (105)  
Togo (Republika) (27)  
Turska (22, 80, 92, 93)  
Uganda (Republika) (45)  
Ukrajina (47,92)  
Ujedinjeni Arapski Emirati (67, 85)  
Ujedinjeno Kraljevstvo Velike Britanije i Severne Irske (10, 80, 82, 92)  
Sjedinjene Američke Države (76, 77, 78, 92, 95)  
Urugvaj (Istočna Republika) (3)  
Uzbekistan (Republika) (47)  
Država Vatikanskog Grada (40, 80)  
Venecuela (Bolivarska Republika) (12)  
Vijetnam (Socijalistička Republika) (6)  
Zambija (Republika) (8)  
Zimbabve (Republika) (54)

## **Deklaracije i rezervacije**

*U vreme potpisivanja Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), dolepotpisane delegacije ističu sledeće deklaracije i rezervacije koje preuzimaju delgacije potpisnice:*

1

Original: na španskom

Za Republiku Paragvaj:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Paragvaj izjavljuje da za svoju Vladu zadržava prava:

- da preduzme bilo kakvu akciju ako smatra da je potrebno da štiti svoje interese, ukoliko ostale članice Međunarodne unije za telekomunikacije ne uspeju na bilo koji način da tumače Završna akta, Aneксе, pa i Pravilnik o radio-komunikacijama, ili ukoliko bi rezervacije drugih članica ugrozile pravilno funkcionisanje telekomunikacionih servisa ili puna suverena prava Paragvaja;
- da formuliše, na osnovu Bečke konvencije o Zakonu o sporazumima iz 1969. godine, dodatne deklaracije ili rezervacije u vezi Završnih akata u svakom trenutku koji smatra odgovarjućim između datuma potpisa i datuma moguće ratifikacije internacionalnih instrumenata od kojih se sastoje ovi Završni akti.

2

Original: na engleskom

Za Island, Kneževinu Lihtenštajn i Norvešku:

Delegacija gorepomenutih država članica Evropske Ekonomske Zone izjavljuju da će gorepomenute države članice Evropske Ekonomske Zone primeniti izmene Pravilnik o radio-komunikacijama usvojenih na ovoj konferenciji na osnovu svojih obaveza iz Sporazuma kojim je osnovana Evropska Ekonomska Zona.

3

Original: na španskom

Za Istočnu Republiku Urugvaj:

Potpisivanjem Završnih akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Istočne Republike Urugvaj izjavljuje da za svoju Vladu zadržava prava:

- da preduzme bilo kakvu akciju ako smatra da je potrebno da štiti svoje interese, ukoliko ostale članice Međunarodne unije za telekomunikacije ne uspeju na bilo koji način da tumače Završna akta, Aneксе, pa i Pravilnik o radio-komunikacijama, ili ukoliko bi rezervacije drugih članica ugrozile pravilno funkcionisanje telekomunikacionih servisa ili puna suverena prava Istočne Republike Urugvaj;
- da formuliše, na osnovu Bečke konvencije o Zakonu o sporazumima iz 1969. godine, dodatne deklaracije ili rezervacije u vezi Završnih akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) u svakom trenutku koji smatra odgovarjućim između datuma potpisa i datuma moguće ratifikacije internacionalnih instrumenata od kojih se sastoje ovi Završni akti.

4

Original: na engleskom

Za Republiku Bugarsku:

Potpisivanjem Završnih akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Bugarske zadržava prava da Vlada Republike Bugarske preduzme akcije neophodne za odbranu njenih interesa ukoliko ostale članice Međunarodne unije za telekomunikacije ne budu poštovale odredbe Završnih akata usvojenih na Konferenciji ili ukoliko bi rezervacije ostalih zemalja ugrozile pravilno funkcionisanje telekomunikacionih servisa.

5

Original: na engleskom

Za Mijanmarsku Uniju:

Delegacija Mijanmarske Unije na Svetskoj konferenciji o radio-komunikacijama WRC-07 zadržava prava da Vlada Mijanmarske Unije preduzme akcije koje smatra neophodnim kako bi odbranila svoje interese ukoliko neka Članica ili Članice Međunarodne unije za telekomunikacije na bilo koji način, ne poštuje Završna Akta ove Konferencije i pratećih Aneksa, ili ukoliko bi rezervacije ostalih Članica ugrozile telekomunikacione servise Mijanmarske Unije ili narušile njen suverenitet.

6

Original: na engleskom

Za Socijalističku Republiku Vijetnam:

Potpisivanjem Završnih akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Socijalističke Republike Vijetnam zadržava prava da Vlada Socijalističke Republike Vijetnam preduzme sve mere i akcije koje smatra neophodnim kako bi odbranila svoje interese ukoliko druga Članice Međunarodne unije za telekomunikacije na bilo koji način, ne poštuje Završne Akte ili ukoliko rezervacije i deklaracije bilo koje Članice Unije bile štetne za funkcionisanje telekomunikacionih/informacionih i komunikacionih servisa Vijetnama ili narušilo fundamentalne zakone i javni red u Vijetnamu.

Delegacija Vijetnama dalje izjavljuje da zadržava prava da njena Vlada izvrši bilo koju deklaraciju ili rezervaciju u bilo koje vreme.

7

Original: na engleskom

Za Republiku Singapur:

Delegacija Republike Singapur zadržava prava da Vlada Republike Singapur preduzme sve akcije koje smatra neophodnim kako bi odbranila svoje interese ukoliko neka Članica Međunarodne unije za telekomunikacije na bilo koji način, ne poštuje Završna Akta Svetske konferencije o radio-komunikacijama (Ženeva, 2007), ili ukoliko bi rezervacije bilo koje Članice Unije ugrozile telekomunikacione servise u Republici Singapur, ugrozile suverenitet ili uslovile povećanje doprinosa koje snosi prema Uniji.

8

Original: na engleskom

Za Republiku Zambiju:

Potpisivanjem Završnih akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Zambije zadržava prava da Vlada Republike Zambije preduzme sve akcije i mere čuvanja koje smatra neophodnim za očuvanje nacionalnih interesa ukoliko neka zemlja Članica Unije ne bi ispoštovala odredbe Pravilnik o radio-propisima, Ustav i Konvencije

Međunarodne telekomunikacione unije i Rezolucije Svetske konferencije o radio-komunikacijama (Ženeva, 2007), direktno ili indirektno ugrozila njen suverenitet ili postupila suprotno Ustavu, zakonima ili propisima Republike Zambije kao učesnik ostalih sporazuma i konvencija, ili protivno principima drugih međunarodnih Zakona.

9

Original: na engleskom

Za Demokratsku Narodnu Republiku Koreju:

Potpisivanjem Završnih akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Demokratske Narodne Republike Koreje zadržava prava da Vlada Demokratske Narodne Republike Koreje preduzme sve mere koje smatra neophodnim da odbrani svoje interese, ukoliko se neka zemlja Članica Unije ne bude pridržavala odredaba ovih Završnih Akata ili postupala u skladu sa njima, ili ukoliko rezervacije drugih zemalja ugrozile efikasno funkcionisanje telekomunikacionih servisa.

10

Original: na engleskom,  
španskom,  
francuskom

Za Saveznu Republiku Nemačku, Austriju, Belgiju, Republiku Bugarsku, Republiku Kipar, Dansku, Španiju, Republiku Estoniju, Finsku, Francusku, Grčku, Republiku Mađarsku, Irsku, Italiju, Republiku Letoniju, Republiku Litvaniju, Luksemburg, Maltu, Kraljevinu Holandiju, Republiku Poljsku, Portugal, Slovačku Republiku, Češku Republiku, Rumuniju, Ujedinjeno Kraljevstvo Velike Britanije i Severne Irske, Republiku Sloveniju, Švedsku:

Delegacije Članice Unije Evropske unije izjavljuju da će zemlje Članice Evropske unije primeniti reviziju Pravilnik o radio-komunikacijama, usvojene na ovoj Konferenciji, u skladu sa njihovim obavezama iz Sporazuma EK.

11

Original: na španskom

Za Dominikansku Republiku:

Potpisivanjem Završnih akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) , delegacija Dominikanske Republike:

- a) zadržava za svoju administraciju prava da preduzme sve mere koje smatra neophodnim, u skladu sa domaćim i međunarodnim zakonima, radi očuvanja svojih interesa ukoliko neka Članica Unije ne ispoštuje Završna akta, ili preuzme rezervaciju koja može ugroziti funkcionisanje telekomunikacionih servisa u okviru njene teritorije;
- b) takođe, zadržava pravo izmene tuđih rezervacija i deklaracija i pristupa daljim rezervacijama ili deklaracijama u vreme prilaganja saglasnosti Međunarodnoj uniji za telekomunikacije o obavezivanju revizijom Pravilnika o radio-komunikacijama usvojenih na Svetskoj konferenciji o radio-komunikacijama (Ženeva, 2007).

12

Original: na španskom

Za Bolivarsku Republiku Venecuelu:

Delegacija Bolivarske Republike Venecuele zadržava za svoju Vladu prava da preduzme akcije koje smatra neophodnim radi očuvanja svojih interesa ukoliko neka zemlja Članica Međunarodne unije za telekomunikacije ne bude pridržavala odredaba Završnih akata ili ukoliko rezervacije drugih zemalja mogu biti štetne ili odgovorne za štetan efekat na funkcionisanje telekomunikacionih servisa.

13

Original: na engleskom

Za Republiku San Marino:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) , delegacija Republike San Marino izjavljuje da zadržava prava da Vlada Republike San Marina:

1. da preduzme bilo kakvu akciju i mere koje smatra neophodnim ukoliko posledice rezervacija drugih zemalja Članica ugroze radio-komunikacione servise San Marina ili pravo da isprate uredbe Završnih Akata, Aneksa ili Pravilnika o radio-komunikacijama;
2. formuliše deklaracije ili rezervacije u skladu sa Završnim Aktima Svetske konferencije o radio-komunikacijama (Ženeva, 2007) u vreme prilaganja odgovarajućih instrumenata ratifikacija Međunarodnoj uniji za telekomunikacije.

14

Original: na engleskom

Za Republiku Keniju:

Delegacija Republike Kenije za WRC-07 ovim objavljuje u ime svoje Vlade i vlasti koja joj je dodeljena:

1. da zadržava prava za svoju Vladu da preduzme akcije koje smatra neophodnim radi očuvanja svojih interesa ukoliko neka od Članica ne bude poštovala odredbe Završnih Akata usvojenih na ovoj Konferenciji;
2. da Vlada Republike Kenije ne preuzima odgovornost za posledice koje proizilaze iz rezervacija drugih članova Unije.

15

Original: na engleskom

Za Kraljevinu Bahrein:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Kraljevine Bahrein zadržava pravo za svoju Vladu da preduzme sve akcije i mere koje smatra neophodnim da zaštiti svoje interese ukoliko država Članica Međunarodne unije za telekomunikacije (MTU) ne bude u potpunosti ispunila ili pridržavala se odredba i Rezolucije Završnih Akata ili ukoliko rezervacije drugih država Članica na bilo koji način ugroze telekomunikacione servise Kraljevine Bahrein.

16

Original: na engleskom

Za Kraljevinu Bahrein:

Delegacija Kraljevine Bahrein za Svetsku konferenciju o radio-komunikacijama (Ženeva, 2007), izjavljuje da potpisivanje i moguća ratifikacija Završnih Akata ove Konferencije od strane Vlade Kraljevine Bahrein neće biti punovažne za MTU Članicu pod imenom „Izrael“, i ni na koji način ne ukazuje da Vlada Kraljevine Bahrein prepoznaje ovu članicu.

17

Original: na engleskom

Za Republiku Angolu:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (WRC-07), radi alokacije frekvencijskih opsega u određenim delovima spektra, delegacije Republike Angola iznosi namere svoje administracije da ispoštuje odredbe Završnih Akata ove Konferencije ukoliko se Republici Angoli omogući suvereno pravo da čuva i zaštiti svoje radiodifuzne, telekomunikacione i druge servise ako neka od Članica ne bude ispoštovala revizije odredaba Pravilnika o radio-komunikacija ove Konferenciji, posebno nove alokacije koje su uvedene a ovoj Konferenciji pod uslovom da one neće uzrokovati štetnu interferenciju postojećim servisima.

18

Original: na engleskom

Za Republiku Mozambik:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (WRC-07) radi alokacije frekvencijskih opsega u određenim delovima spektra, delegacije Republike Mozambik iznosi namere svoje administracije da ispoštuje odredbe Završnih Akata ove Konferencije ukoliko se Republici Mozambik omogući suvereno pravo da čuva i zaštiti svoje radiodifuzne, telekomunikacione i druge servise ako neka od Članica ne bude ispoštovala revizije odredaba Pravilnika o radio-komunikacijama ove Konferenciji, posebno nove alokacije koje su uvedene a ovoj Konferenciji pod uslovom da one neće uzrokovati štetnu interferenciju postojećim servisima.

19

Original: na francuskom

Za Republiku Gabon:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama, održanih u Ženevi (Švajcarska) od 22. oktobra do 16. novembra 2007. godine, delegacija Republike Gabon zadržava za svoju Vladu prava:

1. da preduzme sve potrebne mere da zaštiti svoje interese ukoliko određene zemlje Članice na bilo koji način ne budu poštovale odredbe Pravilnika o radio-komunikacijama Međunarodne unije za telekomunikacije ili instrumente izmena usvojenih na Svetskoj konferenciji o radio-komunikacijama (Ženeva, 2007), ili ukoliko rezervacije drugih zemalja Članica budu takve da ugrožavaju pravilno funkcionisanje njenih telekomunikacionih servisa;
2. da prihvati ili odbije bilo kakve finansijske posledice koje mogu proizići iz takvih rezervacija;
3. da pristupi dodatnim rezervacijama koje smatra neophodnim dok se ne iskoriste instrumenti ratifikacije.

20

Original: na španskom

Za Španiju:

1. Delegacija Španije izjavljuje u ime svoje Vlade da zadržava pravo za Kraljevinu Španiju, u skladu sa Bečkom konvencijom o Zakonu o sporazumima od 23. maja 1969. godine, da iskaže rezervisanost prema Završnim Aktima usvojenih na Konferenciji, dok se u skladu sa članom 54. o formiranju Međunarodne unije za telekomunikacije ne obaveže izmenama Pravilnika o radio-komunikacijama koji su deo Završnih Akata;

2. Delegacija Španije izjavljuje u ime Španije da će se pod pojmom „država“ u tekstu Pravilnika o radio-komunikacijama, Rezolucija i preporuka usvojenih na ovoj Konferenciji, kao subjekt sa pravima i obavezama, podrazumevati samo suverene Države.

21

Original: na engleskom

Za Islamsku Republiku Iran

U ime Boga, Samilosti i Milosrđa.

Potpisivanjem ovih Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Islamske Republike Iran formalno izjavljuje da:

1. Delegacija Islamske Republike Iran zadržava pravo za svoju Vladu preduzma sve akcije koje smatra neophodnim za zaštitu svojih interesa ukoliko na njih bude uticala odluka usvojena na Konferenciji, ili ukoliko administracije drugih zemalja ne budu poštovale odredbe Ustava i Konvencije Međunarodne unije za telekomunikacije, ili aneksa ili protokola i propisa, kao njihovih sastavnih elemenata, ili Završnih Akata ove Konferencije, ili ukoliko rezervacije, deklaracije ili dodatne rezervacije ili deklaracije drugih zemalja ili administracije budu ugrozile efikasno funkcionisanje njenih telekomunikacionih servisa, ili narušili punu primenu suverenih prava Islamske Republike Iran.
2. Delegacija Islamske Republike Iran zadržava prava za svoju Vladu da izvrši dodatne rezervacije kada ratifikuje Završna Akta ove Konferencije.

22

Original: na engleskom

Za Tursku:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Turske zadržava za svoju Vladu pravo da preduzme mere koje smatra neophodnim kako bi zaštitila interese na Konferenciji prilikom donošenja modifikacija, izmena, brisanja i dodavanja odluka, fusnota, tabela, rezolucija i preporuka u Pravilniku o radio-komunikacijama, ukoliko neka od Članica na bilo koji način ne ispuni odredbe Završnih Akata, Aneksa i uz to i Pravilnika o radio-komunikacijama, i to u primeni postojećih servisa, kao i u uvođenju novih servisa za svemir, terestrijalnih i drugih aplikacija ili ukoliko rezervacije izvršene od strane ostalih Članica ugroze pravilno funkcionisanje telekomunikacionih servisa.

Delegacija Turske zadržava za svoju Vladu i prava da izvrši dodatne deklaracije ili rezervacije, što može biti potrebno kada se prilažu instrumenti ratifikacije Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007).

23

Original: na engleskom

Za Saveznu Republiku Nigeriju

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (WRC-07), održanih u Ženevi (Švajcarska) od 22. oktobra do 16. novembra 2007. godine, delegacija u ime administracije Savezne Republike Nigerije izjavljuje kao što sledi:

- a) da, prihvata potrebu za razvojem radiokomunikacionih servisa i mreža širom sveta, jer to podrazumeva unapređenje održivog razvoja u interesu čovečanstva i okoline;



- b) da, administracija savezne Republike Nigerije zadržava pravo da preduzme sve akcije koje smatra neophodnim kako bi zaštitila interese, a pre svega postojeće i planirane servise radio-komunikacija i mreže ukoliko se neka od Članica Unije ne bude pridržavala Završnih Akata ove Konferencije na taj način da to utiče na pravilno funkcionisanje sistema radio-komunikacija, kao i servisa i mreža.
- c) administracija Savezne Republike Nigerije zadržava pravo da usvoji dodatne deklaracije i rezervacije u vreme prijave ratifikacije ovih Završnih Akata MUT.

24

Original: na francuskom

Za Republiku Obalu Slonovače:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), Republika Obala Slonovače izjavljuje:

1. da za svoju Vladu zadržava pravo da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje interese ukoliko neka od Članica Međunarodne unije za telekomunikacije na bilo koji način ne ispuni ili primeni odredbe Pravilnika o radio-komunikacijama ili Ustava ili Konvencije Međunarodne unije za telekomunikacije;
2. da, takođe, za svoju Vladu zadržava prava primene mera koje smatra neophodnim ukoliko rezervacije drugih zemalja Članica bude ugrozilo funkcionisanje servisa radio-komunikacija ili suverenitet Obale Slonovače;
3. da zadržava prava da izvrši dodatne deklaracije ili rezervacije u skladu sa Završnim Aktima Svetske konferencije o radio-komunikacijama (Ženeva, 2007), u vreme primene odgovarajućih instrumenata ratifikacije sa Međunarodnom unijom za telekomunikacije.

25

Original: na francuskom

Za Republiku Senegal:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Senegal zadržava prava:

1. da preduzme sve mere da zaštiti svoje interese ukoliko neka od Članica na bilo koji način ne bude poštovala odluke donete na WRC-07 (Ženeva, 2007), ili ukoliko rezervacije drugih Članica budu takve da ugrožavaju funkcionisanje servisa radio-komunikacija Republike Senegal;
2. da prihvati ili ne prihvati posledice određenih odluka koje mogu ugroziti njen suverenitet.

26

Original: na engleskom

Za Južnoafričku Republiku:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Južnoafričke Republike za svoju Vladu zadržava prava da preduzme svaku akciju koju smatra neophodnom:

1. da zaštiti svoje interese ukoliko bilo koja Članica Unije, na bilo koji način, ne bude ispoštovala odredbe Ustava i Konvencije Međunarodne unije za telekomunikacije, Pravilnika o radio-komunikacijama MUT i Završna Akta Svetske konferencije o radio-komunikacijama (Ženeva, 2007);

2. ukoliko rezervacije drugih Članica Unije, direktno ili indirektno, budu uticale na funkcionisanje telekomunikacionih servisa;
3. da zaštiti telekomunikacione servise, ukoliko neka Članica Unije bude postupala u suprotnosti sa nekim od uslova Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), bilo delom ili u potpunosti.

Vlada Južnoafričke Republike zadržava prava da po potrebi objavi dodatne deklaracije i rezervacije do i uključujući trenutak ratifikacije Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007).

Dalje, Vlada Južnoafričke Republike ponavlja i uključuje u referencama sve deklaracije prethodnih svetskih konferencija o radio-komunikacijama.

27

Original: na francuskom

Za Republiku Togo:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (WRC-07), delegacija Togo izjavljuje da Republika Togo neće biti obavezana bilo kojom odredbom koja bi ugrozila suverenitet ili narušila nacionalne zakone ili međunarodne sporazume u kojima je Republika Togo potpisnica.

Dodatno, Republika Togo neće biti u obavezi da primeni odredbe Završnih Akata, ukoliko ih ostale zemlje učesnice ne budu poštovale, i zadržava prava da predloži izmene, ako se za tim javi potreba, u skladu sa pravilima o formi i proceduri ustanovljenoj u te svrhe.

28

Original: na engleskom

Za Republiku Indiju:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Indije za svoju Vladu zadržava pravo da preduzme akcije, koje smatra neophodnim, da zaštiti svoje interese, ukoliko bi bilo koja administracija izvršila rezrvacije i/ili ne bude prihvatila odredbe Završnih Akata ili ukoliko ne bude ispoštovala jednu ili više odredaba Završnih Akata, uključujući i one koji su deo Pravilnika o radio-komunikacijama.

29

Original: na engleskom

Za Australiju:

Delegacija Australije na Svetskoj konferenciji o radio-komunikacijama 2007, ovim izjavljuje da za svoju Vladu zadržava pravo da objavi deklaracije i rezervacije pre i u trenutku podnošenja ratifikacije Završnih Akata Svetske konferencije o radio-komunikacijama 2007, Međunarodne unije za telekomunikacije održane u Ženevi od 22. oktobra do 16. novembra 2007, u skladu članom 32B Konvencije Međunarodne unije za telekomunikacije (Ženeva, 1992) i amandmana Konfrenecije Opuномоćenika (Minijapolis, 1998).

30

Original: na arapskom

Za Kraljevinu Saudijsku Arabiju:

Delegacija Kraljevstva Saudijske Arabije potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), za svoju Vladu zadržava puno pravo da ona preduzme sve

akcije i mere, koje smatra neophodnim, radi zaštite svojih interesa ukoliko neka država Članica Međunarodne unije za telekomunikacije (MUT) u potpunosti ne isprati odredbe i Rezoluciju Završnih Akata ili ukoliko bi neka akcija ili rezervacija neke države Članice ugrozila na bilo koji način telekomunikacione servise Kraljevine Saudijske Arabije.

31

Original: na španskom

Za Kostariku:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Kostarike:

1. izjavljuje da za svoju Vladu zadržava prava da preduzme sve mere koje smatra neophodnim, u skladu sa domaćim i međunarodnim zakonima, radi zaštite nacionalnih interesa ukoliko ostale članice ne ispoštuju odredbe Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), ili ukoliko rezervacije drugih zemalja ugroze telekomunikacione servise Republike Kostarike, kao i njena puna suverena prava.
2. izjavljuje da će Republika Kostarika biti obavezana odredbama Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) samo i sve dok se eksplicitno i po propisima obavezuje i podvrgava ispunjavanju odgovarajućih ustavnih procedura.

32

Original: na engleskom

Za Saveznu Republiku Brazil:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Brazila za svoju administraciju zadržava prava da preduzme mere koje smatra neophodnim, radi zaštite svojih interesa ako neka zemlja Članica Unije ne ispoštuje uslove specificirane u Završnim Aktima, ili ukoliko rezervacije neke od zemalja članica budu štetne za funkcionisanje servisa radio-komunikacija u Brazilu.

Štaviše, Brazil zadržava prava da utvrdi dodatne, posebne deklaracije ili rezervacije u vreme podnošenja obaveštenja Međunarodnoj uniji za telekomunikacije o obavezivanju na reviziju Pravilnika o radio-komunikacijama usvojenog na svetskoj konferenciji o radio-komunikacijama (Ženeva, 2007).

33

Original: na engleskom

Za Republiku Indoneziju:

U ime Republike Indonezije, delegacija Republike Indonezije na Svetskoj konferenciji o radio-komunikacijama WRC-07 (Ženeva, 2007):

- za svoju Vladu zadržava prava da preduzme sve akcije i mere očuvanja koje smatra neophodnim za očuvanje svojih nacionalnih interesa ukoliko neka odredba, preporuka i rezolucija Svetske konferencije o radio-komunikacijama (Ženeva, 2007), direktno ili indirektno utiče na suverenitet ili je u suprotnosti sa Ustavom, zakonima i regulativom Republike Indonezije, kao potpisnicom drugih sporazuma i konvencija po principima međunarodnog prava.
- na dalje za svoju Vladu zadržava prava da preduzme akcije i mere očuvanja koje smatra neophodnim radi očuvanja državnog interesa, ukoliko neka od Članica na bilo koji način ne bi ispoštovala odredbe Pravilnika o radio-komunikacijama, Ustava i Konvencije Međunardone

unije za telekomunikacije, ili ukoliko bi posledice rezervacije neke Članice ugrozilo telekomunikacione servise ili uslovilo povećanje doprinosa koje snosi prema Uniji.

34

Original: na engleskom

Za Novi Zeland:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Novog Zelanda za svoju Vladu zadržava prava da preduzme mere koje smatra neophodnim za očuvanje svojih interesa ukoliko bilo koja zemlja ne bude poštovala uslove propisane Završnim Aktima ili ukoliko rezervacije drugih zemalja budu štetne po interese Novog Zelanda. Dodatno, Novi Zeland zadržava pravo da uvede dodatne, posebne rezervacije i izjave pre ratifikacije Završnih Akata.

35

Original: na francuskom

Za Republiku Mali:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Mali za svoju Vladu zadržava prava da preduzme mere koje smatra neophodnim za očuvanje svojih interesa ukoliko druge Članice ne budu poštovala Završne Akte ili Aneксе u okviru njih, ili ukoliko bi rezervacije drugih zemalja uslovile štetnu interferenciju ili ugrozile pravilno funkcionisanje telekomunikacionih servisa.

36

Original: na engleskom

Za Japan:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Japana za svoju Vladu zadržava prava da preduzme akcije koje smatra neophodnim da sačuva svoje interese ukoliko neka zemlja Članica ne bude poštovala zahteve Ustava i Konvencije Međunarodne unije za telekomunikacije, Pravilnika o radio-komunikacijama Međunarodne unije za telekomunikacije, ili Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), ili ukoliko rezervacije drugih zemalja budu na bilo koji način ugrozile njene interese.

Dodatno, Japan zadržava prava da uvede dodatne deklaracije ili rezervacije pre obaveštavanja Međunarodne unije za telekomunikacije koja se obavezuje revizijom Pravilnika o radio-komunikacijama.

37

Original: na engleskom

Za Brunej Darusalam:

Delegacija Bruneja Darusalam za svoju Vladu zadržava prava da preduzme sve akcije koje smatra neophodnim radi očuvanja svojih interesa ukoliko bilo koja Članica Unije ne bude poštovala izmene i dopune Pravilnik o radio-komunikacijama Završnim Aktima Svetske konferencije o radio-komunikacijama (Ženeva, 2007), ili ukoliko bi rezervacije bilo koje Članice Unije ugrozile telekomunikacione servise Bruneja Darusalam, ugrozile suverenitet ili uslovile povećanje doprinosa koje snosi prema Uniji.

Delegacija Bruneja Darussalam za svoju Vladu zadržava prava da uvede dodatne rezervacije koje smatra neophodnim do i uključujući vreme ratifikacije Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007).

38

Original: na engleskom

Za Mongoliju:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Mongolije u ime svoje Vlade izjavljuje:

1. da će preduzeti sve akcije koje smatra neophodnim radi očuvanja svojih interesa, a pre svega, zaštite postojećih i planiranih telekomunikacionih mreža, sistema i servisa, ukoliko neka Članica Unije ne bude poštovala ili ukoliko prestane da poštuje odredbe ovih akata, ili ukoliko deklaracije ili rezervacije drugih Članica Unije budu uticale na pravilno funkcionisanje telekomunikacionih mreža, sistema i servisa.
2. Delegacija Mongolije za svoju Vladu zadržava prava da preduzme sve akcije koje smatra neophodnim radi zaštite svojih interesa ukoliko neka od država Članica Unije ne bude poštovala odredbe ovih Završnih Akata ili ukoliko rezervacije drugih zemalja ugroze pravilno funkcionisanje njenih servisa.
3. Delegacija Mongolije zadržava pravo da preduzme sve akcije koje smatra neophodnim kako bi zaštitila svoje interese i funkcionalnost svojih servisa radio-komunikacija.

39

Original: na španskom

Za Meksiko:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Ujedinjenih Meksičkih Država za svoju Vladu zadržava pravo:

1. da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoju suverenost i interese, i posebno, zaštitila svoje postojeće i planirane telekomunikacione mreže, sisteme i servise, ukoliko neka država Članica Unije ne bude primenila ili bude zanemarila odredbe sadržane u ovim Aktima, uključujući odluke, preporuke, rezolucije i anekse, koji se smatraju njihovim intergalnim delom, ili odredbe sadržane u Ustavu i Konvenciji Međunarodne unije za telekomunikacije, ili ukoliko pravilno funkcionisanje telekomunikacionih mreža, sistema ili servisa bude ugroženo nekom deklaracijom ili rezervacijom bilo koje od država Članica Unije;
2. da preduzme sve mere koje smatra neophodnim radi očuvanja svojih interesa, u pogledu upotrebe i korišćenja geostacionarnih orbitalnih pozicija i odgovarajućih radio-frekvencija, kao i imajući u vidu korišćenje spektra u pružanju telekomunikacionih servisa, ukoliko procedure koordinacije, obaveštavanja ili dodeljivanja frekvencija budu sprovedene sa kašnjenjem ili budu sprečavane, čime se nanosi šteta zemlji, bilo per se ili postupanjem druge države Članice;
3. da zahetva dodatne rezervacije, shodno Bečkoj konvenciji o Zakonu o sporazumima, u skladu sa ovim propisima u svakom trenutku koji smatra odgovarajućim između datuma potpisivanja do datuma ratifikacije, a shodno procedurama domaćih zakona; i da se ne smatra obavezanim bilo kojim odredbama ovih Akata, koji mogu ograničiti njeno pravo da podnosi bilo koje dodatne rezervacije, koje smatra odgovarajućim; i

u skladu sa pomenutim, rezervacije koje Vlada Ujedinjenih Meksičkih Država uvodi po potpisivanju i ratifikaciji Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) i Svetskih Upravnih konferencija o radio-komunikacijama, kao i one koje se

uvode u vreme potpisivanja i ratifikacije Završnih Akata Dodatne Konferencije Opunomoćenika (Ženeva, 1992), Konferencije Opunomoćenika (Kjoto, 1994), Konferencije Opunomoćenika (Minijapolis, 1998), Konferencije Opunomoćenika (Marakeš, 2002) i Konferencije Opunomoćenika (Antalija, 2006), su reafirmisane i smatra se da su ovde prikazane, kao da su ponovljene u potpunosti.

40

Original: na engleskom

Za Državu Vatikan:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Države Vatikan izjavljuje da za svoju Vladu zadržava prava:

- da izvrši dodatne deklaracije i rezervacije u skladu sa Završnim Aktima Svetske konferencije o radio-komunikacijama (Ženeva, 2007) u vreme podonošenja odgovarajućih instrumenata ratifikacije Međunarodnoj uniji za telekomunikacije.

41

Original: na španskom

Za Republiku Argentinu:

Potpisivanjem Završnih Akata WRC-07, delegacija Argentine izjavljuje da, imajući u vidu deklaracije i rezervacije drugih zemalja Članica, za svoju Vladu zadržava:

1. pravo da usvoji sve mere koje smatra neophodnim da zaštiti svoje interese, ukoliko neka od Članica Međunarodne unije za telekomunikacije ne bude poštovala Završna Akta, Aneксе, koji ih prate i Pravilnik o radio-komunikacijama;
2. pravo da izvrši deklaracije i rezervacije shodno Završnim Aktima Svetske konferencije o radio-komunikacijama (Ženeva, 2007), u vreme primene odgovarajućih instrumenata ratifikacije sa Međunarodnom unijom za telekomunikacije.

42

Original: na engleskom

Za Kraljevinu Butan:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Kraljevine Butan:

1. zadržava prava za svoju Vladu da preduzme sve akcije i mere rezervacije koje smatra neophodnim radi zaštite nacionalnih interesa, ukoliko bi neka odredba, preporuka i rezolucija Svetske konferencije o radio-komunikacijama (Ženeva, 2007), direktno ili indirektno uticalo na suverenitet ili bilo u suprotnosti sa Ustavom, zakonima i regulativom Kraljevine Butan;
2. izjavljuje da za svoju Vladu zadržava pravo da preduzme sve mere koje smatra neophodnim radi zaštite svojih interesa i funkcionalnosti servisa radio-komunikacija, ukoliko bilo koja Članica Unije ne bi poštovala uslove određene Završnim Aktima;
3. dalje izjavljuje, da njena Vlada neće prihvatiti odgovornosti za posledice nastale usled rezervacija drugih zemalja Članica Unije.

43

Original: na španskom

Za Republiku Gvatemalu:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Gvatemale izjavljuje da:

- a) zadržava za svoju administraciju prava usvajanja mera koje smatra neophodnim, u skladu sa domaćim pravom i međunarodnim zakonom, kako bi zaštitila svoje interese ukoliko druge Članice Unije ne bi uzele u obzir Završna Akta ili ukoliko bi druge objavljene rezervacije bili štetne za funkcionalnost telekomunikacionih servisa u okviru svoje teritorije;
- b) Republika Gvatemala dalje zadržava prava za izemene prethodnih rezervacija i deklaracija i da izvrši dodatne rezervacije i deklaracije kada odluči da Međunarodnoj uniji za telekomunikacije priloži svoju saglasnost da bude vezana izmenama Pravilnika o radio-komunikacijama usvojenih na Svetskoj konferenciji o radio-komunikacijama 2007.

44

Original: na ruskom

Za Republiku Belorusiju:

Vlada Republike Belorusije zadržava pravo da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje interese ukoliko neka država Članica Unije ne bi poštovala odredbe Završnih Akata Svetske konferencije o radio-komunikacijama 2007, ili ukoliko bi rezervacije bile izvršene po potpisivanju Završnih Akata, ili mere drugih zemalja Članice Unije, ugrozile efikasno funkcionisanje telekomunikacionih servisa u Republici Belorusiji.

45

Original: na engleskom

Za Republiku Ugandu:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama 2007 (WRC-07) i imajući u vidu neke izjave zemalja Članica, delegacija Republike Ugande na Svetskoj konferenciji o radio-komunikacijama, za svoju Vladu zadržava pravo da preduzme sve mere koje smatra neophodnim da zaštiti svoje legitimne interese od odluka donetih na Konferenciji.

Vlada Ugande, u okviru odredaba Međunarodne unije za telekomunikacije i Pravilnika o radio-komunikacijama koji je izmenjen tokom razmatranja na Konferenciji i sadržan u Završnim Aktima Svetske konferencije o radio-komunikacijama 2007, dalje zadržava prava da preduzme sve akcije koje smatra neophodnim kako bi zaštitila svoje interese ukoliko bi rezervacije drugih administracija ili bilo kojih administracija uticalo na njen nacionalni suverenitet.

46

Original: na francuskom

Za Islamsku Republiku Mauritaniju:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (WRC-07) (Ženeva, 2007), delegacija Islamske Republike Mauritanije za svoju Vladu zadržava prava:

1. da preduzme sve mere koje smatra neophodnim da bi zaštitila svoje interese ukoliko bilo koja zemlja Članica Unije ne bude poštovala ili ukoliko rezervacije drugih zemalja bile takve da ugrožavaju razvoj i pravilno funkcionisanje njenih telekomunikacionih servisa;
2. da prihvati ili ne prihvati posledice određenih odluka koje mogu imati direktan štetan uticaj po njen suverenitet.

47

Original: na ruskom

Za Republiku Jermeniju, Republiku Azerbejdžan, Republiku Belorusiju; Rusku federaciju, Gruziju, Republiku Moldaviju, Republiku Uzbekistan, Republiku Kirgiziju, Republiku Tadžakistan i Ukrajinu:

Delegacije prethodno navedenih zemalja zadržavaju pravo za svoje Vlade da preduzmu sve akcije koje smatraju neophodnim kako bi zaštitile svoje interese ukoliko neka država Članica Unije ne bi ispoštovala Završna Akta Konferencije ili ukoliko rezervacije izvršene po potpisivanju Završnih Akata ili druge mere koje preduzme bilo koja država Članica Unije, ugroze pravilno funkcionisanja telekomunikacionih servisa ovih zemalja.

48

Original: na francuskom

Za Švajcarsku Konfederaciju:

Delegacija Švajcarske za svoju Vladu Konfederacije Švajcarske zadržava prava da primeni sve mere koje smatra neophodnim radi zaštite interesa u pogledu radiodifuznih servisa i ostalih servisa radio-komunikacija, ukoliko se neka od Članica Unije ne bude pridržavala obaveza koje proizilaze iz odredaba Završnih akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), ili ukoliko rezervacije ili akcije drugih zemalja Članica bile takve da ugrožavaju ili su takve da ometaju pravilno funkcionisanje pomenutih servisa u Švajcarskoj.

49

Original: na engleskom

Za Republiku Angolu:

Svetske konferencije o radio-komunikacijama (WRC-07):

Poboljšanje makroekonomske situacije u Angoli je uslovalo novu dinamiku u sektoru telekomunikacija uslovljavajući značajan rast tokom prethodnih godina, povoljan za javne investicije i otvaranje novih radnih mesta. Ovaj rezultat proističe iz rekonstrukcije glavnih transportnih telekomunikacionih mreža, koje su poboljšale protok saobraćaja između provincija, i takođe, povećale broj korisnika i operatora.

Imajući u vidu fundamentalni značaj ovog sektora na razvoj privrede i takvim potencijalom za dalji rast, kao što je u slučaju Angole, uvedene su regulatorne reforme koje obuhvataju upravljanje i istraživanje infrastrukture, licenciranje i jednake mogućnosti.

Modernizacija telekomunikacionih mreža je jedna od briga Vlade Angole, koja je to definisala i u politikama razvoja kao sektor prioritnog razvoja, i investirala u liberalizaciju ovog sektora kao podsticaj privatnom sektoru kroz državno-privatna partnerstva. Ostali predmeti ove agende kojom se definišu naporu u rekonstrukciji sektora su profesionalano obrazovanje, tehnički kapaciteti i razmena tehnologija.

Trenutno, Angola se može osloniti na značajan porast broja korisnika mobilne telefonije, u kojoj su analogne mreže zamenjene digitalnim mrežama radi boljeg kvaliteta servisa, smanjenja troškova, velike distribucije informacionih tehnologija, proširenje pokrivanja ruralnih zona i zona u unutrašnjosti radio i televizijskim signalom, radi smanjenja udaljenosti i obezbeđivanja ekonomske stabilnosti kroz rehabilitaciju potporne infrastrukture u sektoru.

50

Original: na engleskom

Za Maleziju:



Stalni predstavnik Malezije u sedištu Ujedinjenih Nacija i ostalih međunarodnih organizacija u Ženevi, u svojstvu zamenika Šefa delegacije Malezije na Svetskoj konferenciji o radio-komunikacijama (WRC-07), izjavljuje zahvalnost Generalnom sekretaru Međunarodne unije za telekomunikacije u Ženevi, i u skladu sa Završnim Aktima Svetske konferencije o radio-komunikacijama (WRC-07), održanoj u Ženevi, ima čast da saopšti sledeće rezervacije Malezije:

1. Vlada Malezije zadržava pravo da preduzme sve akcije ili mere očuvanja koje smatra neophodnim kako bi zaštitila državne interese ukoliko Završni Akti sastavljeni na Svetkoj konferenciji o radio-komunikacijama direktno ili indirektno utiču na suverenitet, ili su u suprotnosti sa postojećim Ustavom, zakonima i regulativom Malezije i može proizilaziti iz bilo kojih principa međunarodnog pravnog okvira, ili ukoliko rezervacije nekog Člana Unije ugrožavaju telekomunikacione servise i servise radio-komunikacija Malezije, ili uslovljavaju povećanje doprinosa koje Malezija snosi prema Uniji;
2. Vlada Malezije, dalje, zadržava pravo da u slučaju potrebe izvrši rezervacije do trenutka i u trenutku ratifikacije Završnih Akata Svetske konferencije o radio-komunikacijama.

Stalni predstavnik Malezije u sedištu Ujedinjenih Nacija i drugih međunarodnih organizacija u Ženevi, koristi priliku da ponovo ukaže na najveće poštovanje generalnom sekretaru Međunarodne unije za telekomunikacije.

51

Original: na engleskom

Za Republiku Mađarsku:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Mađarske za svoju Vladu zadržava pravo da sve akcije koje smatra neophodnim kako bi zaštitila svoje interese ukoliko neka država Članica Unije ne bi na neki način primenjivala ili se pridržavala odredaba ovih Završnih Akata ili ukoliko rezervacije drugih zemalja ugrožavaju pravilno funkcionisanje servisa radio-komunikacija.

Delegacija Republike Mađarske, dalje, izjavljuje da za svoju Vladu zadržava prava:

- da uvede dodatne izjave ili rezervacije u postupku primene instrumenata ratifikacije za Završna Akta Svetske konferencije o radio-komunikacijama (Ženeva, 2007);
- da preduzme akcije koje smatra neophodnim, radi zaštite radiodifuznih servisa obuhvaćeni GE06 Sporazumom, odnosno zaštite svojih interesa i radi zadovoljavajuće funkcionalnosti, što može biti utvrđeno nacionalnom regulativom.

52

Original: na engleskom

Za Saveznu Republiku Tanzaniju:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Savezne republike Tanzanije izjavljuje da za svoju Vladu zadržava prava:

1. da primeni sve mere koje smatra neophodnim radi zaštite svojih interesa, ukoliko ostale Članice Međunarodne unije za telekomunikacije na bilo koji način ne budu poštovala odredbe Ustava i Konvencije Unije, Pravilnik o radio-komunikacijama Unije i Završne Akte Svetske konferencije o radio-komunikacijama (Ženeva, 2007), i prateće anekse; i
2. da izvrši dodatne deklaracije i rezervacije koje smatra neophodnim do i uključujući trenutak ratifikacije Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007);

3. da preduzme sve mere koje smatra neophodnim i svrsishodnim zaštiti i očuvanju nacionalnih interesa i prava u oblasti radio-komunikacija, ukoliko rezervacije drugih administracija direktno ili indirektno budu uticale ili štatile njima ili ukoliko njihove akcije ne budu u skladu sa međunarodnim zakonima;
4. da prihvati ili ne prihvati bilo kakve finansijske posledice koje mogu proisteći iz takvih rezervacija.

53

Original: na engleskom

Za Republiku Ganu:

1. Delegacija Gane, potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) održane u Ženevi, Švajcarska, od 22. oktobra do 16. novembra, 2007. godine, za svoju Vladu zadržava prava da preduzme sve akcije koje smatra neophodnim kako bi sačuvala svoje interese, ukoliko neka Članica Unije ne bude poštovala odredbe Ustava i Konvencije Međunarodne unije za telekomunikacije (MUT), Pravilnika o radio-komunikacijama MUT i Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007).
2. Vlada Gane zadržava prava na uzdržanost po bilo kojoj odredbi Završnih Akata koje smatra nekompatibilnim sa ustavom, zakonima i regulativom svoje zemlje.

54

Original: na engleskom

Za Republiku Zimbabve:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacije Republike Zimbabve objavljuje da Vlada Republike Zimbabve zadržava prava da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoj suverenitet i nacionalne interese, ukoliko se regulativa bilo koje zemlje primeni protivno suverenitetu Republike Zimbabve radi pravilne primene i funkcionisanja nacionalnih i međunarodnih telekomunikacionih i mreža radio-komunikacija.

55

Original: na engleskom

Za Republiku Kipar:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacije Republike Kipar za svoju Vladu zadržava prava da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje interese ukoliko neka druga država Članica ne bi ispoštovala odredbe Završnih Akata ili primenila svoje servise radio-komunikacija u svrhe koje nisu ustanovljene preambulom Ustava Međunarodne unije za telekomunikacije. Shodno tome, Republika Kipar zadržava prava da pruži dodatne izjave i rezervacije u vreme ratifikacije ovih izmena Pravilnika o radio-komunikacijama. Republika Kipar neće smatrati da je obavezana izmenama Pravilnika o radio-komunikacijama usvojenih na ovoj konferenciji, ukoliko posebna izjava Republike Kipar o prihvatanju ove obaveze nije prosleđen Međunarodnoj uniji za telekomunikacije.

56

Original: na engleskom

Za Republiku Bocvanu:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Bocvane izjavljuje da će se njena administracija pridržavati odredaba Završnih Akata bez ugrožavanja njenog suverenog prava da preduzme sve mere koje Vlada Bocvane smatra neophodnim zaštititi svoje telekomunikacione servise u slučaju štetne interferencije uzrokovane pomenutim servisima neke od Članica Unije koje ne bude poštovala odredbe Pravilnika o radio-komunikacijama koji je izmenjen i usvojen na ovoj Konferenciji.

Dalje, delegacija Bocvane izjavljuje da za svoju Vladu zadržava pravo da pruži dodatne izjave i dodatnu uzdržanost do postupka ratifikacije Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007).

57

Original: na engleskom

Za Državu Kuvajt:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Države Kuvajt za svoju Vladu zadržava prava da preduzme sve akcije i mere koje smatra neophodnim kako bi sačuvala svoje interese, ukoliko neka država Članica Međunarodne unije za telekomunikacije ne bude u potpunosti poštovala odredbe Rezolucija Završnih Akata ili postupala u skladu sa njima, ili ukoliko bi rezervacije drugih zemalja Članica ugrozile funkcionisanje telekomunikacionih servisa Države Kuvajt.

58

Original: na engleskom

Za Kanadu:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Kanade za svoju Vladu zadržava prava da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje interese ukoliko druga država Članica Unije na bilo koji način ne bi ispoštovala uslove propisane Završnim Aktima ili ukoliko rezervacije drugih država Članica budu štetne za funkcionisanje servisa radio-komunikacija u Kanadi.

Dalje, delegacija Kanade izjavljuje da za svoju Vladu zadržava prava da pruži dodatne izjave i dodatnu uzdržanost do postupka ratifikacije izmena Pravilnika o radio-komunikacijama usvojenih na Svetskoj konferenciji o radio-komunikacijama (Ženeva, 2007). Kanada ponavlja i inkorporira kao reference sve rezervacije i deklaracije izvršene na svetskim konferencijama o radio-komunikacijama pre potpisivanja ovih Završnih Akata.

59

Original: na engleskom

Za Sultanat Oman:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (WRC-07), delegacija Sultanata Oman za svoju Vladu zadržava prava:

- da preduzme sve akcije koje smatra neophodnim i odgovarajućim kako bi zaštitila i obezbedila svoje nacionalne interese, ukoliko bilo koja država Članica Međunarodne unije za telekomunikacije ne bude u potpunosti ispunila odredbe i Rezolucije Završnih Akata ili se ne bude istih pridržavala ili ukoliko rezervacije drugih zemalja Članica budu na bilo koji način ugrožavale telekomunikacione servise Sultanata Oman;
- da primeni izmene Pravilnika o radio-komunikacijama koje su usvojene na Konferenciji u skladu sa svojim obavezama, a shodno svojim nacionalnim pravilima i regulativi;

- da izvrši sve potrebne rezervacije koje smatra neophodnim do i uključujući vreme ratifikacije Završnih Akata ove Konferencije;

Dodatno, delegacija Omana na ovoj Konferenciji izražava sledeću uzdržanost:

- Sultanat Oman ne podržava ovlašćivanje bilo koje satelitske mreže koja će prolaziti kroz njen vazdušni prostor i uticati na rad postojećih i planiranih servisa.

60

Original: na francuskom

Za Republiku Ruandu:

Potpisivanjem Završnih Akata svetske konferencije o radio-komunikacijama 2007, delegacija Republike Ruande za svoju Vladu zadržava prava da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje interese u skladu sa nacionalnim propisima i međunarodnim sporazumima u kojima je jedna od potpisnica Ruanda, ukoliko neka država Članica Međunarodne unije za telekomunikacije na bilo koji način ne bude ispunila odredbe Ustava i Konvencija MUT ili ukoliko bi rezervacije drugih zemalja ugrozile njene interese.

61

Original: na engleskom

Za Republiku Katar:

Delegacija države Katar na Svetskoj konferenciji o radio-komunikacijama (WRC-07) za Vladu Države Katar zadržava prava da preduzme sve akcije koje smatra neophodnim kako bi zaštitila interese Države Katar, ukoliko neka država Članica na bilo koji način ne bude poštovala odredbe, rezolucije i preporuke sadržane u Završnim Aktima ove Konferencije ili u slučaju da rezervacije drugih država budu ugrožavale implementaciju ili primenu odredaba koje su sadržane u Završnim Aktima.

62

Original: na kineskom

Za Narodnu Republiku Kinu:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Narodne Republike Kine izjavljuje:

Kineska delegacija za svoju Vladu zadržava pravo da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje interese, ukoliko neka država Članica Međunarodne unije za telekomunikacije na bilo koji način ne bude poštovala ili izvršavala odredbe Završnih Akata ili Pravilnika o radio-komunikacijama, ili ukoliko rezervacije ili deklaracije drugih država Članica ugrožavaju legitimnu upotrebu resursa u spektru i satelitskim orbitama, kao i bezbednost njenih servisa radio-komunikacija ili pravilno funkcionisanje njenih telekomunikacionih servisa ili utiču na primenu svih njenih suverenih prava. Dodatno, ona za svoju Vladu zadržava i prava da izvrši dodatne rezervacije koje smatra neophodnim do i u vreme ratifikacije ovih Završnih Akata.

63

Original: na arapskom

Za Arapsku Republiku Siriju:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, WRC-07), delegacija Arapske Republike Sirije za svoju Vladu zadržava prava da prilikom deponovanja odobrenja pomenutih instrumenata:

1. Da potvrdi sve pismene i usmene deklaracije, koje je podnela delegacija samostalno ili sa ostalim arapskim delegacijama, koje su prisustvovala Konferenciji, i svoje pravo na dodatnu uzdržanost na ratifikaciju.
2. Da preduzme sve mere koje smatra neophodnim da zaštiti svoje interese, posebno svoje suvereno pravo da zaštiti bežične stanice na svojoj teritoriji od štetene interferencije.
3. Potpisivanje završnih akata će se smatrati validnim samo za države Članice Međunarodne unije za telekomunikacije koje priznaju Sirijsku Arapsku Republiku.

64

Original: na engleskom

Za Državu Izrael:

Vlada Države Izrael ovim ne prihvata sledeću odluku u Završnim Aktima Svetske konferencije o radio-komunikacijama Međunarodne unije za telekomunikacije (Ženeva, 2007) u skladu sa dodatkom rečenice „Ova alokacija je na snazi do 16. juna 2015. godine“ pod brojem 5.136 Pravilnika o radio-komunikacijama i u skladu sa mogućim problemom koji se odnosi na 5.136B u kojoj stanice koje rade pod uslovima tačke 5.136, i ima pravo da traži zaštitu pod tom fusnotom, ali na osnovu određenih tvrdnji (koje Izrael ne prihvata) može biti izložen uspešnoj primeni procedure GE06 Sporazuma posle 16. Juna 2015. godine.

65

Original: na engleskom

Za Republiku Sudan:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike sudan za svoju Vladu zadržava prava da preduzme sve akcije i mere koje smatra neophodnim kako bi zaštitila svoje nacionalne interese ukoliko neka Članica Unije, na bilo koji način, ne bude poštovala odredbe Ustava i Konvencije Međunarodne unije za telekomunikacije (MUT), Pravilnik o radio-komunikacijama i Završna Akta Svetske konferencije o radio-komunikacijama (Ženeva, 2007), ili ukoliko rezervacije drugih država Članica na bilo koji način budu ugrožavale telekomunikacione servise Republike Sudan.

66

Original: na engleskom

Za Maltu:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Malte za svoju Vladu zadržava prava da preduzme akcije koje smatra neophodnim da bi zaštitila svoje interese ukoliko neka članica Unije ne bude prihvatila ili poštovala odredbe Završnih Akata usvojenih na Konferenciji ili ukoliko rezervacije drugih zemalja budu ugrozile pravilno funkcionisanje svojih telekomunikacionih servisa.

67

Original: na engleskom

Za Ujedinjene Arapske Emirate:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Ujedinjenih Arapskih Emirata formalno izjavljuje:

1. da delegacija Ujedinjenih Arapskih Emirata za svoju Vladu zadržava prava da preduzme sve akcije koje smatra neophodnim da zaštiti svoje interese ukoliko oni budu ugroženi odlukama

donetim na ovoj Konferenciji, ili ukoliko neka druga zemlja ili administracija na bilo koji način ne bude ispoštovala izmene odluka Ustava i Konvencije Međunarodne unije za telekomunikacije, ili aneksa ili protokola i propisa koji su deo ovog dokumenta, ili Završnih Akata ove Konferencije, ili ukoliko rezervacije, deklaracije ili dodatne rezervacije i deklaracije drugih zemalja ili administracija ugrožavaju pravilno i efikasno funkcionisanje njenih telekomunikacionih servisa, ili narušavaju sva suverena prava Ujedinjenih Arapskih Emirata.

2. da delegacija Ujedinjenih Arapskih Emirata za svoju Vladu zadržava prava da izvrši dodatne rezervacije prilikom rezervacije Završnih Akata ove Konferencije.

68

Original: na engleskom

Za Republiku Koreju:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Koreje za svoju Vladu zadržava prava da preduzme sve akcije koje smatra neophodnim kako bi zaštitila svoje interese ukoliko neka država Članica Unije na bilo koji način ne bude poštovala uslove propisane Završnim Aktima, ili ukoliko rezervacije drugih zemalja budu štetne za efikasno funkcionisanje njenih telekomunikacionih servisa.

69

Original: na engleskom

Za Republiku Namibiju:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (WRC-07) koji podrazumevaju frekvencijske alokacije u određenim delovima spektra, delegacija Republike Namibije ističe namere svoje administracije da poštuje odredbe Završnih Akata Konferencije bez štete po suverena prava Republike Namibije da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje radiodifuzne, telekomunikacione i ostale servise u slučaju štetne interferencije uzrokovane pomenutim servisima neke Članice, koje ne poštuje odredbe Pravilnika o radio-komunikacijama, revidirane na ovoj Konferenciji, posebno nove alokacije utvrđene na ovoj Konferenciji pod uslovima da ne uzrokuje štetnu interferenciju postojećim servisima.

70

Original: na engleskom

Za Republiku Crnu Goru:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija republike Crne Gore izjavljuje da za svoju Vladu zadržava prava:

1. da preduzme sve akcije i mere koje smatra neophodnim ukoliko posledice rezervacija drugih država Članica ugroze servise radio-komunikacija u Crnoj Gori ili utiču na suvereno pravo da poštuje odredbe završnih akata, njihovih aneksa i Pravilnika o radio-komunikacijama;
2. da izvrši deklaracije i rezervacije u skladu sa Završnim Aktima Svetske konferencije o radio-komunikacijama (Ženeva, 2007) u vreme deponovanja odgovarajućih instrumenata ratifikacije Međunarodnoj uniji za telekomunikacije.

71

Original: na španskom

Za Kubu:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Kube za svoju Vladu zadržava pravo da preduzme sve akcije koje smatra neophodnim kako bi zaštitila svoje interese, ukoliko neka druga država Članica:

- ne bude poštovala odredbe Završnih Akata;
- bude koristila svoje servise radio-komunikacija u svrhe suprotne onima koje su utvrđene preambulom Ustava Međunarodne unije za telekomunikacije;
- ne bude ispunjavala međunarodne obaveze u pogledu radio-komunikacija ili ne bude poštovala Pravilnik o radio-komunikacijama, posebno princip pod brojem 0.4 preambule, ili ukoliko bi radiodifuzne stanice u avionima emitovale na teritoriji Kube bez dozvole Kube, praksa za koju je ova Konferencija ustanovila da je u suprotnosti sa Pravilnikom o radio-komunikacijama.

Delegacija Kube inkorporira sa referencama deklaracije i rezervacije određene za Kubu na prethodnim svetkim konferencijama o radio-komunikacijama, a posebno Deklaraciju 80 uvedenu na Konferenciji Opuномоćenika (Antalija, 2006).

Delegacija Kube za svoju Vladu zadržava prava da izvrši dodatne deklaracije ili rezervacije koje mogu biti neophodne do ratifikacije ovih dokumenata.

72

Original: na francuskom

Za Kraljevinu Maroko:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Kraljevine Maroko za svoju Vladu zadržava pravo da preduzme dodatne akcije koje smatra neophodnim radi očuvanja svojih interesa, ukoliko neka država Članica Međunarodne unije za telekomunikacije (MUT) ne bude u potpunosti poštovala odredbe ili Rezoluciju Završnih Akata, ili ako se ne bude iste prihvatila, ili ukoliko rezervacije druge države Članice na bilo koji način ugrožavaju pravilno funkcionisanje telekomunikacionih servisa Kraljevine Maroko.

73

Original: na engleskom

Za Papuu Novu Gvineju:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Papue Nove Gvineje, u ime Vlade Papue Nove Gvineje, i svetlu deponovanih deklaracija i rezervacija drugih zemalja članica MUT, u obavezi je da za svoju Vladu zadrži pravo da ona preduzme akcije koje smatra neophodnim kako bi sačuvala i odbranila svoje nacionalne interese ukoliko neka država Članica MUT ne bude ispoštovala odredbe Završnih Akata usvojenih na Konferenciji i na taj način unosila štetnu i/ili neprihvatljivu interferenciju, ili ukoliko rezervacije ili akcije takvih država Članica ugroze pravilno funkcionisanje servisa radio-komunikacija i/ili telekomunikacionih sistema i servisa koji su u nadležnosti Vlade Papue Nove Gvineje.

74

Original: na španskom

Za Republiku Kolumbiju

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Kolumbije:

1. Izjavljuje da za svoju Vladu zadržava prava:

- a) da preduzme sve mere koje smatra neophodnim, u skladu sa domaćom regulativom i međunarodnim pravom, kako bi zaštitila nacionalne interese ukoliko ostali članovi ne bi poštovali odredbe Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), ili ukoliko bi rezervacije predstavnika drugih država ugrozile telekomunikacione servise Republike Kolumbije ili njena suverena prava;
  - b) da izvrši rezervacije, po Bečkoj konferenciji i Zakonu o sporazumima iz 1969. godine, u skladu sa Završnim Aktima Svetske konferencije o radio-komunikacijama (Ženeva, 2007), u svakom trenutku od dana potpisivanja do moguće ratifikacije međunarodnih instrumenata koji čine Završna Akta.
2. Ponovo priznaje, u celini, rezervacije pod brojevima 40 i 79 koje su izvršene na Svetskoj konferenciji o radio-komunikacijama (Ženeva, 1979) i rezervaciju pod brojem 41 utvrđenu na Svetskoj konferenciji o radio-komunikacijama (Ženeva, 2003), posebno u skladu sa novim odredbama uključenih u Završna Akta.
  3. Izjavljuje da će Republika Kolumbija instrumentima sadržanim u Završnim aktima toliko koliko pristane da bude obavezana ovim međunarodnim instrumentima i da bude predmet upotpunjavanja odgovarajućih ustavnih procedura.
  4. Izjavljuje da, shodno svojim ustavnim obavezama, njena Vlada ne može obezbediti privremeni uticaj međunarodnih instrumenata koji čine sastavni deo Završnih Akata Svetske konferencije o radio-komunikacijama.

75

Original: na francuskom

Za Francusku:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Francuske za svoju Vladu zadržava pravo da uvede dodatne deklaracije i rezervacije u vreme deponovanja svoji instrumenata ratifikacije ovih izmena Pravilnika o radio-komunikacijama.

Uopšteno, delegacija Francuske za svoju Vladu zadržava pravo da preduzme svaku akciju koju smatra neophodnom kako bi zaštitila svoje interese ukoliko bilo koja država Članica Unije ne bude poštovala odredbe Završnih Akata ili ukoliko bi rezervacije drugih zemalja ugrozile pravilno funkcionisanje njenih telekomunikacionih servisa.

76

Original: na engleskom

Za Sjedinjene Američke Države:

1. Sjedinjene Američke Države upućuju na Član 32, odeljak 16(2), Međunarodne konvencije o telekomunikacijama (Ženeva, 1992), izmenjene na Konferenciji Opunomoćenika (Kjoto, 1994) i ističe da se u Završnim Aktima Svetske konferencije o radio-komunikacijama (Ženeva, 2007), Sjedinjene Američke Države mogu smatrati neophodnim da se utvrde dodatne deklaracije i rezervacije. Shodno tome, Sjedinjene Američke Države, zadržavaju pravo da utvrde dodatne deklaracije i rezervacije u vreme deponovanja ratifikacija ovih izmena Pravilnika o radio-komunikacijama.
2. Sjedinjene Američke Države neće smatrati da su obavezane izmenama Pravilnika o radio-komunikacijama usvojenim na ovoj Konferenciji bez posebnog obaveštenja Međunarodnoj uniji za telekomunikacije od Sjedinjenih Američkih Država o svojoj saglasnosti da se obaveže.



3. Sjedinjene Američke Države ponavljaju i inkorporiraju reference svih deklaracija i rezervacija izvršenih na prethodnim svetskim administrativnim konferencijama o radio komunikacijama i svetskim konferencijama o radio-komunikacijama.

77

Original: na engleskom

Za Sjedinjene Američke Države i Kanadu:

Sjedinjene Američke Države i Kanada ističu da će u primeni Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) koja se odnosi na namene opsega 450-470 MHz, podrazumevati korišćenje i aplikacija mobilnih i fiksnih servisa, uključujući i primenu mreža javne bezbednosti, što će sprečiti primenu terestrijalnih Međunarodnih Mobilnih Telekomunikacija (MMT).

78

Original: na engleskom

Za Sjedinjene Američke Države i Kanadu:

Sjedinjene Američke Države i Kanada upućuju na fusnotu broj 5.394 Člana 5. Pravilnika o radio-komunikacijama, koja se odnosi na upotrebu opsega od 2300-2390 MHz u Sjedinjenim Američkim Državama i opsega od 2300-2400 MHz u Kanadi, i ističu da će u primeni Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) u ovim opsezima, vazduhoplovni mobilni sistemi za telemetriju imati primarnu namenu u odnosu na ostale mobilne servise. Osim toga, u saglasnosti sa ostalim alokacijama specificiranim u fusnoti pod brojem 5.393 Člana 5 Pravilnika o radio-komunikacijama u opsegu od 2310-2360 MHz, Sjedinjene Američke Države i Kanada ističu da će u primeni Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) u opsegu 2310-2360 MHz deo opsega koristiti radiodifuzne servise (zvuk) preko satelita i dodatne terestrijalne radiodifuzne servise (zvuk), koje mogu sprečiti primenu terestrijalnih Međunarodnih Mobilnih Telekomunikacija (MMT).

79

Original: na engleskom

Za Kraljevstvo Lesoto:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Kraljevine Lesoto izjavljuje da će njena administracija poštovati odredbe Završnih Akata bez štetnih efekata na njeno suvereno pravo da preduzme sve mere koje Vlada Lesota smatra neophodnim kako bi zaštitila svoje telekomunikacione servise u slučaju štetne interferencije uzrokovane pomenutim servisima neke države Članice Unije, koja ne poštuju odredbe Pravilnika o radio-komunikacijama, koje su izmenjene i usvojene na ovoj Konferenciji.

Delegacija Kraljevine Lesoto dalje izjavljuje da za svoju Vladu zadržava pravo da izvrši bilo koju rezervaciju prilikom ratifikacije Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007).

80

Original. na engleskom

Za Saveznu Republiku Nemačku, Državu Vatikanskog Grada, Republiku Hrvatsku, Luksemburg, Maltu, Republiku Crnu Goru, Kraljevinu Holandiju, Portugal; Ujedinjeno Kraljevstvo Velike Britanije i Severnu Irsku i Tursku:

Delegacije prethodno pomenutih zemalja žale što na ovoj Konferenciji nije bilo sporazuma o alokaciji dodatnog spektra za radiodifuziju na visokim frekvencijama, koja bi neadekvatnu primenu opsega 4-10 MHz datu Rezolucijom 544 (WRC-03).

Ova Konferencija je predstavljala jedinstvenu priliku da se izađe u susret ovoj potrebi na osnovu obimnih MUT-R studija i pragmatičnih preporuka koje su uzele u obzir sve dotične radio servise.

Ove administracije zadržavaju pravo da preduzmu akcije koje smatraju neophodnim, a koje su dosledne Pravilniku o radio-komunikacijama, kako bi zadovoljili potrebe svojih servisa radiodifuzije na visokim frekvencijama.

81

Original: na francuskom

Za Burkinu Faso:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Burkinine Faso za svoju Vladu zadržava prava da preduzme sve akcije koje smatra neophodnim kako bi obezbedila efektivnu i efikasnu upotrebu radio-frekvencijskog spektra u okviru svoje teritorije ukoliko neka Članica ne bude poštovala relevantne odredbe Ustava i Konvencije Međunarodne unije za telekomunikacije.

82

Original: na engleskom

Za Republiku Albaniju, Saveznu Republiku Nemačku, Austriju, Republiku Bugarsku, Republiku Kipar, Republiku Hrvatsku, Dansku, Španiju, Republiku Estoniju; Finsku, Francusku, Gruziju, Grčku, Republiku Mađarsku, Irsku, Island, Kneževinu Lihtenštajn, Republiku Litvaniju, Luksemburg, Maltu, Republiku Moldaviju, Republiku Crnu Goru, Norvešku, Kraljevinu Holandiju, Republiku Poljsku, Portugal, Slovačku republiku, Češku Republiku, Ujedinjeno Kraljevstvo Velike Britanije i Severne Irske, Republiku Srbiju, Republiku Sloveniju, Švedsku i Švajcarsku Konfederaciju:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacije pomenutih zemalja formalno izjavljuju da će zadržati deklaracije i rezervacije, koje su izvršile njihove delegacije potpisivanjem Završnih Akata prethodnih konferencija Unije na kojima su potpisivani sporazumi, kao da su u potpunosti potekle sa ove svetske konferencije o radio-komunikacijama.

83

Original: na španskom

Za Čile:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Čilea za svoju Vladu zadržava prava:

da preduzme sve akcije koje smatra neophodnim kako bi zaštitila svoje interese, posebno kako bi zaštitila svoje postojeće i planirane telekomunikacione mreže, sisteme i servise, ukoliko neka država Članica Unije na bilo koji način ne bude primenila odredbe sadržane u Aktima, uključujući odluke, preporuke, rezolucije i anekse koji čine njihov integralni deo, ili odredbe sadržane u Ustavu i Konvenciji Međunarodne unije za telekomunikacije ili ukoliko bi pravilno funkcionisanje njenih telekomunikacionih mreža, sistema i servisa bilo ugroženo iz bilo kog razloga ili bilo kojom deklaracijom ili rezervacijom neke od država Članica Unije.

84

Original: na francuskom

Za Republiku Benin:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Benin izjavljuje:

1. da za svoju Vladu zadržava prava da preduzme sve akcije koje smatra neophodnim kako bi zaštitila interese Benina i zaštitila instalacije telekomunikacionih servisa ukoliko bi neka druga država Članica Unije prekršila odredbe Završnih Akata ili odredbe Ustava ili Konvencije;
2. da njena Vlada neće prihvatiti odgovornost za posledice nepoštovanja osnovnog teksta država Članica Unije.

85

Original: na arapskom

Za Kraljevinu Saudijsku Arabiju, Kraljevinu Bahrein, Ujedinjene Arapske Emirate, Republiku Irak, Državu Kuvajt, Liban, Arapsku Republiku Siriju i Republiku Sudan:

Pomenute delegacije Svetske konferencije o radio-komunikacijama (Ženeva, 2007) izjavljuju da potpisivanje i moguća ratifikacija Završnih Akata ove Konferencije njihovih Vlada neće biti važeća za Članicu Unije pod imenom „Izrael“, i ove Vlade je neće prepoznati na bilo koji način.

### **Dodatne deklaracije i rezervacije**

86

Original: na engleskom

Za Državu Izrael:

1. Deklaracije pod brojevima 16, 63 i 85 koje su izvršile određene države Članice u skladu sa Završnim Aktima, u suprotnosti je sa principima i namenama Međunarodne unije za telekomunikacije, i stoga su lišene pravne valjanosti.
2. Vlada Države Izrael želi da se zabeleži da odbija ove prethodno navedene deklaracije, koje politizuju i podrivaju rad MUT.
3. Ukoliko bi neka država Članica koja je izvršila prethodno navedene deklaracije prema Izraelu na takav način da on narušava prava Izraela kao države Članice MUT, ili prekoračuje dužnosti te države Članice prema Izrael, Država Izrael zadržava svoje pravo da sa ovim državama postupa na isti način.

87

Original: na engleskom

Za Kanadu:

Imajući u vidu deklaracije i rezervacije sadržane u Dokumentu 427 Svetske konferencije o radio-komunikacijama Međunarodne unije za telekomunikacije (Ženeva, 2007), delegacija Kanade u ime svoje Vlade zadržava pravo da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje interese ukoliko druga država Članica ne bude poštovala odredbe Pravilnika o radio-komunikacijama, posebno one koje se odnose na upotrebu radio-frekvencija i odgovarajućih orbita, uključujući i geostacionarne satelitske orbite.

88

Original: na engleskom

Za Republiku Džibuti:

Imajući u vidu četvrti set deklaracije u Dokumentu 427 Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Džibuti:

- a) za svoju administraciju zadržava pravo da preduzme sve mere koje smatra neophodnim, u skladu sa domaćim i međunarodnim zakonima, kako bi zaštitila svoje interese ukoliko druga Članica Unije ne bude poštovala Završna Akta, ili unela rezervacije koje mogu ugroziti funkcionalnost telekomunikacionih servisa na njenoj teritoriji;
- b) takođe, zadržava prava izmene svih stranih rezervacija i deklaracija i da pristupi daljim rezervacijama i deklaracijama u vreme podnošenja svoje saglasnosti Međunarodnoj uniji za telekomunikacije, da bude obavezana Pravilnikom o radio-komunikacijama usvojenih na Svetskoj konferenciji o radio-komunikacijama (Ženeva, 2007).

89

Original: na engleskom

Za Republiku Hrvatsku:

Nakon razmatranja deklaracija i rezervacija izvršenih od strane drugih država Članica i sadržanih u Dokumentu 427, delegacija Republike Hrvatske u ime svoje Vlade, iznosi dodatne deklaracije kao što sledi:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Hrvatske za svoju Vladu zadržava prava da preduzme sve akcije koje smatra neophodnim kako bi zaštitila svoje interese ukoliko neka Članica Unije ne bude poštovala odredbe Završnih Akata, usvojenih na Svetskoj konferenciji o radio-komunikacijama (Ženeva, 2007) ili ukoliko rezervacije drugih zemalja budu ugrozile pravilno funkcionisanje servisa elektronskih komunikacija.

Delegacija Republike Hrvatske dalje izjavljuje da će Republika Hrvatska, kao zemlja kandidat za buduće članstvo u Evropskoj uniji, primeniti izmene Pravilnika o radio-komunikacijama usvojene na Konferenciji, ali od datuma pristupanja Evropskoj zajednici primena ovih akata će biti u skladu sa njenim obavezama prema Sporazumu EZ.

90

Original: na engleskom

Za Arapsku Republiku Egipat:

Imajući u vidu deklaracije, koje su izvršile države Članice, sadržane u Dokumentu 427, delegacija Egipta u ime svoje Vlade, iznosi dodatne deklaracije, kao što sledi:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (WRC-07), delegacija Egipta za svoju Vladu zadržava sledeća prava:

1. Da preduzme sve akcije i mere koje smatra neophodnim kako bi zaštitila svoje interese ukoliko neka država Članica Međunarodne unije za telekomunikacije ne bude u potpunosti poštovala odredbe i Rezolucije Završnih Akata, ili ukoliko rezervacije neke države Članice na bilo koji način budu ugrožavle telekomunikacione servise Egipta.
2. Da izvrši dodatne rezervacije tokom ratifikacije Završnih Akata ove Konferencije.

91

Original: na francuskom

Za Republiku Niger:

Imajući u vidu deklaracije sadržane u dokumentu 427, Delegacija Republike Niger izjavljuje, u ime svoje Vlade, da za kasnije zadržava prava:

- da izvrši rezervacije u odnosu na Završna Akta Svetske konferencije o radio-komunikacijama (Ženeva, 2007), shodno Bečkoj konvenciji o Zakonu o sporazumima iz 1969, u svako vreme koje smatra odgovarajućim, između datuma potpisa i datuma ratifikacije međunarodnih Završnih Akata.

92

Original: na engleskom

Za Saveznu Republiku Nemačku, Australiju, Republiku Bugarsku, Republiku Kipar, Republiku Hrvatsku, Dansku, Sjedinjene Američke Države, Francusku, Grčku, Republiku Mađarsku, Irsku, Japan, Republiku Letoniju, Kneževinu Lihtenštajn, Republiku Litvaniju, Luksemburg, Maltu, Republiku Maršalska Ostrva, Norvešku, Novi Zeland, Kraljevstvo Holandiju, Republiku Poljsku, Slovačku Republiku, Češku republiku, Ujedinjeno Kraljevstvo Velike Britanije i Severne Irske, Republiku Sloveniju, Švedsku, Konfederaciju Švajcarske, Tursku, Ukrajinu:

Delegacije prethodno pomenutih Država, imajući u vidu deklaraciju koju je izvršila Republika Kolumbija (broj 74), smatraju da ove tvrdnje ne mogu biti prepoznate na ovoj Konferenciji, ukoliko se ove i slične tvrdnje odnose na Konferenciju u Bogoti od 3. decembra 1976. godine koje su održale ekvatorijalne zemlje i iznele tvrdnje da te zemlje imaju suvereno pravo na segmente geostacionarnih satelitskih orbita, kao i slične tvrdnje.

Prethodno pomenute delegacije bi takođe želele da istaknu da reference u Članu 44 Ustava u delu „geografska situacija određenih zemalja“ ne podrazumeva povlašćena prava nad geostacionarnim satelitskim orbitama.

93

Original: na engleskom

Za Tursku:

Delegacija Republike Turske, potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) i nakon što je pročitala deklaracije i rezervacije u Dokumentu 427, izjavljuje da za svoju Vladu zadržava prava da implementira odredbe Završnih Akata samo sa državama Članicama sa kojima ima uspostavljene diplomatske odnose.

94

Original: na francuskom

Za Republiku Kamerun:

Potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama održane u Ženevi od 22. oktobra 2007. do 16. oktobra 2007. godine, delegacija Republike Kamerun, pošto je utvrdila deklaracije u Dokumentu 427, koje su druge delegacije prezentovale na Konferenciji, izjavljuje:

1. da za svoju Vladu zadržava suverena prava da preduzme sve mere koje smatra neophodnim i odgovarajućim kako bi zaštitila svoje interese ukoliko bilo koja država Članica Međunarodne unije za telekomunikacije (MUT) ne poštuje odredbe Završnih Akata.

2. da njena Vlada neće prihvatiti odgovornost, za posledice rezervacija koje su izvršile države Članice MUT;
3. da njena Vlada zadržava prava da izvrši dodatne rezervacije koje smatra neophodnim do trenutka ratifikacije.

95

Original: na engleskom

Za Sjedinjene Američke Države:

1. Sjedinjene Američke Države ukazuju na deklaracije su iznele različite države Članice, uključujući i one pod brojevima 51 i 39, kojim zadržavaju pravo da preduzmu akcije koje smatraju neophodnim kako bi zaštitile interese u skladu sa primenom odredaba Ustava i Konvencije Međunarodne unije za telekomunikacije (Ženeva, 1992), i sve izmene od tada. Sjedinjene Američke Države zadržavaju pravo da preduzmu sve mere koje smatraju neophodnim kako bi zaštitili interese Amerike, kao odgovor na takve akcije.
2. Sjedinjene Američke Države, imajući u vidu deklaraciju pod brojem 71, koju je iznela delegacija Kube, poziva se svoja prava emitovanja na Kubi, na odgovarajućim frekvencijama, koje su oslobođene od zagušenja i drugih štetnih interferencija i zadržava pravo, u skladu sa postojećim smetnjama i svakom dodatnom smetnjom u budućnosti koja potiče sa Kube, a utiče na emitovanje iz Sjedinjenih Država. Sjedinjene Države, takođe, kao referencu uključuju i celokupnu dodatnu Deklaraciju broj 104, koja se deo Završnih Akata Konferencije Opuномоćenika (Antalija, 2006) Međunarodne unije za telekomunikacije.

96

Original: na engleskom

Za Republiku Maršalska ostrva

Imajući u vidu deklaracije i rezervacije sadržane u Dokumentu 427, delegacija Sjedinjenih Američkih Država, u ime Vlade republike Maršalska ostrva, shodno Članu 31 Konvencije Međunarodne unije za telekomunikacije (Ženeva, 1992), sa izmenama na Konferenciji Opuномоćenika (Kjoto, 1994), izjavljuje da za Vladu Republike Maršalska ostrva zadržava prava da izvrši sve deklaracije i rezervacije koje su u interesu Maršalskih ostrva, ukoliko deklaracije i rezervacije drugih država Članica ugroze pravilno funkcionisanje telekomunikacionih servisa Republike Maršalska ostrva.

97

Original: na engleskom

Za Republiku Filipini:

Delegacija Republike Filipini, uzimajući u obzir Dokument 427 WRC-07, izjavljuje da za svoju Vladu zadržava pravo da preduzme svaku akciju koju smatra neophodnom i odgovarajućom, u skladu sa svojim zakonima kako bi zaštitila svoje interese, ukoliko neka Članica ili Članice Međunarodne unije za telekomunikacije (MTU) ne bude poštovala Završna Akta WRC-07 i Aneксе koji su njihov sastavni deo, ili ukoliko rezervacije drugih zemalja Članice budu ugrozile pravilno funkcionisanje telekomunikacionih servisa, servisa radiodifuzije i servisa mreža radio-komunikacija ili budu ugrozile njena suverena prava.

98

Original: na engleskom

Za Republiku Azerbejdžan:

Uzimajući u obzir deklaracije u Dokumentu 427, delegacija Republike Azerbejdžan potpisivanjem Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), za svoju Vladu zadržava pravo:

- Da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje interese ukoliko druga zemlja Članica Unije na bilo koji način ne bude ispunila ili bude prekršila odredbe Ustava i Konvencije Međunarodne unije za telekomunikacije, ili one koje su date u rezolucijama, odlukama, preporukama, aneksima i protokolima koji su sastavni deo Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007) ili ukoliko rezervacije drugih zemalja Članica budu štetne za pravilno funkcionisanje servisa radio-komunikacija Republike Azerbejdžan.
- Da preduzme sve mere koje smatra odgovarajućim kako bi regulisala svoje tržište telekomunikacija, u skladu sa postojećim domaćim zakonima i regulatornim okvirom Azerbejdžana. U tom pogledu, radio predajnici i oprema radio-komunikacija u okviru teritorije Republike Azerbejdžan, koji rade bez prethodnog ugovora sa Vladom Azerbejdžana, smatraće se da rade ilegalno.

99

Original: na engleskom

Za Republiku Letoniju:

Uzimajući u obzir deklaracije i rezervacije sadržane u Dokumentu 427, delegacija Republike Letonije zadržava u potpunosti deklaracije i rezervacije koje je izvršila potpisivanjem Završnih Akata ili na prethodnim konferencijama Unije na kojima je postigla sporazume, kao na Svetskoj konferenciji o radio-komunikacijama.

100

Original: na engleskom

Za Kraljevinu Kambodžu:

Uzimajući u obzir deklaracije i rezervacije sadržane u Dokumentu 427 svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacije Kambodže izjavljuje da Vlada Kraljevine Kambodže zadržava prava da preduzme sve mere koje smatra neophodnim kako bi zaštitila suverenitet i nacionalni interes, ukoliko se regulativa bilo koje zemlje koristi protivno suverenitetu Kraljevine Kambodže da reguliše pravilnu primenu i funkcionisanje nacionalnih i međunarodnih telekomunikacionih i mreža radio-komunikacija.

Delegacija Kambodže dalje izjavljuje da za svoju Vladu zadržava prava da izvrši sve neophodne deklaracije i rezervacije u bilo koje vreme.

101

Original: na engleskom

Za Republiku Iran:

U ime Boga, Samilosti i Milosrđa.

U skladu sa Deklaracijom broj 64, delegacija Islamske Republike Iran na Svetskoj konferenciji o radio-komunikacijama (Ženeva, 2007) izjavljuje da potpisavanje i moguća ratifikacija Završnih Akata Konferencije od strane Vlade, neće biti valjano za državu Članicu Unije pod imenom „Izrael“, i na bilo koji način neće ukazivati na njeno prepozanavnje od strane Islamske Republike Iran.

102

Original: na engleskom

Nakon uzimanja u obzir deklaracija i rezervacija konferencije u dokumentu 427, delegacija Papua Nove Gvineje izjavljuje da za svoju Vladu zadržava pravo da izvrši dodatne rezervacije koje smatra neophodnim do i uključujući vreme ratifikacije Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007).

103

Original: na francuskom

Za Republiku Burundi:

Uzimajući u obzir deklaracije u Dokumentu 427 Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Burundi izjavljuje da će njena administracija poštovati odredbe Završnih Akata uz primenu suverenog prava da preduzme sve mere koje Vlada Burundija smatra neophodnim kako bi zaštitila telekomunikacije servise u slučaju štetne interferencije uzrokovane servisima bilo kog Člana Unije koji ne bude poštovao odredbe Pravilnika o radio-komunikacijama, koji su revidirani i usvojeni na ovoj konferenciji.

Delegacija Republike Burundi dalje izjavljuje da za svoju Vladu zadržava pravoda izvrši deklaracije i rezervacije pri ratifikaciji Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007).

104

Original: na engleskom

Za Italiju:

Nakon izvršene revizije teksta deklaracija u dokumentu 427 i potpisivanja Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Republike Italije izjavljuje da za svoju Vladu zadržava prava.

1. da preduzma sve akcije i mere koje smatra neophodnim ukoliko bi posledice rezrvacije drugih zemalja Članica ugrozile servise radio-komunikacija ili uticale na suvereno pravo primene Završnih Akata, njihovih aneksa i Pravilnika o radio-komunikacijama;
2. da izrazi deklaracije i rezrvacije u skladu sa Završnim Aktima Svetske konferencije o radio-komunikacijama (Ženeva, 2007) u vreme podnošenja ratifikacije kod Međunarodne unije za telekomunikacije.

105

Original: na engleskom

Za Tajland:

Nakon uzimanja u obzir svih deklaracija i rezervacija sadržanih u Dokumentu 427 i potpisivanju Završnih Akata Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Kraljevine Tajland za svoju Vladu zadržava prava da preduzme sve akcije i mere koje smatra neophodnim kako bi zaštitila svoje interese, ukoliko neka država Članica Međunarodne unije za telekomunikacije (MUT) ne bude u potpunosti ispunila odredbe i Rezolucije Završnih Akata ili ih ne bude poštovala, ili ukoliko rezervacije drugih zemalja Člancija budu na bilo koji način ugrozile telekomunikacione servise Kraljevine Tajland.

106

Original: na francuskom

Za Narodnu Demokratsku Republiku Alžir:



Nakon što je utvrđena deklaracija iskazana u Dokumentu 427 Svetske konferencije o radio-komunikacijama (Ženeva, 2007), delegacija Narodne Demokratske Republike Alžir za WRC-07 izjavljuje, u ime svoje Vlade, i po prirodi njima datog opunomoćenja, da za svoju Vladu zadržava prava:

1. da preduzme sve mere koje smatra neophodnim kako bi zaštitila svoje državne interese ukoliko na iste bude uticale odluke sa Konferencije, ili ukoliko druge zemlje ili administracije na bilo koji način ne budu ispoštovale odredbe instrumenata izmenjenog Ustava i Konvencije MUT ili aneksa, protokola ili pravila koja su njihov deo, ili Završna Akta Konferencije, ili ukoliko rezervacije, deklaracije ili dodatne rezervacije ili deklaracije, koje su izvršile druge zemlje ili administracije ugroze normalno funkcionisanje telekomunikacionih servisa ili ugroze punu primenu suverenih prava Narodne Demokratske Republike Alžir;
2. da ne prihvati odgovornost za posledice rezervacije drugih Članica Unije;
3. da izvrši dodatne deklaracije ili rezervacije za Završna Akta Svetske konferencije o radio-komunikacijama (Ženeva, 2007) kada pristupi ratifikaciji sa Međunarodnom unijom za telekomunikacije.

## ČLANOVI

## ČLAN 2

### Nomenklatura

#### Deo I – Opsezi frekvencija i talasnih dužina

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

**2.1** Radio-frekvencijski spektar trebalo bi da bude podeljen na devet frekvencijskih opsega, koji bi trebalo da budu označeni rastućim celim brojevima prema sledećoj tabeli. Budući da je jedinica mere za frekvenciju herc (Hz), frekvencije bi trebalo da budu iskazane:

- u kilohercima (kHz), do uključujući 3 000 kHz;
- u megahercima (MHz), iznad 3 MHz, do uključujući 3 000 MHz;
- u gigahercima (GHz), iznad 3 GHz, do uključujući 3 000 GHz.

Međutim, ako pridržavanje ovim odredbama počne da stvara ozbiljne poteškoće, na primer u vezi prijave i registracije frekvencija, liste frekvencija i sličnih stvari, može da se primeni opravdano odstupanje<sup>1</sup>.

## ČLAN 4

### Dodela i korišćenje frekvencija

#### Deo I – Opšta pravila

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

**4.19** U nekim slučajevima datim u Članovima **31** i **51**, avionske stanice su ovlašćene da koriste frekvencije u opsezima namenjenim za pomorsku mobilnu službu, u svrhu komuniciranja sa stanicama te službe (vidi No. **51.73**). (WRC-07)

## ČLAN 5

### Namena frekvencijskih opsega

#### Deo IV – Tabela namene frekvencijskih opsega

(Vidi No. **2.1**)

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

**5.14** “Evropsko radiodifuzno područje” ograničeno je na zapadu zapadnom granicom Regiona 1, na istoku meridijanom 40° istočno od Griniča i na jugu paralelom 30° sever, tako da uključuje severni deo Saudijske Arabije i deo onih zemalja koje zahvataju Mediteran u okviru ovih granica. Takođe, Jermenija, Azerbejdžan, Gruzija i oni delovi teritorija Iraka, Jordana, Sirije,

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<sup>1</sup> **2.1.1** U primeni Pravilnika o radio-komunikacijama, Biro za radio-komunikacije koristi sledeće jedinice:

kHz	za frekvencije do uključujući 28 000 kHz
MHz	za frekvencije iznad 28 000 kHz do uključujući 10 500 MHz
GHz	za frekvencije iznad 10 500 MHz.

Turske i Ukrajine koji leže izvan ovih granica takođe su uključeni u Evropsko radiodifuzno područje.

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

**5.55** *Dodatna namena:* u Jermeniji, Azerbejdžanu, Ruskoj Federaciji, Gruziji, Kirgistanu, Tadžikistanu i Turkmenistanu, opseg 14-17 kHz takođe je namenjen radio-navigacionoj službi na primarnoj osnovi. (WRC-07)

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

**5.56** Stanice službi kojima su namenjeni opsezi 14-19.95 kHz i 20.05-70 kHz i u Regionu 1 opsezi 72-84 kHz i 86-90 kHz mogu da emituju etalon frekvenciju i signal tačnog vremena. Ove stanice moraju da budu zaštićene od štetnih smetnji. U Jermeniji, Azerbejdžanu, Belorusiji, Bugarskoj, Ruskoj Federaciji, Gruziji, Kazahstanu, Mongoliji, Kirgistanu, Slovačkoj, Tadžikistanu, i Turkmenistanu, frekvencije 25 kHz i 50 kHz biće upotrebljene u tu svrhu pod istim uslovima. (WRC-07)

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

**110-255 kHz**

Namene službama		
Region 1	Region 2	Region 3
...		
<b>130-135.7</b> FIKSNA POMORSKA MOBILNA 5.64 5.67	<b>130-135.7</b> FIKSNA POMORSKA MOBILNA 5.64	<b>130-135.7</b> FIKSNA POMORSKA MOBILNA RADIO-NAVIGACIONA 5.64
<b>135.7-137.8</b> FIKSNA POMORSKA MOBILNA Amaterska ADD 5.4C03 5.64 5.67 ADD 5.4C04	<b>135.7-137.8</b> FIKSNA POMORSKA MOBILNA Amaterska ADD 5.4C03 5.64	<b>135.7-137.8</b> FIKSNA POMORSKA MOBILNA RADIO-NAVIGACIONA Amaterska ADD 5.4C03 5.64 ADD 5.4C04

Namene službama		
Region 1	Region 2	Region 3
<b>137.8-148.5</b> FIKSNA POMORSKA MOBILNA 5.64 5.67	<b>137.8-160</b> FIKSNA POMORSKA MOBILNA 5.64	<b>137.8-160</b> FIKSNA POMORSKA MOBILNA RADIO-NAVIGACIONA 5.64
...	...	...

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

**5.4C03** Amaterska služba koja koristi frekvencije u opsegu 135.7-137.8 kHz ne sme da prelazi maksimalnu snagu zračenja od 1 W (e.i.r.p.) i ne sme da ometa radio-navigacione službe koje rade u zemljama navedenim u No. **5.67**. (WRC-07)

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

**5.4C04** Korišćenje opsega 135.7-137.8 kHz u Alžiru, Egiptu, Iranu (Islamskoj Republici), Iraku, Libijskoj Arapskoj Džamahiriji, Libanu, Sirijskoj Arapskoj Republici, Sudanu i Tunisu

ograničeno je na fiksnu i pomorsku mobilnu službu. Amaterska služba u navedenim zemljama ne sme da koristi opseg 135.7-137.8 kHz, i o tome bi trebalo da vode računa zemalje koje odobravaju takvu upotrebu. (WRC-07)

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

**5.67** *Dodatna namena:* u Mongoliji, Kirgistanu i Turkmenistanu, opseg 130-148.5 kHz takođe je namenjen radio-navigacionoj službi na sekundarnoj osnovi. U tim zemljama i između njih, ova služba bi trebalo da ima jednako pravo na rad. (WRC-07)

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

**5.70** *Alternativna namena:* u Angoli, Bocvani, Burundiju, Centralnoj Afričkoj Republici, Republici Kongo, Etiopiji, Keniji, Lesotu, Madagaskaru, Malaviju, Mozambiku, Namibiji, Nigeriji, Omanu, Demokratskoj Republici Kongo, Ruandi, Južnoj Africi, Svazilendu, Tanzaniji, Čadu, Zambiji i Zimbabveu, opseg 200-283.5 kHz namenjen je vazduhoplovnoj radio-navigacionoj službi na primarnoj osnovi. (WRC-07)

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

**200-495 kHz**

Namene službama		
Region 1	Region 2	Region 3
<b>415-435</b> POMORSKA MOBILNA 5.79 VAZDUHOPLOVNA RADIO- NAVIGACIONA 5.72	<b>415-495</b> POMORSKA MOBILNA 5.79 MOD 5.79A Vazduhoplovna radio-navigaciona 5.80	
<b>435-495</b> POMORSKA MOBILNA 5.79 MOD 5.79A Vazduhoplovna radio-navigaciona 5.72 MOD 5.82		5.77 5.78 MOD 5.82

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

**5.75** *Različite kategorije službi:* u Jermeniji, Azerbejdžanu, Belorusiji, Ruskoj Federaciji, Gruziji, Moldaviji, Kirgistanu, Tadžikistanu, Turkmenistanu, Ukrajini i crnomorskoj oblasti Rumunije, opseg 315-325 kHz namenjen je pomorskoj radio-navigacionoj službi na primarnoj osnovi prema uslovima koji važe u baltičkoj oblasti, dodela frekvencija iz tog opsega novim stanicama u pomorskoj ili vazduhoplovnoj radio-navigacionoj službi treba da je predmet prethodnih konsultacija između zainteresovanih administracija. (WRC-07)

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

**5.77** *Različite kategorije službi:* u Australiji, Kini, Francuskim Prekomorskim Teritorijama u Regionu 3, Indiji, Iranu (Islamskoj Republici), Japanu, Pakistanu, Papui Novoj Gvineji i Šri Lanki, opseg 415-495 kHz namenjen je vazduhoplovnoj radio-navigacionoj službi na primarnoj osnovi. Administracije u tim zemljama treba da preduzmu sve praktične korake potrebne da se osigura da vazduhoplovne radio-navigacione stanice u opsegu 435-495 kHz ne ometaju prijem obalskim stanicama signala sa brodskih stanica koje emituju na frekvencijama označenim za brodske stanice na svetskom nivou (vidi No. **52.39**). (WRC-07)

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

**5.79A** Kad se postavlja obalna stanica u NAVTEX službi na frekvencijama 490 kHz, 518 kHz i 4 209.5 kHz, administracijama se strogo preporučuje da koordiniraju njene radne karakteristike

prema procedurama Međunarodne Pomorske Organizacije (International Maritime Organization IMO) (vidi Rezoluciju **339 (Rev.WRC-07)**). (WRC-07)

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

**5.79B** Korišćenje opsega 495-505 kHz je ograničeno na radio-telegrafiju. (WRC-07)

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

**5.82** U pomorskoj mobilnoj službi, frekvencija 490 kHz biće isključivo korišćena za emisije obalskih stanica za navigaciona i meteorološka upozorenja i hitne poruke ka brodovima, posredstvom uskopojasne mašinske telegrafije. Uslovi za korišćenje frekvencije 490 kHz su propisani u Članovima 31 i 52 Pravilnika. Pri korišćenju opsega 415-495 kHz za vazduhoplovnu radio-navigacionu službu, od Administracija se zahteva da obezbede da se ne prouzrokuju štetne smetnje na frekvenciji 490 kHz. (WRC-07)

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

**495-1 800 kHz**

Namene službama		
Region 1	Region 2	Region 3
<b>495-505</b>	MOBILNA ADD 5.79B ADD 5.4C01	
<b>505-526.5</b> POMORSKA MOBILNA 5.79 MOD 5.79A MOD 5.84 VAZDUHOPLOVNA RADIO- NAVIGACIONA  5.72	<b>505-510</b> POMORSKA MOBILNA 5.79	<b>505-526.5</b> POMORSKA MOBILNA 5.79 MOD 5.79A MOD 5.84 VAZDUHOPLOVNA RADIO- NAVIGACIONA Vazduhoplovna mobilna Kopnena mobilna
	<b>510-525</b> MOBILNA MOD 5.79A MOD 5.84 VAZDUHOPLOVNA RADIO- NAVIGACIONA	

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

**5.83**

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

**5.4C01** Administracije koje odobravaju korišćenje frekvencija u opsegu 495-505 kHz službama koje nisu pomorska mobilna služba moraju osigurati da nema ometanja pomorske mobilne službe u tom opsegu niti službi u susednim opsezima, vodeći računa o uslovima korišćenja frekvencija 490 kHz i 518 kHz, kako je propisano u Članovima **31 i 52**. (WRC-07)

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

**5.84** Uslovi korišćenja frekvencije 518 kHz od strane pomorske mobilne službe propisani su Članovima **31 i 52**. (WRC-07)

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

**5.93** *Dodatna namena:* u Angoli, Jermeniji, Azerbejdžanu, Belorusiji, Ruskoj Federaciji, Gruziji, Mađarskoj, Kazahstanu, Letoniji, Litvaniji, Moldaviji, Mongoliji, Nigeriji, Uzbekistanu, Poljskoj, Kirgistanu, Slovačkoj, Češkoj Republici, Tadžikistanu, Čadu, Turkmenistanu i Ukrajini, opsezi 1 625-1 635 kHz, 1 800-1 810 kHz i 2 160-2 170 kHz su takođe namenjeni fiksnoj i kopnenoj mobilnoj službi na primarnoj osnovi, po sporazumu postignutom prema No. **9.21**. (WRC-07)

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

**5.98** *Alternativna namena:* u Angoli, Jermeniji, Azerbejdžanu, Belorusiji, Belgiji, Kamerunu, Demokratskoj Republici Kongo, Danskoj, Egiptu, Eritreji, Španiji, Ruskoj Federaciji, Gruziji, Grčkoj, Italiji, Kazahstanu, Libanu, Litvaniji, Moldaviji, Sirijskoj Arapskoj Republici, Kirgistanu, Somaliji, Tadžikistanu, Tunisu, Turkmenistanu, Turskoj i Ukrajini, opseg 1 810-1 830 kHz namenjen je fiksnoj i mobilnoj, izuzev vazduhoplovne mobilne, službi na primarno osnovi. (WRC-07)

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

**5.99** *Dodatna namena:* u Saudijskoj Arabiji, Austriji, Iraku, Libijskoj Arapskoj Džamahiriji, Uzbekistanu, Slovačkoj, Rumuniji, Srbiji, Sloveniji, Čadu i Togou, opseg 1 810-1 830 kHz takođe je namenjen fiksnoj i mobilnoj, izuzev vazduhoplovne mobilne, službi na primarnoj osnovi. (WRC-07)

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

**5.102** *Alternativna namena:* u Boliviji, Čileu, Meksiku, Paragvaju, Peruu i Urugvaju, opseg 1 850-2 000 kHz namenjen je fiksnim i mobilnim, izuzev vazduhoplovne mobilne, radio-lokacionim i radio-navigacionim službama na primarnoj osnovi. (WRC-07)

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

**5.108** Noseća frekvencija 2182 kHz je međunarodna frekvencija za opasnost i pozivanje za radio-telefoniju. Uslovi upotrebe opsega 2173.5-2190.5 kHz su propisani u Članovima 31 i 52. (WRC-07)

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

**5.111** Noseće frekvencije 2182 kHz, 3023 kHz, 5680 kHz, 8364 kHz i frekvencije 121.5 MHz, 156.8 MHz i 243 MHz mogu se, takođe, upotrebiti, saglasno postupcima koji su na snazi za zemaljske radio-komunikacione službe, za operacije traženja i spašavanja pomoću svemirskih letelica sa posadom. Uslovi upotrebe ovih frekvencija su propisani u Članu 31. Isto se primenjuje na frekvencije 10003 kHz, 14993 kHz i 19993 kHz ali na svakoj od ovih frekvencija emisije moraju da budu ograničene u opsegu od  $\pm 3$  kHz od nosioca frekvencije. (WRC-07)

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

**5.112** *Alternativna namena:* u Danskoj, Malti, Srbiji i Šri Lanki, opseg 2 194-2 300 kHz namenjen je fiksnoj i mobilnoj, izuzev vazduhoplovne mobilne, službi na primarnoj osnovi. (WRC-07)

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

**5.114** *Alternativna namena:* u Danskoj, Iraku, Malti, i Srbiji, opseg 2 502-2 625 kHz namenjen je fiksnoj i mobilnoj, izuzev vazduhoplovne mobilne, službi na primarnoj osnovi. (WRC-07)

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

**5.115** Noseće (referentne) frekvencije 3023 kHz i 5680 kHz mogu se takođe, upotrebiti, saglasno postupcima koji su na snazi u Članu 31 za stanice pomorske mobilne službe angažovane u koordinisanim pretragama i operacijama spasavanja.

(WRC-07)

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

**5.117** *Alternativna namena:* u Obali Slonovače, Danskoj, Egiptu, Liberiji, Malti, Srbiji, Šri Lanki i Togou, opseg 3 155-3 200 kHz namenjen je fiksnim i mobilnim, izuzev vazduhoplovne mobilne, službama na primarnoj osnovi. (WRC-07)

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

**5.119** *Dodatna namena:* u Hondurasu, Meksiku i Peruu, opseg 3 500-3 750 kHz je takođe namenjen fiksnim i mobilnim službama na primarnoj osnovi. (WRC-07)

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

**5.122** *Alternativna namena:* u Boliviji, Čileu, Ekvadoru, Paragvaju, Peruu i Urugvaju, opseg 3 750-4 000 kHz namenjen je fiksnim i mobilnim, izuzev vazduhoplovne mobilne, službama na primarnoj osnovi. (WRC-07)

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

**5.128** Frekvencije u opsezima 4 063-4 123 kHz i 4 130-4 438 kHz mogu sa izuzetkom koristiti stanice fiksne službe, komunicirajući isključivo unutar granica zemlje u kojoj se nalaze, srednje snage koja ne prelazi 50 W, uz uslov da ne ometaju pomorsku mobilnu službu. Pored toga, u Avganistanu, Argentini, Jermeniji, Azerbejdžanu, Belorusiji, Bocvani, Burkini Faso, Centralnoj Afričkoj Republici, Kini, Ruskoj Federaciji, Gruziji, Indiji, Kazahstanu, Maliju, Nigeru, Kazahstanu, Tadžikistanu, Čadu, Turkmenistanu i Ukrajini, u opsezima 4 063-4 123 kHz, 4 130-4 133 kHz i 4 408-4 438 kHz, stanice fiksne službe, srednje snage koja ne prelazi 1 kW, mogu da rade uz uslov da se nalaze najmanje 600 km od obale i da ne ometaju pomorsku mobilnu službu. (WRC-07)

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

**5.129**

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

**5.130** Uslovi korišćenja nosioca frekvencija 4125 kHz i 6215 kHz su sadržani u Članovima 31 i 52. (WRC-07)

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

**5.133** *Različite kategorije službi:* u Jermeniji, Azerbejdžanu, Belorusiji, Ruskoj Federaciji, Gruziji, Kazahstanu, Latviji, Litvaniji, Uzbekistanu, Kirgistanu, Tadžikistanu, Turkmenistanu i Ukrajini, opseg 5 130-5 250 kHz namenjen je mobilnoj, izuzev vazduhoplovne mobilne, službi na primarnoj osnovi. (vidi No. **5.33**). (WRC-07)

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

**5.134** Korišćenje opsega 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 i 18900-19020 kHz za radiodifuznu službu je predmet primene procedure iz Člana 12. Od administracija se zahteva da koriste ove opsege u cilju uvođenja digitalno modulisanih emisija saglasno sa odredbama Rezolucije 517. (WRC-07)

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

**5.136** *Dodatna namena:* Frekvencije u opsegu 5 900-5 950 kHz mogu koristiti stanice sledećih službi, samo za komunikaciju unutar granica zemlje u kojoj se nalaze: fiksna služba (u sva tri Regiona), kopnena mobilna služba (u Regionu 1), mobilna, osim vazduhoplovne mobilne (R) službe (u Regionima 2 i 3), uz uslov da ne ometaju radiodifuznu službu. Kad se koriste frekvencije za te službe, administracijama se nalaže da koriste minimalnu potrebnu snagu i da uzmu u obzir sezonsko korišćenje frekvencija radiodifuzne službe objavljeno u saglasnosti sa Pravilnikom o radio-komunikacijama. (WRC-07)

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

**5.139** *Različite kategorije službi:* do 29.05.2009, u Jermeniji, Azerbejdžanu, Belorusiji, Ruskoj Federaciji, Gruziji, Kazahstanu, Letoniji, Litvaniji, Mongoliji, Uzbekistanu, Kirgistanu,



Tadžikistanu, Turkmenistanu i Ukrajini, opseg 6 765-7 000 kHz namenjen je kopненоj mobilnoj službu na primarnoj osnovi (vidi No. **5.33**). (WRC-07)

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

**5.143** *Dodatna namena:* Frekvencije u opsegu 7 300-7 350 kHz mogu koristiti stanice fiksne službe i kopnene mobilne službe, koje komuniciraju samo unutar granica zemlje u kojoj se nalaze, uz uslov da ne ometaju radiodifuznu službu. Kad se koriste frekvencije za te službe, administracijama se nalaže da koriste minimalnu potrebnu snagu i da uzmu u obzir sezonsko korišćenje frekvencija radiodifuzne službe objavljeno u saglasnosti sa Pravilnikom o radio-komunikacijama. (WRC-07)

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

**5.145** Uslovi korišćenja nosioca frekvencija 8291 kHz, 12290 kHz i 16420 kHz su propisani u Članovima 31 i 52. (WRC-07)

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

**5.146** *Dodatna namena:* Frekvencije u opsezima 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 i 18 900-19 020 kHz mogu koristiti stanice fiksne službe, koje komuniciraju samo unutar granica zemlje u kojoj se nalaze, uz uslov da ne ometaju radiodifuznu službu. Kad se koriste frekvencije za te službe, administracijama se nalaže da koriste minimalnu potrebnu snagu i da uzmu u obzir sezonsko korišćenje frekvencija radiodifuzne službe objavljeno u saglasnosti sa Pravilnikom o radio-komunikacijama. (WRC-07)

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

**5.151** *Dodatna namena:* Frekvencije u opsezima 13 570-13 600 kHz i 13 800-13 870 kHz mogu koristiti stanice fiksne službe i mobilne, osim vazduhoplovne mobilne (R) službe, koje komuniciraju samo unutar granica zemlje u kojoj se nalaze, uz uslov da ne ometaju radiodifuznu službu. Kad se koriste frekvencije za te službe, administracijama se nalaže da koriste minimalnu potrebnu snagu i da uzmu u obzir sezonsko korišćenje frekvencija radiodifuznog servisa objavljeno u saglasnosti sa Pravilnikom o radio-komunikacijama. (WRC-07)

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

**5.155** *Dodatna namena:* u Jermeniji, Azerbejdžanu, Belorusiji, Ruskoj Federaciji, Gruziji, Kazahstanu, Moldaviji, Mongoliji, Uzbekistanu, Kirgistanu, Slovačkoj, Tadžikistanu, Turkmenistanu i Ukrajini, opseg 21 850-21 870 kHz je takođe namenjen vazduhoplovnoj mobilnoj službi (R) na primarnoj osnovi. (WRC-07)

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

**5.155A** U Jermeniji, Azerbejdžanu, Belorusiji, Ruskoj Federaciji, Gruziji, Kazahstanu, Moldaviji, Mongoliji, Uzbekistanu, Kirgistanu, Slovačkoj, Tadžikistanu, Turkmenistanu i Ukrajini, korišćenje opsega 21 850-21 870 kHz od strane fiksne službe ograničeno je odredbama službi vezanih za sigurnost letenja aviona. (WRC-07)

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

**5.162A** *Dodatna namena:* u Nemačkoj, Austriji, Belgiji, Bosni i Hercegovini, Kini, Vatikanu, Danskoj, Španiji, Estoniji, Ruskoj Federaciji, Finskoj, Francuskoj, Irskoj, Islandu, Italiji, Letoniji, Makedoniji (Bivšoj Jugoslovenskoj Republici), Lihtenštajnu, Litvaniji, Luksemburgu, Monaku, Crnoj Gori, Norveškoj, Holandiji, Poljskoj, Portugalu, Slovačkoj, Češkoj Republici, Velikoj Britaniji, Srbiji, Sloveniji, Švedskoj i Švajcarskoj opseg 46-68 MHz je takođe namenjen radio-lokacionoj službi na sekundarnoj osnovi. Ovo korišćenje je ograničeno za radare za merenje profila vetra u saglasnosti sa Rezolucijom **217 (WRC-97)**. (WRC-07)

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

**5.163** *Dodatna namena:* u Jermeniji, Belorusiji, Ruskoj Federaciji, Gruziji, Mađarskoj, Kazahstanu, Letoniji, Litvaniji, Moldaviji, Uzbekistanu, Kirgistanu, Slovačkoj, Češkoj Republici, Tadžikistanu, Turkmenistanu i Ukrajini, opsezi, 47-48.5 MHz i 56.5-58 MHz su takođe namenjeni fiksnoj i kopненоj mobilnoj službi na sekundarnoj osnovi. (WRC-07)

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

**5.164** *Dodatna namena:* u Albaniji, Nemačkoj, Austriji, Belgiji, Bosni i Hercegovini, Bocvani, Bugarskoj, Obali Slonovače, Danskoj, Španiji, Estoniji, Finskoj, Francuskoj, Gabonu, Grčkoj, Irskoj, Izraelu, Italiji, Libijskoj Arapskoj Džamahiriji, Jordanu, Libanu, Lihtenštajnu, Luksemburgu, Madagaskaru, Maliju, Malti, Maroku, Mauritaniji, Monaku, Crnoj Gori, Nigeriji, Norveškoj, Holandiji, Poljskoj, Sirijskoj Arapskoj Republici, Rumuniji, Velikoj Britaniji, Srbiji, Sloveniji, Švedskoj, Švajcarskoj, Svazilendu, Čadu, Togou, Tunisu i Turskoj, opseg 47-68 MHz, u Južnoj Africi opseg 47-50 MHz, u Češkoj Republici opseg 66-68 MHz, i u Letoniji i Litvaniji opseg 48.5-56.5 MHz, takođe su namenjeni kopненоj mobilnoj službi na primarnoj osnovi. Međutim, stanice kopnene mobilne službe u pomenutim zemljama sa odgovarajućim dodeljenim opsegom u ovoj fusnoti ne smeju ometati postojeće ili planirane radiodifuzne stanice ( niti zahtevati zaštitu zbog toga ) u zemljama kojima nije dodeljen dotični opseg. (WRC-07)

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

**5.167** *Alternativna namena:* u Bangladešu, Brunej Darusalamu, Indiji, Iranu (Islamskoj Republici), Pakistanu, Singapuru i Tajlandu, opseg 50-54 MHz namenjen je fiksnoj, mobilnoj i radiodifuznoj službi na primarnoj osnovi. (WRC-07)

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

**5.167A** *Dodatna namena:* u Indoneziji, opseg 50-54 MHz je takođe namenjen fiksnoj, mobilnoj i radiodifuznoj službi na primarnoj osnovi. (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** *Alternativna namena:* u Jermeniji, Azerbejdžanu, Belorusiji, Ruskoj Federaciji, Gruziji, Kazahstanu, Moldaviji, Uzbekistanu, Kirgistanu, Tadžikistanu, Turkmenistanu i Ukrajini, opseg 68-73 MHz i 76-87.5 MHz namenjen je radiodifuznoj službi na primarnoj osnovi. U Letoniji i Litvaniji, opsezi 68-73 MHz i 76-87.5 MHz namenjeni su radiodifuznoj i mobilnoj, osim vazduhoplovne mobilne, službi na primarnoj osnovi. Službe kojima su ovi opsezi namenjeni u drugim zemljama i radiodifuzna služba u zemljama navedenim gore, jesu predmet sporazuma sa zainteresovanim zemljama u susedstvu. (WRC-07)

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

**5.176** *Dodatna namena:* u Australiji, Kini, Južnoj Koreji, Filipinima, Severnoj Koreji i Samoi, opseg 68-74 MHz je takođe namenjen radiodifuznoj službi na primarnoj osnovi. (WRC-07)

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

**5.177** *Dodatna namena:* u Jermeniji, Azerbejdžanu, Belorusiji, Ruskoj Federaciji, Gruziji, Kazahstanu, Uzbekistanu, Kirgistanu, Tadžikistanu, Turkmenistanu i Ukrajini, opseg 73-74 MHz je takođe namenjen radiodifuznoj službi na primarnoj osnovi, po sporazumu postignutom prema No. **9.21**. (WRC-07)

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

**5.179** *Dodatna namena:* u Jermeniji, Azerbejdžanu, Belorusiji, Kini, Ruskoj Federaciji, Gruziji, Kazahstanu, Litvaniji, Mongoliji, Kirgistanu, Slovačkoj, Tadžikistanu, Turkmenistanu i Ukrajini, opsezi 74.6-74.8 MHz i 75.2-75.4 MHz su takođe namenjeni vazduhoplovnoj radio-navigacionoj službi, na primarnoj osnovi, samo za zemaljske predajnike. (WRC-07)

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

**75.2-137.175 MHz**

Namene službama		
Region 1	Region 2	Region 3
108-117.975	VAZDUHOPLOVNA RADIO-NAVIGACIONA 5.197 MOD 5.197A	

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

**75.2-137.175 MHz**

Namene službama		
Region 1	Region 2	Region 3
117.975-137	VAZDUHOPLOVNA MOBILNA (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**

Namene službama		
Region 1	Region 2	Region 3
<b>137-137.025</b>  MOD 5.208A 5.209 MOD 5.347A	OPERACIJE U SVEMIRU (svemir-Zemlja) METEOROLOŠKA SATELITSKA (svemir-Zemlja) MOBILNA SATELITSKA (svemir-Zemlja)  ISTRAŽIVANJE SVEMIRA (svemir-Zemlja) Fiksna Mobilna izuzev vazduhoplovne mobilne (R) 5.204 5.205 5.206 5.207 5.208	
<b>137.025-137.175</b>	OPERACIJE U SVEMIRU (svemir-Zemlja) METEOROLOŠKA SATELITSKA (svemir-Zemlja) ISTRAŽIVANJE SVEMIRA (svemir-Zemlja) Fiksna Mobilna satelitska (svemir-Zemlja) MOD 5.208A 5.209 MOD 5.347A Mobilna izuzev vazduhoplovne mobilne (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** *Dodatna namena:* u Azerbejdžanu, Kirgistanu, Somaliji i Turkmenistanu, opseg 104-108 MHz je takođe namenjen mobilnoj, izuzev vazduhoplovne mobilne, službi na sekundarnoj osnovi. (WRC-07)

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

**5.197** *Dodatna namena:* u Pakistanu i Sirijskoj Arapskoj Republici, opseg 108-111.975 MHz je takođe namenjen mobilnoj službi na sekundarnoj osnovi, po sporazumu postignutom prema No. **9.21**. Da bi se osiguralo da stanice vazduhoplovne radio-navigacione službe ne budu ometane, stanice mobilne službe ne smeju se puštati u rad u navedenom opsegu dokle god navedeni opseg koristi vazduhoplovna radio-navigaciona služba bilo koje administracije što može da se vidi prilikom primene procedure prema No. **9.21**. (WRC-07)

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

**5.197A** *Dodatna namena:* opseg 108-117.975 MHz je takođe namenjen vazduhoplovnoj mobilnoj (R) službi na primarnoj osnovi, s ograničenjem na sisteme koji rade u saglasnosti sa priznatim međunarodnim vazduhoplovnim standardima. Takvo korišćenje mora biti u saglasnosti sa Rezolucijom **413 (Rev.WRC-07)**. Vazduhoplovna mobilna (R) služba može koristiti opseg 108-112 MHz s ograničenjem na sisteme koji se sastoje od zemaljskih predajnika i pridruženih prijemnika, za prenos navigacionih informacija za podršku vazduhoplovnoj navigaciji i funkcijama nadzora u saglasnosti sa priznatim međunarodnim vazduhoplovnim standardima. (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** U opsegu 117.975-137 MHz, frekvencija 121.5 MHz je vazduhoplovna frekvencija za slučaj opasnosti, a kada je potrebno i frekvencija 123.1 MHz kao dodatna vazduhoplovnoj frekvenciji 121.5 MHz. Mobilne stanice u pomorskoj mobilnoj službi mogu komunicirati na ovim frekvencijama pod uslovima postavljenim u Članu **31** u svrhu bezbednosti i opasnosti sa stanicama u vazduhoplovnoj službi. (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**

Namene službama		
Region 1	Region 2	Region 3
137.175-137.825  5.347A	OPERACIJE U SVEMIRU (svemir-Zemlja) METEOROLOŠKA SATELITSKA (svemir-Zemlja) MOBILNA SATELITSKA (svemir-Zemlja) MOD 5.208A 5.209 MOD  ISTRAŽIVANJE SVEMIRA (svemir-Zemlja) Fiksna Mobilna izuzev vazduhoplovne mobilne (R) 5.204 5.205 5.206 5.207 5.208	

Namene službama		
Region 1	Region 2	Region 3
137.825-138	OPERACIJE U SVEMIRU (svemir-Zemlja) METEOROLOŠKA SATELITSKA (svemir-Zemlja) ISTRAŽIVANJE SVEMIRA (svemir-Zemlja) Fiksna Mobilna satelitska (svemir-Zemlja) MOD 5.208A 5.209 MOD 5.347A Mobilna izuzev vazduhoplovne mobilne (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** *Različite kategorije službi:* u Avganistanu, Saudijskoj Arabiji, Bahreinu, Bangladešu, Brunej Darusalamu, Kini, Kubi, Ujedinjenim Arapskim Emiratima, Indiji, Indoneziji, Iranu (Islamskoj Republici), Iraku, Kuvajtu, Crnoj Gori, Omanu, Pakistanu, Filipinima, Kataru, Srbiji, Singapuru, Tajlandu i Jemenu, opseg 137-138 MHz namenjen je fiksnoj i mobilnoj, osim vazduhoplovne mobilne (R), službi na primarnoj osnovi (vidi No. **5.33**). (WRC-07)

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

**5.208A** Prilikom dodela svemirskim stanicama u mobilnoj satelitskoj službi u opsezima 137-138 MHz, 387-390 MHz i 400.15-401 MHz, administracije će preduzeti sve praktične korake da zaštite radio astronomsku službu u opsezima 150.05-153 MHz, 322-328.6 MHz, 406.1-410 MHz i 608-614 MHz od štetnih smetnji neželjenih emisija. Nivoi štetnih smetnji na radio astronomsku službu su dati u odgovarajućim ITU-R Preporukama. (WRC-07)

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

**5.210** *Dodatna namena:* u Italiji, Češkoj Republici i Velikoj Britaniji, opsezi 138-143.6 MHz i 143.65-144 MHz su takođe namenjeni službi istraživanja svemira (svemir-Zemlja) na sekundarnoj osnovi. (WRC-07)

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

**5.211** *Dodatna namena:* u Nemačkoj, Saudijskoj Arabiji, Austriji, Bahreinu, Belgiji, Danskoj, Ujedinjenim Arapskim Emiratima, Španiji, Finskoj, Grčkoj, Irskoj, Izraelu, Keniji, Kuvajtu, Makedoniji (Bivšoj Jugoslovenskoj Republici), Libanu, Lihtenštajnu, Luksemburgu, Maliju, Malti, Crnoj Gori, Norveškoj, Holandiji, Kataru, Velikoj Britaniji, Srbiji, Sloveniji, Somaliji, Tanzaniji, Tunisu i Turskoj, opseg 138-144 MHz je takođe namenjen pomorskoj mobilnoj i kopненоj mobilnoj službi na primarnoj osnovi. (WRC-07)

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

**5.212** *Alternativna namena:* u Angoli, Bocvani, Burundiju, Kamerunu, Centralnoj Afričkoj Republici, Demokratskoj Republici Kongo, Gabonu, Gambiji, Gani, Gvineji, Iraku, Libijskoj Arapskoj Džamahiriji, Jordanu, Lesotu, Liberiji, Malaviju, Mozambiku, Namibiji, Omanu, Ugandi, Sirijskoj Arapskoj Republici, Republici Kongo, Ruandi, Sijera Leoneu, Južnoj Africi, Svazilendu, Čadu, Togou, Zambiji i Zimbabveu, opseg 138-144 MHz namenjen je fiksnoj i mobilnoj službi na primarnoj osnovi. (WRC-07)

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

**5.214** *Dodatna namena:* u Eritreji, Etiopiji, Keniji, Makedoniji (Bivšoj Jugoslovenskoj Republici), Malti, Crnoj Gori, Srbiji, Somaliji, Sudanu i Tanzaniji, opseg 138-144 MHz je takođe namenjen fiksnoj službi na primarnoj osnovi. (WRC-07)

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

**148-223 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>150.05-153</b> FIKSNA MOBILNA izuzev vazduhoplovne mobilne RADIO-ASTRONOMSKA 5.149	<b>150.05-156.4875</b> FIKSNA MOBILNA	
<b>153-154</b> FIKSNA MOBILNA izuzev vazduhoplovne mobilne (R) Služba meteorološke pomoći		
<b>154-156.4875</b> FIKSNA MOBILNA izuzev vazduhoplovne mobilne (R) MOD 5.226	5.225 MOD 5.226	
<b>156.4875-156.5625</b> POMORSKA MOBILNA (opasnost i pozivanje via DSC) MOD 5.111 MOD 5.226 MOD 5.227	<b>156.4875-156.5625</b> POMORSKA MOBILNA (opasnost i pozivanje via DSC)  MOD 5.111 MOD 5.226 MOD 5.227	
<b>156.5625-156.7625</b> FIKSNA MOBILNA izuzev vazduhoplovne mobilne (R) MOD 5.226	<b>156.5625-156.7625</b> FIKSNA MOBILNA  5.225 MOD 5.226	
<b>156.7625-156.8375</b>	POMORSKA MOBILNA (opasnost i pozivanje) MOD 5.111 MOD 5.226	
<b>156.8375-174</b> FIKSNA MOBILNA izuzev vazduhoplovne mobilne MOD 5.226 5.229 ADD 5.4C02	<b>156.8375-174</b> FIKSNA MOBILNA  MOD 5.226 5.230 5.231 5.232 ADD 5.4C02	

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

**5.221** Stanice mobilne satelitske službe u opsegu 148-149.9 MHz ne smeju ometati (niti zahtevati zaštitu zbog toga) stanice fiksne ili mobilne službe koje rade u saglasnosti sa Planom namene frekvencijskih opsega u sledećim zemljama: Albaniji, Alžiru, Nemačkoj, Saudijskoj Arabiji, Australiji, Austriji, Bahreinu, Bangladešu, Barbadosu, Belorusiji, Belgiji, Beninu, Bosni i Hercegovini, Bocvani, Brunej Darusalamu, Bugarskoj, Kamerunu, Kini, Kipru, Republici Kongo, Južnoj Koreji, Obali Slonovače, Hrvatskoj, Kubi, Danskoj, Egiptu, Ujedinjenim Arapskim Emiratima, Eritreji, Španiji, Estoniji, Etiopiji, Ruskoj Federaciji, Finskoj, Francuskoj, Gabonu, Gani, Grčkoj, Gvineji, Gvineji Bisao, Mađarskoj, Indiji, Iranu (Islamskoj Republici), Irskoj, Islandu, Izraelu, Italiji, Libijskoj Arapskoj Džamahiriji, Jamajki, Japanu, Jordanu, Kazahstanu, Keniji, Kuvajtu, Makedoniji (Bivšoj Jugoslovenskoj Republici), Lesotu, Letoniji, Libanu, Lihtenštajnu, Litvaniji, Luksemburgu, Maleziji, Maliju, Malti, Mauritaniji, Moldaviji, Mongoliji, Crnoj Gori, Mozambiku, Namibiji, Norveškoj, Novom Zelandu, Omanu, Ugandi, Uzbekistanu, Pakistanu, Panami, Papui Novoj Gvineji, Pragvaju, Holandiji, Filipinima, Poljskoj, Portugalu, Kataru, Sirijskoj Arapskoj Republici, Kirgistanu, Severnoj Koreji, Slovačkoj, Rumuniji, Velikoj

Britaniji, Senegalu, Srbiji, Sijera Leoneu, Singapuru, Sloveniji, Šri Lanki, Južnoj Africi, Švedskoj, Švajcarskoj, Svazilendu, Tanzaniji, Čadu, Tajlandu, Togou, Tongi, Trinidad i Tobagou, Tunisu, Turskoj, Ukrajini, Vijetnamu, Jemenu, Zambiji i Zimbabveu. (WRC-07)

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

**5.226** Frekvencija 156.8 MHz je međunarodna frekvencija za opasnost, bezbednost i poziv u pomorskoj mobilnoj VHF radio-telefonskoj službi. Uslovi za korišćenje ove frekvencije i opsega 156.7625-156.8375 MHz sadržani su u Članu **31** i Apendiksu **18**.

Frekvencija 156.525 MHz je međunarodna frekvencija za opasnost, bezbednost i poziv u pomorskoj mobilnoj VHF radio-telefonskoj službi koristeći digitalno selektivno pozivanje (DSC). Uslovi za korišćenje ove frekvencije i opsega 156.4875-156.5625 MHz sadržani su u Članu **31** i **52**, i Apendiksu **18**.

U opsezima 156-156.4875 MHz, 156.5625-156.7625 MHz, 156.8375-157.45 MHz, 160.6-160.975 MHz i 161.475-162.05 MHz, svaka administracija treba dati prioritet pomorskoj mobilnoj službi samo na onim frekvencijama koje su dodeljene stanicama pomorske mobilne službe od te administracije (vidi Član **31** i **52**, i Apendiks **18**).

Bilo koje korišćenje frekvencija u ovim opsezima od strane drugih službi kojima su namenjeni treba izbegavati u zonama gde takvo korišćenje može prouzrokovati štetne smetnje pomorskoj mobilnoj VHF radio-komunikacionoj službi.

Međutim, frekvencije 156.8 MHz i 156.525 MHz i frekvencijski opsezi u kojima je prioritet dat pomorskoj mobilnoj službi mogu se koristiti na unutrašnjim plovnim putevima pod uslovom da se zaključi sporazum između zainteresovanih administracija uzimajući u obzir postojeće korišćenje frekvencija i postojeće sporazume. (WRC-07)

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

**5.227** *Dodatna namena:* opsezi 156.4875-156.5125 MHz i 156.5375-156.5625 MHz su takođe namenjeni fiksnoj i kopnoj mobilnoj službi na primarnoj osnovi. Korišćenje ovih opsega od strane fiksne i kopnene mobilne službe ne sme ometati (niti zahtevati zaštitu zbog toga) pomorsku mobilnu VHF radio-komunikacionu službu. (WRC-07)

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

**5.4C02** *Dodatna namena:* opsezi 161.9625-161.9875 MHz i 162.0125-162.0375 MHz su takođe namenjeni mobilnoj satelitskoj službi (Zemlja-svemir) na sekundarnoj osnovi za prijem emisija automatskog identifikacionog sistema (AIS) od stanica koje rade u pomorskoj-mobilnoj službi (vidi Apendiks **18**). (WRC-07)

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

**5.237** *Dodatna namena:* u Republici Kongo, Eritreji, Etiopiji, Gambiji, Gvineji, Libijskoj Arapskoj Džamahiriji, Malaviju, Maliju, Sijera Leoneu, Somaliji i Čadu, opseg 174-223 MHz je takođe namenjen fiksnoj i mobilnoj službi na sekundarnoj osnovi. (WRC-07)

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

**5.256** Frekvenciju 243 MHz koriste stanice objekata za spašavanje kao i uređaji koji se koriste u svrhe spašavanja. (WRC-07)

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

**5.259** *Dodatna namena:* u Egiptu, Izraelu i Sirijskoj Arapskoj Republici, opseg 328.6-335.4 MHz je takođe namenjen mobilnoj službi na sekundarnoj osnovi, po sporazumu postignutom prema No. **9.21**. Da bi se osiguralo da se ne prave štetne smetnje stanicama vazduhoplovne radio-



navigacione službe, stanice mobilne službe ne smeju se puštati u rad u navedenom opsegu dokle god navedeni opseg koristi vazduhoplovna radio-navigaciona služba bilo koje administracije što može da se vidi prilikom primene procedure prema No. **9.21**. (WRC-07)

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

**335.4-410 MHz**

Namene službama		
Region 1	Region 2	Region 3
...		
<b>387-390</b>	FIKSNA MOBILNA Mobilna satelitska (svemir-Zemlja) 5.208A 5.254 5.255 MOD 5.347A	
...		
<b>400.15-401</b>	METEOROLOŠKA POMOĆNA MOBILNA SATELITSKA (svemir-Zemlja) MOBILNA SATELITSKA (svemir-Zemlja) ISTRAŽIVANJE SVEMIRA (svemir-Zemlja) 5.263 Operacije u svemiru (svemir-Zemlja) 5.262 5.264	

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

**5.262** *Dodatna namena:* u Saudijskoj Arabiji, Jermeniji, Azerbejdžanu, Bahreinu, Belorusiji, Bocvani, Kolumbiji, Kosta Riki, Kubi, Egiptu, Ujedinjenim Arapskim Emiratima, Ekvadoru, Ruskoj Federaciji, Gruziji, Mađarskoj, Iranu (Islamskoj Republici), Iraku, Izraelu, Jordanu, Kazahstanu, Kuvajtu, Liberiji, Maleziji, Moldaviji, Uzbekistanu, Pakistanu, Filipinima, Kataru, Sirijskoj Arapskoj Republici, Kirgistanu, Rumuniji, Singapuru, Somaliji, Tadžikistanu, Turkmenistanu i Ukrajini, opseg 400.05-401 MHz je takođe namenjen fiksnoj i mobilnoj službi na primarnoj osnovi. (WRC-07)

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

**5.266** Korišćenje opsega 406-406.1 MHz od strane mobilne satelitske službe ograničeno je na satelitske radio-farove male snage za označavanje mesta udesa (vidi takođe Član **31**). (WRC-07)

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

**410-460 MHz**

Namene službama								
Region 1			Region 2			Region 3		
<b>450-455</b>			FIKSNA MOBILNA ADD 5.XXX 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E					
<b>455-456</b> FIKSNA MOBILNA ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E			<b>455-456</b> FIKSNA MOBILNA ADD 5.XXX MOBILNA SATELITSKA (Zemlja-svemir) 5.286A 5.286B 5.286C  5.209			<b>455-456</b> FIKSNA MOBILNA ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E		
<b>456-459</b>			FIKSNA MOBILNA ADD 5.XXX 5.271 5.287 5.288					
<b>459-460</b> FIKSNA MOBILNA ADD 5.XXX  5.209 5.271 5.286A 5.286B 5.286C 5.286E			<b>459-460</b> FIKSNA MOBILNA ADD 5.XXX MOBILNA SATELITSKA (Zemlja-svemir) 5.286A 5.286B 5.286C  5.209			<b>459-460</b> FIKSNA MOBILNA 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**

Namene službama								
Region 1			Region 2			Region 3		
<b>456-459</b>			FIKSNA MOBILNA ADD 5.xxx 5.271 MOD 5.287 5.288					

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

**5.271** *Dodatna namena:* u Belorusiji, Kini, Indiji, Kirgistanu i Turkmenistanu, opseg 420-460 MHz je takođe namenjen vazduhoplovnoj radio-navigacionoj službi (radio-visinomeri) na sekundarnoj osnovi. (WRC-07)

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

**5.275** *Dodatna namena:* u Hrvatskoj, Estoniji, Finskoj, Libijskoj Arapskoj Džamahiriji, Makedoniji (Bivšoj Jugoslovenskoj Republici), Crnoj Gori, Srbiji i Sloveniji, opsezi 430-432 MHz i 438-440 MHz su takođe namenjeni fiksnoj i mobilnoj, osim vazduhoplovne mobilne, službi na primarnoj osnovi. (WRC-07)

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

**5.276** *Dodatna namena:* u Avganistanu, Alžiru, Saudijskoj Arabiji, Bahreinu, Bangladešu, Brunej Darusalamu, Burkini Faso, Burundiju, Egiptu, Ujedinjenim Arapskim Emiratima, Ekvadoru, Eritreji, Etiopiji, Grčkoj, Gvineji, Indiji, Indoneziji, Iranu (Islamskoj Republici), Iraku, Izraelu, Italiji, Libijskoj Arapskoj Džamahiriji, Jordanu, Keniji, Kuvajtu, Libanu, Maleziji, Malti, Nigeriji, Omanu, Pakistanu, Filipinima, Kataru, Sirijskoj Arapskoj Republici, Severnoj Koreji, Singapuru,

Somaliji, Švajcarskoj Tanzaniji, Tajlandu, Togou, Turskoj i Jemenu, opseg 430-440 MHz je takođe namenjen fiksnoj službi na primarnoj osnovi i opsezi 430-435 MHz i 438-440 MHz su takođe namenjeni mobilnoj, izuzev vazduhoplovne mobilne, službi na primarnoj osnovi. (WRC-07)

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

**5.277** *Dodatna namena:* u Angoli, Jermeniji, Azerbejdžanu, Belorusiji, Kamerunu, Republici Kongo, Džibutiju, Ruskoj Federaciji, Gruziji, Mađarskoj, Izraelu, Kazahstanu, Maliju, Moldaviji, Mongoliji, Uzbekistanu, Poljskoj, Kirgistanu, Slovačkoj, Rumuniji, Ruandi, Tadžikistanu, Čadu, Turkmenistanu i Ukrajini, opseg 430-440 MHz je takođe namenjen fiksnoj službi na primarnoj osnovi. (WRC-07)

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

**5.280** U Nemačkoj, Austriji, Bosni i Hercegovini, Hrvatskoj, Makedoniji (Bivšoj Jugoslovenskoj Republici), Lihtenštajnu, Crnoj Gori, Portugalu, Srbiji, Sloveniji i Švajcarskoj, opseg 433.05-434.79 MHz (centralna frekvencija 433.92 MHz) je određen za primenu u industriji, nauci i medicini (ISM). Radio-komunikacione službe koja rade u ovom opsegu moraju da prihvate štetne smetnje koje mogu biti prouzrokovane ovim primenama. ISM uređaji koji rade u ovom opsegu su definisani u odredbama No.15.13. (WRC-07)

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

**5.286D** *Dodatna namena:* u Kanadi, SAD-u i Panami, opseg 454-455 MHz je takođe namenjen mobilnoj satelitskoj službi (Zemlja-svemir) na primarnoj osnovi. (WRC-07)

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

**5.286E** *Dodatna namena:* u Zelenortskim Ostrvima, Nepal u i Nigeriji, opsezi 454-456 MHz i 459-460 MHz su takođe namenjeni mobilnoj satelitskoj (Zemlja-svemir) službi na primarnoj osnovi. (WRC-07)

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

**460-890 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>460-470</b>	FIKSNA MOBILNA ADD 5.XXX Meteorološko satelitska (svemir-Zemlja) MOD 5.287 5.288 5.289 5.290	

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

**5.XXX** Opseg 450-470 MHz je predviđen za korišćenje za administracije koje žele da primene Međunarodne Mobilne Telekomunikacije (IMT). Vidi Rezoluciju **224 (Rev.WRC-07)**. Ovo ne sprečava korišćenje ovih opsega za bilo koju drugu primenu ili službu kojima su dodeljeni i ne utvrđuje prioritet u Pravilniku o radio-komunikacijama.

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

**5.287** U pomorskoj mobilnoj službi, frekvencije 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz i 467.575 MHz mogu se koristiti za komunikacije između stanica na palubi broda. Kada je potrebno, uređaji podešeni za rad sa kanalnim razmakom od 12,5 kHz mogu se koristiti za komunikacije na palubi broda na dodatnim frekvencijama 457.5375 MHz, 457.5625 MHz, 467.5375 MHz i 467.5625 MHz. Korišćenje ovih frekvencija u teritorijalnim vodama je predmet nacionalne regulative

odnosne administracije. Karakteristike uređaja treba da su u saglasnosti sa karakteristikama koji su specificirane u Preporuci ITU-R M.1174-2. (WRC-07)

**MOD** (R9/425/1)

Namene službama		
Region 1	Region 2	Region 3
<b>470-790</b> RADIODIFUZNA  5.149 5.291A 5.294 5.296 5.300 5.302 5.304 5.306 ADD 5.311A 5.312	<b>470-512</b> RADIODIFUZNA Fiksna Mobilna 5.292 MOD 5.293  <b>512-608</b> RADIODIFUZNA 5.297  <b>608-614</b> RADIO-ASTRONOMSKA Mobilna satelitska izuzev vazduhoplovne mobilne satelitske (Zemlja-svemir)  <b>614-698</b> RADIODIFUZNA Fiksna Mobilna  MOD 5.293 5.309 ADD 5.311A	<b>470-585</b> FIKSNA MOBILNA RADIO-DIFUZNA 5.291 5.298  <b>585-610</b> FIKSNA MOBILNA RADIODIFUZNA RADIO-NAVIGACIJSKA 5.149 5.305 5.306 5.307  <b>610-890</b> FIKSNA MOBILNA MOD 5.317A ADD 5.YYY RADIODIFUZNA
	<b>698-806</b> RADIODIFUZNA Fiksna MOBILNA MOD 5.317A ADD 5.UUU  MOD 5.293 5.309 ADD 5.311A	
	<b>790-862</b> FIKSNA RADIODIFUZNA MOBILNA izuzev vazduhoplovne mobilne ADD 5.XXX MOD 5.317A 5.312 5.314 5.315 MOD 5.316 ADD 5.316A 5.319	<b>806-890</b> FIKSNA MOBILNA MOD 5.317A RADIODIFUZNA  5.317 5.318
<b>862-890</b> FIKSNA MOBILNA izuzev vazduhoplovne mobilne MOD 5.317A RADIODIFUZNA 5.322  5.319 5.323		

**MOD** COM5/264/49 (B6/268/53) (R3/292/53)

**5.290** *Različite kategorije službi:* u Avganistanu, Azerbejdžanu, Belorusiji, Kini, Ruskoj Federaciji, Japanu, Mongoliji, Kirgistanu, Slovačkoj, Tadžikistanu, Turkmenistanu i Ukrajini, opseg 460-470 MHz namenjen je meteorološkoj satelitskoj službi (svemir-Zemlja) na primarnoj osnovi (vidi No. **5.33**), po sporazumu postignutom prema No. **9.21**. (WRC-07)

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

**5.292** *Različite kategorije službi:* u Meksiku je opseg 470-512 MHz namenjen fiksnoj i mobilnoj službama, a u Argentini, Urugvaju i Venecueli mobilnoj službi, na primarnoj osnovi (vidi No. **5.33**), po sporazumu postignutom prema No. **9.21**. (WRC-07)

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

**5.293** *Različite kategorije službi:* u Kanadi, Čileu, Kolumbiji, Kubi, SAD-u, Gvajani, Hondurasu, Jamajki, Meksiku, Panami i Peruu, namena opsega 470-512 MHz i 614-806 MHz za fiksnu službu je na primarnoj osnovi (vidi No. **5.33**), po sporazumu postignutom prema No. **9.21**. U Kanadi, Čileu, Kolumbiji, Kubi, SAD-u, Gvajani, Hondurasu, Jamajki, Meksiku, Panami i Peruu, namena opsega 470-512 MHz i 614-698 MHz mobilnoj službi je na primarnoj osnovi (vidi No. **5.33**), po sporazumu postignutom prema No. **9.21**. U Argentini i Ekvadoru, namena opsega 470-512 MHz za fiksnu i mobilnu službu je na primarnoj osnovi (vidi No. **5.33**), po sporazumu postignutom prema No. **9.21**. (WRC-07)

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

**5.294** *Dodatna namena:* u Saudijskoj Arabiji, Burundiju, Kamerunu, Obali Slonovače, Egiptu, Etiopiji, Izraelu, Libijskoj Arapskoj Džamahiriji, Keniji, Malaviju, Sirijskoj Arapskoj Republici, Sudanu, Čadu i Jemenu, opseg 470-582 MHz je takođe namenjen fiksnoj službi na sekundarnoj osnovi. (WRC-07)

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

**5.296** *Dodatna namena:* u Nemačkoj, Saudijskoj Arabiji, Austriji, Belgiji, Obali Slonovače, Danskoj, Egiptu, Španiji, Finskoj, Francuskoj, Irskoj, Izraelu, Italiji, Libijskoj Arapskoj Džamahiriji, Jordanu, Litvaniji, Malti, Maroku, Monaku, Norveškoj, Omanu, Holandiji, Portugalu, Sirijskoj Arapskoj Republici, Velikoj Britaniji, Švedskoj, Švicarskoj, Svazilendu i Tunisu, opseg 470-790 MHz je takođe namenjen na sekundarnoj osnovi kopnenoj mobilnoj službi, namenjenoj za aplikacije vezane za radiodifuziju. Stanice kopnene mobilne službe u zemljama navedenim u ovoj fusnoti ne smeju ometati postojeće ili planirane stanice koje rade u saglasnosti sa Tabelom namene u zemljama koje nisu navedene u ovoj fusnoti. (WRC-07)

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

**5.297** *Dodatna namena:* u Kanadi, Kosta Riki, Kubi, El Salvadoru, SAD-u, Gvatemali, Gvajani, Hondurasu, Jamajki i Meksiku, opseg 512-608 MHz je takođe namenjen fiksnoj i mobilnoj službi na primarnoj osnovi, po sporazumu postignutom prema No. **9.21**. (WRC-07)

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

**5.300** *Dodatna namena:* u Saudijskoj Arabiji, Egiptu, Izraelu, Libijskoj Arapskoj Džamahiriji, Jordanu, Omanu, Sirijskoj Arapskoj Republici i Sudanu, opseg 582-790 MHz je takođe namenjen fiksnoj i mobilnoj izuzev vazduhoplovne mobilne službama na sekundarnoj osnovi. (WRC-07)

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

**5.311**

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

**5.311A** Za frekvencijski opseg 620-790 MHz, vidi takođe Rezoluciju [**COM4/1**] (**WRC-07**).

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

**5.311A** Za frekvencijski opseg 620-790 MHz, vidi takođe Rezoluciju [**COM4/1**] (**WRC-07**).

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

**5.314** *Dodatna namena:* u Austriji, Italiji, Moldaviji, Uzbekistanu, Kirgiziji, Velikoj Britaniji i Svazilendu, opseg 790-862 MHz je takođe namenjen kopненоj mobilnoj službi na sekundarnoj osnovi. (WRC-07)

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

**5.316** *Dodatna namena:* u Nemačkoj, Saudijskoj Arabiji, Bosni i Hercegovini, Burkini Faso, Kamerunu, Obali Slonovače, Hrvatskoj, Danskoj, Egiptu, Finskoj, Grčkoj Izraelu, Libijskoj Arapskoj Džamahiriji, Jordanu, Keniji, Makedoniji (Bivšoj Jugoslovenskoj Republici), Lihtenštajnu, Maliju, Monaku, Crnoj Gori, Norveškoj, Holandiji, Portugalu, Velikoj Britaniji, Sirijskoj Arapskoj Republici, Srbiji, Švedskoj i Švicarskoj, opseg 790-830 MHz, a takođe u tim zemljama plus Španiji, Francuskoj, Gabonu i Malti, opseg 830-862 MHz, namenjeni su mobilnoj izuzev vazduhoplovne mobilne službi na primarnoj osnovi. Naravno, stanice mobilne službe u zemljama spomenutim u vezi sa odgovarajućim opsegom u ovoj fusnoti ne smeju ometati ( niti zahtevati zaštitu zbog toga ) stanice službi koje rade u saglasnosti sa Tabelom namene u zemljama koje nisu pomenute u vezi sa tim opsegom. Ova namena važi do 16.06.2015. (WRC-07)

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

**5.YYY** Opseg, ili položaj opsega, u Bangladešu, Južnoj Koreji, Indiji, Japanu, Novom Zelandu, Papui Novoj Gvineji, Filipinima i Singapuru je predviđen za korišćenje administracijama koje žele da implementuju IMT. Ovo ne sprečava korišćenje ovih opsega za bilo koju drugu primenu ili službu kojima su dodeljeni i ne utvrđuje prioritet u Pravilniku o radio-komunikacijama. (WRC-07)

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

**5.316A** *Dodatna namena:* u Angoli, Bahreinu, Beninu, Bocvani, Kamerunu, Republici Kongo, Francuskim Prekomorskim Teritorijama, Gambiji, Gani, Gvineji, Kuvajtu, Lesotu, Malaviju, Maroku, Mauritaniji, Mozambiku, Namibiji, Nigeru, Omanu, Ugandi, Poljskoj, Kataru, Ruandi, Senegal, Sudanu, Južnoj Africi, Svazilendu, Tanzaniji, Čadu, Togou, Jemenu, Zambiji i Zimbabveu opseg 790-862 MHz u Španiji, Francuskoj, Gabonu i Malti i u Litvaniji opseg 830-862 MHz i u Gruziji opseg 806-862 MHz su takođe namenjeni mobilnoj izuzev vazduhoplovne mobilne službi na primarnoj osnovi po sporazumu zainteresovanih administracija postignutom prema No. **9.21** i prema Ženeva-06 Sporazumu, na odgovarajući način, uključujući administracije spomenute u No. **5.312** gde je shodno. Međutim, stanice mobilne službe u zemljama spomenutim u vezi sa odgovarajućim opsegom u ovoj fusnoti ne smeju ometati (niti zahtevati zaštitu zbog toga) stanice službi koje rade u saglasnosti sa Tabelom namene u zemljama koje nisu pomenute u vezi sa opsegom. Ova namena važi do 16.06.2015. Dodela frekvencija ove namene mobilnoj službi u Litvaniji i Poljskoj ne sme biti korišćena bez saglasnosti Ruske Federacije. (WRC-07)

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

**5.317A** Oni delovi opsega 698-960 MHz u Regionu 2 i opseg 790-960 MHz u Regionima 1 i 3 koji su namenjeni mobilnoj službi na primarnoj osnovi predviđeni su za korišćenje za administracije koje žele da implementuju IMT. Vidi Rezoluciju **224 (Rev.WRC-07)** i Rezoluciju [**COM4/13**] (**WRC-07**). Ovo ne sprečava korišćenje ovih opsega za bilo koju drugu primenu ili službu kojima su dodeljeni i ne utvrđuje prioritet u Pravilniku o radio-komunikacijama. (WRC-07)

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

**5.XXX** U Regionu 1, namena mobilnoj izuzev vazduhoplovne mobilne službe na primarnoj osnovi u frekventijskom opsegu 790-862 MHz treba da postane efektivna posle 17.06.2015. i mora da bude predmet sporazuma postignutom prema No. **9.21**, a imajući obzira prema vazduhoplovnoj radio-navigacijskoj službi u zemljama spomenutim u No. **5.312**. Za zemlje koje učestvuju u GE06 Sporazumu, korišćenje stanica mobilne službe je takođe predmet uspešne primene procedura ovog Sporazuma. Rezolucija **224 (Rev.WRC-07)** i Rezolucija [**COM4/13 (Rev.WRC-07)**] treba da se primene. (WRC-07)

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

**5.UUU** *Različite kategorije službi:* u Brazilu, namena opsega 698-806 MHz mobilnoj službi je na sekundarnoj osnovi (vidi No. **5.32**).

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

**5.321**

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

**5.323** *Dodatna namena:* u Jermeniji, Azerbejdžanu, Belorusiji, Bugarskoj, Ruskoj Federaciji, Mađarskoj, Kazahstanu, Moldaviji, Uzbekistanu, Poljskoj, Kirgistanu, Rumuniji, Tadžikistanu, Turkmenistanu i Ukrajini, opseg 862-960 MHz je takođe namenjen vazduhoplovnoj radio-navigacijskoj službi na primarnoj osnovi. Ovo korišćenje je predmet sporazuma postignutom prema No. **9.21** sa zainteresovanim administracijama i ograničeno je za radio-farove na tlu u radu od 27.10.1997. do kraja njihovog trajanja. (WRC-07)

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

**890-1 300 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>960-1 164</b>	VAZDUHOPLOVNA RADIO-NAVIGACIJSKA 5.328 VAZDUHOPLOVNA MOBILNA (R) ADD 5.4B06	

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

**5.328A** Stanice radio-navigacijskoj satelitskoj službi u opsegu 1 164-1 215 MHz moraju da rade u skladu sa odredbama iz Rezolucije **609 (Rev.WRC-07)** i ne mogu zahtevati zaštitu zbog stanica vazduhoplovne radio-navigacijske službe u opsegu 960-1 215 MHz. No. **5.43A** se ne primenjuje. Odredbe iz No. **21.18** treba da se primene. (WRC-07)

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

**5.328B** Korišćenje opsega 1 164-1 300 MHz, 1 559-1 610 MHz i 5 010-5 030 MHz od strane sistema i mreža radio-navigacijske satelitske službe za koje je kompletnu koordinaciju ili odgovarajuće obaveštenje primio Biro za radio-komunikacije posle 1.01.2005. podleže primeni odredaba iz Nos. **9.12**, **9.12A** i **9.13**. Rezolucija **610 (WRC-03)** treba takođe da se primeni; međutim, u slučaju mreža i sistema radio-navigacione satelitske službe (svemir-svemir), Rezolucija **610 (WRC-03)** se primenjuje samo na predajne svemirske stanice. U saglasnosti sa No. **5.329A**, za sisteme i mreže radio-navigacijske satelitske službe (svemir-svemir) u opsezima 1 215-1 300 MHz i 1 559-1 610 MHz, odredbe iz Nos. **9.7**, **9.12**, **9.12A** i **9.13** primenjuju se samo ako se vodi računa o drugim sistemima i mrežama radio-navigacijske satelitske službe (svemir-svemir). (WRC-07)

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

**5.329A** Korišćenje sistema radio-navigacijske satelitske službe (svemir-svemir) koji rade u opseзима 1 215-1 300 MHz i 1 559-1 610 MHz nema intenciju da omogući primene sigurnosne službe, i ne sme da nameće bilo kakva dodatna ograničenja sistemima radio-navigacijske satelitske službe (svemir-Zemlja) ili drugim službama koje rade u saglasnosti sa Tabelom namene frekvencijskih opsega. (WRC-07)

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

**5.331** *Dodatna namena:* u Alžiru, Nemačkoj, Saudijskoj Arabiji, Australiji, Austriji, Bahreinu, Belorusiji, Belgiji, Beninu, Bosni i Hercegovini, Brazilu, Burkini Faso, Burundiju, Kamerunu, Kini, Južnoj Koreji, Hrvatskoj, Danskoj Egiptu, Ujedinjenim Arapskim Emiratima, Estoniji, Ruskoj Federaciji, Finskoj, Francuskoj, Gani, Grčkoj, Gvineji, Ekvatorijalnoj Gvineji, Mađarskoj, Indiji, Indoneziji, Iranu (Islamskoj Republici), Iraku, Irskoj, Izraelu, Jordanu, Keniji, Kuvajtu, Makedoniji (Bivšoj Jugoslovenskoj Republici), Lesotu, Latviji, Libanu, Lihtenštajnu, Litvaniji, Luksemburgu, Madagaskaru, Maliju, Mauritaniji, Crnoj Gori, Nigeriji, Norveškoj, Omanu, Holandiji, Poljskoj, Portugalu, Kataru, Sirijskoj Arapskoj Republici, Severnoj Koreji, Slovačkoj, Velikoj Britaniji, Srbiji, Sloveniji, Somaliji, Sudanu, Šri Lanki, Južnoj Africi, Švedskoj, Švajcarskoj, Tajlandu, Togou, Turskoj, Venecueli i Vijetnamu, opseg 1 215-1 300 MHz je takođe namenjen radio-navigacijskoj službi na primarnoj osnovi. U Kanadi i SAD-u, opseg 1 240-1 300 MHz je takođe namenjen radio-navigacijskoj službi, i korišćenje za radio-navigacijsku službu treba da bude ograničeno na vazduhoplovno radio-navigacijsku službu. (WRC-07)

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

**5.4B06** Korišćenje opsega 960-1 164 MHz od strane vazduhoplovne mobilne (R) službe ograničeno je na sisteme koji rade u saglasnosti sa priznatim međunarodnim vazduhoplovnim standardima. Takva upotreba mora biti u saglasnosti sa Rezolucijom [COM4/5] (WRC-07). (WRC-07)

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

**1 300-1 525 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>1 350-1 400</b> FIKSNA MOBILNA RADIO-LOKACIJSKA 5.149 5.338 5.339 ADD 5.BA03	<b>1 350-1 400</b> RADIO-LOKACIJSKA ADD 5.BA03  5.149 5.334 5.339	
<b>1 400-1 427</b>	ISTRAŽIVANJE ZEMLJE SATELITOM (pasivno) RADIO-ASTRONOMSKA ISTRAŽIVANJE SVEMIRA (pasivno) 5.340 5.341	
<b>1 427-1 429</b>	SVEMIRSKJE OPERACIJE (Zemlja-svemir) FIKSNA MOBILNA osim vazduhoplovne mobilne 5.341 ADD 5.BA03	
<b>1 429-1 452</b> FIKSNA MOBILNA osim vazduhoplovne mobilne 5.341 5.342 ADD 5.BA03	<b>1 429-1 452</b> FIKSNA MOBILNA 5.343  5.341 ADD 5.BA03	



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

**1 300-1 525 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>1 452-1 492</b> FIKSNA MOBILNA osim vazduhoplovne mobilne RADIODIFUZNA 5.345 RADIODIFUZNA SATELITSKA 5.345 5.347A 5.341 5.342	<b>1 452-1 492</b> FIKSNA MOBILNA 5.343 RADIODIFUZNA 5.345 RADIODIFUZNA SATELITSKA 5.345 5.347A  5.341 5.344	

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

**1 300-1 525 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>1 518-1 525</b> FIKSNA MOBILNA osim vazduhoplovne mobilne MOBILNA SATELITSKA (svemir-Zemlja) 5.348 5.348A 5.348B MOD 5.351A 5.341 5.342	<b>1 518-1 525</b> FIKSNA MOBILNA 5.343 MOBILNA SATELITSKA (svemir-Zemlja) 5.348 5.348A 5.348B MOD 5.351A  5.341 5.344	<b>1 518-1 525</b> FIKSNA MOBILNA MOBILNA SATELITSKA (svemir-Zemlja) 5.348 5.348A 5.348B MOD 5.351A  5.341

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

**5.338** U Mongoliji, Kirgistanu, Slovačkoj, Češkoj Republici i Turkmenistanu, postojeće instalacije radio-navigacijske službe mogu da nastave s radom u opsegu 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**

U opsezima:

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,

Rezolucija **739 (Rev.WRC-07)** se primenjuje. (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**

Namene službama		
Region 1	Region 2	Region 3
<b>1 559-1 610</b>	VAZDUHOPLOVNA RADIO-NAVIGACIJSKA RADIO-NAVIGACIJSKA-SATELITSKA (svemir -Zemlja) (svemir - svemir) 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** *Različite kategorije službi:* u Saudijskoj Arabiji, Azerbejdžanu, Bahreinu, Kamerunu, Egiptu, Francuskoj, Iranu (Islamskoj Republici), Iraku, Izraelu, Kazahstanu, Kuvajtu, Makedoniji (Bivšoj Jugoslovenskoj Republici), Maroku, Kataru, Sirijskoj Arapskoj Republici, Kirgistanu, Turkmenistanu i Jemenu, opseg 1 525-1 530 MHz namenjen je mobilnoj izuzev vazduhoplovne mobilne službi na primarnoj osnovi (vidi No. **5.33**). (WRC-07)

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

**5.351A** Za korišćenje opsega 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 i 2 670-2 690 MHz za mobilnu satelitsku službu, vidi Rezoluciju **212 (Rev.WRC-07)** i **225 (Rev.WRC-07)**. (WRC-07)

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

**5.359** *Dodatna namena:* u Nemačkoj, Saudijskoj Arabiji, Jermeniji, Austriji, Azerbejdžanu, Belorusiji, Beninu, Bugarskoj, Kamerunu, Španiji, Ruskoj Federaciji, Francuskoj, Gabonu, Gruziji, Grčkoj, Gvineji, Gvineji-Bisao, Libijskoj Arapskoj Džamahiriji, Jordanu, Kazahstanu, Kuvajtu, Libanu, Litvaniji, Mauritaniji, Moldaviji, Ugandi, Uzbekistanu, Pakistanu, Poljskoj, Sirijskoj Arapskoj Republici, Kirgistanu, Severnoj Koreji, Rumuniji, Svazilendu, Tadžikistanu, Tanzaniji, Tunisu, Turkmenistanu i Ukrajini, opsezi 1 550-1 559 MHz, 1 610-1 645.5 MHz i 1 646.5-1 660 MHz su takođe namenjeni fiksnoj službi na primarnoj osnovi. Od administracija se zahteva da preduzmu sve praktične korake da se izbegne postavljanje novih stanica fiksne službe u tim opsezima. (WRC-07)

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

**5.362B** *Dodatna namena:* Opseg 1 559-1 610 MHz je takođe namenjen fiksnoj službi na primarnoj osnovi do 1.01.2009. u Alžiru, Saudijskoj Arabiji, Kamerunu, Libijskoj Arapskoj Džamahiriji, Jordanu, Maliju, Mauritaniji, Sirijskoj Arapskoj Republici i Tunisu. Posle tog datuma, fiksna služba može da nastavi rad na sekundarnoj osnovi do 1.01.2015. kada ova namena neće više važiti. Opseg 1 559-1 610 MHz je takođe namenjen fiksnoj službi na sekundarnoj osnovi u Alžiru, Nemačkoj, Jermeniji, Azerbejdžanu, Belorusiji, Beninu, Bugarskoj, Španiji, Ruskoj Federaciji, Francuskoj, Gabonu, Gruziji, Gvineji, Gvineji Bisao, Kazahstanu, Litvaniji, Moldaviji, Nigeriji, Ugandi, Uzbekistanu, Pakistanu, Poljskoj, Kirgistanu, Severnoj Koreji, Rumuniji, Senegalu, Svazilendu, Tadžikistanu, Tanzaniji, Turkmenistanu i Ukrajini do 1.01.2015., kada ova namena neće više važiti. Od administracija se zahteva da preduzmu sve praktične korake da zaštite radio-navigacionu satelitsku službu i vazduhoplovnu radio-navigacionu službu i da ne odobravaju nove dodele frekvencija fiksnoj službi u tom opsegu. (WRC-07)

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

**5.362C** *Dodatna namena:* u Republici Kongo, Egiptu, Eritreji, Iraku, Izraelu, Jordanu, Malti, Kataru, Sirijskoj Arapskoj Republici, Somaliji, Sudanu, Čadu, Togou i Jemenu, opseg 1 559-1 610 MHz je takođe namenjen fiksnoj službi na sekundarnoj osnovi do 1.01.2015., kada ova namena više neće važiti. Od administracija se zahteva da preduzmu sve praktične korake da se zaštiti radio-navigacijska satelitska služba i da se ne odobravaju nove dodele frekvencija sistemima fiksne službe u tom opsegu. (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**

Namene službama		
Region 1	Region 2	Region 3
<b>1 668-1 668.4</b>	MOBILNA SATELITSKA (Zemlja-svemir) MOD 5.351A MOD 5.379B 5.379C RADIO-ASTRONOMSKA ISTRAŽIVANJE SVEMIRA (pasivno) Fiksna Mobilna osim vazduhoplovne mobilne 5.149 5.341 5.379 5.379A	
<b>1 668.4-1 670</b>	METEOROLOŠKA POMOĆNA FIKSNA MOBILNA izuzev vazduhoplovne mobilne MOBILNA SATELITSKA (Zemlja-svemir) MOD 5.351A MOD 5.379B 5.379C RADIO-ASTRONOMSKA 5.149 5.341 MOD 5.379D 5.379E	
<b>1 670-1 675</b>	METEOROLOŠKA POMOĆNA FIKSNA METEOROLOŠKA SATELITSKA (svemir-Zemlja) MOBILNA 5.380 MOBILNA SATELITSKA (Zemlja-svemir) 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** Korišćenje opsega 1 668-1 675 MHz od strane mobilne satelitske službe podleže koordinaciji prema No. **9.11A**. U opsegu 1 668-1 668.4 MHz, Rezolucija [**COM5/1**] (**WRC-07**) treba da se primeni. (WRC-07)

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

**5.379D** Zajednički rad mobilne satelitske službe i fiksne i mobilne službe, u opsegu 1668-1675 MHz je na osnovu regulative sadržane u Rezoluciji **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)

**5.380A** U opsegu 1670-1675 MHz stanice u mobilnoj satelitskoj službi neće ometati niti ograničavati razvoj, postojećim zemaljskim stanicama u meteorološkoj satelitskoj službi koje su notifikovane pre 1.01.2004. Svaka nova dodela pomenutim zemaljskim stanicama u tom opsegu takođe mora da bude zaštićena od ometanja od stanica mobilne satelitske službe. (WRC-07)

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

**5.382** *Različite kategorije službi:* u Saudijskoj Arabiji, Jermeniji, Azerbejdžanu, Bahreinu, Belorusiji, Republici Kongo, Egiptu, Ujedinjenin Arapskim Emiratima, Eritreji, Etiopiji, Ruskoj Federaciji, Gvuneji, Iraku, Izraelu, Jordanu, Kazahstanu, Kuvajtu, Makedoniji (Bivšoj Jugoslovenskoj Republici), Libanu, Mauritaniji, Moldaviji, Mongoliji, Omanu, Uzbekistanu, Poljskoj, Kataru, Sirijskoj Arapskoj Republici, Kirgistanu, Srbiji, Somaliji, Tadžikistanu, Tanzaniji, Turkmenistanu, Ukrajini i Jemenu, namena opsega 1 690-1 700 MHz fiksnoj i mobilnoj osim vazduhoplovne mobilne službama je na primarnoj osnovi (vidi No. **5.33**), i u Severnoj Koreji,

namena opsega 1 690-1 700 MHz je na primarnoj osnovi (vidi No. **5.33**) i mobilnoj izuzev vazduhoplovne mobilne službe na sekundarnoj osnovi. (WRC-07)

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

**1 710-2 170 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>1 710-1 930</b>	FIKSNA MOBILNA 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** Opsezi, ili delovi opsega 1 710-1 885 MHz, 2 300-2 400 MHz i 2 500-2 690 MHz su određeni za korišćenje za administracije koje žele da primene sistem Međunarodnih mobilnih telekomunikacija (IMT) u skladu sa Rezolucijom **223 (Rev.WRC-07)**. Ovo ne sprečava korišćenje ovih opsega za bilo koju drugu primenu ili službu kojima su dodeljeni i ne utvrđuje prioritet po Pravilniku o radio-komunikacijama. (WRC-07).

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

**5.387** *Dodatna namena:* u Belorusiji, Gruziji, Kazahstanu, Mongoliji, Kirgistanu, Slovačkoj, Rumuniji, Tadžikistanu i Turkmenistanu, opseg 1 770-1 790 MHz je takođe namenjen meteorološkoj satelitskoj službi na primarnoj osnovi, po sporazumu postignutom prema No. **9.21**. (WRC-07)

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

**1 710-2 170 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>2 010-2 025</b> FIKSNA MOBILNA 5.388A 5.388B  5.388 ...	<b>2 010-2 025</b> FIKSNA MOBILNA MOBILNA SATELITSKA (Zemlja-svemir)  5.388 5.389C 5.389E	<b>2 010-2 025</b> FIKSNA MOBILNA 5.388A 5.388B  5.388
<b>2 160-2 170</b> FIKSNA MOBILNA 5.388A 5.388B  5.388 5.392A	<b>2 160-2 170</b> FIKSNA MOBILNA MOBILNA SATELITSKA (svemir-Zemlja)  5.388 5.389C 5.389E	<b>2 160-2 170</b> FIKSNA MOBILNA 5.388A 5.388B  5.388

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

**5.389A** Korišćenje opsega 1 980-2 010 MHz i 2 170-2 200 MHz od strane mobilne satelitske službe podleže koordinaciji prema No. **9.11A** i odredbama Rezolucije **716 (Rev.WRC-2000)**. (WRC-07)

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

**5.389C** Korišćenje opsega 2 100-2 170 MHz i 2 160-2 170 MHz u Regionu 2 od strane mobilne satelitske službe podleže koordinaciji prema No. **9.11A** i odredbama Rezolucije **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**

Namene službama		
Region 1	Region 2	Region 3
<b>2 300-2 450</b> FIKSNA MOBILNA Amaterska Radio-lokacijska 5.150 5.282 MOD 5.384A 5.395	<b>2 300-2 450</b> FIKSNA MOBILNA RADIO-LOKACIJSKA Amaterska 5.150 5.282 MOD 5.393 MOD 5.394 5.396	
<b>2 450-2 483.5</b> FIKSNA MOBILNA Radio-lokacijska 5.150 5.397	<b>2 450-2 483.5</b> FIKSNA MOBILNA RADIO-LOKACIJSKA 5.150	

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

**2 170-2 520 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>2 500-2 520</b> FIKSNA MOD 5.410 MOBILNA izuzev vazduhoplovne mobilne 5.384A  5.405 5.412	<b>2 500-2 520</b> FIKSNA MOD 5.410 FIKSNA SATELITSKA (svemir-Zemlja) 5.415 MOBILNA izuzev vazduhoplovne mobilne 5.384A  5.404	<b>2 500-2 520</b> FIKSNA MOD 5.410 FIKSNA SATELITSKA (svemir-Zemlja) 5.415 MOBILNA izuzev vazduhoplovne mobilne 5.384A MOBILNA SATELITSKA (svemir-Zemlja) 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** *Dodatna namena:* u Kanadi, SAD-u, Indiji i Meksiku, opseg 2 310-2 360 MHz je takođe namenjen radiodifuznoj satelitskoj službi (zvuk) i komplementarnoj zemaljskoj radiodifuznoj službi (zvuk) na primarnoj osnovi. Takva upotreba ograničena je na digitalno emitovanje zvuka u radiodifuziji i podleže odredbama Rezolucije **528 (Rev.WRC-03)**, sa izuzetkom *odlučuje* 3 s obzirom na ograničenje kod radiodifuznih satelitskih sistema u gornjih 25 MHz. (WRC-07)

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

**5.394** U SAD-u, korišćenje opsega 2 300-2 390 MHz od strane mobilne službe za telemetriju ima prioritet u odnosu na druga korišćenja mobilne službe. U Kanadi, korišćenje opsega 2 360-2 400 MHz vazduhoplovne mobilne službe za telemetriju ima prioritet u odnosu na druga korišćenja mobilne službe. (WRC-07)

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

**5.403** Po sporazumu postignutom prema No. **9.21**, opseg 2 520-2 535 MHz može takođe da se koristi za mobilnu satelitsku (svemir-Zemlja) izuzev vazduhoplovne mobilne satelitske službu za rad ograničen unutar nacionalnih granica. Odredbama iz No. **9.11A** treba da se primene. (WRC-07)

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

#### 5.409

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

**5.410** Opseg 2 500-2 690 MHz može da se koristi za sisteme koji koriste troposfersko rasipanje u Regionu 1, po sporazumu postignutom prema No. **9.21**. Od administracija se zahteva da preduzmu sve praktične korake da se izbegne razvoj novih sistema u tom opsegu koji koriste troposfersko rasipanje. Kod planiranja novih radio-relejnih veza u tom opsegu koji koriste troposfersko rasipanje, moraju se preduzeti sve potrebne mere da se izbegne usmeravanje antena ovih linkova prema orbiti geostacionarnih satelita. (WRC-07)

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

#### 5.411

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

**5.412** *Dodatna namena:* u Azerbejdžanu, Kirgistanu i Turkmenistanu, opseg 2 500-2 690 MHz namenjen je fiksnoj i mobilnoj izuzev vazduhoplovne mobilne službama na primarnoj osnovi. (WRC-07)

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

**5.414** Namena frekvencijskog opsega 2 500-2 520 MHz za mobilnu satelitsku službu (svemir-Zemlja) podleže koordinaciji prema No. **9.11A**. (WRC-07)

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

**5.415** Korišćenje opsega 2 500-2 690 MHz u Regionu 2 i 2 500-2 535 MHz i 2 655-2 690 MHz u Regionu 3 od strane fiksne satelitske službe ograničeno je na nacionalne i regionalne sisteme, po sporazumu postignutom prema No. **9.21**, obraćajući naročito pažnju na radiodifuznu satelitsku službu u Regionu 1. (WRC-07)

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

**5.4A01** U Japanu i Indiji, korišćenje opsega 2 500-2 520 MHz i 2 520-2 535 MHz, prema No. **5.403**, od strane satelitskih mreža u mobilnoj satelitskoj službi (svemir-Zemlja) ograničeno je na rad unutar nacionalnih granica, i predmet su primene procedure prema No. **9.11A**. Sledeće (pfd) vrednosti moraju da se uzmu kao prag za koordinaciju prema No. **9.11A**, za sve uslove i sve metode modulacije, u oblasti od 1 000 km oko teritorije administracije koje imaju notifikovane mobilne satelitske mreže:

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

gde je  $\theta$  upadni ugao (u stepenima) radio-frekvencijskog talasa u odnosu na horizontalnu ravan. Izvan te oblasti primenjuje se Tabela 21-4 Člana 21. Nadalje, pragovi koordinacije u Tabeli 5-2 Aneksa 1 Apendiksa 5 Pravilnika o radio-komunikacijama (izdanje od 2004.), u vezi sa odgovarajućim odredbama iz Člana 9 i 11 zajedno sa No. 9.11A, moraju da se primenjuju na sisteme za koje je kompletna informacija o notifikaciji primljena u Biro za radio-komunikacije do 14.07.2007. i da je uvedeno u upotrebu do tog datuma. (WRC-07)

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

**2 520-2 700 MHz**

<b>Namene službama</b>		
<b>Region 1</b>	<b>Region 2</b>	<b>Region 3</b>
<p><b>2 520-2 655</b>                      FIKSNA MOD 5.410                      MOBILNA izuzev vazduhoplovne mobilne 5.384A                      RADIODIFUZNA SATELITSKA 5.413 MOD 5.416</p> <p>5.339 5.405 5.412                      5.417C 5.417D 5.418B 5.418C</p>	<p><b>2 520-2 655</b>                      FIKSNA MOD 5.410                      FIKSNA SATELITSKA (svemir Zemlja) 5.415                      MOBILNA izuzev vazduhoplovne mobilne 5.384A                      RADIODIFUZNA SATELITSKA 5.413 MOD 5.416</p> <p>5.339 5.417C 5.417D 5.418B 5.418C</p>	<p><b>2 520-2 535</b>                      FIKSNA MOD 5.410                      FIKSNA SATELITSKA (svemir Zemlja) 5.415                      MOBILNA izuzev vazduhoplovne mobilne 5.384A                      RADIODIFUZNA SATELITSKA 5.413 MOD 5.416                      5.403 5.415A ADD 5.4A01</p> <p><b>2 535-2 655</b>                      FIKSNA MOD 5.410                      MOBILNA izuzev vazduhoplovne mobilne 5.384A                      RADIODIFUZNA SATELITSKA 5.413 MOD 5.416                      5.339 5.417A 5.417B 5.417C                      5.417D MOD 5.418 5.418A                      5.418B 5.418C</p>
<p><b>2 655-2 670</b>                      FIKSNA MOD 5.410                      MOBILNA izuzev vazduhoplovne mobilne 5.384A                      RADIODIFUZNA SATELITSKA 5.347A 5.413 MOD 5.416                      Istraživanje zemlje satelitom (pasivno)                      RADIO-ASTRONOMSKA Istraživanje svemira (pasivno)</p> <p>5.149 5.412</p>	<p><b>2 655-2 670</b>                      FIKSNA MOD 5.410                      FIKSNA SATELITSKA (Zemlja-svemir) (svemir-Zemlja) 5.347A 5.415                      MOBILNA izuzev vazduhoplovne mobilne 5.384A                      RADIODIFUZNA SATELITSKA 5.347A 5.413 MOD 5.416                      Istraživanje zemlje satelitom (pasivno)                      RADIO-ASTRONOMSKA Istraživanje svemira (pasivno)</p> <p>5.149</p>	<p><b>2 655-2 670</b>                      FIKSNA MOD 5.410                      FIKSNA SATELITSKA (Zemlja-svemir) 5.415                      MOBILNA izuzev vazduhoplovne mobilne 5.384A                      RADIODIFUZNA SATELITSKA 5.347A 5.413 MOD 5.416                      Istraživanje zemlje satelitom (pasivno)                      RADIO-ASTRONOMSKA Istraživanje svemira (pasivno)</p> <p>5.149 5.420</p>



Namene službama		
Region 1	Region 2	Region 3
<b>2 670-2 690</b> FIKSNA MOD 5.410 MOBILNA izuzev vazduhoplovne mobilne 5.384A Istraživanje zemlje satelitom (pasivno) RADIO-ASTRONOMSKA Istraživanje svemira (pasivno)  5.149 5.412	<b>2 670-2 690</b> FIKSNA MOD 5.410 FIKSNA SATELITSKA (Zemlja-svemir)(svemir Zemlja) 5.347A 5.415 MOBILNA izuzev vazduhoplovne mobilne 5.384A Istraživanje zemlje satelitom (pasivno) RADIO-ASTRONOMSKA Istraživanje svemira (pasivno)  5.149	<b>2 670-2 690</b> FIKSNA MOD 5.410 FIKSNA SATELITSKA (Zemlja-svemir) 5.415 MOBILNA izuzev vazduhoplovne mobilne 5.384A MOBILNA SATELITSKA (Zemlja-svemir) 5.351A ADD 5.419 Istraživanje zemlje satelitom (pasivno) RADIO-ASTRONOMSKA Istraživanje svemira (pasivno) 5.149

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

**5.416** Korišćenje spektra 2 520-2 670 MHz od strane radio-difuzne satelitske službe ograničeno je na nacionalne i regionalne sisteme za zajednički prijem, po sporazumu postignutom prema No. **9.21**. Administracije su dužne da za taj opseg primenjuju odredbe iz No. **9.19** u njihovim bilateralnim i multilateralnim pregovorima. (WRC-07)

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

**5.418** *Dodatna namena:* u Južnoj Koreji, Indiji, Japanu, Pakistanu i Tajlandu, opseg 2 535-2 655 MHz je takođe namenjen radio-difuznoj satelitskoj službi (zvuk) i komplementarnoj zemaljskoj radiodifuznoj službi na primarnoj osnovi. Ova upotreba je ograničena na digitalno emitovanje zvuka u radiodifuziji i podleže odredbama Rezolucije **528 (Rev.WRC-03)**. Odredbe iz No. **5.416** i Tabele **21-4** Člana **21**, ne primenjuju se na ovu dodatnu namenu. Korišćenje ne-geostacionarnih satelitskih sistema u radio-difuznoj satelitskoj službi (zvuk) je predmet Rezolucije **539 (Rev.WRC-03)**. Geostacionarni sistemi radio-difuzne satelitske službe (zvuk) za koje su kompletne Apendiks 4 informacije o koordinaciji primljene posle 1.06.2005, ograničeni su na sisteme za nacionalno pokrivanje.

Snaga gustine fluksa na Zemljinoj površini koju proizvode emisije sa geostacionarne svemirske stanice radio-difuzne satelitske službe (zvuk) u opsegu 2 630-2 655 MHz, i za koju su kompletne Apendiks 4 informacije o koordinaciji primljene nakon 1.06.2005., ne smeju da prekoračuju sledeće granice za bilo koje uslove i bilo koje metode modulacije:

$$\begin{aligned}
 & -130 \text{ dB(W/(m}^2 \cdot \text{MHz))} && \text{za } 0^\circ \leq \theta \leq 5^\circ \\
 & -130 + 0.4 (\theta - 5) \text{ dB(W/(m}^2 \cdot \text{MHz))} && \text{za } 5^\circ < \theta \leq 25^\circ \\
 & -122 \text{ dB(W/(m}^2 \cdot \text{MHz))} && \text{za } 25^\circ < \theta \leq 90^\circ
 \end{aligned}$$

gde je  $\theta$  upadni ugao (u stepenima) radio-frekvencijskog talasa u odnosu na horizontalnu ravan. Ove granice mogu da budu prevaziđene na teritoriji svake zemlje čija administracija na to pristane. Kao izuzetak u slučaju gornjih granica, pfd vrednost od  $-122 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  mora biti uzeta kao prag za koordinaciju prema No. **9.11** u oblasti 1 500 km oko teritorije administracije koja ima notifikovan sistem radio-difuzne satelitske (zvuk) službe.

Pored toga, administracija izlistana u ovoj odredbi ne sme da ima istovremeno dve preklapajuće dodele frekvencija, jednu po ovoj odredbi i drugu prema No. **5.416** za sisteme za koje su kompletne Apendiks 4 informacije o koordinaciji primljene nakon 1.06.2005. (WRC-07)

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

**5.419** Prilikom uvođenja sistema mobilne satelitske službe u opsegu 2 670-2 690 MHz, administracije treba da poduzmu sve potrebne korake da zaštite satelitske sisteme koji rade u tom opsegu od pre 3.03.1992. Koordinacija mobilnih satelitskih sistema u tom opsegu mora biti u saglasnosti sa No. **9.11A**. (WRC-07)

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

**5.420** Opseg 2 655-2 670 MHz može takođe da bude korišćen za mobilnu satelitsku (Zemlja-svemir) osim vazduhoplovne mobilne službu za rad unutar nacionalnih granica, po sporazumu postignutom prema No. **9.21**. Primenjuje se koordinacija prema 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** *Dodatna namena:* u Saudijskoj Arabiji, Jermeniji, Azerbejdžanu, Bahreinu, Belorusiji, Brunej Darusalamu, Republici Kongo, Obali Slonovače, Kubi, Egiptu, Ujedinjenim Arapskim Emiratima, Eritreji, Etiopiji, Gabonu, Gruziji, Gvineji, Gvineji Bisao, Iranu (Islamskoj Republici), Iraku, Izraelu, Jordanu, Kuvajtu, Libanu, Mauritaniji, Moldaviji, Mongoliji, Crnoj Gori, Nigeriji, Omanu, Pakistanu, Filipinima, Kataru, Sirijskoj Arapskoj Republici, Kirgistanu, Demokratskoj Republici Kongo, Rumuniji, Somaliji, Tadžikistanu, Tunisu, Turkmenistanu, Ukrajini i Jemenu, opseg 2 690-2 700 MHz je takođe namenjen fiksnoj i mobilnoj izuzev vazduhoplovne mobilne službama na primarnoj osnovi. Takva upotreba je ograničena na uređaje koji su u radu posle 1.01.1985. (WRC-07)

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

**2 700-4 800 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>3 400-3 600</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) Mobilna ADD 5.AAA Radio-lokacijska  5.431	<b>3 400-3 500</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) Amaterska Mobilna ADD 5.ZZZRadio-lokacijska 5.433  5.282 5.432	<b>3 400-3 500</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) Amaterska Mobilna ADD 5.BBB ADD 5.AAA1 Radio-lokacijska 5.433 5.282 .432
	<b>3 500-3 700</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) MOBILNA izuzev vazduhoplovne mobilne Radio-lokacijska 5.433  5.435	<b>3 500-3 600</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) MOBILNA izuzev vazduhoplovne mobilne ADD 5.CCC Radio-lokacijska 5.433 5.435
<b>3 600-4 200</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) Mobilna		<b>3 600-3 700</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) MOBILNA izuzev vazduhoplovne mobilne Radio-lokacijska 3 5.435
		<b>3 700-4 200</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) MOBILNA izuzev vazduhoplovne mobilne

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

**2 700-4 800 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>4 400-4 500</b>	FIKSNA MOBILNA ADD 5.4B01	
<b>4 500-4 800</b>	FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) MOBILNA ADD 5.4B01	

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

**5.4B01** U Regionu 2 (osim Brazila, Kube, Francuskih Prekomorskih Teritorija, Gvatemale, Paragvaja, Urugvaja i Venecuele), i u Australiji, opseg 4 400-4 940 MHz mogu da koriste avionske stanice za vazduhoplovnu mobilnu telemetriju za testiranje leta (vidi No. **1.83**). Takvo korišćenje mora biti u skladu sa Rezolucijom [COM4/2] (WRC-07) i ne sme ometati (niti zahtevati zaštitu zbog toga) fiksnu satelitsku i fiksnu službu. Takvo korišćenje ne sprečava korišćenje ovih opsega za druge primene u mobilnoj službi ili za druge službe kojima su ti opsezi namenjeni na ko-primarnoj osnovi i ne utvrđuje prioritet u Pravilniku o radio-komunikacijama. (WRC-07)

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

**5.428** *Dodatna namena:* u Azerbejdžanu, Mongoliji, Kirgistanu, Rumuniji i Turkmenistanu, opseg 3 100-3 300 MHz je takođe namenjen radio-navigacijskoj službi na primarnoj osnovi. (WRC-07)

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

**5.429** *Dodatna namena:* u Saudijskoj Arabiji, Bahreinu, Bangladešu, Brunej Darusalamu, Kini, Republici Kongo, Južnoj Koreji, Obali Slonovače, Ujedinjenim Arapskim Emiratima, Indiji, Indoneziji, Iranu (Islamskoj Republici), Iraku, Izraelu, Libijskoj Arapskoj Džamahiriji, Japanu, Jordanu, Keniji, Kuvajtu, Libanu, Maleziji, Omanu, Ugandi, Pakistanu, Kataru, Sirijskoj Arapskoj Republici, Severnoj Koreji i Jemenu, opseg 3 300-3 400 MHz je takođe namenjen fiksnoj i mobilnoj službi na primarnoj osnovi. Zemlje koje zahvataju Mediteran ne smeju da zahtevaju zaštitu za njihove fiksnu i mobilnu službe zbog radio-lokacijske službe. (WRC-07)

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

**5.430** *Dodatna namena:* u Azerbejdžanu, Mongoliji, Kirgistanu, Rumuniji i Turkmenistanu, opseg 3 300-3 400 MHz je takođe namenjen radio-navigacijskoj službi na primarnoj osnovi. (WRC-07)

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

**5.AAA** *Različite kategorije službi:* u Albaniji, Alžiru, Nemačkoj, Andori, Saudijskoj Arabiji, Austriji, Azerbejdžanu, Bahreinu, Belgiji, Beninu, Bosni i Hercegovini, Bocvani, Bugarskoj, Burkinu Faso, Kamerunu, Kipru, Vatikanu, Obali Slonovače, Hrvatskoj, Danskoj, Francuskim Prekomorskim Teritorijama u Regionu 1, Egiptu, Španiji, Estoniji, Finskoj, Francuskoj, Gabonu, Gruziji, Grčkoj, Gvineji, Mađarskoj, Irskoj, Islandu, Izraelu, Italiji, Jordanu, Kuvajtu, Lesotu, Latviji, Makedoniji, Lihtenštajnu, Litvaniji, Malaviju, Malti, Maroku, Mauritaniji, Moldaviji, Monaku, Mongoliji, Crnoj Gori, Mozambiku, Namibiji, Nigeru, Norveškoj, Omanu, Holandiji, Poljskoj, Portugalu, Kataru, Sirijskoj Arapskoj Republici, Kongu, Slovačkoj, Češkoj Republici, Runubiji, Velikoj Britaniji, San Marinu, Senegalu, Srbiji, Sijera Leoneu, Sloveniji, Južnoj Africi, Švedskoj, Švicarskoj, Svazilendu, Togou, Čadu, Tunisu, Turskoj, Ukrajini, Zambiji i Zimbabveu, opseg 3 400-3 600 MHz namenjen je mobilnoj izuzev vazduhoplovne mobilne službi na primarnoj osnovi po sporazumu postignutom prema No. **9.21** sa drugim administracijama i predviđen je za Međunarodne Mobilne Telekomunikacije (IMT). Ovo korišćenje ne sprečava upotrebu tog opsega od strane službi kojima je namenjen i ne utvrđuje prioritet u Pravilniku o radio-komunikacijama. U fazi koordinacije odredbe iz Nos. **9.17** i **9.18** takođe se primenjuju. Pre nego što neka administracija uvede u upotrebu neku (baznu ili mobilnu) stanicu mobilnog servisa u tom opsegu, mora osigurati da snaga gustine fluksa (pfd) proizvedena na 3m iznad zemlje ne prelazi granicu  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  za više od 20 procenata vremena na granici sa teritorijom bilo koje druge administracije. Ta granica može da se prevaziđe na teritoriji bilo koje zemlje čija je administracija na to pristala. Da bi se osiguralo da je pfd limit postignut na teritoriji bilo koje administracije, treba

da se urade proračuni i verifikacija, uzimajući u obzir sve relevantne informacije, uz obostrani pristanak obe administracije (administracije nadležne za zemaljske stanice i administracije nadležne za Zemljine stanice), uz asistenciju Biroa za radio-komunikacije ako se zahteva. U slučaju da nema sporazuma, proračune i verifikaciju za pfd uradiće Biro za radio-komunikacije, uzimajući u obzir gore navedene informacije. Stanice mobilne službe u opsegu 3 400-3 600 MHz ne smeju zahtevati veću zaštitu zbog svemirskih stanica od one koja je ustanovljena u Tabeli **21-4** Pravilnika o radio-komunikacijama (izdanje od 2004.). Ova nemena važi od 17.11.2010. (WRC-07)

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

**5.AAA1** U Južnoj Koreji, Japanu i Pakistanu, opseg 3 400-3 500 MHz predviđen je za Međunarodne Mobilne Telekomunikacije (IMT). Ovo ne sprečava korišćenje ovih opsega za bilo koju drugu primenu ili službu kojima su dodeljeni i ne utvrđuje prioritet u Pravilniku o radio-komunikacijama. U fazi koordinacije Preporuke iz Nos. **9.17** i **9.18** se takođe primenjuju. Pre nego što neka administracija uvede u upotrebu neku (baznu ili mobilnu) stanicu mobilnog servisa u tom opsegu, mora osigurati da snaga gustine fluksa (pfd) proizvedena na 3 m iznad zemlje ne prelazi vrednost  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  za više od 20 procenata vremena na granici sa teritorijom bilo koje druge administracije. Ta granica može da se prevaziđe na teritoriji bilo koje zemlje čija je administracija na to pristala. Da bi se osiguralo da je pfd limit postignut na teritoriji bilo koje administracije, treba da se urade proračuni i verifikacija, uzimajući u obzir sve relevantne informacije, uz obostrani pristanak obe administracije (administracije nadležne za zemaljske stanice i administracije nadležne za Zemljine stanice), uz asistenciju Biroa za radio-komunikacije ako se zahteva. U slučaju da nema sporazuma, proračune i verifikaciju za pfd uradiće Biro za radio-komunikacije, uzimajući u obzir gore navedene informacije. Stanice mobilne službe u opsegu 3 400-3 600 MHz ne smeju zahtevati veću zaštitu zbog svemirskih stanica od one koja je ustanovljena u Tabeli **21-4** Pravilnika o radio-komunikacijama (izdanje od 2004.). (WRC-07)

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

**5.BBB** *Različite kategorije službi:* u Bangladešu, Kini, Indiji, Iranu (Islamskoj Republici), Novom Zelandu, Singapuru i Francuskim Prekomorskim Teritorijama u Regionu 3, opseg 3 400-3 500 MHz nameljen je mobilnoj izuzev vazduhoplovne mobilne službi na primarnoj osnovi, po sporazumu postignutom prema No. **9.21** sa drugim administracijama i predviđen je za Međunarodne Mobilne Telekomunikacije (IMT). Ovo ne sprečava upotrebu tog opsega od strane službi kojima je namenjen i ne utvrđuje prioritet u Pravilniku o radio-komunikacijama. U fazi koordinacije Preporuke iz Nos. **9.17** i **9.18** takođe se primenjuju. Pre nego što neka administracija uvede u upotrebu neku (baznu ili mobilnu) stanicu mobilnog servisa u tom opsegu, mora osigurati da snaga gustine fluksa (pfd) proizvedena na 3 m iznad zemlje ne prelazi granicu  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  za više od 20 procenata vremena na granici sa teritorijom bilo koje druge administracije. Ta granica može da se prevaziđe na teritoriji bilo koje zemlje čija je administracija na to pristala. Da bi se osiguralo da je pfd limit postignut na teritoriji bilo koje administracije, treba da se urade proračuni i verifikacija, uzimajući u obzir sve relevantne informacije, uz obostrani pristanak obe administracije (administracije nadležne za zemaljske stanice i administracije nadležne za Zemljine stanice), uz asistenciju Biroa za radio-komunikacije ako se zahteva. U slučaju da nema sporazuma, proračune i verifikaciju za pfd uradiće Biro za radio-komunikacije, uzimajući u obzir gore navedene informacije. Stanice mobilne službe u opsegu 3 400-3 600 MHz ne smeju zahtevati veću zaštitu zbog svemirskih stanica od one koja je ustanovljena u Tabeli **21-4** Pravilnika o radio-komunikacijama (izdanje od 2004.). (WRC-07)

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

**5.CCC** U Bangladešu, Kini, Republici Koreji, Indiji, Iranu (Islamskoj Republici), Japanu, Novom Zelandu, Pakistanu i Francuskim Prekomorskim Teritorijama u Regionu 3, opseg 3 500-3 600 MHz je predviđen za Međunarodne Mobilne Telekomunikacije (IMT). Ovo ne sprečava

upotrebu tog opsega od strane službi kojima je namenjen i ne utvrđuje prioritet u Pravilniku o radio-komunikacijama. U fazi koordinacije Preporuke iz Nos. **9.17** i **9.18** takođe se primenjuju. Pre nego što neka administracija uvede u upotrebu neku (baznu ili mobilnu) stanicu mobilnog servisa u tom opsegu, mora osigurati da snaga gustine fluksa (pfd) proizvedena na 3 m iznad zemlje ne prelazi granicu  $-154.5 \text{ dBW}/(\text{m}^2 \cdot 4 \text{ kHz})$  za više od 20 procenata vremena na granici sa teritorijom bilo koje druge administracije. Ta granica može da se prevaziđe na teritoriji bilo koje zemlje čija je administracija na to pristala. Da bi se osiguralo da je pfd limit postignut na teritoriji bilo koje administracije, treba da se urade proračuni i verifikacija, uzimajući u obzir sve relevantne informacije, uz obostrani pristanak obe administracije (administracije nadležne za zemaljske stanice i administracije nadležne za Zemljine stanice), uz asistenciju Biroa za radio-komunikacije ako se zahteva. U slučaju da nema sporazuma, proračune i verifikaciju za pfd uradiće Biro za radio-komunikacije, uzimajući u obzir gore navedene informacije. Stanice mobilne službe u opsegu 3 400-3 600 MHz ne smeju zahtevati veću zaštitu zbog svemirskih stanica od one koja je ustanovljena u Tabeli **21-4** Pravilnika o radio-komunikacijama (izdanje od 2004.). (WRC-07)

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

**5.ZZZ** *Različite kategorije službi:* u Argentini, Brazilu, Čileu, Kosta Riki, Kubi, Dominikanskoj Republici, El Salvadoru, Gvatemali, Meksiku, Paragvaju, Surinamu, Urugvaju, Venecueli i Francuskim Prekomorskim Teritorijama u Regionu 2, opseg 3 400-3 500 MHz namenjen je mobilnoj, izuzev vazduhoplovne mobilne službi na primarnoj osnovi, po sporazumu postignutom prema No. **9.21**. Stanice mobilne službe u opsegu 3 400-3 500 MHz ne smeju zahtevati veću zaštitu zbog svemirskih stanica od one koja je ustanovljena u Tabeli **21-4** Pravilnika o radio-komunikacijama (izdanje od 2004.) (WRC-07)

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

**5.442** U opsezima 4 825-4 835 MHz i 4 950-4 990 MHz, namena vazduhoplovne službe ograničena je na mobilnu izuzev vazduhoplovne mobilne službu. U Regionu 2 (izuzev Brazila, Kube, Gvatemale, Paragvaja, Urugvaja i Venecuele), i u Australiji, opseg 4 825-4 835 MHz takođe je namenjen vazduhoplovnoj mobilnoj službi, uz ograničenje na vazduhoplovnu mobilnu telemetriju za testiranje leta od avionskih stanica. Takva upotreba mora biti u skladu sa Rezolucijom [**COM4/2**] (**WRC-07**) i ne sme da ometa fiksnu službu. (WRC-07)

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

**5.444** Opseg 5 030-5 150 MHz koristi se za rad međunarodnog standardnog sistema za precizno sletanje i prizemljenje (sistem mikrotalasnog sletanja). U opsegu 5 030-5 091 MHz, zahtevi za ovaj sistem imaju prednost u odnosu na ostale korisnike ovog opsega. Pri korišćenju opsega 5 091-5 150 MHz, primenjuje se No. 5.444A i Rezolucija 114 Rev. WRC-03). (WRC-07)

**MOD** PLEN/420/1

**5.444** Opseg 5 030-5 150 MHz koristi se za rad međunarodnog standardnog sistema za precizno sletanje i prizemljenje (sistem mikrotalasnog sletanja). Zahtevi za ovaj sistem imaju prednost u odnosu na ostale korisnike ovog opsega. Pri korišćenju ovog opsega, primenjuje se No. 5.444A i Rezolucija 114 Rev. WRC-03). (WRC-03)

**MOD** PLEN/420/2

**5.444A** *Dodatna namena:* opseg 5 091-5 150 MHz takođe je namenjen fiksnoj satelitskoj službi (Zemlja-svemir) na primarnoj osnovi. Ova namena je ograničena na spojne veze ne-geostacionarnih mobilnih satelitskih sistema u mobilnoj satelitskoj službi i podleže postupku koordinacije prema No. 9.11A.

U opsegu 5 091-5 150 MHz, primenjuju se sledeći uslovi:

- pre 1.01.2018., korišćenje opsega 5 091-5 150 MHz za spojne veze ne-geostacionarnih mobilnih satelitskih sistema u mobilnoj satelitskoj službi vršiće se saglasno sa Rezolucijom **114 (Rev.WRC-03)**;
- pre 1.01.2018., postojeći i planirani zahtevi međunarodnog sistema za standarde za vazduhoplovnu radio-navigacijsku službu koji se ne nalaze u opsegu 5 000-5 091 MHz, imaće prednost u korišćenju ovog opsega;
- posle 1.01.2012., neće se vršiti nove dodele Zemljinim stanicama koje obezbeđuju spojne veze ne-geostacionarnim mobilnim satelitskim sistemima ;
- posle 1.01.2018., fiksna satelitska služba postaće sekundarna u odnosu na vazduhoplovnu navigacijsku službu. (WRC-03)

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

**5.444A** *Dodatna namena:* opseg 5 091-5 150 MHz namenjen je takođe fiksnoj satelitskoj službi (Zemlja-svemir) na primarnoj osnovi. Ova namena je ograničena na spojne veze ne-geostacionarnih mobilnih satelitskih sistema u mobilnoj satelitskoj službi i podleže koordinaciji prema No. **9.11A**.

U opsegu 5 091-5 150 MHz, važe takođe sledeći uslovi:

- pre 1.01.2018., korišćenje opsega 5 091-5 150 MHz za spojne veze ne-geostacionarnih satelitskih sistema u mobilnoj satelitskoj službi vršiće se saglasno Rezoluciji **114 (Rev.WRC-03)**;
- posle 1.01.2012., neće se vršiti nove dodele Zemljinim stanicama koje obezbeđuju spojne veze ne-geostacionarnim mobilnim satelitskim sistemima;
- posle 1.01.2018., fiksna satelitska služba postaće sekundarna u odnosu na vazduhoplovnu navigacijsku službu. (WRC-07)

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

**5.4B03** Korišćenje opsega 5 091-5 150 MHz od strane vazduhoplovne mobilne službe ograničeno je na:

- sisteme koji rade u vazduhoplovnoj mobilnoj (R) službi i saglasno sa međunarodnim vazduhoplovnim standardima, samo za primene na zemlji na aerodromima. Takva upotreba mora biti u saglasnosti sa Rezolucijom **[COM4/4] (WRC-07)**;
- vazduhoplovne telemetrijske emisije od avionskih stanica (vidi No. **1.83**) u saglasnosti sa Rezolucijom **[COM4/7] (WRC-07)**;
- vazduhoplovne sigurnosne emisije. Takva upotreba mora biti saglasna sa Rezolucijom **[COM4/8] (WRC-07)**. (WRC-07)

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

**5.4B04** *Dodatna namena:* u Regionu 1 (izuzev u Alžiru, Saudijskoj Arabiji, Bahreinu, Egiptu, Ujedinjenim Arapskim Emiratima, Jordanu, Kuvajtu, Libanu, Maroku, Omanu, Kataru, Sirijskoj Arapskoj Republici, Sudanu i Tunisu) i u Brazilu, opseg 5 150-5 250 MHz je takođe namenjen vazduhoplovnoj mobilnoj službi na primarnoj osnovi, samo za vazduhoplovne telemetrijske emisije od avionskih stanica (vidi No. **1.83**), u saglasnosti sa Rezolucijom **[COM4/7] (WRC-07)**. Takve stanice ne mogu zahtevati zaštitu zbog drugih stanica koje rade u saglasnosti sa Članom **5**. No. **5.43A** se ne primenjuje. (WRC-07)

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

**5.446A** Korišćenje opsega 5 150-5 350 MHz i 5 470-5 725 MHz od strane stanica mobilne izuzev vazduhoplovne mobilne službe mora biti u skladu sa Rezolucijom **229 (WRC-03)**. (WRC-07)

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

**5.447** *Dodatna namena:* u Obali Slonovače, Izraelu, Libanu, Pakistanu, Sirijskoj Arapskoj Republici i Tunisu, opseg 5 150-5 250 MHz je takođe namenjen mobilnoj službi na primarnoj osnovi, po sporazumu postignutom prema No. **9.21**. U tom slučaju, Preporuke iz Rezolucije **229 (WRC-03)** se ne primenjuju. (WRC-07)

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

**5.447E** *Dodatna namena:* Opseg 5 250-5 350 MHz je takođe namenjen fiksnoj službi na primarnoj osnovi u sledećim zemljama u Regionu 3: Australiji, Južnoj Koreji, Indiji, Indoneziji, Iranu (Islamskoj Republici), Japanu, Maleziji, Papui Novoj Gvineji, Filipinima, Severnoj Koreji, Šri Lanki, Tajlandu i Vijetnamu. Korišćenje tog opsega od strane fiksne službe predviđeno je za fiksne bežične pristupne sisteme i mora biti usaglašeno sa Preporukom ITU-R F.1613. Pored toga, fiksna služba ne može zahtevati zaštitu zbog radiodeterminacijske službe, službe istraživanja Zemlje satelitom (aktivno) i službe istraživanja svemira (aktivno), ali odredbe iz No. **5.43A** se ne primenjuju na fiksnu službu uzimajući u obzir službu istraživanja Zemlje satelitom (aktivno) i službu istraživanja svemira (aktivno). Nakon implementacije fiksnih bežičnih pristupnih sistema u fiksnoj službi sa zaštitom od postojećih radiodeterminacijskih sistema, buduće implementacije radiodeterminacijske službe ne bi više trebalo da nameću strožiju zaštitu fiksnim bežičnim pristupnim sistemima. (WRC-07)

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

**4 800-5 570 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>4 800-4 990</b>	FIKSNA MOBILNA MOD 5.442 ADD 5.4B01 Radio-astronomska 5.149 5.339 5.443	

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

**4 800-5 570 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>5 030-5 091</b>	VAZDUHOPLOVNA RADIO-NAVIGACIJSKA 5.367 MOD 5.444	

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

**4 800-5 570 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>5 091-5 150</b>	VAZDUHOPLOVNA RADIO-NAVIGACIJSKA VAZDUHOPLOVNA MOBILNA ADD 5.4B03 5.367 MOD 5.444 MOD 5.444A	



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

**4 800-5 570 MHz**

Namene službama		
Region 1	Region 2	Region 3
5 150-5 250	VAZDUHOPLOVNA RADIO-NAVIGACIJSKA FIKSNA SATELITSKA (Zemlja -svemir) 5.447A MOBILNA izuzev vazduhoplovne mobilne 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** *Različite kategorije službi:* u Azerbejdžanu, Ruskoj Federaciji, Gruziji, Mongoliji, Kirgistanu, Tadžikistanu i Turkmenistanu, namena opsega 5 670-5 725 MHz za službu istraživanja svemira je na primarnoj osnovi (vidi No. **5.33**). (WRC-07)

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

**5.455** *Dodatna namena:* u Jermeniji, Azerbejdžanu, Belorusiji, Kubi, Ruskoj Federaciji, Gruziji, Mađarskoj, Kazahstanu, Moldaviji, Mongoliji, Uzbekistanu, Kirgistanu, Tadžikistanu, Turkmenistanu i Ukrajini, opseg 5 670-5 850 MHz je takođe namenjen fiksnoj službi na primarnoj osnovi. (WRC-07)

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

**5 570-7 250 MHz**

Namene službama		
Region 1	Region 2	Region 3
5 925-6 700	FIKSNA FIKSNA SATELITSKA (Zemlja -svemir) 5.457A 5.457B MOBILNA ADD 5.4B02 5.149 5.440 5.458	

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

**5.4B02** U Regionu 2 (izuzev Brazila, Kube, Francuskih Prekomorskih Teritorija, Gvatemale, Paragvaja, Urugvaja i Venecuele), opseg 5 925-6 700 MHz može biti korišćen za vazduhoplovnu mobilnu telemetriju za testiranje leta od avionskih stanica (vidi No. **1.83**). Takvo korišćenje mora biti u saglasnosti sa Rezolucijom [COM4/2] (WRC-07) i ne sme da ometa, niti da zahteva zaštitu zbog njih, fiksnu satelitsku i fiksnu službu. Takvo korišćenje ne sprečava korišćenje ovih opsega za primene od strane drugih mobilnih službi ili drugih službi kojima su namenjeni ovi opsezi na ko-primarnoj osnovi i ne utvrđuje prioritet u Pravilniku o radio-komunikacijama. (WRC-07)

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

**8 500-10 000 MHz**

Namene službama		
Region 1	Region 2	Region 3
9 000-9 200	VAZDUHOPLOVNA RADIO-NAVIGACIJSKA 5.337 RADIO-LOKACIJSKA MOD 5.471 ADD 5.475A	
9 200-9 300	RADIO-LOKACIJSKA POMORSKA RADIO-NAVIGACIJSKA 5.472 5.473 5.474	

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

**8 500-10 000 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>9 300-9 500</b>	RADIO-NAVIGACIJSKA 5.476 ISTRAŽIVANJE ZEMLJE SATELITOM (aktivno) ISTRAŽIVANJE SVEMIRA (aktivno) RADIO-LOKACIJSKA 5.427 5.474 MOD 5.475 ADD 5.475B MOD 5.476A ADD 5.4B07	
<b>9 500-9 800</b>	ISTRAŽIVANJE ZEMLJE SATELITOM (aktivno) RADIO-LOKACIJSKA RADIO-NAVIGACIJSKA ISTRAŽIVANJE SVEMIRA (aktivno) MOD 5.476A	

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

**5.475** Korišćenje opsega 9300-9500 MHz za vazduhoplovnu radio-navigacijsku službu ograničeno je na avionske vremenske radare i radare na tlu. Pored toga, radarske stanice radio-farova na tlu u vazduhoplovnoj radio-navigacijskoj službi dozvoljene su u opsegu 9300-9320 MHz, pod uslovom da ne ometaju pomorsku radio-navigacijsku službu. (WRC-07)

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

**5.475A** U opsegu 9 000-9 200 MHz, stanice radio-lokacijske službe ne smeju da ometaju (niti zahtevaju zaštitu zbog njih) sisteme navedene u No. **5.337** koji rade u vazduhoplovnoj radio-navigacijskoj službi ili radarske sisteme pomorske radio-navigacijske službe koji rade u tom opsegu na primarnoj osnovi u zemljama navedenim u No. **5.471**. (WRC-07)

**MOD** COM4/417/1

**8 500-10 000 MHz**

Namene službama		
Region 1	Region 2	Region 3
<b>9 800-9 900</b>	RADIO-LOKACIJSKA Istraživanje Zemlje satelitom (aktivno) Istraživanje svemira (aktivno) Fiksna 5.477 5.478 ADD 5.xyz ADD 5.xyy	

**MOD** COM4/417/2

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

**5.471** *Dodatna namena:* u Alžiru, Nemačkoj, Bahreinu, Belgiji, Kini, Egiptu, Ujedinjenim Arapskim Emiratima, Francuskoj, Grčkoj, Indoneziji, Iranu (Islamskoj Republici), Libijskoj Arapskoj Džamahiriji, Holandiji, Kataru i Sudanu, opsezi 8 825-8 850 MHz i 9 000-9 200 MHz su takođe namenjeni pomorskoj radio-navigacijskoj službi na primarnoj osnovi, samo za obalne radare. (WRC-07)

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

**5.473** *Dodatna namena:* u Jermeniji, Austriji, Azerbejdžanu, Belorusiji, Kubi, Ruskoj Federaciji, Gruziji, Mađarskoj, Mongoliji, Uzbekistanu, Poljskoj, Kirgistanu, Rumuniji, Tadžikistanu, Turkmenistanu i Ukrajini, opsezi 8 850-9 000 MHz i 9 200-9 300 MHz su takođe namenjeni radio-navigacijskoj službi na primarnoj osnovi. (WRC-07)

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

**5.475B** U opsegu 9 300-9 500 MHz, stanice koje rade u radio-lokacijskoj službi ne smeju ometati, niti zahtevati zaštitu zbog, radara koji rade u radio-navigacijskoj službi u saglasnosti sa Pravilnikom o radio-komunikacijama. Radari na tlu koji se koriste za meteorološke svrhe imaju prednost nad ostalim radio-lokacijskim uređajima. (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** U opsegu 9 300-9 800 MHz, stanice službe istraživanja Zemlje satelitom (aktivno) i službe istraživanja svemira (aktivno) ne smeju ometati, niti tražiti zaštitu zbog njih, stanice radio-navigacijske službe i radio-lokacijske službe. (WRC-07)

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

**5.4B07** Korišćenje opsega 9 300-9 500 MHz od strane službe istraživanja Zemlje satelitom (aktivno) i službe istraživanja svemira (aktivno) ograničeno je na sisteme kojima je potrebna širina opsega veća od 300 MHz što ne može da bude u potpunosti zadovoljeno unutar 9 500-9 800 MHz opsega. (WRC-07)

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

**5.477** *Različite kategorije službi:* u Alžiru, Saudijskoj Arabiji, Bahreinu, Bangladešu, Brunej Darusalamu, Kamerunu, Egiptu, Ujedinjenim Arapskim Emiratima, Eritreji, Etiopiji, Gvajani, Indiji, Indoneziji, Iranu (Islamskoj Republici), Iraku, Jamajki, Japanu, Jordanu, Kuvajtu, Libanu, Liberiji, Maleziji, Nigeriji, Omanu, Pakistanu, Kataru, Sirijskoj Arapskoj Republici, Severnoj Koreji, Singapuru, Somaliji, Sudanu, Trinidadu i Tobagou, i Jemenu, namena opsega 9 800-10 000 MHz fiksnoj službi je na primarnoj osnovi (vidi No. **5.33**). (WRC-07)

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

**5.478** *Dodatna namena:* u Azerbejdžanu, Mongoliji, Kirgistanu, Rumuniji, Turkmenistanu i Ukrajini, opseg 9 800-10 000 MHz je takođe namenjen radio-navigacijskoj službi na primarnoj osnovi. (WRC-07)

**ADD** COM4/417/3

**5.xyz** Korišćenje opsega 9 800-9 900 MHz od strane službe istraživanja Zemlje satelitom (aktivno) i službe istraživanja svemira (aktivno) ograničeno je na sisteme kojima je potrebna širina opsega veća od 500 MHz što ne može biti u potpunosti zadovoljeno u 9 300-9 800 MHz opsegu.

**ADD** COM4/417/4

**5.xyy** U opsegu 9 800-9 900 MHz, stanice službe istraživanja Zemlje satelitom (aktivno) i službe istraživanja svemira (aktivno) ne smeju ometati, niti tražiti zaštitu zbog njih, stanice fiksne službe kojima je ovaj opseg namenjen na sekundarnoj osnovi.

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

**5.480** *Dodatna namena:* u Argentini, Brazilu, Čileu, Kosta Riki, Kubi, El Salvadoru, Ekvadoru, Gvatemali, Hondurasu Meksiku, Paragvaju, Holandskim Antilima, Peru i Urugvaju, opseg 10-10.45 GHz je takođe namenjen fiksnoj i mobilnoj službama na primarnoj osnovi. U Venecueli, opseg 10-10.45 GHz je takođe namenjen fiksnoj službi na primarnoj osnovi. (WRC-07)

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

**5.481** *Dodatna namena:* u Nemačkoj, Angoli, Brazilu, Kini, Kosta Riki, Obali Slonovače, El Salvadoru, Ekvadoru, Španiji, Gvatemali, Mađarskoj, Japanu, Keniji, Maroku, Nigeriji, Omanu, Uzbekistanu, Paragvaju, Peru, Severnoj Koreji, Rumuniji, Tanzaniji, Tajlandu i Urugvaju, opseg 10.45-10.5 GHz je takođe namenjen fiksnoj i mobilnoj službama na primarnoj osnovi. (WRC-07)

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

**10-11.7 GHz**

Namene službama		
Region 1	Region 2	Region 3
10.6-10.68	ISTRAŽIVANJE ZEMLJE SATELITOM (pasivno) FIKSNA MOBILNA izuzev vazduhoplovne mobilne RADIO ASTRONOMSKA ISTRAŽIVANJE SVEMIRA (pasivno) Radio-lokacijska 5.149 MOD 5.482 ADD 5.BA01	

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

**5.482** U opsegu 10.6-10.68 GHz, snaga koju predaju anteni stanica fiksne i mobilne izuzev vazduhoplovne mobilne službe ne sme prevazići -3 dBW. Ovo ograničenje može da bude prevaziđeno, po sporazumu postignutom prema No. **9.21**. Međutim, u Alžiru, Saudijskoj Arabiji, Jermeniji, Azerbejdžanu, Bahreinu, Bangladešu, Belorusiji, Egiptu, Ujedinjenim Arapskim Emiratima,

Gruziji, Indiji, Indoneziji, Iranu (Islamskoj Republici), Iraku, Jordanu, Libijskoj Arapskoj Džamahiriji, Kazahstanu, Kuvajtu, Libanu, Maroku, Mauritaniji, Moldaviji, Nigeriji, Omanu, Uzbekistanu, Pakistanu, Filipinima, Kataru, Sirijskoj Arapskoj Republici, Kirgistanu, Singapuru, Tadžikistanu, Tunisu, Turkmenistanu i Vietnamu, ova ograničenja na fiksnu i mobilnu izuzev vazduhoplovne mobilne službe se ne primenjuju. (WRC-07)

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

**5.BA01** Za deljenje opsega 10.6-10.68 GHz između službe istraživanja Zemlje satelitom (pasivno) i fiksne i mobilne izuzev vazduhoplovne mobilne službi, Rezolucija [COM5/5] (WRC-07) se primenjuje. (WRC-07)

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

**5.483** *Dodatna namena:* u Saudijskoj Arabiji, Jermeniji, Azerbejdžanu, Bahreinu, Belorusiji, Kini, Kolumbiji, Republici Koreji, Kosta Riki, Egiptu, Ujedinjenim Arapskim Emiratima, Gruziji, Iranu (Islamskoj Republici), Iraku, Izraelu, Jordanu, Kazahstanu, Kuvajtu, Libanu, Mongoliji, Kataru, Kirgistanu, Severnoj Koreji, Rumuniji, Tadžikistanu, Turkmenistanu i Jemenu, opseg 10.68-10.7 GHz je takođe namenjen fiksnoj i mobilnoj izuzev vazduhoplovne mobilne službama na primarnoj osnovi. Takva upotreba je ograničena na uređaje koji su u radu posle 1.01.1985. (WRC-07)

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

**5.495** *Dodatna namena:* u Bosni i Hercegovini, Francuskoj, Grčkoj, Lihtenštajnu, Monaku, Crnoj Gori, Ugandi, Rumuniji, Srbiji, Švicarskoj, Tanzaniji i Tunisu, opseg 12.5-12.75 GHz je takođe namenjen fiksnoj i mobilnoj, izuzev vazduhoplovne mobilne službama na sekundarnoj osnovi. (WRC-07)

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

**5.501** *Dodatna namena:* u Azerbejdžanu, Mađarskoj, Japanu, Mongoliji, Kirgistanu, Rumuniji i Turkmenistanu, opseg 13.4-14 GHz je takođe namenjen radio-navigacijskoj službi na primarnoj osnovi. (WRC-07)

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

**5.505** *Dodatna namena:* u Alžiru, Angoli, Saudijskoj Arabiji, Bahreinu, Bocvani, Brunej Darusalamu, Kamerunu, Kini, Republici Kongo, Južnoj Koreji, Egiptu, Ujedinjenim Arapskim Emiratima, Gabonu, Gvineji, Indiji, Indoneziji, Iranu (Islamskoj Republici), Iraku, Izraelu, Japanu, Jordanu, Kuvajtu, Lesotu, Libanu, Maleziji, Maliju, Maroku, Mauritaniji, Omanu, Pakistanu, Filipinima, Kataru, Sirijskoj Arapskoj Republici, Severnoj Koreji, Singapuru, Somaliji, Sudanu, Svazilendu, Tanzaniji, Čadu, Vijetnamu i Jemenu, opseg 14-14.3 GHz je takođe namenjen fiksnoj službi na primarnoj osnovi. (WRC-07)

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

**5.508** *Dodatna namena:* u Nemačkoj, Bosni i Hercegovini, Francuskoj, Italiji, Libijskoj Arapskoj Džamahiriji, Makedoniji (Bivšoj Jugoslovenskoj Republici) i Velikoj Britaniji, opseg 14.25-14.3 GHz je takođe namenjen fiksnoj službi na primarnoj osnovi. (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** *Dodatna namena:* u Saudijskoj Arabiji, Bahreinu, Bosni i Hercegovini, Kamerunu, Egiptu, Ujedinjenim Arapskim Emiratima, Gvineji, Iranu (Islamskoj Republici), Iraku, Izraelu, Libijskoj Arapskoj Džamahiriji, Kuvajtu, Libanu, Pakistanu, Kataru, Sirijskoj Arapskoj Republici i

Somaliji, opseg 15.35-15.4 GHz je takođe namenjen fiksnoj i mobilnoj službama na sekundarnoj osnovi. (WRC-07)

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

**5.512** *Dodatna namena:* u Alžiru, Angoli, Saudijskoj Arabiji, Austriji, Bahreinu, Bangladešu, Brunej Darusalamu, Kamerunu, Republici Kongo, Kosta Riki, Egiptu, El Salvadoru, Ujedinjenim Arapskim Emiratima, Eritreji, Finskoj, Gvatemali, Indiji, Indoneziji, Iranu (Islamskoj Republici), Libijskoj Arapskoj Džamahiriji, Jordanu, Keniji, Kuvajtu, Libanu, Maleziji, Maliju, Maroku, Mauritaniji, Crnoj Gori, Mozambiku, Nepal, Nikaragvi, Omanu, Pakistanu, Kataru, Sirijskoj Arapskoj Republici, Srbiji, Singapuru, Somaliji, Sudanu, Svazilendu, Tanzaniji, Čadu, Togou i Jemenu, opseg 15.7-17.3 GHz je takođe namenjen fiksnoj i mobilnoj službama na primarnoj osnovi. (WRC-07)

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

**15.4-18.4 GHz**

Namene službama		
Region 1	Region 2	Region 3
<b>17.3-17.7</b> FIKSNA SATELITSKA (Zemlja-svemir) 5.516 (svemir-Zemlja) 5.516A 5.516B Radio-lokacijska 5.514	<b>17.3-17.7</b> FIKSNA SATELITSKA (Zemlja-svemir) 5.516 RADIODIFUZNA SATELITSKA Radio-lokacijska 5.514 5.515	<b>17.3-17.7</b> FIKSNA SATELITSKA (Zemlja-svemir) 5.516 Radio-lokacijska 5.514
<b>17.7-18.1</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) 5.484A (Zemlja-svemir) 5.516 MOBILNA	<b>17.7-17.8</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) MOD 5.517 (Zemlja-svemir) 5.516 RADIODIFUZNA SATELITSKA Mobilna 5.515	<b>17.7-18.1</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) 5.484A (Zemlja-svemir) 5.516 MOBILNA
	<b>17.8-18.1</b> FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) 5.484A (Zemlja-svemir) 5.516 MOBILNA MOD 5.519	
<b>18.1-18.4</b>	FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) 5.484A 5.516B (Zemlja-svemir) 5.520 MOBILNA MOD 5.519 5.521	

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

**5.514** *Dodatna namena:* u Alžiru, Angoli, Saudijskoj Arabiji, Bahreinu, Bangladešu, Kamerunu, Kosta Riki, El Salvadoru, Ujedinjenim Arapskim Emiratima, Gvatemali, Indiji, Iranu (Islamskoj Republici), Iraku, Izraelu, Italiji, Libijskoj Arapskoj Džamahiriji, Japanu, Jordanu, Kuvajtu, Litvaniji, Nepal, Nikaragvi, Nigeriji, Omanu, Uzbekistanu, Pakistanu, Kataru, Kirgistanu i Sudanu, opseg 17.3-17.7 GHz je takođe namenjen fiksnoj i mobilnoj službama na sekundarnoj osnovi.. Moraju se primeniti ograničenja snage iz Nos. **21.3** i **21.5**. (WRC-07)

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

**5.517** U Regionu 2, korišćenje fiksne satelitske (svemir-Zemlja) službe u opsegu 17.7-17.8 GHz ne sme ometati ( niti zahtevati zaštitu zbog toga ) dodele u radio-difuznoj satelitskoj službi koja radi u skladu sa Pravilnikom o radio-komunikacijama. (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** *Dodatna namena:* opsezi 18.0-18.3 GHz u Regionu 2 i 18.1-18.4 GHz u Regionima 1 i 3 takođe su namenjeni meteorološkoj satelitskoj službi (svemir-Zemlja) na primarnoj osnovi. Njihovo korišćenje je ograničeno na geostacionarne satelite. (WRC-07)

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

**5.524** *Dodatna namena:* u Avganistanu, Alžiru, Angoli, Saudijskoj Arabiji, Bahreinu, Brunej Darusalamu, Kamerunu, Kini, Republici Kongo, Kosta Riki, Egiptu, Ujedinjenim Arapskim Emiratima, Gabonu, Gvatemali, Gvineji, Indiji, Iranu (Islamskoj Republici), Iraku, Izraelu, Japanu, Jordanu, Kuvajtu, Libanu, Maleziji, Maliju, Maroku, Mauritaniji, Nepal, Nigeriji, Omanu, Pakistanu, Filipinima, Kataru, Sirijskoj Arapskoj Republici, Demokratskoj Republici Kongo, Severnoj Koreji, Singapuru, Somaliji, Sudanu, Tanzaniji, Čadu, Togou i Tunisu, opseg 19.7-21.2 GHz je takođe namenjen fiksnoj i mobilnoj službama na primarnoj osnovi. Ovo dodatno korišćenje ne sme postavljati nikakva ograničenja na snagu gustine fluksa svemirske stanice u fiksnoj satelitskoj službi u opsegu 19.7-21.2 GHz i svemirske stanice u mobilnoj satelitskoj službi u opsegu 19.7-20.2 GHz gde je namena za mobilnu satelitsku službu na primarnoj osnovi za ovaj drugi opseg. (WRC-07)

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

**5.530** U Regionima 1 i 3, korišćenje opsega 21.4-22 GHz od strane radio-difuzne satelitske službe podleže odredbama Rezolucije **525 (Rev.WRC-07)**. (WRC-07)

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

**22-24.75 GHz**

Namene službama		
Region 1	Region 2	Region 3
22.55-23.55	FIKSNA MEĐUSATELITSKA ADD 5.BA03 MOBILNA 5.149	
23.55-23.6	FIKSNA MOBILNA	
23.6-24	ISTRAŽIVANJE ZEMLJE SATELITOM (pasivno) RADIO-ASTRONOMSKA ISTRAŽIVANJE SVEMIRA (pasivno) 5.340	

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

**29.9-34.2 GHz**

Namene službama		
Region 1	Region 2	Region 3
30-31	FIKSNA SATELITSKA (Zemlja-svemir) ADD 5.BA03 MOBILNA SATELITSKA (Zemlja-svemir) Standard frekvencije i satelitski signal tačnog vremena (svemir-Zemlja) 5.542	
31-31.3	FIKSNA 5.543A ADD 5.BA03 MOBILNA Standard frekvencije i satelitski signal tačnog vremena (svemir-Zemlja) Istraživanje svemira 5.544 5.545 5.149	

<b>31.3-31.5</b>	ISTRAŽIVANJE ZEMLJE SATELITOM (pasivno) RADIO-ASTRONOMSKA ISTRAŽIVANJE SVEMIRA (pasivno) 5.340
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**ADD** COM5/372/6 (B15/396/11)

**5.BA03** U opsezima 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 i 51.4-52.6 GHz, Rezolucija [COM5/4] (WRC-07) se primenjuje. (WRC-07)

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

**34.2-40 GHz**

Namene službama		
Region 1	Region 2	Region 3
<b>36-37</b>	ISTRAŽIVANJE ZEMLJE SATELITOM (pasivno) FIKSNA MOBILNA ISTRAŽIVANJE SVEMIRA (pasivno) 5.149 ADD 5.BA02	

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

**5.BA02** Za deljenje opsega 36-37 GHz između službe istraživanja Zemlje satelitom (pasivno) i fiksne i mobilne službi, Rezolucija [COM5/6] (WRC-07) se primenjuje. (WRC-07)

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

**5.536B** U Nemačkoj, Saudijskoj Arabiji, Austriji, Belgiji, Brazilu, Bugarskoj, Kini, Južnoj Koreji, Danskoj, Egiptu, Ujedinjenim Arapskim Emiratima, Španiji, Estoniji, Finskoj, Francuskoj, Mađarskoj, Indiji, Iranu (Islamskoj Republici), Irskoj, Izraelu, Italiji, Libijskoj Arapskoj Džamahiriji, Jordanu, Keniji, Kuvajtu, Libanu, Lihtenštajnu, Litvaniji, Moldaviji, Norveškoj, Omanu, Ugandi, Pakistanu, Filipinima, Poljskoj, Portugalu, Sirijskoj Arapskoj Republici, Severnoj Koreji, Slovačkoj, Češkoj Republici, Rumuniji, Velikoj Britaniji, Singapuru, Švedskoj, Švicarskoj, Tanzaniji, Turskoj, Vijetnamu i Zimbabveu, Zemljine stanice koje rade u službi istraživanja Zemlje satelitom u opsegu 25.5-27 GHz ne smeju zahtevati zaštitu zbog, niti ograničavati korišćenje i postavljanje, stanica fiksne i mobilne službi. (WRC-07)

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

**5.537A** U Butanu, Kamerunu, Južnoj Koreji, Ruskoj Federaciji, Indiji, Indoneziji, Iranu (Islamskoj Republici), Japanu, Kazahstanu, Lesotu, Maleziji, Maldivima, Mongoliji, Majnamaru, Uzbekistanu, Pakistanu, Filipinima, Kirgistanu, Severnoj Koreji, Šri Lanki, Tajlandu i Vijetnamu, namena fiksne službe u opsegu 27.9-28.2 GHz može takođe bira korišćena za stanice na platformama na velikim visinama (HAPS) unutar teritorije tih država. Takvo korišćenje HAPS-a od 300 MHz od namene za fiksnu službu u gorenavedenim zemljama ograničeno je dalje na rad u HAPS-zemlja smeru i ne sme ometati niti zahtevati zaštitu zbog drugih tipova sistema fiksne službe ili drugih ko-primarnih službi. Nadalje, HAPS ne sme da ograničava razvoj tih drugih službi. Vidi Rezoluciju **145 (Rev.WRC-07)**. (WRC-07)

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

**5.538** *Dodatna namena:* opsezi 27.500-27.501 GHz i 29.999-30.000 GHz su također namenjeni fiksnoj satelitskoj (svemir-Zemlja) službi na primarnoj osnovi za emisije radio-farova, koji su predviđeni za kontrolu snage uzlazne veze. Takve emisije (svemir-Zemlja) ne smeju da prevaziđu e.i.r.p. od +10 dBW u smeru susednog satelita na geostacionarnoj satelitskoj orbiti. (WRC-07)



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

**5.542** *Dodatna namena:* u Alžiru, Saudijskoj Arabiji, Bahreinu, Brunej Darusalamu, Kamerunu, Kini, Republici Kongo, Egiptu, Ujedinjenim Arapskim Emiratima, Eritreji, Etiopiji, Gvineji, Indiji, Iranu (Islamskoj Republici), Iraku, Japanu, Jordanu, Kuvajtu, Libanu, Maleziji, Maliju, Maroku, Mauritaniji, Nepal, Pakistanu, Filipinima, Kataru, Sirijskoj Arapskoj Republici, Severnoj Koreji, Somaliji, Sudanu, Šri Lanki i Čadu, opseg 29.5-31 GHz je takođe namenjen fiksnoj i mobilnoj službama na sekundarnoj osnovi. Ograničenja snage specificirana u Nos. **21.3** i **21.5** treba da se primene. (WRC-07)

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

**5.543A** U Butanu, Kamerunu, Južnoj Koreji, Ruskoj Federaciji, Indiji, Indoneziji, Iranu (Islamskoj Republici), Japanu, Kazahstanu, Lesotu, Maleziji, Maldivima, Mongoliji, Majnamaru, Uzbekistanu, Pakistanu, Filipinima, Kirgistanu, Severnoj Koreji, Šri Lanki, Tajlandu i Vijetnamu, namena fiksnoj službi u opsegu 31-31.3 GHz može takođe biti korišćena za stanice na platformama na velikim visinama (HAPS) u smeru zemlja-HAPS. Korišćenje opsega 31-31.3 GHz od strane sistema koji upotrebljavaju HAPS ograničeno je na teritoriju gorenavedenih zemalja i ne sme ometati niti zahtevati zaštitu zbog drugih tipova sistema fiksne službe, sistema mobilne službe i sistema koji rade prema No. **5.545**. Nadalje, HAPS ne sme da ograničava razvoj tih službi. Sistemi koji koriste HAPS u opsegu 31-31.3 GHz ne smeju ometati stanice radio-astronomske službe koja ima primarnu namenu u opsegu 31.3-31.8 GHz, uzimajući u obzir kriterij zaštite dat u Preporuci ITU-R RA.769. Da bi se osigurala zaštita satelitske pasivne službe, nivo gustine neželjene snage jedne HAPS antene na zemlji u opsegu 31.3-31.8 GHz mora biti ograničen na  $-106$  dB(W/MHz) u uslovima čistog neba i može biti povećan do  $-100$  dB(W/MHz) u kišnim uslovima zbog slabljenja uzrokovanog kišom, omogućujući da efektivni uticaj na pasivni satelit ne prevazilazi uticaj u uslovima čistog neba. Vidi Rezoluciju **145 (Rev.WRC-07)**. (WRC-07)

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

**5.545** *Različite kategorije službi:* u Jermeniji, Gruziji, Mongoliji, Kirgistanu, Tadžikistanu i Turkmenistanu, namena opsega 31-31.3 GHz službi istraživanja svemira je na primarnoj osnovi (vidi No. **5.33**). (WRC-07)

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

**51.4-55.78 GHz**

Namene službama		
Region 1	Region 2	Region 3
51.4-52.6	FIKSNA ADD 5.BA03 MOBILNA 5.547 5.556	

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

**5.546** *Različite kategorije službi:* u Saudijskoj Arabiji, Jermeniji, Azerbejdžanu, Belorusiji, Egiptu, Ujedinjenim Arapskim Emiratima, Španiji, Estoniji, Ruskoj Federaciji, Gruziji, Mađarskoj, Iranu (Islamskoj Republici), Izraelu, Jordanu, Libanu, Moldaviji, Mongoliji, Uzbekistanu, Poljskoj, Sirijskoj Arapskoj Republici, Kirgistanu, Rumuniji, Velikoj Britaniji, Južnoj Africi, Tadžikistanu, Turkmenistanu i Turskoj, namena opsega 31.5-31.8 GHz fiksnoj i mobilnoj izuzev vazduhoplovne mobilne službama je na primarnoj osnovi (vidi No. **5.33**). (WRC-07)

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

**5.547** Opsezi 31.8-33.4 GHz, 37-40 GHz, 40.5-43.5 GHz, 51.4-52.6 GHz, 55.78-59 GHz i 64-66 GHz su dostupni za primene za fiksne službe velike gustine (videti Rezoluciju **75 (WRC-2000)**). Administracije treba da uzmu ovo u obzir kada razmatraju regulatorne odredbe u vezi sa ovim opsezima. Zbog mogućnosti razvijanja primena za fiksne službe velike gustine u opsezima 39.5-40 GHz i 40.5-42 GHz

(vidi No. **5.516Ba**), administracije treba da uzmu u obzir mogućnosti ograničenja za primene u fiksnoj službi velike gustine, na odgovarajući način. (WRC-07)

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

**5.550** *Različite kategorije službi:* u Jermeniji, Azerbejdžanu, Belorusiji, Ruskoj Federaciji, Gruziji, Mongoliji, Kirgistanu, Tadžikistanu i Turkmenistanu, namena opsega 34.7-35.2 GHz službi istraživanja svemira je na primarnoj osnovi (vidi No. **5.33**). (WRC-07)

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

**5.551H** Ekvivalentna snaga gustine fluksa (epfd) koja je proizvedena, u opsegu 42.5-43.5GHz od svih svemirskih stanica u bilo kom ne-geostacionarnom satelitskom sistemu u fiksnoj satelitskoj službi (svemir-Zemlja) ili u radio-difuznoj satelitskoj službi (svemir-Zemlja) koja radi u opsegu 42-42.5 GHz neće prevazilaziti sledeće vrednosti na mestu radio-astronomske stanice za više od 2% vremena:

–230 dB(W/m<sup>2</sup>) u 1 GHz i -246 dB(W/m<sup>2</sup>) u bilo kojih 500 kHz opsega 42.5-43.5 GHz na lokaciji bilo koje radio-astronomske stanice registrovane na pojedinačnom tanjirastom teleskopu (single-dish teleskop); i

–209 dB(W/m<sup>2</sup>) u bilo kojih 500 kHz opsega 42.5-43.5 GHz na lokaciji bilo koje radio-astronomske stanice registrovane kao vrlo duga osnovna linija interferometarske stanice.

Ove epfd vrednosti biće procenjene koristeći metodologiju datu u Preporuci ITU-R S. 1586 i preporučeni model antene sa maksimalnim dobitkom antene u radio-astronomske službi date u Preporuci ITU-R RA.1631 i primenjivaće se preko celog neba i za elevacione uglove veće od minimalnog radnog ugla  $\theta_{min}$  radio-teleskopa (za koga će definisana vrednost od 5° biti usvojena u nedostatku notifikovane informacije).

Ove vrednosti će se primenjivati u bilo kojoj radio-astronomske stanice:

- koja je bila u funkciji pre 5.05.2009 i notifikovana je u Biro za radio-komunikacije pre 4. januara 2004. godine; ili
- koja je bila notifikovana pre dana prijema kompletnog Apendiksa 4 informacije o koordinaciji ili notifikaciji, za odgovarajuće svemirske stanice čija je upotreba ograničena.

Druge radio-astronomske stanice notifikovane posle ovih datuma moraju tražiti ugovore sa administracijama koje imaju ovlašćene svemirske stanice. U Regionu 2, Rezolucija **743 (WRC-03)** se primenjuje. Ograničenja u ovoj fusnoti mogu biti prevaziđena na lokaciji radio-astronomske stanice bilo koje zemlje čija se administracija složi. (WRC-07)

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

**47.5-51.4 GHz**

Namene službama		
Region 1	Region 2	Region 3
<b>47.5-47.9</b> FIKSNA FIKSNA SATELITSKA (Zemlja-svemir) 5.552 (svemir-Zemlja) 5.516B 5.554A MOBILNA	<b>47.5-47.9</b> FIKSNA FIKSNA SATELITSKA (Zemlja-svemir) 5.552 MOBILNA	
<b>47.9-48.2</b>	FIKSNA FIKSNA SATELITSKA (Zemlja-svemir) 5.552 MOBILNA 5.552A	
<b>48.2-48.54</b> FIKSNA FIKSNA SATELITSKA (Zemlja-svemir) 5.552 (svemir-Zemlja) 5.516B 5.554A 5.555B MOBILNA	<b>48.2-50.2</b> FIKSNA FIKSNA SATELITSKA (Zemlja-svemir) 5.516B 5.552 ADD 5.BA03 MOBILNA  5.149 5.340 5.555	
<b>48.54-49.44</b> FIKSNA FIKSNA SATELITSKA (Zemlja-svemir) 5.552 MOBILNA 5.149 5.340 5.555		
<b>49.44-50.2</b> FIKSNA FIKSNA SATELITSKA (Zemlja-svemir) 5.552 ADD 5.BA03 (svemir-Zemlja) 5.516B 5.554A 5.555B MOBILNA		
<b>50.2-50.4</b>	ISTRAŽIVANJE ZEMLJE SATELITOM (pasivno) ISTRAŽIVANJE SVEMIRA (pasivno) 5.340	
<b>50.4-51.4</b>	FIKSNA FIKSNA SATELITSKA (Zemlja-svemir) ADD 5.BA03 MOBILNA Mobilna satelitska (Zemlja-svemir)	

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

**5.552A** Namena fiksnoj službi u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz je predviđena za korišćenje stanica na platformi na velikoj visini. Korišćenje opsega 47.2-47.5 GHz i 47.9-48.2 GHz podleže primeni odredbi koje su sadržane u Rezoluciji **122 (Rev.WRC-07)**.

(WRC-07)

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

**66-81 GHz**

Namene službama		
Region 1	Region 2	Region 3

74-76	FIKSNA FIKSNA SATELITSKA (svemir-Zemlja) MOBILNA RADIODIFUZNA RADIODIFUZNA SATELITSKA Istraživanje svemira (svemir-Zemlja) 5.561
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SUP COM6/341/16 (B14/365/16) (R7/411/50)

5.559A

## ČLAN 9

### Procedura za vršenje koordinacije sa ili dobijanja saglasnosti od drugih administracija<sup>1, 2, 3, 4, 5, 6, 7, 8</sup> (WRC-07)

#### Sekcija I – Napredne publikacije ili informacije o satelitskim mrežama ili satelitskim sistemima

9.2B

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

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<sup>10</sup> **9.2B.1** Ako uplate nisu primljene u skladu sa odredbama Odluke Saveta 482, sa izmenama i dopunama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja dotične administracije. Biro će informisati sve administracije o takvoj akciji, i da mreža specificirana u dotičnoj publikaciji neće više biti uzimana u razmatranje od Biroa i drugih administracija. Biro treba da pošalje podsetnik obavješavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gorepomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

#### Sekcija II – Procedura za izvršavanje koordinacije<sup>12, 13</sup>

##### Pod-Sekcija IIA – Potreba i zahtev za koordinacijom

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

**9.14** i) za emitujuću svemirsku stanicu satelitske mreže za koju je zahtev za koordinacijom uključen u fusnotu Tabele namene frekvencija pozivajući se na ovu odredbu ili na No. **9.11A** u odnosu na prijemne stanice zemaljskih službi gde je prag vrednosti pređen; (WRC-07)

9.38

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

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<sup>22</sup> **9.38.1** Ako uplate nisu primljene u skladu sa odredbama Odluke Saveta 482, sa izmenama i dopunama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja dotične administracije. Biro će informisati sve administracije o takvoj akciji, i da mreža specificirana u dotičnoj publikaciji neće više biti uzimana u razmatranje od Biroa i drugih administracija. Biro treba da pošalje podsetnik obavješavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gorepomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

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

**9.41** Sledeći potvrdu od BR IFIC koja se odnosi na zahteve za koordinacijom pod Nos. **9.7 do 9.7B**, administracija koja veruje da je mogla biti uključena u zahtev ili inicirajuća administracija koja veruje da neka administracija identifikovana pod No. **9.36** u skladu sa odredbama No. **9.7** (GSO/GSO) (stavke 1 do 8) kolone frekvencijskog opsega), No. **9.7A** (GSO Zemljina stanica /ne-GSO sistem) ili No. **9.7B** (ne-GSO sistem/GSO Zemljina stanica) Tabele 5-1 Dodatka **5** ne bi trebala da bude uključena u zahtev, treba, unutar četiri meseca od datuma publikovanja relevantne BR IFIC, informisati inicirajuću administraciju ili identifikovanu administraciju, po potrebi, i Biro, dajući svoje tehničke razloge za takav postupak, i treba zahtevati da njeno ime bude uključeno ili da ime identifikovane administracije bude isključeno, prema potrebi. (WRC-07)

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

## ČLAN 11

### **Obaveštavanje i zapisivanje frekvencijskih dodela**<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** Ako uplate nisu primljene u skladu sa odredbama Odluke Saveta 482, sa izmenama i dopunama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju specificiranu u Nos. **11.28** i **11.43** i odgovarajućih stavki u Glavnom registru pod Nos. **11.36, 11.37, 11.38, 11.39, 11.41, 11.43B** ili **11.43C**, po potrebi, nakon informisanja zainteresovanih administracija. Biro treba da informiše sve administracije o takvoj akciji i da stavke publikovane u dotičnoj publikaciji ne treba više da budu uzimane u obzir od strane Biroa i drugih administracija i da bilo koja ponovo podnesena obavest treba da bude smatrana novom obavesti. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gorepomenutom Odlukom Saveta 482 osim ako je uplata već primljena.. Vidi takođe Rezoluciju **905 (WRC-07)**. (WRC-07)

### **Sekcija I – Obaveštenja**

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

#### **11.3A**

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

**11.9** Slična obaveštenja treba da budu rađena za frekvencijsku dodelu za prijemnu Zemljinu stanicu ili svemirsku stanicu, ili za prijemnu stanicu na platformi na velikim visinama u fiksnoj službi koristeći opsege spomenute u Nos. **5.543A** i **5.552A** ili kopnene stanice za prijem od mobilnih stanica, kada: (WRC-07)

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

**11.15** Kada obaveštava o frekvencijskoj dodeli, administracija<sup>7</sup> treba da pruži relevantne karakteristike izlistane u Dodatku **4**. (WRC-07)

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

**11.26** Obaveštenja koja se odnose na dodele za stanice na platformama na velikim visinama u fiksnoj službi u opsezima identifikovanim u odredbama **5.537A, 5.543A** i **5.552A** treba da stignu u Biro ne ranije od pet godina pre nego što se dodela da na korišćenje. (WRC-07)

### **Sekcija II – Ispitivanje obaveštenja i zapisivanje frekvencijskih namena u Glavni registar**

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

**11.43A** Obaveštenje o izmeni u karakteristikama neke dodele koja je već zapisana, kako je specificirano u Dodatku 4, treba biti ispitano od strane Biroa pod Nos. **11.31** do **11.34**, po mogućnosti. Bilo koja izmena karakteristika neke dodele koja je zapisana i potvrđena za davanje na korišćenje treba biti data na korišćenje unutar pet godina od dana obaveštenja o modifikaciji. Svaka promena karakteristika neke dodele koja je zapisana ali nije još data na korišćenje treba da bude data na korišćenje unutar perioda datog za to u No. **11.44**. (WRC-07)

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

**11.46** U primeni odredaba ovog Člana, bilo koje ponovo podneto obaveštenje koje je primio Biro više od šest meseci nakon datuma kada je Biro vratio originalno obaveštenje treba da se smatra novim obaveštenjem sa novim datumom prijema. Za frekvencijske dodele svemirskoj stanici, ukoliko novi datum prijema takvog obaveštenja ne odgovara periodu specificiranom u No. **11.44.1** ili No. **11.43A**, po mogućnosti, obaveštenje treba biti vraćeno obaveštavajućoj administraciji u slučaju No. **11.44.1**, i obaveštenje treba da bude ispitano kao novo obaveštenje o promeni u karakteristikama neke dodele već zapisane sa novim datumom prijema u slučaju No. **11.43A**. (WRC-07)

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

**11.47** Sve frekvencijske dodele za koje su obaveštenja bila data pre nego što su date na korišćenje treba da se unesu privremeno u Glavni registar. Bilo koja frekvencijska dodela svemirskoj stanici privremeno zapisana pod ovom odredbom treba se dati na korišćenje ne kasnije od kraja perioda datog pod No. **11.44**. Bilo koja druga frekvencijska dodela privremeno zapisana pod tom odredbom treba biti data na korišćenje do datuma specificiranog u obaveštenju, ili do kraja produženog perioda datom pod No. **11.45**, ko što se može desiti. Osim ako je Biro bio obavešten od obaveštavajuće administracije o davanju na korišćenje dodele, treba, ne kasnije od petnaest dana pre, ili od datuma obaveštenja o davanju na korišćenje, u slučaju Zemljine stanice, ili kraja regulatornog perioda ustanovljenog pod No. **11.44** ili No. **11.45**, po potrebi, poslati podsetnik zahtevajući potvrdu da je dodela data na korišćenje unutar tog regulatornog perioda. Ako Biro ne primi tu potvrdu unutar trideset dana nakon datuma obaveštenja o davanju na korišćenje, u slučaju Zemljine stanice, ili perioda datog pod No. **11.44** ili No. **11.45**, kao što se može desiti, treba da se poništi ta stavka u Glavnom registru. Biro treba, međutim, obavestiti zainteresovanu administraciju pre preduzimanja takve akcije. (WRC-07)

## ČLAN 15

### Interfejsi

#### Sekcija I – Interfejs od radio stanica

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

**15.8** § 4 Posebna brigu treba posvetiti da se izbegne interferencija na frekvencijama za slučaj nesreće i bezbednosti, onih koje se odnose na nesreću i bezbednost identifikovanih u Članu **31** i onima koji se odnose na bezbednost i regularnost leta identifikovanim u Dodatku **27**. (WRC-07)

#### Sekcija VI – Procedura u slučaju štetne smetnje

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

**15.28** § 20 Priznajući da emisije na frekvencijama za nesreće i bezbednost i frekvencijama korišćenim za bezbednost i regularnost leta (vidi Član **31** i Dodatak **27**) zahtevaju apsolutnu međunarodnu zaštitu i da eliminacija štetnih smetnji takvim sistemima jeste imperativ, administracije se obavezuju da će odmah delovati kad im pažnju privuče bilo koja takva štetna smetnja. (WRC-07)

## ČLAN 16

### Međunarodno nadgledanje

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

**16.2** Međunarodni sistem nadgledanja obuhvata samo one nadgledajuće stanice koje su administracije tako nazvale u informaciji poslatoj Generalnom sekretaru u skladu sa Rezolucijom ITU-R 23-1 i Preporukom ITU-R SM.1139. Te stanice mogu biti vođene od administracija ili, u skladu sa autorizacijom odobrenom od odgovarajuće administracije, od strane javnih ili privatnih firmi, od strane zajedničke službe za nadgledanje ustanovljene od dve ili više zemanja, ili od neke međunarodne organizacije. (WRC-07)

## ČLAN 19

### Identifikacija stanica

#### Sekcija II – Namena međunarodne serije i dodela pozivnih znakova

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

**19.30** 2) Kako potreba raste, brodske stanice i brodske zemaljske stanice na koje se odredbe iz Poglavlja **IX** primenjuju, i obalne stanice, i obalne zemaljske stanice, ili druge stanice koje nisu na brodu a sposobne da komuniciraju sa tim brodskim stanicama, treba da imaju dodeljene identitete pomorske mobilne službe u skladu sa Sekcijom VI ovog Člana. (WRC-07)

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

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<sup>2</sup> **19.36.1** Ni u kom slučaju ne sme jedna administracija tražiti više MIDs nego što je ukupan broj njihovih brodskih stanica o kojima je obavešten ITU podeljeno sa 1 000, plus jedan. Administracije treba sve da pokušaju da ponovo upotrebe Identifikacije pomorske mobilne službe (MMSI) dodeljene iz ranijih MID resursa, koji postaju redundantni nakon što brodovi ne budu više u njihovom nacionalnom brodskom registru. Takvi brojevi trebali bi se smatrati slobodnim za ponovnu dodelu nakon što su odsutni najmanje dve sukcesivne edicije Liste V ITU publikacija službe. Administracije koje traže dodatne MID resurse moraju zadovoljavati kriterijume obaveštenja za sve prethodne dodele, u skladu sa No. **20.16**. Ti kriteriji se primenjuju samo na MMSIs u osnovnoj kategoriji i na sve MIDs dodeljene administraciji. (WRC-07)

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

**19.38** § 19 1) Svaka administracija treba da odabere pozivne znakove iz međunarodne serije namenjene ili dobijene za to; i treba da obavesti o toj informaciji Generalnog sekretara zajedno sa informacijom koja treba da se pojavi u Listama I, IV, V. Ta obaveštenja ne uključuju pozivne znakove dodeljene amaterskim i eksperimentalnim stanicama. (WRC-07)

### **Sekcija III – Formiranje pozivnih znakova**

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

**19.55** § 24 1)

- dva karaktera i dva slova, *ili*
- dva karaktera, dva slova i jedna brojka (osim 0 ili 1), *ili*
- dva karaktera (da drugo bude slovo) i četiri brojke (osim 0 ili 1 u slučajevima gde one odmah slede iza slova), *ili*
- dva karaktera i jedno slovo i četiri brojke (osim 0 ili 1 u slučajevima gde one odmah slede iza slova). (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** U slučaju pola serije (na pr. kada su prva dva karaktera namenjena više nego jednoj Državi članici), prva tri karaktera su potrebna za identifikaciju nacionalnosti. U takvim slučajevima, pozivni znak treba da se sastoji od tri karaktera nakon kojih sledi jedna brojka i grupe ne veće od tri karaktera, od kojih zadnji treba da bude brojka. (WRC-07)

### **Sekcija IV – Identifikacija stanica koje koriste radiotelefoniju**

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

**19.73** § 33 1) *Obalne stanice*

- pozivni znak (vidi No. **19.52**); *ili*
- geografsko ime mesta kao što se pojavljuje u Listi obalnih stanica i Stanica specijalne službe, nakon čega najbolje da sledi reč RADIO ili neka druga odgovarajuća indikacija. (WRC-07)

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

**19.76** 4) *Stanice radiofarova za označavanje mesta udesa*

Kad se koriste govorne emisije:

- ime i/ili pozivni znak matičnog broda kome radiofar pripada. (WRC-07)



### **Sekcija V – Selektivni pozivni brojevi u pomorskoj mobilnoj službi**

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

**19.83** § 36 Kada stanice u pomorskoj mobilnoj službi koriste uređaje za selektivni poziv u skladu sa Preporukama ITU-R M.476-5 i ITU-R M.625-3, njihovi pozivni brojevi treba da su dodeljeni od strane odgovorne administracije u skladu sa odredbama niže. (WRC-07)

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

**19.92** § 38 1) U slučajevima kada su selektivni pozivni brojevi za brodske stanice i identifikacioni brojevi za obalne stanice potrebni za korišćenje u pomorskoj mobilnoj službi, selektivni pozivni brojevi i identifikacioni brojevi treba da su dobijeni od Generalnog sekretara na zahtev. Nakon obaveštenja od neke administracije o uvođenju selektivnog poziva za korišćenje u pomorskoj mobilnoj službi: (WRC-07)

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

**19.96A** 3) Petocifreni selektivni pozivni brojevi brodske stanice treba da su dodeljeni za opremu za uskopojasnu mašinsku telegrafiju (NBDP) (kako je opisano u Preporukama ITU-R M.476-5). (WRC-07)

**MOD** COM4/332/182 (B14/365/20) (R7/411/60)

### **Sekcija VI – Identiteti pomorske mobilne službe** (WRC-07)

**MOD** COM4/332/183 (B14/365/21) (R7/411/61)

**19.99** § 39 Kada stanica<sup>5</sup> koja radi u pomorskoj mobilnoj službi ili pomorskoj mobilnoj satelitskoj službi ima potrebu da koristi identitete pomorske mobilne službe, odgovorna administracija treba da dodeli identitet stanici u skladu sa odredbama opisanim u Aneksima 1 do 5 Preporuke ITU-R M.585-4. U skladu sa No. **20.16**, administracije treba da obaveste Biro za radio-komunikacije odmah čim dodele identitete pomorske mobilne službe. (WRC-07)

**MOD** COM4/332/184 (B14/365/22) (R7/411/62)

**19.100** § 40 1) Identiteti pomorske mobilne službe se formiraju od serije od devet cifara koje se emituju radio putem da bi se jednoznačno identifikovale brodske stanice, brodske zemljine stanice, obalne stanice, obalne Zemljine stanice, i druge stanice koje nisu na brodovima koje rade u pomorskoj mobilnoj službi ili pomorskoj mobilnoj satelitskoj službi, i grupnim pozivima. (WRC-07)

**MOD** COM4/332/185 (B14/365/23) (R7/411/63)

**19.102** 3) Tipovi identiteta pomorske mobilne službe trebaju biti kako je opisano u Aneksima 1 do 5 Preporuka 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 Pomorske identifikacione brojke  $M_1I_2D_3$  jesu integralni deo identiteta pomorske mobilne službe i označavaju geografsko područje administracije odgovorne za tako identifikovanu stanicu. (WRC-07)

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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** COM4/332/188 (B14/365/26) (R7/411/66)

**19.110** C – *Identifikacije pomorske mobilne službe* (WRC-07)

**MOD** COM4/332/189 (B14/365/27) (R7/411/67)

**19.111** § 43 1) Administracije treba da slede Aneксе 1 do 5 Preporuke ITU-R M.585-4 koja se tiče dodele i korišćenja identiteta pomorske mobilne službe. (WRC-07)

**MOD** COM4/332/190 (B14/365/28) (R7/411/68)

**19.112** 2) Administracije bi trebale: (WRC-07)

**MOD** COM4/332/191 (B14/365/29) (R7/411/69)

**19.113** a) da urade optimalno korišćenje mogućnosti formiranja identiteta od jednog MID koji im je namenjen; (WRC-07)

**MOD** COM4/332/192 (B14/365/30) (R7/411/70)

**19.114** b) da posvete posebnu brigu u dodeli identiteta brodskoj stanici sa šest značajnih brojki (na pr. imajući identitete sa tri nule na kraju), koje bi trebalo da se dodele samo brodskim stanicama za koje ima rezona da se očekuje da zahtevaju takav jedan identitet za automatski pristup na globalnoj osnovi javnim komutacionim mrežama, posebno za mobilne satelitske sisteme prihvaćene da se koriste u GMDSS na ili pre 1.2.2002., dokle god ti sistemi održavaju MMSI kao deo njihove šeme numerisanja. (WRC-07)

**SUP** COM4/332/193 (B14/365/31) (R7/411/71)

**19.115 to 19.126**

## ČLAN 20

### Publikacije službe i on-lajn informacioni sistemi (WRC-07)

#### Sekcija I – Naslovi i sadržaj publikacija službe (WRC-07)

**MOD** COM4/296/9 (B9/305/11) (R4/335/26)

**20.1** § 1 Sledeće publikacije treba da su izdane od strane generalnog sekretara. Kao što nalažu okolnosti i kao odgovor na individualane zahteve administracija, publikovane informacije treba takođe da su dostupne u različitim formatima i odgovarajućim načinima. (WRC-07)

**MOD** COM4/296/10 (B9/305/12) (R4/335/27)

**20.5** b) frekvencije propisane ovom Regulativom za zajedničko korišćenje nekih službi; (WRC-07)

**MOD** COM4/296/11 (B9/305/13) (R4/335/28)

**20.7** § 3 *Lista IV – Lista Obalnih stanica i stanica specijalnih službi.* (WRC-07)

**MOD** COM4/296/12 (B9/305/14) (R4/335/29)

**20.8** § 4 *Lista V – Lista Brodskih stanica i Dodele identiteta Pomorske mobilne službe.* (WRC-07)

**SUP** COM4/296/13 (B9/305/15) (R4/335/30)

**20.9 i 20.10**

**ADD** COM4/296/14 (B9/305/16) (R4/335/31)

#### Sekcija II – On-lajn informacioni sistemi (WRC-07)

**ADD** COM4/296/15 (B9/305/17) (R4/335/32)

**20.14A** Biro za radio-komunikacije je napravio dostupne sledeće on-lajn informacione sistem(e):

ITU Pomorski mobilni sistem za pristup i preuzimanje podataka (MARS). (WRC-07)

**MOD** COM4/296/16 (B9/305/18) (R4/335/33)

**Sekcija III – Pripreme i dopune publikacija službe  
i on-lajn informacionih sistema** (WRC-07)

**MOD** COM4/296/17 (B9/305/19) (R4/335/34)

**20.15** § 11 Formu, sadržaj i periodičnost svake publikacije treba da ustanovi Biro za radio-komunikacije u konsultacijama sa zainteresovanim administracijama i međunarodnim organizacijama. Slične konsultacije treba da budu rađene u vezi pomorskih on-lajn informacijskih sistema. (WRC-07)

**MOD** COM4/296/18 (B9/305/20) (R4/335/35)

**20.16** § 12 Administracije treba da preduzmu sve potrebne mere da odmah obaveste Biro za radio-komunikacije o bilo kojim izmenama u radnim informacijama sadržanim u Listama IV i V, u pogledu važnosti te informacije, posebno u vezi bezbednosti. U slučaju podataka publikovanih u Listi V, koja je takođe napravljena dostupnom on-lajn koristeći MARS, administracije trebaju da saopšte te promene najmanje jednom mesečno. U slučaju drugih publikacija, administracije treba da saopšte promene informacija sadržanih u njima što pre je moguće. (WRC-07)

**ADD** COM4/296/19 (B9/305/21) (R4/335/36)

**20.16A** Imena administracija koje su propustile da obaveste Biro za radio-komunikacije o promenama radnih informacija sadržanih u Listama IV i V trebaju biti publikovana u tim Listama.

Biro za radio-komunikacije će periodično zahtevati od administracija da ponovo potvrde informacije publikovane u Listama IV i V. Ako nikakva informacija ne stigne u Biro za radio-komunikacije za dva sukcesivna izdanja Lista IV i V, informacije koje više ne vrede treba izbrisati. Biro za radio-komunikacije treba naravno da informiše zainteresovanu administraciju pre preuzimanja takve mere. (WRC-07)

## ČLAN 21

### Zemaljske i svemirske službe koje dele frekvencijski opseg iznad 1 GHz

#### Sekcija II – Ograničenja snage za zemaljske stanice

MOD COM5/307/2 (B11/329/8) (R6/410/13)

TABELA 21-2 (WRC-07)

Frekvencijski opseg	Služba	Granice specificirane u 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 (Region 2) 2 025-2 110 MHz 2 200-2 290 MHz 2 655-2 670 MHz <sup>5</sup> (Regioni 2 i 3) 2 670-2 690 MHz 5 670-5 725 MHz (Nos. <b>5.453</b> i <b>5.455</b> ) 5 725-5 755 MHz <sup>5</sup> (Region 1 zemlje izlistane u Nos. <b>5.451</b> , <b>5.453</b> and <b>5.455</b> ) 5 755-5 850 MHz <sup>5</sup> (Region 1 zemlje izlistane u 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	Fiksna satelitska Meteorološka satelitska Istraživanje svemira Svemirske operacije Satelitsko istraživanje Zemlje Mobilna satelitska	<b>21.2, 21.3, 21.4 i 21.5</b>

TABELA 21-2 (kraj) (WRC-07)

Frekvencijski opseg	Služba	Ograničenje specificirano u Nos.
10.7-11.7 GHz <sup>5</sup> (Region 1) 12.5-12.75 GHz <sup>5</sup> (Nos. <b>5.494</b> i <b>5.496</b> ) 12.7-12.75 GHz <sup>5</sup> (Region 2) 12.75-13.25 GHz 13.75-14 GHz (Nos. <b>5.499</b> i <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> i <b>5.509</b> ) 14.3-14.4 GHz <sup>5</sup> (Regioni 1 i 3) 14.4-14.5 GHz 14.5-14.8 GHz	Fiksna satelitska	<b>21.2, 21.3 i 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 (Regioni 1 i 3) 24.75-25.25 GHz (Region 3) 25.25-29.5 GHz	Fiksna satelitska Satelitsko istraživanje Zemlje Istraživanje svemira Među satelitska	<b>21.2, 21.3, 21.5 i 21.5A</b>

#### Sekcija V – Granice snage gustine fluksa od svemirskih stanica

\* 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.

**MOD** COM4/392/15 (B19/413/21)

TABLE 21-4 (WRC-07)

Frekvencijski opseg	Služba*	Granica u dB(W/m <sup>2</sup> ) za upadne uglove (δ) iznad horizontalne ravni			Referentna širina opsega
		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)	Fiksna satelitska Radiodifuzna satelitska Radiodeterminacijska satelitska Mobilna satelitska Mobilna satelitska (osim vazduhoplovne mobilne satelitske)	-136 <sup>21</sup>	-136 + 11/20(δ - 5) <sup>21</sup>	-125 <sup>21</sup>	1 MHz
...					

<sup>21</sup> **21.16.19** Rezolucija [COM4/12] (WRC-07) treba da se primeni. (WRC-07)

**MOD** COM5/344/2 (B14/365/32) (R7/411/72)

TABELA 21-4 (nastavak) (WRC-07)

Frekvencijski opseg	Služba*	Granica u dB(W/m <sup>2</sup> ) za upadne uglove (δ) iznad horizontalne ravni			Referentna širina opsega
		0°-5°	5°-25°	25°-90°	
...					
17.7-19.3 GHz <sup>7,8</sup>	Fiksna satelitska (svemir-zemlja) Meteorološka satelitska (svemir-Zemlja)	-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>	Fiksna satelitska (svemir-Zemlja)	0°-3° -120 <sup>22</sup>	3°-12° -120 + (8/9)(δ - 3) <sup>22</sup>	12°-25° -112 + (7/13)(δ - 12) <sup>22</sup>	-105 <sup>22</sup> 1 MHz
19.3-19.7 GHz	Fiksna satelitska (svemir-Zemlja)	0°-3° -120 <sup>22</sup>	3°-12° -120 + (8/9)(δ - 3) <sup>22</sup>	12°-25° -112 + (7/13)(δ - 12) <sup>22</sup>	-105 <sup>22</sup> 1 MHz
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	Fiksna satelitska (svemir-Zemlja) Satelitsko istraživanje zemlje (svemir-Zemlja) Među satelitska Istraživanje svemira (svemir-Zemlja)	0°-5° -115 <sup>21</sup>	5°-25° -115 + 0.5(δ - 5) <sup>21</sup>	-105 <sup>21</sup>	1 MHz
...					

**ADD** COM5/344/3 (B14/365/33) (R7/411/73)

<sup>21</sup> **21.16.x** Te granice takođe se primenjuju na svemirske stanice fiksne satelitske službe koje koriste jako nagnute orbite kojima je visina apogeja veća od 18 000 km i nagnutost orbite između 35° i 145° u opsegu 17.7-19.7 GHz na koji se Rezolucija primenjuje **147 (WRC-07)**. (WRC-07)

**ADD** COM5/344/4 (B14/365/34) (R7/411/74)

<sup>22</sup> **21.16.y** Te granice takođe se primenjuju na sve svemirske stanice fiksne satelitske službe koje koriste jako nagnute orbite kojima je visina apogeja veća od 18 000 km i nagnutost orbite između 35° i 145° u opsegu 17.7-19.7 GHz koje nisu pokrivene Rezolucijom [COM5/3] (WRC-07), i za

koje je kompletna informacija koordinacije ili obaveštenja, po potrebi, primljena u Birou za radio-komunikacije posle 16.11.2007. (WRC-07)

## ČLAN 22 Svemirske službe<sup>1</sup>

### Sekcija II – Kontrola interferencije geostacionarnih satelitskih sistemima

**MOD** COM5/379/4 (B16/401/4)

**22.2** § 2 1) Ne-geostacionarni satelitski sistemi ne treba da uzrokuju neprihvatljive smetnje i ne mogu, osim ako je drugačije specificirano u ovoj Regulativi, tražiti zaštitu zbog geostacionarnih satelitskih mreža u fiksnoj satelitskoj službi i radiodifuzne satelitske službe koja radi u skladu sa ovom Regulativom. No. **5.43A** se ne primenjuje u tom slučaju. (WRC-07)

**MOD** COM6/341/18 (B14/365/35) (R7/411/75)

TABELA 22-1D (WRC-07)

**Ograničenja  $epfd_{\downarrow}$  izračene od antena ne-geostacionarnih satelitskih sistema u fiksnoj satelitskoj službi u nekim frekvencijskim opsezima u 30 cm, 45 cm, 60 cm, 90 cm, 120 cm, 180 cm, 240 cm and 300 cm antena radiodifuzne satelitske službe<sup>6, 9, 10, 11</sup>**

Frekvencijski opseg (GHz)	$epfd_{\downarrow}$ (dB(W/m <sup>2</sup> ))	Procenat vremena za koje $epfd_{\downarrow}$ ne sme da bude prevaziđen	Referentna širina opsega (kHz)	Referentni promer antene i referentni dijagram zračenja <sup>MOD 12</sup>		
11.7-12.5 u Regionuu 1; 11.7-12.2 ii 12.5-12.75 u Regionu 3; 12.2-12.7 u Regionu 2	-165.841	0	40	30 cm Preporuka ITU-R BO.1443-2, Aneks 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 Preporuka ITU-R BO.1443-2, Aneks 1
	-172.441	66				
-169.441	97.75					
-164	99.357					
-160.75	99.809					
-160	99.986					
-160	100					
-176.441	0	40	60 cm Preporuka ITU-R BO.1443-2, Aneks 1			
-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** Za ovu Tabelu, referentni dijagram iz Aneksa 1 Preporuke ITU-R BO.1443-2 treba biti korišćen samo za proračun interferencije od ne-geostacionarnih satelitskih sistema u fiksnoj satelitskoj službi ka geostacionarnim satelitskim sistemima u radiodifuznoj satelitskoj službi. (WRC-07)

**MOD** COM6/341/19bis (B14/365/37) (R7/411/77)

TABELA 22-1D (raj) (WRC-07)

Frekvencijski opseg (GHz)	epfd <sub>↓</sub> (dB(W/m <sup>2</sup> ))	Procenat vremena za koje epfd <sub>↓</sub> ne sme da bude prevaziđen	Referentna širina opsega (kHz)	Referentni promer antene i referentni dijagram zračenja <sup>MOD 12</sup>
11.7-12.5 u Regionu 1; 11.7-12.2 i 12.5-12.75 u Regionu 3; 12.2-12.7 u Regionu 2	-178.94	0	40	90 cm Preporuka ITU-R BO.1443-2, Aneks1
	-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 Preporuka ITU-R BO.1443-2, Aneks 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 Preporuka ITU-R BO.1443-2, Aneks 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 Preporuka ITU-R BO.1443-2, Aneks 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		Preporuka ITU-R BO.1443-
	-185.941	99.5		2,
	-180.5	99.857		Aneks 1
	-173	99.914		
	-167	99.951		
	-162	99.983		
	-160	99.991		
	-160	100		

**Sekcija VI – Granice snage izvan ose na Zemljinim stanicama geostacionarne satelitske mreže u fiksnoj satelitskoj službi**<sup>33, 34</sup> (WRC-2000)

**MOD** COM6/341/20 (B14/365/38) (R7/411/78)

**22.36** Svemirske stanice koje rade u frekvenzijskom opsegu 29.5-30 GHz trebalo bi da budu projektovane na takav način da 90% njihovih vršnih nivoa e.i.r.p. gustine izvan glavne ose ne prelazi vrednosti date u No. **22.32**. Dalje studije su potrebne da se odredi opseg uglova izvan glavne ose nad kojima bi to prekoračenje moglo biti dozvoljeno, vodeći računa o nivou interferencije prema susednim satelitima. Statističko procesiranje vršne e.i.r.p. gustine izvan glavne ose trebalo bi da bude rađeno koristeći metod dat u najnovijoj verziji Preporuke ITU-R S.732. (WRC-07)

**ČLAN 28**

**Radiodeterminacijske službe**

**Sekcija I – Generalne odredbe**

**MOD** COM4/332/95 (B13/347/41) (R7/411/79)

**28.3** § 3 Administracije treba da obaveste Biro o karakteristikama svake radiodeterminacijske stanice za pružanje usluga međunarodne vrednosti pomorskoj mobilnoj službi i, ako se pokaže neophodno, svakoj stanici ili grupi stanica, sektorima u kojima su dobivene informacije normalno verodostojne. Ta informacija je publikovana u Listi Obalskih stanica i Stanica specijalne službe (Lista IV), i Biro treba da bude obavešten o bilo kojoj promeni trajne prirode. (WRC-07)

**ČLAN 30**

**Generalne odredbe**

**Sekcija I – Uvod**

**MOD** COM4/211/16 (B3/224/18) (R2/266/10)

**30.1** § 1 Ovo Poglavlje sadrži odredbe za radno korišćenje globalanog pomorskog sistema za slučaj nesreće i bezbednost (GMDSS), čiji funkcionalni zahtevi, elementi sistema i zahtevi nošenja opreme su propisani u Međunarodnoj Konvenciji o Sigurnosti života na moru (SOLAS), 1974, uz dopune. Ovo Poglavlje takođe sadrži odredbe za iniciranje komunikacija nesreće, hitnoće i bezbednosti putem radiotelefonije na frekvenciji 156.8 MHz (VHF kanal 16). (WRC-07)

**Sekcija II – Pomorske odredbe**

**MOD** COM4/211/17 (B3/224/19) (R2/266/11)

**30.4** § 4 Odredbe specificirane u ovom Poglavlju obavezne su u pomorskoj mobilnoj službi i pomorskoj mobilnoj satelitskoj službi za sve stanice koje koriste frekvencije i tehnike propisane za funkcije navedene u ovom tekstu (vidi takođe No. **30.5**). (WRC-07)



### **Sekcija III – Vazduhoplovne odredbe**

**ADD** COM4/211/18 (B3/224/20) (R2/266/12)

**30.11bis** Vazduhoplov, kad vodi operacije pretrage i spasavanja, može takode da koristi opremu za rad za digitalno selektivno pozivanje (DSC) na VHF DSC frekvenciji 156.525 MHz, i opremu automatskog identifikacionog sistema (AIS) na AIS frekvencijama 161.975 MHz i 162.025 MHz. (WRC-07)

## **ČLAN 31**

### **Frekvencije za globalni pomorski sistem za nesreće i bezbednost (GMDSS)**

#### **Sekcija I – Generalno**

**MOD** COM4/296/20 (B9/305/22) (R4/335/37)

**31.1** § 1 Frekvencije koje se koriste za emisije informacija nesreće i sigurnosti pod GMDSS sadržane su u Dodatku **15**. Kao dodatak frekvencijama izlistanih u Dodatku **15**, brodske stanice i obalske stanice trebalo bi da koriste druge odgovarajuće frekvencije za emisije bezbednosnih poruka i generalnih radio-komunikacija ka i od obalskih radio sistema i mreža. (WRC-07)

**MOD** COM4/296/21 (B9/305/23) (R4/335/38)

**31.2** § 2 Bilo koja emisija koja uzrokuje štetne smetnje komunikacijama nesreće i bezbednosti na bilo kojim diskretnim frekvencijama identifikovanim u Dodatku **15** zabranjena je. (WRC-07)

#### **Sekcija III – Motrenje**

**MOD** COM4/332/96 (B13/347/42) (R7/411/80)

**31.13** § 6 One obalske stanice koje podrazumevaju odgovornosti nadgledanja u GMDSS treba da održavaju motrenje uz automatsko digitalno selektivno pozivanje na frekvencijama i periodima vremena kako je indikovano u informaciji publikovanoj u Listi Obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/296/22 (B9/305/24) (R4/335/39)

**31.17** § 8 1) Brodske stanice, kada su tako opremljene, trebaju, dok su na moru, da održavaju motrenje uz automatsko digitalno selektivno pozivanje na odgovarajućim frekvencijama za nesreću i bezbednosne pozive u frekvencijskim opsezima u kojima rade. Brodske stanice, koje su tako opremljene, trebaju takode da održavaju motrenje na odgovarajuće frekvencije za automatski prijem emisija meteoroloških i navigacionih upozorenja i ostalih urgentnih informacija brodovima. (WRC-07)

**MOD** COM4/296/23 (B9/305/25) (R4/335/40)

**31.18** 2) Brodske stanice u skladu sa odredbama ovog Poglavlja trebale bi, gde je praktično, da održavaju motrenje na frekvenciji 156.800 MHz (VHF kanal 16). (WRC-07)

**MOD** COM4/332/97 (B13/347/43) (R7/411/81)

## **ČLAN 32**

### **Radne procedure za komunikacije u slučaju nesreće u globalnom pomorskom sistemu za bezbednost i slučaj nesreće (GMDSS)**

#### **Sekcija I – Generalno**

**MOD** COM4/332/98 (B13/347/44) (R7/411/82)

**32.1** § 1 Komunikacije za slučaj nesreće oslanjaju se na korišćenje zemaljskih MF, HF i VHF radio-komunikacija i komunikacija koje koriste satelitske tehnike. Komunikacije za slučaj nesreće treba da imaju apsolutan prioritet nad svim drugim emisijama. Sledeći termini se primenjuju:

- a) Upozorenje o nesreći je digitalni selektivni poziv (DSC) koji koristi format poziva u slučaju nesreće, u opsezima koji se koriste za zemaljske radio-komunikacije, ili format poruke u slučaju nesreće, u kom slučaju prenosi se preko svemirskih stanica.
- b) Poziv u slučaju nesreće je inicijalno glasovna ili tekstovna procedura.
- c) Poruka u slučaju nesreće je sledeća glasovna ili tekstovna procedura.
- d) Prenos upozorenja na nesreću je DSC emisija u ime neke druge stanice.
- e) Prenos upozorenja na nesreću je početna glasovna ili tekstovna procedura za stanicu koja se ne nalazi u nesreći. (WRC-07)

**MOD** COM4/332/99 (B13/347/45) (R7/411/83)

**32.2** § 2 1) Upozorenje o nesreći treba da se pošalje preko satelita ili sa apsolutnim prioritetom kod komunikacionih kanala opšte namene, na ekskluzivnim frekvencijama rezervisanim za satelitski EPIRBs u smeru Zemlja-svemir ili na frekvencijama za slučaj nesreće i bezbednosti projektovanih u MF, HF i VHF opsezima za digitalno selektivno pozivanje (vidi Dodatak 15). (WRC-07)

**ADD** COM4/332/100 (B13/347/46) (R7/411/84)

**32.2bis** Poziv u slučaju nesreće treba biti poslat na frekvencijama za slučaj nesreće i bezbednosti projektovanih u MF, HF i VHF opsezima za radiotelefoniju. (WRC-07)

**MOD** COM4/332/101 (B13/347/47) (R7/411/85)

**32.3** 2) Upozorenje o nesreći ili poziv i sledeće poruke trebaju biti poslate samo pod autoritetom osobe odgovorne za brod, vazduhoplov ili drugo vozilo koje nosi mobilnu stanicu ili mobilnu Zemljinu stanicu. (WRC-07)

**MOD** COM4/332/102 (B13/347/48) (R7/411/86)

**32.4** § 3 Sve stanice koje prime upozorenje o nesreći ili poziv poslat na frekvencijama za slučaj nesreće i bezbednosti u MF, HF i VHF opsezima treba da odmah obustave sve emisije sposobne da interferiraju sa prometom u nesreći i pripreme se za naredni poziv u nesreći. (WRC-07)

**MOD** COM4/332/103 (B13/347/49) (R7/411/87)

**32.5** § 4 Upozorenje o nesreći ili prenos upozorenja na nesreću koristeći DSC trebale bi da koriste tehničke strukture i sadržaj utvrđen u najnovijoj verziji Preporuka ITU-R M.493 i ITU-R M.541. (WRC-07)

**MOD** COM4/332/104 (B13/347/50) (R7/411/88)

**32.5A** § 4A Svaka administracija treba da osigura da podesni aranžmani budu napravljeni za dodeljivanje i registraciju identiteta koje koriste brodovi koji učestvuju u GMDSS, i treba da učine informacije za registraciju dostupne koordinacionim centrima za spasavanje 24-časa dnevno, 7-dana nedeljno. Kad je potrebno, administracije trebaju odmah obavestiti odgovorne organizacije o dodacima, brisanjima i drugim promenama u tim dodelama (vidi Nos. **19.39**, **19.96** i **19.99**). Podnesene registracione informacije treba da su u skladu sa Rezolucijom **340 (WRC-97)**. (WRC-07)

**MOD** COM4/332/105 (B13/347/51) (R7/411/89)

**32.5B** § 4B Svaka GMDSS oprema na brodu koja je sposobna da prenese koordinate pozicije kao deo upozorenja na nesreću i koja nema integralni elektronski sistemski prijemnik za fiksiranje pozicije treba da bude prespojena na posebni navigacioni prijemnik, ako je takav instalisan, da te informacije pribavi automatski. (WRC-07)

**MOD** COM4/332/106 (B13/347/52) (R7/411/90)

## **Sekcija II – Upozoravanje o nesreći i pozivanje u slučaju nesreće** (WRC-07)

**32.8** *A – Generalno*

**MOD** COM4/332/107 (B13/347/53) (R7/411/91)

**32.9** § 7 1) Emisija upozorenja o nesreći ili poziv u slučaju nesreće pokazuje da mobilnoj jedinici<sup>2</sup> ili osobi<sup>3</sup> pretil ozbiljna i neposredna opasnost i potrebna je što brža pomoć. (WRC-07)

**MOD** COM4/332/108 (B13/347/54) (R7/411/92)

**32.10A** § 7A Upozorenje na opasnost je pogrešno ako je emitovano bez ikakve indikacije da je mobilna jedinica ili osoba bila u nesreći i zahtevala što bržu pomoć (vidi No. **32.9**). Administracije koje prime pogrešno upozorenje za nesreću treba da izveste o tom prekršaju u skladu sa Sekcijom V Člana **15**, ako to upozorenje:

- a) emitovano je namerno;
- b) nije poništeno u skladu sa No. **32.53A** i Rezoluciju **349 (Rev.WRC-07)**;
- c) ne može biti verifikovano kao rezultat ili greške na brodu kod motrenja odgovarajuće frekvencije u skladu sa Nos. **31.16** do **31.20**, ili izostanka odgovora na pozive od autorizovanog spasilačkog autoriteta;
- d) bilo je ponovljeno; ili
- e) emitovano je koristeći pogrešan identitet.

Administracije koje prime takav jedan izveštaj treba da preduzmu potrebne korake da se osigura da se prekršaj ne ponovi. Nikakva akcija ne bi normalno trebala da se preduzme protiv bilo kog broda ili mornara zbog izveštavanja ili poništavanja pogrešnog upozorenja o nesreći. (WRC-07)

**ADD** COM4/332/109 (B13/347/55) (R7/411/93)

**32.10B** Administracije treba da preduzmu praktične i neophodne korake da osiguraju da se izbegnu pogrešna upozorenja o nesreći, uključujući ona poslata omaškom. (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.

**MOD** COM4/332/110 (B13/347/56) (R7/411/94)

**32.11** B – *Emisije upozorenja o nesreći ili pozivi u slučaju nesreće* (WRC-07)

B1 – Emisije upozorenja o nesreći ili pozivi u slučaju nesreće od brodskih stanica ili brodskih Zemljinih stanica  
(WRC-07)

**MOD** COM4/332/111 (B13/347/57) (R7/411/95)

**32.12** § 8 Brod-kopno upozorenja o nesreći ili pozivi u slučaju nesreće koriste se da upozore koordinacijske centre za spasavanje putem obalskih stanica ili obalskih Zemljinih stanica da je brod u nevolji. Ta upozorenja baziraju se na korišćenju emisija preko satelita (od brodske Zemljine stanice ili satelitske EPIRB) i zemaljskih službi (od brodskih stanica i EPIRBs). (WRC-07)

**MOD** COM4/332/112 (B13/347/58) (R7/411/96)

**32.13** § 9 1) Brod-brod upozorenje o nesreći koristi se da se upozore drugi brodovi u blizini o brodu u nevolji i bazirani su na digitalnom selektivnom pozivanju u VHF i MF opsezima. Dodatno, HF opseg može da se koristi. (WRC-07)

**ADD** COM4/332/113 (B13/347/59) (R7/411/97)

**32.13A** 2) brodske stanice opremljene za procedure digitalnog selektivnog pozivanja mogu da emituju pozive u slučaju nesreće i poruke u slučaju nesreće nakon kojih odmah sledi upozorenje o nesreći da bi se privukla pažnja od što više stanica. (WRC-07)

**ADD** COM4/332/114 (B13/347/60) (R7/411/98)

**32.13B** 3) Brodske stanice koje nisu opremljene za procedure digitalnog selektivnog pozivanja treba, gde je praktično, da iniciraju komunikacije u slučaju nesreće emitujući radiotelefonski poziv i poruku u slučaju nesreće na frekvencijama 156.8 MHz (VHF kanal 16). (WRC-07)

**ADD** COM4/332/115 (B13/347/61) (R7/411/99)

**32.13Bbis** § 7B 1) radiotelefonski signal u slučaju nesreće sastoji se od reči MAYDAY izgovorene kao francuski izraz “m'aider”. (WRC-07)

**ADD** COM4/332/116 (B13/347/62) (R7/411/100)

**32.13C** § 9A 1) Poziv u slučaju nesreće poslat na frekvenciji 156.8 MHz (VHF kanal 16) treba da ima sledeći oblik:

- signal u slučaju nesreće MAYDAY, izrečen tri puta;
- reči THIS IS;
- ime plovila u nesreći, izgovoreno tri puta;
- pozivni znak ili druga identifikacija;
- MMSI (ako je početno upozorenje poslato putem DSC). (WRC-07)

**ADD** COM4/332/117 (B13/347/63) (R7/411/101)

**32.13D** 2) Poruka u slučaju nesreće kojoj sledi poziv u slučaju nesreće trebala bi da ima sledeći oblik:

- signal u slučaju nesreće MAYDAY;
- ime plovila u nevolji;
- pozivni znak ili druga identifikacija;

- MMSI (ako je početno upozorenje poslato putem DSC);
- pozicija, data kao geografska dužina i širina, ili ako geografska dužina i širina nisu poznate ili ako nema vremena, nešto u vezi orijentira, poznate geografske lokacije;
- priroda nesreće;
- vrsta potrebne pomoći;
- bilo koja druga korisna informacija. (WRC-07)

**ADD** COM4/332/118 (B13/347/64) (R7/411/102)

**32.13E** § 9B DSC procedure koriste kombinaciju automatizovanih funkcija i ručne intervencije da generišu odgovarajući format poziva u slučaju nesreće u najnovijoj verziji Preporuke ITU-R M.541. Upozorenje u slučaju nesreće poslato putem DSC sastoji se od jednog ili više pokušaja upozorenja u slučaju nesreće u kojima je format poruke emitovan tako da identifikuje stanicu u nevolji, dajući njenu zadnju zabeleženu poziciju i, ako je uneseno, prirodu nesreće. U MF i HF opsezima, pokušaji upozorenja u slučaju nesreće mogu biti poslani kao pokušaj na jednoj frekvenciji ili pokušaj na više frekvencija na najviše šest frekvencija u minuti. U VHF opsezima, samo jednofrekvencijski pokušaji poziva se koriste. Upozorenje u slučaju nesreće ponavljaće se automatski u neregularnim intervalima, u razmaku od po nekoliko minuta, dok se ne primi potvrda prijema poslata koristeći DSC. (WRC-07)

**MOD** COM4/332/119 (B13/347/65) (R7/411/103)

B2 – Prosleđivanje emisije upozorenja kopno-brod u slučaju nesreće ili prosleđivanje poziva u slučaju nesreće (WRC-07)

**MOD** COM4/332/120 (B13/347/66) (R7/411/104)

**32.14** § 10 1) Stanica ili koordinacijski centar koji primi upozorenje ili poziv u slučaju nesreće i poruku u slučaju nesreće treba da inicira emisiju prosleđivanja poziva od kopna na brodova adresiranu, po mogućnosti, svim brodovima, odabranoj grupi brodova, ili određenom brodu, putem satelita ili zemaljskih sredstava. (WRC-07)

**MOD** COM4/332/121 (B13/347/67) (R7/411/105)

**32.15** 2) Prosleđivanje upozorenja u slučaju nesreće i poziva u slučaju nesreće treba da sadrže identifikaciju mobilne jedinice u nevolji, njenu poziciju i sve ostale informacije koje bi mogle olakšati spasavanje. (WRC-07)

**MOD** COM4/332/122 (B13/347/68) (R7/411/106)

B3 – Emisije prosleđivanja upozorenja u slučaju nesreće ili poziva u slučaju nesreće od stanice koja sama nije u nevolji (WRC-07)

**MOD** COM4/332/123 (B13/347/69) (R7/411/107)

**32.16** § 11 Stanica u mobilnoj ili mobilnoj satelitskoj službi koja ustanovi da je neka mobilna jedinica u nevolji (na primer, pomoću radio poziva ili posmatranja), treba da inicira i emituje prosleđivanje upozorenja u slučaju nesreće ili prosleđivanje poziva u slučaju nesreće za račun mobilne jedinice u nevolji kada se utvrdi bilo koja od sledećih okolnosti: (WRC-07)

**MOD** COM4/332/124 (B13/347/70) (R7/411/108)

**32.17** a) kod primanja upozorenja ili poziva u slučaju nesreće koji nije potvrđen od obalske stanice ili drugog plovila u roku od pet minuta (vidi takođe Nos. **32.29A** i **32.31**); (WRC-07)

**MOD** COM4/332/125 (B13/347/71) (R7/411/109)

**32.18** b) kad se ustanovi da je mobilna jedinica u nevolji inače nesposobna da učestvuje u komunikacijama u slučaju nesreće, ako vlasnik ili druga osoba odgovorna za mobilnu jedinicu izvan nevolje smatra da je dalja pomoć neophodna. (WRC-07)

**MOD** COM4/332/126 (B13/347/72) (R7/411/110)

**32.19** § 12 1) Prosleđivanje u slučaju nesreće za račun mobilne jedinice u nevolji treba biti slato u obliku koji odgovara okolnostima (vidi Nos. **32.19A** do **32.19D**) koristeći ili prosleđivanje poziva u slučaju nesreće putem radiotelefonijske (vidi Nos. **32.19D** i **32.19E**), ili individualno adresirano upozorenje u slučaju nesreće koristeći DSC (vidi No. **32.19B**), ili prioritetsku poruku u slučaju nesreće putem brodske Zemljine stanica. (WRC-07)

**ADD** COM4/332/127 (B13/347/73) (R7/411/111)

**32.19A** 2) Stanica koja emituje prosleđivanje upozorenja ili poziva u slučaju nesreće u skladu sa Nos. **32.16** do **32.18** treba da naznači da sama nije u nevolji. (WRC-07)

**ADD** COM4/332/128 (B13/347/74) (R7/411/112)

**32.19B** 3) Prosleđivanje upozorenja u slučaju nesreće poslato od DSC trebalo bi da koristi format poziva, koji može da se nađe u najnovijoj verziji Preporuka ITU-R M.493 i ITU-R M.541, i trebalo bi najpre da bude adresirano na individualnu obalsku stanicu ili koordinacijski centar za spašavanje<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** Plovila koja vrše prosleđivanje upozorenja ili poziva u slučaju nesreće trebalo bi da osiguraju da podesna obalska stanica ili koordinacijski centar za spašavanje budu informisani o svim. (WRC-07)

**ADD** COM4/332/130 (B13/347/76) (R7/411/114)

**32.19C** 4) Međutim, jedan brod ne treba da emituje prosleđivanje upozorenja u slučaju nesreće svim brodovima koristeći digitalno selektivno pozivanje na VHF ili MF frekvencijama za nesreću nakon primanja upozorenja u slučaju nesreće poslatog koristeći digitalno selektivno pozivanje od broda u nevolji. (WRC-07)

**ADD** COM4/332/131 (B13/347/77) (R7/411/115)

**32.19D** 5) Kad se održava slušno nadziranje na obali i verodostojna komunikacija brod-obala može biti uspostavljena putem radiotelefonijske, prosleđivanje poziva u slučaju nesreće se šalje putem radiotelefonijske i adresira na relevantnu obalsku stanicu ili koordinacijski centar za spasavanje<sup>new2</sup> na odgovarajućoj frekvenciji. (WRC-07)

**ADD** COM4/332/132 (B13/347/78) (R7/411/116)

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<sup>new2</sup> **32.19D.1** Plovila koja vrše prosleđivanje poziva u slučaju nesreće trebalo bi da osiguraju da podesna obalska stanica i koordinacijski centar za spasavanje budu informisani o svim prijašnjim razmenjenim komunikacijama u slučaju nesreće. (WRC-07)

**ADD** COM4/332/133 (B13/347/79) (R7/411/117)

**32.19E** 6) Da prosleđivanje poziva u slučaju nesreće poslatog putem radiotelefonijske trebalo bi da ima sledeći oblik:

- signal u slučaju nesreće MAYDAY RELAY, izgovoren tri puta;
- ALL STATIONS ili ime obalske stanice, po potrebi, izgovoreno tri puta;
- reči THIS IS;
- ime stanice koja prosleđuje, izgovoreno tri puta;
- pozivni znak ili druga identifikacija prosleđujuće stanice;
- MMSI (ako je početno upozorenje bilo poslato koristeći DSC) prosleđujuće stanice (plovilo nije u nevolji). (WRC-07)

**ADD** COM4/332/134 (B13/347/80) (R7/411/118)

**32.19F** 7) Iza ovog poziva treba da sledi poruka u slučaju nesreće koja treba, što pre je moguće, ponoviti informaciju sadržanu u originalnom upozorenju u slučaju nesreće<sup>new3</sup> ili poruci u slučaju nesreće. (WRC-07)

**ADD** COM4/332/135 (B13/347/81) (R7/411/119)

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<sup>new3</sup> **32.19F.1** Ako stanica u nevolji ne može da bude identifikovana, tada će biti neophodno poslati originalnu poruku takođe, koristeći, na primer, reči kao “Neidentifikovano plovilo” što se odnosi na mobilnu jedinicu u nevolji. (WRC-07)

**ADD** COM4/332/136 (B13/347/82) (R7/411/120)

**32.19G** 8) Kad se ne održava slušno nadziranje na obali, ili postoje druge poteškoće u uspostavljanju verodostojne brod-obala komunikacije putem radiotelefonijske, neka odgovarajuća obalska stanica ili koordinacijski centar za spasavanje može da se kontaktira putem slanja individualnog prosleđivanja upozorenja u slučaju nesreće koristeći DSC, adresirano isključivo na tu stanicu i koristeći odgovarajući format poziva. (WRC-07)

**ADD** COM4/332/137 (B13/347/83) (R7/411/121)

**32.19H** 9) U slučaju kontinuiranog neuspeha da se kontaktira obalska stanica ili koordinacijski centar za spasavanje direktno, bilo bi dobro poslati prosleđeni poziv u slučaju nesreće putem radiotelefonijske adresirano na sve brodove, ili na sve brodove u određenom geografskom području. Vidi takođe No. **32.19C**. (WRC-07)

**MOD** COM4/332/138 (B13/347/84) (R7/411/122)

**32.20** C – *Prijem i potvrda upozorenja i poziva u slučaju nesreće* (WRC-07)

C1 – *Procedura za potvrdu prijema poziva ili upozorenja u slučaju nesreće* (WRC-07)

**MOD** COM4/332/139 (B13/347/85) (R7/411/123)

**32.21** § 13 1) Potvrda prijema upozorenja u slučaju nesreće, uključujući i prosleđivanje upozorenja u slučaju nesreće, treba da se vrši na način koji odgovara metodu emitovanja upozorenja i unutar vremenske skale odgovarajućoj ulozi stanice u prijemu upozorenja. Potvrda putem satelita treba odmah da bude poslata. (WRC-07)

**ADD** COM4/332/140 (B13/347/86) (R7/411/124)

**32.21A** 2) Kod potvrđivanja prijema upozorenja u slučaju nesreće poslanog putem DSC<sup>new4</sup>, potvrda u zemaljskim službama treba da se vrši putem DSC, radiotelefonijske ili uskopojasne mašinske telegrafije kako odgovara okolnostima, na pridruženoj frekvenciji za slučaj nesreće i bezbednosti u istom opsegu u kojem je upozorenje o nesreći primljeno, uzimajući u obzir smernice date u najnovijim verzijama Preporuka ITU-R M.493 i 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** Da se osigura da nema nepotrebnog kašnjenja pre nego što vlasti na obali postanu svesni nesreće, potvrda putem DSC na upozorenje u slučaju nesreće poslata putem DSC treba normalno da bude urađena samo putem obalske stanice ili koordinacijskog centra za spašavanje. Potvrda putem DSC će poništiti svako buduće automatsko ponavljanje upozorenja o nesreći koje koristi DSC. (WRC-07)

**ADD** COM4/332/142 (B13/347/88) (R7/411/126)

**32.21B** Potvrda putem DSC upozorenja o nesreći poslatog putem DSC adresirana na stanice pomorske mobilne službe treba biti adresirana na sve stanice<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) Kada se potvrđuje putem radiotelefonije prijem upozorenja ili poziva u nesreći od brodske stanice ili brodske Zemljine stanice, potvrda bi trebala da ima sledeći oblik:

- signal nesreće MAYDAY;
- ime i pozivni znak, ili MMSI ili druga identifikacija stanice koja šalje potvrdu u slučaju nesreće;
- reči THIS IS;
- ime ili pozivni znak ili druga identifikacija stanice koja potvrđuje prijem;
- reč RECEIVED;
- signal nesreće MAYDAY. (WRC-07)



**MOD** COM4/332/145 (B13/347/91) (R7/411/129)

**32.24** 2) Prilikom potvrđivanja prijema upozorenja u slučaju nesreće od brodske stanice koristeći uskopojasnu mašinsku telegrafiju, potvrda bi trebala da ima sledeći oblik:

- signal nesreće MAYDAY;
- pozivni znak ili druga identifikacija stanice koja šalje upozorenje u slučaju nesreće;
- reč DE;
- pozivni znak ili druga identifikacija stanice koja potvrđuje prijemu upozorenja u slučaju nesreće;
- signal RRR;
- signal u slučaju nesreće 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 – Prijem i potvrda od obalne stanice, obalne zemljine stanice ili koordinacijskog centra za spašavanje (WRC-07)

**MOD** COM4/332/148 (B13/347/94) (R7/411/132)

**32.26** § 17 Obalske stanice ili odgovarajuće obalske Zemljine stanice kod prijema upozorenja u slučaju nesreće ili poziva u slučaju nesreće treba da osiguraju da bude prosleđen što pre je moguće koordinacijskom centru za spašavanje. Pored toga, prijem upozorenja u slučaju nesreće ili poziva u slučaju nesreće treba da bude potvrđen što pre je moguće od obalske stanice, ili koordinacijskom centru za spašavanje putem obalske stanice ili odgovarajuće obalske Zemljine stanice. Kopno-brod prosleđivanje upozorenja u slučaju nesreće ili prosleđivanje poziva u slučaju nesreće (vidi Nos. **32.14** i **32.15**) treba takođe da bude rađeno kada metod prijema garantuje emitovanje upozorenja za brodove ili kada okolnosti incidenta nesreće ukazuju da je dalja pomoć neophodna. (WRC-07)

**MOD** COM4/332/149 (B13/347/95) (R7/411/133)

**32.27** § 18 Obalska stanica koja koristi DSC da potvrdi upozorenje u slučaju nesreće treba da emituje potvrdu na frekvenciji za poziv u slučaju nesreće na kojoj je upozorenje u slučaju nesreće primljeno i trebalo bi da ga adresira na sve brodove. Potvrda treba da sadrži identifikaciju broda čije se upozorenje u slučaju nesreće potvrđuje. (WRC-07)

**MOD** COM4/332/150 (B13/347/96) (R7/411/134)

C3 – Prijem i potvrda od strane brodske stanice ili brodske Zemljine stanice (WRC-07)

**MOD** COM4/332/151 (B13/347/97) (R7/411/135)

**32.28** § 19 1) Brodska ili brodska Zemljina stanica kod prijema upozorenja u slučaju nesreće ili poziva u slučaju nesreće treba što pre je moguće da informiše glavnog ili osobu odgovornu za brod o sadržaju upozorenja u slučaju nesreće. (WRC-07)

**MOD** COM4/332/152 (B13/347/98) (R7/411/136)

**32.29** 2) U područjima gde su pouzdane komunikacije sa jednom ili više obalskih stanica izvodljive, brodske stanice prilikom prijema upozorenja u slučaju nesreće ili poziva u

slučaju nesreće od drugog plovila mogle bi odložiti potvrđivanje za neki kraći interval tako da obalska stanica može da potvrdi prijem kao prva instanca. (WRC-07)

**ADD** COM4/332/153 (B13/347/99) (R7/411/137)

**32.29A** 3) Brodske stanice kod prijema poziva u slučaju nesreće poslatog radiotelefonijom na frekvenciji 156.8 MHz (VHF kanal 16) treba, ako poziv nije potvrđen od neke obalske stanice ili drugog plovila u roku od pet minuta, treba da potvrde prijem plovilu u nevolji i upotrebe bilo koje raspoloživo sredstvo da proslede poziv u slučaju nesreće odgovarajućoj obalskoj stanici ili obalskoj Zemljinoj stanici (vidi takođe Nos. **32.16** to **32.19F**). (WRC-07)

**MOD** COM4/332/154 (B13/347/100) (R7/411/138)

**32.30** § 20 1) Brodske stanice koje rade u područjima gde pouzdane komunikacije sa jednom ili više obalskih stanica nisu izvodljive koje prime upozorenje u slučaju nesreće ili poziv od brodske stanice koja je zasigurno u njihovom susedstvu, trebaju što pre je moguće i ako su odgovarajuće opremljene, potvrditi prijem plovilu u nevolji i informisati koordinacijski centar za spašavanje putem obalske stanice ili obalske Zemljine stanice (vidi takođe Nos. **32.16** to **32.19H**). (WRC-07)

**MOD** COM4/332/155 (B13/347/101) (R7/411/139)

**32.31** 2) Međutim da bi se izbeglo slanje neophodnih ili konfuznih emisija za odgovor, brodska stanica, koja može da se nalazi značajno udaljena od incidenta, kad primi neko HF upozorenje u slučaju nesreće, ne treba da ga potvrdi ali treba da pregleda odredbe Nos. **32.36** to **32.38**, i treba, ako upozorenje u slučaju nesreće nije potvrđeno od starane neke obalske stanice u roku od pet minuta, da prosledi upozorenje u slučaju nesreće, ali samo ka odgovarajućoj obalskoj stanici ili obalskoj Zemaljskoj stanici (vidi takođe Nos. **32.16** to **32.19H**). (WRC-07)

**MOD** COM4/332/156 (B13/347/102) (R7/411/140)

**32.32** § 21 Brodska stanica koja potvrđuje upozorenja u slučaju nesreće poslatog koristeći DSC trebala bi, u saglasnosti sa No. **32.29** ili No. **32.30**: (WRC-07)

**MOD** COM4/332/157 (B13/347/103) (R7/411/141)

**32.33** a) u prvom redu da potvrdi prijem upozorenja u slučaju nesreće koristeći radiotelefoniju na frekvencijama za prenos u slučaju nesreće i bezbednosti i u opsegu koji se koristi za upozoravanje, vodeći računa o bilo kojim instrukcijama koje može biti izdato obalskoj stanici koja je odgovarila; (WRC-07)

**ADD** COM4/332/158 (B13/347/104) (R7/411/142)

**32.34A** § 21A Međutim, osim ako nije instruisana da tako uradi od obalske stanice ili koordinacijskog centra za spašavanje, brodska stanica može jedino da pošalje potvrdu koristeći DSC u slučaju da:

- a) nikakva potvrda putem DSC od obalske stanice nije primećena; i
- b) nikakva druga komunikacija putem radiotelefonije ili uskopojasne mašinske telegrafije ka ili od plovila u nevolji nije primećena; i
- c) prošlo je najmanje pet minuta i upozorenje u slučaju nesreće koristeći DSC je ponovljeno (vidi No. **32.21A.1**). (WRC-07)

**MOD** COM4/332/159 (B13/347/105) (R7/411/143)

**32.35** § 22 Brodska stanica kod prijema kopno-brod prosleđivanja upozorenja u slučaju nesreće ili prosleđivanja poziva u slučaju nesreće (vidi No. **32.14**) trebala bi da uspostavi

komunikaciju prema uputstvima i pruži takvu pomoć na odgovarajući način i prema zahtevima. (WRC-07)

**MOD** COM4/332/160 (B13/347/106) (R7/411/144)

**32.37** § 23 Prilikom prijema upozorenja u slučaju nesreće ili poziva u slučaju nesreće, brodske stanice i obalske stanice treba da uspostave motrenje frekvencije na radiotelefonski prenos za slučaju nesreće i bezbednosti pridružene frekvenciji za slučaju nesreće i bezbednosti na kojoj je upozorenje u slučaju nesreće primljeno. (WRC-07)

**MOD** COM4/332/161 (B13/347/107) (R7/411/145)

**32.38** § 24 Obalske stanice i brodske stanice sa opremom za uskopojanu mašinsku telegrafiju treba da uspostave motrenje na frekvenciju uskopojane mašinske telegrafije pridruženu upozorenju u slučaju nesreće ako ono ukazuje da uskopojana mašinska telegrafija treba da se koristi za naredne komunikacije u nesreći. Ako je praktično, one bi dodatno trebale da uspostave motrenje na frekvenciju radiotelefonijske pridružene frekvenciji upozorenja u slučaju nesreće. (WRC-07)

### **Sekcija III – Saobraćaj u slučaju nesreće**

**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) koordinacioni centar za spašavanje odgovoran za kontrolu operacija pretrage i spasavanja treba takođe da koordinira saobraćaj u slučaju nesreće koji se odnosi na incident ili mogu da imenuju drugu stanicu da to uradi. (WRC-07)

**MOD** COM4/332/164 (B13/347/110) (R7/411/148)

**32.51** § 31 Kad je saobraćaj u slučaju nesreće završen na frekvencijama koje su korišćene za saobraćaj u slučaju nesreće, stanica koja kontroliše operacije pretrage i spasavanja treba da inicira poruku za emisije na tim frekvencijama koje pokazuju da je saobraćaj u slučaju nesreće završen. (WRC-07)

**MOD** COM4/332/165 (B13/347/111) (R7/411/149)

**32.52** § 32 1) U radiotelefonijski, poruka iz No. **32.51** trebalo bi da se sastoji od:

- signala nesreće MAYDAY;
- poziva “ALL STATIONS”, izgovorena tri puta;
- reči THIS IS;
- ime stanice koja šalje tu poruku, izgovorene tri puta;
- pozivni znak ili druga identifikacija stanice koja šalje poruku;
- vreme predaje poruke;
- MMSI (ako je početno upozorenje poslato koristeći DSC), ime i pozivni znak mobilne stanice koja je u nevolji;
- reči SEELONCE FEENEE izgovorene kao Francuske reči “silence fini”. (WRC-07)

**ADD** COM4/332/166 (B13/347/112) (R7/411/150)

**32.53A** *Poništavanje pogrešnog upozorenja u slučaju nesreće* (WRC-07)

**ADD** COM4/332/167 (B13/347/113) (R7/411/151)

**32.53B** Stanica koja emituje pogrešno upozorenje za slučaj nesreće treba da poništi tu emisiju. (WRC-07)

**ADD** COM4/332/168 (B13/347/114) (R7/411/152)

**32.53C** Pogrešno DSC upozorenje treba da bude poništeno koristeći DSC, ako DSC oprema može to da omogući. Poništavanje bi trebalo biti u saglasnosti sa najnovijom verzijom Preporuke ITU-R M.493. U svim slučajevima, poništavanje takođe treba biti emitovano putem radiotelefonije u skladu sa **32.53E**. (WRC-07)

**ADD** COM4/332/169 (B13/347/115) (R7/411/153)

**32.53D** Pogrešan poziv u slučaju nesreće treba biti poništen koristeći radiotelefoniju u skladu sa procedurom u **32.53E**. (WRC-07)

**ADD** COM4/332/170 (B13/347/116) (R7/411/154)

**32.53E** Pogrešne emisije u slučaju nesreće trebaju biti poništene usmeno na pridruženoj frekvenciji za slučaj nesreće i bezbednost u istom opsegu na kojem je emisija u slučaju nesreće emitovana, koristeći sledeću proceduru:

- poziv “ALL STATIONS” , izgovoren tri puta;
- reči THIS IS;
- ime plovila, izgovoreno tri puta;
- pozivni znak ili druga identifikacija;
- MMSI (ako je početno upozorenje poslato koristeći DSC);
- PLEASE CANCEL MY DISTRESS ALERT OF vreme u UTC.

Posmatrajte isti opseg na kojem je pogrešna emisija za slučaju nesreće poslata i odgovorite na bilo koje komunikacije koje se tiču ispravne emisije za slučaj nesreće. (WRC-07)

**MOD** COM4/332/171 (B13/347/117) (R7/411/155)

**32.63** 3) Locirani signali mogu biti emitovani na sledećim frekvencijskim opsezima:

117.975-137 MHz;

156-174 MHz;

406-406.1 MHz; i

9200-9500 MHz. (WRC-07)

**SUP** COM4/332/172 (B13/347/118) (R7/411/156)

**32.64**

## ČLAN 33

### Radne procedure za komunikacije za vanredne situacije i bezbednost u globalnom pomorskom sistemu za slučaj nesreće i bezbednost (GMDSS)

#### Sekcija I – Generalno

**MOD** COM4/332/26 (B13/347/119) (R7/411/157)

**33.1** § 1 1) Komunikacije za vanredne situacije i bezbednost uključuju: (WRC-07)

**ADD** COM4/332/27 (B13/347/120) (R7/411/158)

**33.7A** 2) Komunikacije za vanredne situacije treba da imaju prioritet u odnosu na sve druge komunikacije, izuzev nesreće. (WRC-07)

**ADD** COM4/332/28 (B13/347/121) (R7/411/159)

**33.7B** 3) Komunikacije bezbednosti treba da imaju prioritet u odnosu na sve druge komunikacije, izuzev nesreće i za vanrednih situacija. (WRC-07)

#### Sekcija II – Komunikacije za vanredne situacije

**ADD** COM4/332/29 (B13/347/122) (R7/411/160)

**33.XX** Primenuju se sledeći termini:

a) Najava vanredne situacije je digitalni selektivni poziv koji koristi pozivnu formu vanredne situacije <sup>1</sup>, u opsegu koji koriste zemaljske radiokomunikacije, ili format poruke za vanredne situacije, u kom slučaju se prosleđuje kroz svemirske stanice.

b) Poziv u vanrednoj situaciji je početna glasovna ili tekstualna procedura.

c) Poruka u vanrednoj situaciji je sledeća glasovna ili tekstualna procedura. (WRC-07)

**ADD** COM4/332/31 (B13/347/123) (R7/411/161)

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<sup>1</sup> **33.XX.1** Format poziva u vanrednoj situaciji i poruke u vanrednoj situaciji trebale bi biti saglasne sa relevantnim ITU-R Preporukama. (WRC-07)

**MOD** COM4/332/30 (B13/347/124) (R7/411/162)

**33.8** § 2 U zemaljskom sistemu, komunikacije u vanrednoj situaciji sastoje se od najave, emitovanja koristeći digitalno selektivno pozivanje, zatim poziva u vanrednoj situaciji i poruka emitovana koristeći radiotelefoniju, uskopojasnu mašinsku telegrafiju ili podatke. Najava poruke u vanrednoj situaciji treba da bude poslata na jednoj ili više pozivnih frekvencija za slučaj nesreće i bezbednost specifikovanim u Sekciji I Člana **31** koristeći ili digitalno selektivno pozivanje i pozivni format za vanrednu situaciju, ili ako nije dostupno, procedure radiotelefonije i signal vanredne situacije. Najave koje koriste digitalno selektivno pozivanje trebalo bi da koriste tehničku strukturu i sadržaj postavljen u najnovijoj verziji Preporuka ITU-R M.493 i ITU-R M.541. Odvojena najava nije potrebna ako se poruka u vanrednoj situaciji emituje putem pomorske mobilne satelitske službe. (WRC-07)

**ADD** COM4/332/32 (B13/347/125) (R7/411/163)

**33.8A** 2) Brodske stanice koje nisu opremljene za procedure digitalnog selektivnog pozivanja mogu da najave neki poziv u vanrednoj situaciji i poruku emitujući signal vanredne situacije putem radiotelefonije na frekvenciji 156.8 MHz (kanal 16), vodeći računa da druge stanice izvan VHF raspona možda ne prime najavu. (WRC-07)

**ADD** COM4/332/33 (B13/347/126) (R7/411/164)

**33.8B** 3) U pomorskoj mobilnoj službi, komunikacije u vanrednoj situaciji mogu biti adresirane ili na sve stanice ili na određenu stanicu. Kad se koriste tehnike digitalnog selektivnog pozivanja, najava vanredne situacije treba da pokazuje koja će frekvencija da se koristi za slanje sledeće poruke i, u slučaju poruke svima stanicama, treba koristiti "All Ships" format. (WRC-07)

**ADD** COM4/332/34 (B13/347/127) (R7/411/165)

**33.8C** 4) Najava vanredne situacije od obalske stanice može takođe biti usmerena grupi plovila ili plovilima u definisanom geografskom području. (WRC-07)

**MOD** COM4/332/35 (B13/347/128) (R7/411/166)

**33.9** § 3 1) Najava vanredne situacije i poruka treba da se emituje na jednoj ili više frekvencija za slučaj nesreće i bezbednosni saobraćaj specificirano u Sekciji I Člana 31. (WRC-07)

**ADD** COM4/332/36 (B13/347/129) (R7/411/167)

**33.9A** 2) Međutim, u pomorskoj mobilnoj službi, poruka vanredne situacije treba da se emituje na radnoj frekvenciji:

- a) u slučaju dugačke poruke ili medicinskog poziva; *ili*
- b) u područjima intenzivnog saobraćaja kada se poruka ponavlja.

Indikacija u tom smislu treba da je uključena u najavu vanredne situacije ili poziv. (WRC-07)

**ADD** COM4/332/37 (B13/347/130) (R7/411/168)

**33.9B** 3) U pomorskoj mobilnoj satelitskoj službi, posebna najava vanredne situacije ili poziv ne treba da se radi pre slanja poruke vanredne situacije . Međutim, ako je dostupno, podešen odgovarajući prioritetni pristup mreži trebao bi biti korišćen za slanje te poruke. (WRC-07)

**MOD** COM4/332/38 (B13/347/131) (R7/411/169)

**33.11** § 5 1) Format poziva vanredne situacije i signal vanredne situacije pokazuju da pozivajuća stanica ima vrlo hitnu poruku da emituje uzimajući u obzir sigurnost mobilne jedinice ili osobe. (WRC-07)

**ADD** COM4/332/39 (B13/347/132) (R7/411/170)

**33.11A** 2) Komunikacije koje se tiču medicinskog saveta mogu da prethode signalu vanredne situacije . Mobilne stanice koje zahtevaju medicinski savet mogu da ga dobiju putem bilo koje kopnene stanice prikazane u Listi Obalskih stanica i Stanica specijalne službe. (WRC-07)

**ADD** COM4/332/40 (B13/347/133) (R7/411/171)

**33.11B** 3) Kod komunikacije vanredne situacije za podršku operacijama pretrage i spasavanja ne treba da prethodi signal vanredne situacije . (WRC-07)

**MOD** COM4/332/41 (B13/347/134) (R7/411/172)

**33.12** § 6 1) Poziv vanredne situacije trebao bi da se sastoji od:

- signala vanredne situacije PAN PAN, izgovorenog tri puta;
- imena pozivne stanice ili "all stations", izgovoreno tri puta;
- reči THIS IS;
- ime stanice koja emituje poruku vanredne situacije , izgovoreno tri puta;
- pozivni znak ili bilo koja druga identifikacija;

- MMSI (ako je početna najava poslata koristeći DSC),

sledi poruka vanredne situacije ili slede detalji kanala koji će da se koristi za poruku u slučaju kada se koristi radni kanal.

U radiotelefoniji, na selektovanoj radnoj frekvenciji, poziv i poruka za vanredne situacije sastoji se od:

- signal vanredne situacije PAN PAN, izgovoren tri puta;
- ime pozivne stanice ili “all stations”, izgovoreno tri puta;
- reči THIS IS;
- ime stanice koja emituje poruku vanredne situacije , izgovoreno tri puta;
- pozivni znak ili bilo koja druga identifikacija;
- MMSI (ako je početna najava poslata koristeći DSC);
- tekst poruke vanredne situacije . (WRC-07)

**MOD** COM4/332/42 (B13/347/135) (R7/411/173)

**33.14** § 7 1) Format poziva vanredne situacije ili signal vanredne situacije treba da bude poslat samo ovlašćenjem osobe odgovorne za brod, vazduhoplov ili drugo vozilo koje nosi mobilnu stanicu ili mobilnu zemaljsku stanicu. (WRC-07)

**ADD** COM4/332/43 (B13/347/136) (R7/411/174)

**33.15A** § 7A 1) Brodske stanice kod primanja najave vanredne situacije ili poziva adresiranog svim stanicama ne treba da vrše potvrdu. (WRC-07)

**ADD** COM4/332/44 (B13/347/137) (R7/411/175)

**33.15B** 2) Brodske stanice kod primanja najave vanredne situacije ili poziva neke hitne poruke treba da prate frekvenciju ili kanal naznačen za poruku najmanje pet minuta. Ako na kraju petominutnog perioda praćenja ne primi se ni jedna poruka vanredne situacije , obalska stanica bi trebala, ako je moguće biti obavestena o nedostajućoj poruci. Nakon toga, normalan rad može biti nastavljen. (WRC-07)

**ADD** COM4/332/45 (B13/347/138) (R7/411/176)

**33.15C** 3) Obalske i brodske stanice koje su u vezi na drugim frekvencijama od onih koje se koriste za emisije signala vanredne situacije ili poruke koja sledi mogu da nastave svoj normalni rad bez prekida, pokazujući da poruka vanredne situacije nije adresirana na njih niti emitovana svim stanicama. (WRC-07)

**MOD** COM4/332/46 (B13/347/139) (R7/411/177)

**33.16** § 8 Kada su poziv najave vanredne situacije i poruka emitovani prema više od jedne stanice i akcija se više ne traži, poništavanje vanredne situacije bi trebalo biti poslato od stanice odgovorne za emisiju.

Poništavanje vanredne situacije trebalo bi da se sastoji od:

- signala vanredne situacije PAN PAN, izgovorenog tri puta;
- “all stations”, izgovoreno tri puta;
- reči THIS IS;
- imena stanice koja emituje poruku vanredne situacije , izgovoreno tri puta;

- pozivni znak ili bilo koja druga identifikacija;
- MMSI (ako je početna najava poslata koristeći DSC);
- PLEASE CANCEL URGENCY MESSAGE OF vreme u UTC. (WRC-07)

### Sekcija III – Medicinski transporti

**MOD** COM4/332/47 (B13/347/140) (R7/411/178)

**33.20** § 11 1) Za potrebe najave i indikacije medicinskih transporta koji su zaštićeni gore pomenutim Konvencijama, procedure Sekcije II ovog člana se koriste. Poziv vanredne situacije treba da se nastavi dodavanjem jedne reči MEDICAL u uskopojasnoj mašinskoj telegrafiji, dodavanjem jedinstvene reči MAY-DEE-CAL izgovorene kao Francuski “médical”, u radiotelefoni. (WRC-07)

**ADD** COM4/332/48 (B13/347/141) (R7/411/179)

**33.20A** 2) Kada se koriste tehnike digitalnog selektivnog poziva, najava vanredne situacije na odgovarajućim DSC za slučaj nesreće i sigurnosti treba uvek biti adresirano na sve stanice na VHF i u specifičnim geografskim područjima na MF i HF i treba da naznače “Medical transport” u skladu sa najnovijim verzijama Preporuka ITU-R M.493 i ITU-R M.541. (WRC-07)

**ADD** COM4/332/49 (B13/347/142) (R7/411/180)

**33.20B** 3) Medicinski transporti mogu da koriste jednu ili više frekvencija za slučaj nesreće ili bezbednosni saobraćaj specificirano u Sekciji I Člana **31** u svrhu samoidentifikacije i da uspostave komunikaciju. Čim postane praktično, komunikacije treba da budu prenesene na neku odgovarajuću radnu frekvenciju. (WRC-07)

**MOD** COM4/332/50 (B13/347/143) (R7/411/181)

**33.21** § 12 Korišćenje signala opisano u Nos. **33.20** i **33.20A** pokazuje da poruka koja sledi tiče se zaštićenog medicinskog transporta. Poruka treba da prenese sledeće podatke: (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**

### Sekcija IV – Komunikacije bezbednosti

**ADD** COM4/332/53 (B13/347/146) (R7/411/184)

**33.YY** § 1 Sledeći izrazi se primenjuju:

- a) bezbednosna najava je digitalno selektivno pozivanje korišćenjem formata poziva bezbednosni u opsezima korišćenim za zemaljske radiokomunikacije ili za format bezbednosne poruke, u kojem slučaju on je prosleđen putem svemirskih stanica;
- b) poziv bezbednosti je početna glasovna ili tekstovna procedura;
- c) poruka bezbednosti je sledeća glasovna ili tekstovna procedura. (WRC-07)

**MOD** COM4/332/54 (B13/347/147) (R7/411/185)

**33.31** § 15 1) U zemaljskom sistemu, komunikacije bezbednosti sastoje se od najave bezbednosti, emitovane korišćenjem digitalnog selektivnog pozivanja, nakon kojeg sledi bezbednosni poziv i poruka emitovano korišćenjem radiotelefoni, uskopojasne mašinske



telegrafije ili podatke. Najava bezbednosne poruke treba biti urađena na jednoj ili više frekvencija za slučaj nesreće i bezbednosno pozivanje specificiran u Sekciji I Člana 31 korišćenjem ili tehnike digitalnog selektivnog pozivanja i format poziva bezbednosti, ili procedure radiotelefonije i signal sigurnosti. (WRC-07)

**MOD** COM4/332/55 (B13/347/148) (R7/411/186)

**33.31A** 2) Međutim, da se izbegne nepotrebno opterećivanje frekvencija za slučaj nesreće i bezbednosno pozivanje specificiranim za korišćenje sa tehnikama digitalnog selektivnog pozivanja:

- a) bezbednosne poruke emitovane od strane obalskih stanica u skladu sa ranije utvrđenim rasporedom ne bi trebale da budu najavljivane tehnikama digitalnog selektivnog pozivanja;
- b) bezbednosne poruke koje se jedino tiču plovila koji plove u susedstvu trebale bi biti najavljivane korišćenjem procedura radiotelefonije. (WRC-07)

**ADD** COM4/332/56 (B13/347/149) (R7/411/187)

**33.31B** 3) Pored toga, brodske stanice koje nisu opremljene za procedure digitalnog selektivnog pozivanja mogu da najave bezbednosnu poruku emitovanjem bezbednosnog poziva putem radiotelefonije. U takvim slučajevima najava treba da se uradi korišćenjem frekvencije 156.8 MHz (VHF kanal 16), istovremeno vodeći računa da druge stanice izvan VHF raspona ne smeju da prime tu najavu. (WRC-07)

**ADD** COM4/332/57 (B13/347/150) (R7/411/188)

**33.31C** 4) U pomorskoj mobilnoj službi, bezbednosne poruke trebaju generalno biti adresirane na sve stanice. U nekim slučajevima, međutim, one mogu biti adresirane na određenu stanicu. Kad se koriste tehnike digitalnog selektivnog pozivanja, bezbednosne najave treba da pokazuju koja frekvencija će da se koristi za slanje sledeće poruke i, u slučaju poruke svim stanicama, treba koristiti "All Ships" format. (WRC-07)

**MOD** COM4/332/58 (B13/347/151) (R7/411/189)

**33.32** § 16 1) U pomorskoj mobilnoj službi, bezbednosna poruka treba, gde je praktično, biti emitovana na radnoj frekvenciji u istom opsegu ili opsezima kao one korišćene za bezbednosnu najavu ili poziv. Podesna indikacija tog efekta trebala bi biti stavljena na kraj bezbednosnog poziva. U slučaju da ni jedna druga opcija nije praktična, bezbednosna poruka može biti poslata putem radiotelefonije na frekvenciji 156.8 MHz (VHF kanal 16). (WRC-07)

**ADD** COM4/332/59 (B13/347/152) (R7/411/190)

**33.32A** 2) U pomorskoj mobilnoj satelitskoj službi, odvojena bezbednosna najava ili poziv ne treba da se radi pre slanja bezbednosne poruke. Međutim, ako je moguće, odgovarajuće podešavanje za prioritetan pristup mreži trebalo bi da se koristi za slanje te poruke. (WRC-07)

**MOD** COM4/332/60 (B13/347/153) (R7/411/191)

**33.34** § 18 1) Format bezbednosnog poziva ili bezbednosni signal pokazuje da pozivajuća stanica ima jedno važno navigaciono ili meteorološko upozorenje da emituje. (WRC-07)

**ADD** COM4/332/61 (B13/347/154) (R7/411/192)

**33.34A** 2) Poruke od brodskih stanica koje sadrže informacije koje se tiču prisustva ciklona treba emitovati, sa najmanjim mogućim zakašnjenjem, drugim mobilnim stanicama u susedstvu i odgovarajućim autoritetima putem obalske stanice, ili putem koordinacionog centra za

spašavanje putem obalske stanice ili odgovarajuće obalske zemaljske stanice. Ovim emisijama treba da prethodi bezbednosna najava ili poziv. (WRC-07)

**ADD** COM4/332/62 (B13/347/155) (R7/411/193)

**33.34B** 3) Poruke od brodskih stanica koje sadrže informacije o prisustvu opasnih santi, opasnih olupina, ili druge neposredne opasnosti pomorskoj navigaciji, treba emitovati što pre je moguće drugim brodovima u susedstvu, i odgovarajućim autoritetima putem obalske stanice, ili koordinacionog centra za spašavanje preko obalske stanice ili odgovarajuće obalske zemaljske stanice. Tim emitovanjima treba da prethodi bezbednosna najava ili poziv. (WRC-07)

**MOD** COM4/332/63 (B13/347/156) (R7/411/194)

**33.35** § 19 1) Kompletan bezbednosni poziv trebalo bi da se sastoji od:

- bezbednosnog signala SÉCURITÉ, izgovorenog tri puta;
- imena pozivne stanice ili “all stations”, izgovoreno tri puta;
- reči THIS IS;
- imena stanice koja emituje bezbednosnu poruku, izgovorenog tri puta;
- pozivni znak ili neka druga identifikacija;
- MMSI (ako je početna najava poslata korišćenjem DSC),

nakon čega sledi bezbednosna poruka ili detalji kanala koji će da se koristi za poruku u slučaju gde će da se upotrebi radni kanal.

U radiotelefoniji, na selektovanoj radnoj frekvenciji, bezbednosni poziv ili poruka trebalo bi da se sastoji od:

- bezbednosnog signala SÉCURITÉ, izgovorenog tri puta;
- imena pozivne stanice ili “all stations”, izgovoreno tri puta;
- reči THIS IS;
- imena stanice koja emituje bezbednosnu poruku, izgovorenog tri puta;
- pozivni znak ili neka druga identifikacija;
- MMSI (ako je početna najava poslata korišćenjem DSC);
- teksta bezbednosne poruke. (WRC-07)

**ADD** COM4/332/64 (B13/347/157) (R7/411/195)

**33.38A** § 20bis 1) Brodske stanice kod primanja bezbednosne najave korišćenjem tehnika digitalnog selektivnog pozivanja i “All Ships” formata, ili na drugi način adresirano na sve stanice, ne treba da šalju potvrdu. (WRC-07)

**ADD** COM4/332/65 (B13/347/158) (R7/411/196)

**33.38B** 2) Brodske stanice kod primanja bezbednosne najave ili bezbednosnog poziva i poruke treba da prate frekvenciju ili kanal naveden za poruku i treba da slušaju dok ne bude sigurno da poruka ni u kom slučaju nije za njih. Ne treba da vrše nikakvu emisiju koja bi mogla da interferira sa porukom. (WRC-07)

**MOD** COM4/332/66 (B13/347/159) (R7/411/197)

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<sup>1</sup> **33.V.1** Pomorska bezbednosna informacija uključuje navigaciona i meteorološka upozorenja, meteorološke prognoze i druge hitne poruke koje se odnose na bezbednost emitovane od obalskih stanica ili obalskih Zemaljskih stanica. (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)

**Sekcija VII – Korišćenje drugih frekvencija za bezbednost** (WRC-07)

**MOD** COM4/332/71 (B13/347/164) (R7/411/202)

**33.53** § 28 Radiokomunikacije u bezbednosne svrhe koje se tiču komunikacija izveštavanja za brodove, komunikacija koje se odnose na navigaciju, kretanja i potreba brodova i poruke od posmatranja vremena mogu biti vođene na bilo kojoj odgovarajućoj komunikacionoj frekvenciji, uključujući one koje se koriste za javno dopisivanje. U zemaljskim sistemima, opsezi 415-535 kHz (vidi Član 52), 1 606.5-4 000 kHz (vidi Član 52), 4 000-27 500 kHz (vidi Član 17), i 156-174 MHz (vidi Član 18) se koriste za tu funkciju. U pomorskoj mobilnoj satelitskoj službi, frekvencije u opsezima 1 530-1 544 MHz i 1 626.5-1 645.5 MHz koriste se za tu funkciju kao i za uzbunjivanje u slučaju nesreće (vidi 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**

**ČLAN 34**

**Signali uzbunjivanja u globalnom pomorskom sistemu za slučaj nesreće i bezbednosti (GMDSS)**

**Sekcija I – Radio-far za označavanje mesta udesa (EPIRB) i satelitski EPIRB signali**

**MOD** COM4/296/24 (B9/305/26) (R4/335/41)

**34.1** § 1 Signal radio-fara za označavanje mesta udesa u opsegu 406-406.1 MHz treba da bude u saglasnosti sa Preporukom ITU-R M.633-3. (WRC-07)

**ČLAN 41**

**Komunikacije sa stanicama u pomorskim službama**

**MOD** COM4/296/25 (B9/305/27) (R4/335/42)

**41.1** stanice na avionu mogu da komuniciraju, za slučaj nesreće, i za javno dopisivanje<sup>1</sup>, sa stanicama pomorske mobilne ili pomorskih mobilnih satelitskih službi. Za te svrhe, one treba da su saglasne sa relevantnim odredbama Poglavlja VII i Poglavlja IX, Članova 51 (Sekcija III), 53, 54, 55, 57 i 58 (vidi takođe Nos. 4.19, 4.20 i 43.4). (WRC-07)

## ČLAN 47

### Operatorski sertifikati

#### Sekcija I – Generalne odredbe

**MOD** COM4/380/13 (B17/404/16)

**47.2** § 1 1) Servis svake brodske radiotelefonske stanice, brodske zemaljske stanice i brodske stanice koje koriste frekvencije i tehnike za GMDSS, kako je propisano u Poglavlju **VII**, treba da bude pod kontrolom operatora imaoca sertifikata koji je izdat i priznat od vlasti kojoj je stanica podređena. Pod uslovom da je stanica tako kontrolisana, druge osobe pored imaoca sertifikata mogu koristiti opremu. (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) Svaka administracija mora da odredi uslove pod kojima osoblju koje ima sertifikate specificirane u Sekciji II mogu biti dodeljeni sertifikati specificovani u Nos. **47.20** to **47.23B**. (WRC-07)

**ADD** COM4/380/16 (B17/404/19)

**47.18A** 2) Svaka administracija može da odredi uslove pod kojima osoblje koje ima sertifikate za opremu koja radi sa ne-GMDSS frekvencijama i tehnikama mogu biti dodeljeni sertifikati specificovani u Nos. **47.26** i **47.27**. (WRC-07)

#### Sekcija II – Kategorije operatorskih sertifikata

**ADD** COM4/380/17 (B17/404/20)

##### *A – GMDSS sertifikati*

**MOD** COM4/380/18 (B17/404/21)

**47.19** § 6 1) Postoji šest kategorija sertifikata, pokazanih u opadajućem redu zahteva, za osoblje brodskih stanica i brodskih zemaljskih stanica koje koriste frekvencije i tehnike propisane u Poglavlju **VII**. Jedan operator koji zadovoljava zahteve sertifikata automatski zadovoljava sve zahteve sertifikata nižeg reda. (WRC-07)

**ADD** COM4/380/19 (B17/404/22)

**47.23A** e) Sertifikat dugog dometa (za ne-SOLAS plovila). (WRC-07)

**ADD** COM4/380/20 (B17/404/23)

**47.23B** f) Sertifikat kratkog dometa (za ne-SOLAS plovila). (WRC-07)

**ADD** COM4/380/21 (B17/404/24)

##### *B – Ne-GMDSS sertifikati*

#### Sekcija III – Uslovi izdavanja sertifikata

**MOD** COM4/380/22 (B17/404/25)

**47.25** § 7 1) Postoji šest kategorija sertifikata. Postojeći sertifikati kategorija izlistanih u No. **47.26** smeju da nastave da se koriste za svrhe za koje su bili izdani. (WRC-07)

**SUP** COM4/380/26 (B17/404/27)

**Sekcija IV – Kvalifikacije za službu<sup>1</sup>** (WRC-03)

**MOD** COM4/380/23 (B17/404/28)

**47.26** § 8 Sledeći pomorski radio operatorski sertifikati još vrede:

- 1 Radiokomunikacioni operatorski generalni sertifikat.
- 2 Radiotelegrafski operatorski sertifikat prve klase.
- 3 Radiotelegrafski operatorski sertifikat druge klase.
- 4 Radiotelegrafski operatorski specijalni sertifikat.
- 5 Radiotelegrafski operatorski generalni sertifikat.
- 6 Ograničeni radiotelefonski operatorski sertifikat. (WRC-07)

**MOD** COM4/380/24 (B17/404/29)

**47.27** § 9 Zahtevi za sertifikate iz ove sekcije, za koje kandidati moraju pokazati dokaz tehničkog i profesionalnog znanja i kvalifikacije, prikazani su u Tabeli **47-1**. (WRC-07)

**TABELA 47-1**

**Zahtevi za radioelektronski i operatorski sertifikati**

**ADD** COM4/380/25 (B17/404/26)

NOTE 2 – Uslovi za izdavanje Sertifikata dugog i kratkog dometa sadržani su u Rezoluciji **343 (WRC-97)**. (WRC-07)

**SUP** COM4/380/27 (B17/404/30)

**47.28 to 47.29**

**ČLAN 50**

**Radno vreme stanica**

**MOD** COM4/380/70 (B17/404/31)

**50.4** 2) O vremenu službe treba da se obavesti Biro za radiokomunikacije, koji će da informaciju publikuje u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/380/71 (B17/404/32)

**50.5** § 4 Obalske stanice čija služba nije stalna ne treba da prestaju da rade pre završetka svih operacija koje su nastale od poziva u slučaju nesreće ili od signala vanredne situacije ili bezbednosti. (WRC-07)

**SUP** COM4/380/72 (B17/404/33)

**50.6 to 50.9**

**ČLAN 51**

**Uslovi koje treba posmatrati u pomorskoj službi**

**Sekcija I – Pomorska mobilna služba**

**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) emisije slanja ili primanja klase F1B ili J2B na nekom međunarodnom pozivnom kanalu (specifikovano u Preporuci ITU-R M.541-9) u svim HF pomorskim mobilnim opsezima neophodnim za njihovu službu; (WRC-07)

**MOD** COM4/296/27 (B9/305/29) (R4/335/44)

**51.53** a) emisije slanja klase J3E na frekvenciji nosioca 2 182 kHz i emisije primanja klase J3E na frekvenciji nosioca 2 182 kHz, osim za takvu opremu kao iz No. **51.56**; (WRC-07)

**MOD** COM4/296/28 (B9/305/30) (R4/335/45)

**51.58** § 23 Sve brodske stanice opremljene radiotelefonijom za rad u autorizovanim opsezima između 4 000 kHz i 27 500 kHz i koje nisu saglasne sa odredbama Poglavlja **VII** trebale bi da mogu da šalju i primaju na frekvencijama nosioca 4 125 kHz i 6 215 kHz. Međutim, sve brodske stanice koje su saglasne sa odredbama Poglavlja **VII** trebale bi da mogu da šalju i primaju na frekvencijama nosioca projektovanim u Članu **31** saobraćaj u slučaju nesreće i bezbednosti za radiotelefoniju za frekvencijske opsege u kojima rade. (WRC-07)

### **Sekcija III – stanice na avionu koje komuniciraju sa stanicama pomorske mobilne službe i pomorske mobilne satelitske službe**

**MOD** COM6/341/21 (B14/365/39) (R7/411/206)

**51.71** § 28 U slučaju komunikacije između stanica na avionu i stanica pomorske mobilne službe, radiotelefonsko pozivanje može biti obnovljeno kao što je specificirano u najnovijoj verziji Preporuke ITU-R M.1171 i radiotelegrafsko pozivanje može biti obnovljeno posle intervala od pet minuta, uprkos proceduri sadržanoj u najnovijoj verziji Preporuke ITU-R M.1170. (WRC-07)

**MOD** COM4/296/29 (B9/305/31) (R4/335/46)

**51.79** 2) Frekvencija 156.3 MHz može biti korišćena od stanica na avionu za bezbednosne svrhe. Ona takođe može biti korišćena za komunikaciju između brodskih stanica i stanica na avionu angažovanih u koordinisanim operacijama pretrage i spašavanja (vidi Dodatak **15**). (WRC-07)

**MOD** COM4/296/30 (B9/305/32) (R4/335/47)

**51.80** 3) Frekvencija 156.8 MHz može biti korišćena od stanica na avionu samo u svrhe bezbednosti (vidi Dodatak **15**). (WRC-07)

## **ČLAN 52**

### **Specijalna pravila koja se odnose na korišćenje frekvencija**

**SUP** COM4/296/31 (B9/305/33) (R4/335/48)

#### **Sekcija II**

**SUP** COM4/296/32 (B9/305/34) (R4/335/49)

#### **52.16 to 52.93**

### **Sekcija III – Korišćenje frekvencija za uskopojasnu mašinsku telegrafiju**

**MOD** COM4/380/29 (B17/404/35)

**52.95** § 44 Frekvencije dodeljene obalskim stanicama za uskopojasnu mašinsku telegrafiju treba da su navedene u Listi obalskih stanica i Stanica specijalne službe (Lista IV). Ta Lista treba

takođe da pokazuje bilo koju drugu korisnu informaciju koja se tiče službe u kojoj radi svaka obalska stanica. (WRC-07)

**MOD** COM4/296/33 (B9/305/35) (R4/335/50)

**52.101** 2) Uskopojasna mašinska telegrafija je zabranjena u opsegu 2 170-2 194 kHz osim, kako je omogućeno u dodatku **15** i Rezoluciji [**COM4/3**] (**WRC-07**). (WRC-07)

#### **Sekcija IV – Korišćenje frekvencija za digitalno selektivno pozivanje**

**MOD** COM4/380/30 (B17/404/36)

**52.112** § 51 Karakteristike opreme digitalnog selektivnog pozivanja treba da su u skladu sa Preporukom ITU-R M.541-9 i treba da su u skladu sa najnovijom verzijom Preporuke ITU-R M.493. (WRC-07)

**MOD** COM4/380/31 (B17/404/37)

**52.113** § 52 Frekvencije na kojima obalske stanice pružaju usluge korišćenjem tehnika digitalnog selektivnog pozivanja treba da su navedene u Listi obalskih stanica i Stanica specijalne službe (Lista IV), koja treba da takođe pruži ostale korisne informacije koje se tiču takvih usluga. (WRC-07)

**MOD** COM4/380/32 (B17/404/38)

**52.122** § 59 1) Obalska stanica koja pruža uslugu međunarodne javne korespondencije korišćenjem tehnika digitalnog selektivnog pozivanja unutar opsega između 415 kHz i 526.5 kHz trebala bi, za vreme njenih radnih sati, da održava automatsko motrenje na digitalno selektivno pozivanje na odgovarajućim nacionalnim i internacionalnim pozivajućim frekvencijama. Radni sati i frekvencije treba da su navedeni u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/380/33 (B17/404/39)

**52.137** § 63 Frekvencije koje se koriste za emitovanje potvrde trebaju normalno da budu frekvencija u paru sa frekvencijom korišćenom za primljeni poziv, kako je navedeno u Listi obalskih stanica i Stanica specijalne službe (Lista IV) (vidi takođe No. **52.113**). (WRC-07)

**MOD** COM4/380/34 (B17/404/40)

**52.139** 2) Obalska stanica koja pruža uslugu međunarodne javne korespondencije korišćenjem tehnika digitalnog selektivnog pozivanja u opsezima između 1 606.5 kHz i 4 000 kHz trebala bi, za vreme njenih radnih sati, da održava automatsko motrenje na digitalno selektivno pozivanje na odgovarajućim nacionalnim i međunarodnim pozivajućim frekvencijama. Radni sati i frekvencije treba da su navedeni u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/380/35 (B17/404/41)

**52.148** b) prema odredbama No. **52.149**, jedna od frekvencija digitalnog selektivnog pozivanja. (WRC-07)

**MOD** COM4/380/36 (B17/404/42)

**52.149** 2) Međunarodne frekvencije digitalnog selektivnog pozivanja treba da budu kao što je navedeno u Preporuci ITU-R M.541-9 i mogu biti korišćene od bilo koje brodske stanice. Da bi se smanjila interferencija na tim frekvencijama, one treba da se koriste kad pozivanje ne može da se vrši na frekvencijama dodeljenim na nacionalnom nivou. (WRC-07)

**MOD** COM4/380/37 (B17/404/43)

**52.152** b) prema odredbama No. **52.153**, jedna od međunarodnih frekvencija digitalnog selektivnog pozivanja. (WRC-07)

**MOD** COM4/380/38 (B17/404/44)

**52.153** 2) Međunarodne frekvencije digitalnog selektivnog pozivanja treba da budu kao što je navedeno u Preporuci ITU-R M.541-9 i treba da budu dodeljene svakoj obalskoj stanici. Da bi se smanjila interferencija na tim frekvencijama, one bi mogle generalno da se koriste od strane obalskih stanica za pozivanje brodova drugih nacionalnosti, ili u slučajevima kada nije poznato na kojim frekvencijama digitalnog selektivnog pozivanja unutar dotičnog opsega brodske stanice vrše motrenje. (WRC-07)

**MOD** COM4/380/39 (B17/404/45)

**52.155** 2) Obalska stanica koja pruža uslugu međunarodne javne korespondencije korišćenjem tehnika digitalnog selektivnog pozivanja unutar opsega između 4 000 kHz i 27 500 kHz trebalo bi, za vreme njenih radnih sati, da održava automatsko motrenje na digitalno selektivno pozivanje kako je navedeno u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/380/40 (B17/404/46)

**52.159** § 71 1) Frekvencija 156.525 MHz je međunarodna frekvencija u pomorskoj mobilnoj službi koja se koristi za slučaj nesreće, vanredne situacije, sigurnosti i tehnika digitalnog selektivnog pozivanja (vidi Nos. **33.8** i **33.31** i Dodatka **15**). (WRC-07)

**MOD** COM4/380/41 (B17/404/47)

**52.161** § 72 Informacije koje se tiču motrenja putem automatskog digitalnog selektivnog pozivanja na frekvenciji 156.525 MHz od strane obalskih stanica treba da budu date u Listi obalskih stanica i Stanica specijalne službe (Lista IV) (vidi takođe No. **31.13**). (WRC-07)

## **Sekcija VI – korišćenje frekvencija za radiotelefoniju**

**MOD** COM4/380/42 (B17/404/48)

**52.180** § 84 Frekvencije emisija (i prijem kad su te frekvencije u paru kao što je dupleks u radiotelefoniji) dodeljene svakoj obalskoj stanici treba da su naznačene u Listi obalskih stanica i Stanica specijalne službe (Lista IV). Ta Lista treba takođe da pokazuje bilo koju drugu korisnu informaciju koja se tiče službe u kojoj radi svaka obalska stanica. (WRC-07)

**MOD** COM4/296/34 (B9/305/36) (R4/335/51)

**52.183** § 86 1) Osim ako nije specificirano drugačije u Pravilniku o radiokomunikacijama (vidi Nos. **51.53**, **52.188**, **52.189** i **52.199**), klasa emisije za korišćenje u opsezima između 1 606.5 kHz i 4 000 kHz treba da je J3E. (WRC-07)

**MOD** COM4/380/43 (B17/404/49)

**52.187** 3) Normalan mod rada za svaku obalsku stanicu treba biti naznačen u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/380/44 (B17/404/50)

**52.188** 4) Emisije u opsezima 2 170-2 173.5 kHz i 2 190.5-2 194 kHz sa nosećom frekvencijom 2 170.5 kHz i nosećom frekvencijom 2 191 kHz, redom, jesu ograničene na emisije klase J3E i ograničene su na vršnu snagu obvojnice 400 W. (WRC-07)



**MOD** COM4/296/35 (B9/305/37) (R4/335/52)

**52.189** § 87 1) Frekvencija 2 182 kHz<sup>2</sup> je jedna međunarodna frekvencija za slučaj nesreće za radiotelefoniju (vidi Dodatak **15** i Rezoluciju [**COM4/3**] (**WRC-07**)). (WRC-07)

**MOD** COM4/380/45 (B17/404/51)

**52.200** 4) Jedna od frekvencija koju obalske stanice treba da imaju dostupnu za korišćenje (vidi No. **52.197**) odštampana je masnim slovima u Listi obalskih stanica i Stanica specijalne službe (Lista IV) da pokaže da je ona normalna radna frekvencija stanica. Suplementarne frekvencije, ako su dodeljene, prikazane su na uobičajeni način. (WRC-07)

**SUP** COM4/296/36 (B9/305/38) (R4/335/53)

**52.209**

**MOD** COM4/380/46 (B17/404/52)

**52.212** – gde je postrojenje otvoreno za brodove svih nacionalnosti na osnovu napomene protiv svake dotične frekvencije u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/380/47 (B17/404/53)

**52.218** 2) Normalan način rada svake obalske stanice naznačen je u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/296/37 (B9/305/39) (R4/335/54)

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<sup>4</sup> **52.221.2** Frekvencije nosioca 4 125 kHz i 6 215 kHz takođe su autorizovane za zajedničko korišćenje od strane obalskih i brodskih stanica za radiotelefoniju s jednim bočnim opsegom na bazi simpleksa u svrhe poziva i odgovora, omogućujući da vršna snaga obvojnice takvih stanica ne prelazi 1 kW. Korišćenje tih frekvencija za radne svrhe nije dozvoljena (vidi takođe 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 Radno vreme obalskih stanica otvoreno za javnu korespondenciju i frekvencija ili frekvencije na koje se održava motrenje treba da su naznačene u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/296/38 (B9/305/40) (R4/335/55)

**52.231** § 101 1) Frekvencija 156.8 MHz je međunarodna frekvencija za saobraćaj u slučaju nesreće i za pozivanje putem radiotelefonijske kod korišćenja frekvencija u autorizovanim opsezima između 156 MHz i 174 MHz. Klasa emisije koja se koristi za radiotelefoniju na frekvenciji 156.8 MHz treba biti G3E (kako je specificirano u Preporuci 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) Svaki od kanala naznačenih u Dodatku **18** za javnu korespondenciju može biti korišćen kao pozivajući kanal ako neka administracija tako želi. Takvo korišćenje treba biti naznačeno u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**ADD** COM4/296/39 (B9/305/41) (R4/335/56)

**52.241A** 10) Frekvencija 156.525 MHz je međunarodna frekvencija za slučaj nesreće, bezbednosti i pozivanja za pomorsku mobilnu VHF radiotelefonu službu koja koristi DSC kad upotrebljava frekvencije u autorizovanim opsezima između 156 MHz i 174 MHz. (WRC-07)

**ADD** COM4/296/40 (B9/305/42) (R4/335/57)

**52.241B** 11) Sve emisije u opsegu 156.4875-156.5625 MHz sposobne da uzrokuju štetne smetnje autorizovanim emisijama stanica pomorske mobilne službe na 156.525 MHz jesu zabranjene. (WRC-07)

**ADD** COM4/296/41 (B9/305/43) (R4/335/58)

**52.241C** 12) Za olakšanje prijema poziva u slučaju nesreće i saobraćaja u slučaju nesreće, sve emisije na 156.525 MHz treba držati na minimumu. (WRC-07)

**MOD** COM4/296/42 (B9/305/44) (R4/335/59)

**52.242** § 102 1) Obalska stanica otvorena za uslugu međunarodnu javnu korespondenciju trebala bi, za vreme njenih radnih sati, da održava automatsko motrenje na prijemnu frekvenciju ili frekvencije navedene u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/380/52 (B17/404/58)

**52.247** § 103 Obalska stanica na radu u pristanišnoj službi u području gde se 156.8 MHz koristi za slučaj nesreće, vanredne situacije ili bezbednosti treba, za vreme njenih radnih sati, održavati dodatno motrenje na 156.6 MHz ili neku drugu pristanišnu radnu frekvenciju naznačenu masnim slovima u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

**MOD** COM4/380/53 (B17/404/59)

**52.248** § 104 Obalska stanica u službi kretanja brodova u području gde se 156.8 MHz koristi za slučaj nesreće, vanredne situacije ili bezbednosti treba, za vreme njenih radnih sati, održavati dodatno motrenje na frekvencije kretanja brodova naznačene masnim slovima u Listi obalskih stanica i Stanica specijalne službe (Lista IV). (WRC-07)

## ČLAN 54

### Selektivno pozivanje

**MOD** COM4/332/174 (B13/347/168) (R7/411/207)

**54.2** 2) Selektivno pozivanje se vrši korišćenjem sistema digitalnog selektivnog pozivanja koji treba biti u saglasnosti sa Preporukom ITU-R M.541-9, i trebao bi biti u skladu sa najnovijom verzijom Preporuke ITU-R M.493. (WRC-07)

## ČLAN 55

### Morzeova radiotelegrafija

**MOD** COM4/332/175 (B13/347/169) (R7/411/208)

**55.1** Procedura koja se preporučuje za vođenje komunikacija putem Morzeovog radiotelegrafa detaljno je data u najnovijoj verziji Preporuke ITU-R M.1170. (WRC-07)

## ČLAN 56

### Uskopojasna mašinska telegrafija

**MOD** COM4/380/54 (B17/404/60)

**56.2** § 2 Procedura specificirana u Preporuci ITU-R M.492-6 treba da se primeni osim u slučaju nesreće, vanredne situacije ili bezbednosti, u kom slučaju alternativne ili nestandardne procedure mogu da se koriste. (WRC-07)

**MOD** COM4/332/176 (B13/347/170) (R7/411/209)

**56.6** § 5 Usluga svake stanice otvorene za javnu korespondenciju treba da bude naznačena u Listi obalskih stanica i Stanica specijalne službe (Lista IV) i u Listi obalskih stanica i Dodele identiteta stanicama specijalne službe (Lista V), zajedno sa informacijama o naplati. (WRC-07)

## ČLAN 57

### Radiotelefonija

**MOD** COM4/296/43 (B9/305/45) (R4/335/60)

**57.1** § 1 Procedure date detaljno u Preporuci ITU-R M.1171 trebaju biti dostupne stanicama radiotelefonije, osim u slučaju nesreće, vanredne situacije ili bezbednosti. (WRC-07)

**MOD** COM4/296/44 (B9/305/46) (R4/335/61)

**57.8** § 4 Pozivanje, i pripremanje signala za slanje, ne treba biti duže od jednog minuta kada se vrši na frekvenciji nosioca 2 182 kHz ili na 156.8 MHz, osim u slučajevima nesreće, vanredne situacije ili bezbednosti. (WRC-07)

**MOD** PLEN/423/1

## ČLAN 59

### Stupanje na snagu i privremene primene Pravilnika o radiokomunikacijama (WRC-2000)

**59.1** Ova regulativa, koja je komplementarna sa odredbama Statuta i Konvencije Međunarodne telekomunikacione unije, i budući da je revidirana i sadržana u Finalnim aktima WRC-95, WRC-97, WRC-2000, WRC-03, i WRC-07, treba da se primeni, shodno Članu 54 Statuta, na sledećoj osnovi. (WRC-07)

**59.2** Odredbe ove Regulative, kako su revidirane na WRC-95, koje se tiču novih ili modifikovanih frekvencijskih namena (uključujući sve nove i modifikovane uslove koji se primenjuju na postojeće namene) i s tim u vezi odredbe Članova **S21\*** i **S22\***, i Člana **S4\***, za privremenu primenu od 1.1.1997.

**59.3** Ostale odredbe ove Regulative, kako je revidirano na WRC-95 i WRC-97, za privremenu primenu od 1.1.1999, sa sledećim izuzecima: (WRC-2000)

**59.4** – revidirane odredbe za koje su drgi datumi početka primene prdviđeni u Rezolucijama:

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\* *Dodatak Sekretarijata:* U pogledu promena u šemi numeracije, ove reference sada odgovaraju Članovima **21** i **22**, i Prilogu **4**.

**49 (WRC-97), 51 (WRC-97), 52 (WRC-97)\*\* , 54 (WRC-97)\*\* ,  
130 (WRC-97)\*\* , 533 (WRC-97), 534 (WRC-97)\*\* i 538 (WRC-97)\*\*.**

**59.5** Ostale odredbe ove Regulative, kako je revidirano na WRC-2000, treba da stupe na snagu 1.1.2002., sa sledećim izuzezecima: (WRC-2000)

**59.6** – revidirane odredbe za koje su drgi datumi početka primene prdviđeni u Rezolucijama :

**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)\*\*\* i 605 (WRC-2000)\*\*\* . (WRC-2000)**

**59.7** Ostale odredbe ove Regulative, kako je revidirano na WRC-03, treba da stupe na snagu 1.1.2005., sa sledećim izuzecima: (WRC-03)

**59.8** – revidirane odredbe za koje su drgi datumi početka primene predviđeni u Rezolucijama:

**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) i 902 (WRC-03). (WRC-07)**

**ADD**

**59.9** Ostale odredbe ove Regulative, kako je revidirano na WRC-07, treba da stupe na snagu 1.1.2009., sa sledećim izuzecima: (WRC-07)

**ADD**

**59.10** – revidirane odredbe za koje su drgi datumi početka primene predviđeni u Rezolucijama:

**55 (Rev.WRC-07), 97 (WRC-07), 149 (WRC-07), 355 (WRC-07) i 905  
(WRC-07). (WRC-07)**

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\*\* *Dodatak Sekretarijata: Ova Rezolucija je ukinuta na WRC-2000.*

\*\*\* *Dodatak Sekretarijata: Ova Rezolucija je ukinuta na WRC-03.*

\*\*\*\* *Dodatak Sekretarijata: Ova Rezolucija je ukinuta na WRC-07.*

## **DODACI**

**MOD** COM6/382/10 (B20/414/10)

## DODATAK 1

### **Klasifikacije emisija i neophodnih širina opsega**

(Vidi Član 2)

§ 1 1) ...

2) Formule i primeri emisija naznačenih u skladu sa ovim Dodatkom date su u Preporuci ITU-R SM.1138-1. Sledeći primeri mogu biti dati u drugim ITU-R Preporukama. Ovi primeri mogu takođe biti publikovani u Predgovoru za Međunarodnu listu frekvencija.

#### **Sekcija I – Neophodne širine opsega**

§ 2 1) ...

2) ...

3) ...

3.1) korišćenje formule i primera neophodnih širina opsega i naznačavanje odgovarajućih emisija dato u Preporuci ITU-R SM.1138-1;

**MOD** COM6/398/1 (B21/415/1)

**DODATAK 4 (Rev.WRC-07)**

**Konsolidovana lista i tabele karakteristika za korišćenje u primenama  
procedura Poglavlja III**

1 Materijal ovoga dodatka je podeljen u dva dela: jedan koji se tiče podataka i njihovog korišćenja za zemaljske radiokomunikacione službe i drugog koji se tiče podataka i njihovog korišćenja u svemirskim radiokomunikacionim službama.

2 Oba dela sadrže listu karakteristika i tabelu koja naznačava korišćenje svake od karakteristika u specifičnim okolnostima.

*Aneks 1:* Karakteristike stanica u zemaljskim službama

*Aneks 2:* Karakteristike satelitskih mreža, zemaljskih stanica ili radioastronomskih stanica.

**SUP** COM6/398/2 (B21/415/2)

**ANEKS 1A**

**Lista karakteristika stanica u zemaljskim službama<sup>1</sup>**

**SUP** COM6/398/3 (B21/415/3)

**ANEKS 1B**

**Tabela karakteristika koja treba da se podnese za stanice u zemaljskim  
službama (WRC-2000)**

**ADD** COM6/398/4 (B21/415/4)

**ANEKS 1**

**Karakteristike stanica u zemaljskim službama<sup>1</sup>**

U primenama Dodatka 4 ima mnogo slučajeva kada zahtevi podataka uključuju korišćenje standardnih simbola u podnescima za Biro za radiokomunikacije. Ti standardni simboli mogu da se nađu u "Predgovoru za BR Međunarodni cirkular za informacije o frekvencijama" (BR IFIC) (Zemaljske službe). U Tabelama, to se jednostavno naziva "Predgovor". Takođe dodatne informacije mogu da se nađu u uputstvima publikovanim na internet sajtu Biroa.

**Ključ za simbole korišćeno u Aneksu 1**

X	Obavezna informacija
+	Obavezno pod uslovima specificiranim u koloni 3
O	Opciona informacija
C	Obavezno ako se koristi kao osnov za ostvarivanje koordinacije sa drugom administracijom
	Podatak nije primenjiv na odgovarajuću obavest

<sup>1</sup> Biro za radiokomunikacije će razviti i osavremenjavati formu obaveštenja kako bi u potpunosti bile ispunjene zakonske odredbe ovog dodatka i donoše odluka u vezi budućih konferencija. Dodatne informacije za stavke navedene u ovom Aneksu uz objašnjenje simbola nalazi se u predgovoru da Međunarodni frekvencijske raspodele.

### Čitanje Dodatka 4 Tabele 1 i 2

Pravila za povezivanje znaka i teksta baziraju se na nazivima kolona u tabeli pokrivajući specifične procedure, službe i frekvencijske opsege.

1 Ako bilo koji podatak ima oznaku “+”, to pokazuje da je podatak podložan obaveznom zahtevu pod specifičnim uslovima. Ako ti uslovi nisu zadovoljeni, odgovarajući podatak nije primenljiv osim ako je drugačije specificirano. Ti uslovi su izlistani nakon imena podatka i normalno su prezentovani kako je prikazano niže.

2 “Zahtevano” bez reference na naziv kolone koristi se u slučaju da pridruženi uslov je važeći za svaku primenjivu kolonu.

1.5.2	1B	Referentna frekvencija, kako je definisana u Članu 1 Zahtevano ako je anvelopa modulacije asimetrična	+	+	1B
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“U slučaju da”, nakon čega sledi referenca na naziv kolone, koristi se, kako je niže pokazano, kada su pridruženi uslovi različiti za individualne kolone, ili indikacija nije ista duž svih primenljivih kolona.

6.1	6A	Priroda službe, korišćenjem simbola za Predgovor U slučaju predajne stanice, zahtevano za sve službe, osim radiodifuzne službe	+	X	6A
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3 Podnaslov limitira domet procedura, službi ili frekvencijskih opsega primenljivih pod nazivom kolone u Tabeli. Do primene daljih specifičnih uslovia, podaci grupisani pod tim podnaslovom imaju jedno “X” ako je kondicionalna priroda prikazana u podnaslovu.

1.4.4		<b>Za dodele u opsezima i službama određenim jedino Geneva 06 Regionalnim sporazuma</b>			
1.4.4.4		Kod dodele digitalne radiodifuzije	X		

### Fusnote na Tabele 1 i 2

1 Najnovija verzija Preporuka ITU-R SF.675 trebalo bi da se koristi do obima primenjivog u računanju maksimuma gustine snage po Hz.



TABELA 1

Karakteristike zemaljskih službi

Kolona No.	Indikator stavke	Opis podatka i zahtevi  Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LF/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LF/MF opsezima, u HF opsezima rukovodeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne kopnene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekventijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indikator stavke
1		<b>GENERALNE INFORMACIJE I FREKVENCIJSKE KARAKTERISTIKE</b>								
1.1	B	simbol obaveštavajuće administracije (vidi Predgovor)	X	X	X	X	X	X	X	B
1.2	[D]	kod odredbe u Pravilniku o radiokomunikacijama pod kojim je obaveštenje podneseno	X	X	X	X	X	X	X	[D]
1.3		indikator ponovnog podnošenja  U slučaju VHF/UHF radiodifuzne stanice, ili tipične predajne stanice, potrebno za dodelu prema GE06 Regionalnom sporazumu ako je obaveštenje ponovo podneseno u primeni Člana 11  U slučaju predajne stanice, ili prijemne kopnene stanice, potrebno za dodelu prema GE06 Regionalnom sporazumu ili Nos. 9.16, 9.18 ili 9.19 ako je obaveštenje ponovo podneseno u primeni Člana 11	+		+	+	+			
1.4		<b>Identifikacione informacije dodele i alotmenta</b>								
1.4.1	SYNC	identifikacioni simboli za sinhronizovanu, ili jednofrekvencijsku, mrežu  U slučaju VHF/UHF radiodifuzne stanice, potrebno za digitalnu radiodifuznu dodelu u sinhronizovanoj ili jednofrekvencijskoj mreži prema GE06 Regionalnom sporazumu  U slučaju LF/MF radiodifuzne stanice, potrebno za digitalnu radiodifuznu dodelu u sinhronizovanoj ili jednofrekvencijskoj mreži	+	+						SYNC
1.4.2		Jedinstveni identifikacioni kod dat od administracije za dodelu ili alotment  Potrebno za dodele prema GE06 Regionalnom sporazumu, i opcionalno za dodele koje nisu predmet ovog Sporazuma	+	O	+	+	+	O		

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa							
			Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
1.4.3		<b>Za dodele u opsezima i službe vođene jedino po Geneva 06 Regionalnom Sporazumu</b>								
1.4.3.1		jedinstveni identifikacioni kod dat od administracije za pridruženi allotment Potrebno za digitalnu radiodifuznu dodelu vezano za allotment, ili konvertovan iz allotmenta, u okviru GE06 Plan	+							
1.4.3.2		jedinstveni identifikacioni kod dat od administracije za stavku digitalnog radiodifuznog Plana za koji § 5.1.3 GE06 Sporazuma treba da se primeni Potrebno ako najavljena dodela treba da radi pod maskom stavke digitalnog radiodifuznog Plana u skladu sa § 5.1.3 GE06 Regionalnog sporazuma	+		+	+				
1.4.3.3		Kod stavke digitalnog radiodifuznog plana koji označava kategoriju stavke Plana kojoj dodela pripada	X							
1.4.3.4		kod digitalne radiodifuzne dodele	X							
1.5		<b>Frekvencijske informacije</b>								
1.5.1	1A	dodeljena frekvencija, definisano u Članu 1 U slučaju predajne stanice, potrebno za sve službe, osim za adaptivne sisteme u fiksnoj ili mobilnoj službi koji rade u opsezima između 300 kHz i 28 MHz (vidi Rezoluciju 729 (Rev.WRC-07)) U slučaju HF radiodifuzne stanice pod Članom 12, potrebno ako ni jedan od poželjnih opsega niti referentnih frekvencija nije dat	X	X	+	X	X		+	1A
1.5.2	1B	referentna frekvencija, definisano u Članu 1 Potrebno ako je modulaciona anvelopa asimetrična			+	+	+		+	1B
1.5.3	1G	alternativna frekvencija							O	1G

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
1.5.4	1X	broj kanala predloženog ili namenjenog kanala Potrebno za podnošenje u skladu sa Nos. 25/1.1.1, 25/1.1.2 ili 25/1.25 Dodatka 25 ako nije tražena pomoć Biroa pod No. 25/1.3.1 Dodatka 25							+		1X
1.5.5	1Y	broj kanala predloženog alternativnog kanala							O		1Y
1.5.6	1Z	broj kanala od kanala koji treba da se zameni Potrebno ako administracija treba da zameni svoj postojeći namenjeni kanal							+		1Z
1.5.7	1AA	donja granica obima upotrebljivih frekvencija unutar kojeg nosioc i širina opsega emisije će da se odredi Potrebno za adaptivne sisteme u fiksnoj i mobilnoj službi koji rade u opsezima između 300 kHz i 28 MHz (vidi takođe Rezoluciju 729 (Rev.WRC-07))			+						1AA
1.5.7bis	[1a]	gornja granica obima upotrebljivih frekvencija unutar kojeg nosioc i širina opsega emisije će da se odredi Potrebno za adaptivne sisteme u fiksnoj i mobilnoj službi koji rade u opsezima između 300 kHz i 28 MHz (vidi takođe Rezoluciju 729 (Rev.WRC-07))			+						
1.5.8	1C	poželjan opseg, u MHz U slučaju alotmenta Pomorske mobilne službe, potrebno ako je tražena pomoć Biroa pod No. 25/1.3.1 Dodatka 25 U slučaju HF radiodifuzne stanice pod članom 12, potreban za obaveštenja ako je pomoć zatražena u skladu sa No. 7.6							+	+	1C

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi  Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
1.5.9		<b>Za digitalnu radiodifuziju (osim dodela prema § 5.1.3 GE06 Regionalnog sporazuma)</b>								
1.5.9.1	1E1[β]	frekvencijski ofset, u kHz Potrebno za dodelu prema GE06 regionalnom sporazumu ako je centar frekvencije emisije ofset od dodeljene frekvencije, i opcionalan za dodele koje ne podležu ovom Sporazumu	+							1E1[β]
1.5.10	1E	<b>Za analognu televizijsku radiodifuziju</b>								
1.5.10.1	1E	frekvencijski ofset vizualnog nosioca, u multiplima od 1/12 linijske frekvencije dotičnog televizijskog sistema, izražen brojem (pozitivan ili negativan) Potrebno ako frekvencijski ofset vizualnog nosioca u kHz, (1E1) nije dat za dodele prema ST61, GE89 ili GE06 Regionalnog sporazuma	+							1E
1.5.10.2	1E1	frekvencijski ofset vizualnog nosioca, u kHz, izražen brojem (pozitivan ili negativan) Potrebno ako frekvencijski ofset vizualnog nosioca, u multiplima od 1/12 linijske frekvencije (1E) nije dat za dodele prema ST61, GE89 ili GE06 Regionalnih sporazuma	+							1E1
1.5.10.3		<b>Za slučaj kada je frekvencijski ofset zvučnog nosioca različit od frekvencijskog ofseta vizualnog nosioca</b>								
1.5.10.3.1	1E[α]	frekvencijski ofset zvučnog nosioca, u multiplima od 1/12 linijske frekvencije dotičnog televizijskog sistema, izražen brojem (pozitivan ili negativan) Potrebno ako frekvencijski ofset zvučnog nosioca, u kHz, (1E1[α]) nije dat za dodele prema ST61, GE89 ili GE06 Regionalnih sporazuma	+							1E[α]

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa							
			Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
1.5.10.3.2	1E1[α]	frekvencijski ofset zvučnog nosioca, u kHz, izražen brojem (pozitivan ili negativan) Potrebno ako frekvencijski ofset zvučnog nosioca, u multiplima od 1/12 linijske frekvencije (1E[α]) nije data za dodele prema ST61, GE89 ili GE06 Regionalnih sporazuma	+							1E1[α]
2		<b>DATUM RADA</b>								
2.1	2C	datum (stvarni ili predviđen, prema potrebi) stavljanja frekvencijske dodele (nove ili modifikovane) u upotrebu	X	X	X	X	X	X		2C
2.2		datum završetka rada frekvencijske dodele U slučaju VHF/UHF radiodifuzne stanice, potrebno, u primeni Člana 11, kada je rad neke dodele ograničen na specifičan period vremena pod § 4.1.5.4 GE06 Regionalnog sporazuma U slučaju predajne stanice, prijemne koptene stanice, ili tipične predajne stanice, potrebno, u primeni Člana 11, kada je neka dodela ograničena na specifični period vremena pod § 4.2.5.5 GE06 Regionalnog sporazuma	+		+	+	+			
2.3		kod sezone rada							X	
2.4	10CA	datum početka emitovanja							X	10CA
2.5	10CB	datum završetka emitovanja							X	10CB
2.6	10CC	radni dani za emitovanje za vreme HFBC rasporeda							X	10CC

Kolona No.	Identifikator stavke	Opis podatka i zahtevi  Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Identifikator stavke
3		<b>POZIVNI ZNAK I IDENTIFIKACIJA STANICE</b>								
3.1	3A[1]	pozivni znak korišćen u skladu sa Članom 19 U slučaju emitujuće stanice, u fiksnoj službi ispod 28 MHz, mobilnoj službi, službi meteorološke pomoći, ili službi standardne frekvencije i signala vremena, u primeni Člana 11, potrebno ako identifikacija stanice (3A[2]) nije data	O	O	+				O	3A[1]
3.2	3A[2]	identifikacija stanice korišćena u skladu sa Članom 19 U slučaju emitujuće stanice, u fiksnoj službi ispod 28 MHz, mobilnoj službi, službi meteorološke pomoći, ili službi standardne frekvencije i signala vremena, u primeni Člana 11, potrebno ako pozivni znak (3A[1]) nije dat	O	O	+				O	3A[2]
4		<b>LOKACIJA PREDAJNIH ANTENA</b>								
4.1	4A	ime lokaliteta po kome je predajna stanica poznata ili u kome je smeštena	X	X	X					4A
4.2	4AA	ime lokaliteta planirane obalske stanice Potrebno za podnošenja u skladu sa No. 25/1.1.1 Dodatka 25					+			
4.3	4B	kod geografskog područja u kome je predajna stanica smeštena (vidi Predgovor)	X	X	X					4B
4.4	4C	Geografske koordinate mesta predajnika Geografska dužina i širina daju se u stepenima, minutama i sekundama	X	X	X					4C
4.5	4CA	Geografske koordinate planirane obalske stanice Geografska dužina i širina daju se u stepenima, minutama i sekundama Potrebno za podnošenja u skladu sa No. 25/1.1.1 Dodatka 25					+			

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne kopnene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
4.6		HFBC kod mesta PRIMEDBA – Kod je dodeljen od strane Biroa pre početka procedure Člana 12 i predstavlja lokaciju stanice, njeno geografsko područje i geografske koordinate							X		
4.7		<b>Za područje u kojem radi predajna stanica</b>									
4.7.1	4C[α]	geografske koordinate centra kružne zone, u kojoj mobilne predajne stanice pridružene prijemnim kopnenim stanicama, ili tipične predajne stanice rade Geografska dužina i širina daju se u stepenima, minutama i sekundama U slučaju prijemne kopnene stanice, potrebno: – za pomorsku radionavigacionu službu; i – za druge službe ako kod geografskog područja ili standardno definisanog područja (4E) nije dat U slučaju tipične predajne stanice, potrebno ako geografsko područje ili standardno definisano područje (4E) nije dato				+	+			4C[α]	
4.7.2	4D	Nominalni radijus, u km, kružne zone, u kojoj mobilne predajne stanice pridružene prijemnim kopnenim stanicama, ili tipične predajne stanice rade U slučaju prijemne kopnene stanice, potrebno: – za pomorsku radionavigacionu službu; i – za druge službe ako kod geografskog područja ili standardno definisanog područja (4E) nije dat U slučaju tipične emitujuće stanice, potrebno ako geografsko područje ili standardno definisano područje (4E) nije dato				+	+			4D	

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi  Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne kopnene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
4.7.3	4E	kod geografskog područja ili standardnog definisanog područja (vidi Predgovor) PRIMEDBA – Standardno definisano područje za prijemnu kopnenu stanicu u pomorskoj mobilnoj službi može biti pomorska zona. Standardno definisano područje za pomorski mobilni frekvencijski aloment jeste područje alomenta U slučaju prijemne kopnene stanice, za sve službe, osim pomorske radionavigacione službe, potrebno ako kružna zona (4C[α] i 4D) nije data U slučaju tipične predajne stanice, potrebno ako kružna zona (4C[α] i 4D) nije data				+	+	X		4E
4.8	4G	provodnost zemlje Potrebno za dodelu prema GE75 Regionalnom sporazumu		+						4G
5		<b>LOKACIJA PRIJEMNIH ANTENA</b>								
5.1	5A	ime lokaliteta po kome je prijemna stanica poznata ili u kome je smeštena U slučaju predajne stanice, potrebne za jednu pridruženu prijemnu stanicu u fiksnoj službi ako geografske koordinate date prijemne zone (5C[α]) nisu date			+	X				5A
5.2	5B	kod geografskog područja u kome je predajna stanica smeštena (vidi Predgovor) U slučaju predajne stanice, potrebne za jednu pridruženu prijemnu stanicu u fiksnoj službi ako geografske koordinate date prijemne zone (5C[α]) nisu date			+	X				5B
5.3	5C	geografske koordinate mesta prijemne stanice Geografska dužina i širina daju se u stepenima, minutama i sekundama U slučaju predajne stanice, potrebne za jednu pridruženu prijemnu stanicu u fiksnoj službi ako geografske koordinate date prijemne zone (5C[α]) nisu date			+	X				5C



Kolona No.	Identifikator stavke	Opis podatka i zahtevi  Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LF/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LF/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Identifikator stavke
5.4		<b>Za područje u kojem radi prijemna stanica</b>								
5.4.1	5C[α]	geografske koordinate date zone prijema Minimum od 3 geografske koordinate se daju. Sve geografske koordinate (geografska dužina i širina) daju se u stepenima, minutama i sekundama Za jednu pridruženu prijemnu stanicu u fiksnoj službi, potrebno ako ime lokaliteta (5A), geografsko područje (5B) i geografske koordinate (5C) nisu date Za sve službe, osim gde je dodela prema GE06 Sporazumu, potrebno ako niti kružno područje (5E i 5F) niti geografsko područje ili standardno područje prijema (5D) nije dato			+					5C[α]
5.4.2	5D	kod geografskog područja ili standardno definisanog područja prijema (vidi Predgovor) PRIMEDBA – Standardno definisano područje predajne stanice može biti prezentovano putem pomorske zone ili vazduhoplovne zone. Standardno definisano područje alotmenta pomorske mobilne službe je pomorska zona. Standardno definisano područje jedne HF radiodifuzne stanice prema Članu 12 je predstavljeno CIRAF zonom U slučaju predajne stanice, osim predajne stanice u fiksnoj službi, pomorskoj radionavigacionoj službi, vazduhoplovnoj mobilnoj službi prema GE85-MM-R1 Regionalnog sporazuma ili pomorske mobilne službe prema GE85-MM-R1 Regionalnog sporazuma, potrebno ako niti kružno područje (5E i 5F) niti geografske koordinate date zone prijema (5C[α]) nisu date			+			X	X	5D

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LF/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LF/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
5.4.3	5E	geografske koordinate centra kružnog prijemnog područja Geografska dužina i širina daju se u stepenima, minutama i sekundama Potrebno: <ul style="list-style-type: none"> <li>- za pomorsku radionavigacionu službu, vazduhoplovnu radionavigacionu službu prema GE85-MM-R1 Regionalnog sporazuma ili pomorsku mobilnu službu prema GE85-MM-R1 Regionalnog sporazuma; i</li> <li>- za sve službe, osim fiksne službe, ako niti geografsko područje ili standardno definisano područje prijema (5D) niti geografske koordinate date zone prijema (5C[α]) nisu date</li> </ul>			+					5E	
5.4.4	5F	radijus, u km, kružnog područja prijema Potrebno: <ul style="list-style-type: none"> <li>- za pomorsku radionavigacionu službu, vazduhoplovnu radionavigacionu službu prema GE85-MM-R1 Regionalnog sporazuma ili pomorsku mobilnu službu prema GE85-MM-R1 Regionalnog sporazuma; i</li> <li>- za sve službe, osim fiksne službe, ako niti geografsko područje ili standardno definisano područje prijema (5D) niti geografske koordinate date zone prijema (5C[α]) nisu date</li> </ul>			+					5F	
5.5	5G	Maksimalna dužina kruga, u km, za ne-kružna prijemna područja Stanice samo u HF opsezima			0			0		5G	

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6		<b>KLASA STANICE I PRIRODA SLUŽBE</b>								
6.1	6A	klasa stanice, koristeći simbole iz Predgovora	X	X	X	X	X	X	X	6A
6.2	6B	priroda službe, koristeći simbole iz Predgovora U slučaju predajne stanice, potrebno za sve službe, osim radiodifuzne službe			+	X	X	X		6B
7		<b>KLASE EMISIJA I NEOPHODNA ŠIRINA OPSEGA</b> (u skladu sa Članom 2 i Dodatka 1)								
7.1	7A	klasa emisije U slučaju VHF/UHF radiodifuzne stanice, potrebne za dodele prema § 5.1.3 GE06 Regionalnog sporazuma	+	X	X	X	X	X		7A
7.2	7A[α]	neophodna širina opsega U slučaju VHF/UHF radiodifuzne stanice, potrebno za analogne zvučne radiodifuzne dodele i za dodele prema § 5.1.3 GE06 Regionalnog sporazuma	+	X	X	X	X	X	X	7A[α]
7.3		<b>Karakteristike sistema</b>								
7.3.1	7A1	kod za opis frekvencijske stabilnosti (RELAKSIRANO, NORMALNO ili PRECIZNO) Potrebno za analognu televizijsku radiodifuziju	+							7A1
7.3.2	7AA	kod tipa modulacije Tip modulacije označava korišćenje DSB, SSB ili svake nove modulacione tehnike preporučene od ITU-R							X	7AA
7.3.3	7B[α]	"RJ 81 klasa" (A, B ili C) Potrebno za RJ 81 Regionalnog sporazuma		+						7B[α]

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa							Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LF/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LF/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
7.3.4	7B1	protekcioni odnos susednog kanala dB Potrebno za GE75 Regionalnog sporazuma		+						7B1							
7.3.5		sistemski kod PRIMEDBA – Kod identifikuje kategoriju sistema kojem stanica pripada i stoga njene bezbednosne potrebe U VHF opsegu dva koda su potrebna za zaštitu od T-DAB i DVB-T U UHF opsegu samo jedan kod je potreban za zaštitu od DVB-T Potrebno za dodelu prema GE06 Regionalnom sporazumu			+	+	+										
7.3.6	7C1	kod koji identifikuje televizijski sistem (vidi Predgovor) Potrebno za televizijske radiodifuzne dodele, osim dodela prema § 5.1.3 GE06 Regionalnog sporazuma	+							7C1							
7.3.7	7C2	kod za sistem u boji (vidi Predgovor) Potrebno za analognu televizijsku radiodifuziju	+							7C2							
7.3.8	7D	kod za zvučni radiodifuzni sistem emisije (vidi Predgovor) PRIMEDBA – Za LF/MF sisteme, signal može da se sastoji od analogne ili digitalne modulacije ili podataka ili neke kombinacije od toga: poslednji slučaj se naziva hibridnom modulacijom U slučaju VHF/UHF radiodifuzne stanice, potrebno za zvučne radiodifuzne dodele, osim dodela prema GE06 Regionalnog sporazuma U slučaju LF/MF radiodifuzne stanice, potrebno za dodelu sa digitalnom ili hibridnom modulacijom	+	+						7D							

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa							
			Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LF/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LF/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
7.3.9		<b>Za GE06 Regionalni sporazum (osim obaveštenja prema § 5.1.3 GE06 Regionalnog Sporazuma)</b>								
7.3.9.1		referentna planirana konfiguracija (vidi Predgovor) Potrebno za digitalnu zvučnu radiodifuziju	+							
7.3.9.2		tip maske spektra	X							
7.3.9.3		prijemni način (vidi Predgovor) Potrebno za digitalnu televizijsku radiodifuziju	+							
7.3.10		<b>Za fiksnu službu u opsezima koji se dele sa svemirskim službama i bilo kojim primenjivim tipom modulacije</b>								
7.3.10.1	7E	frekvencijska devijacija od vrha do vrha, u MHz			C					7E
7.3.10.2	7F	prelazna frekvencija, u kHz, talasnog oblika kod rasipanja energije			C					7F
8		<b>KARAKTERISTIKE SNAGE</b>								
8.1	8	simboli (X, Y ili Z, po potrebi) koji opisuju tip snage (vidi Član 1) koji odgovara klasi emisije	X	X	X	X	X	X	X	8
8.2	8A	snaga isporučena antenskoj predajnoj liniji, u kW		X					X	8A

Kolona No.	Identifikator stavke	<p style="text-align: center;"><b>Opis podatka i zahtevi</b></p> <p style="text-align: center;"><b>Obaveštenje u vezi sa</b></p>	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne kopnene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Identifikator stavke
8.3	8A[α]	<p>snaga isporučena anteni, u dBW</p> <p>U slučaju predajne stanice, potrebno za dodelu:</p> <ul style="list-style-type: none"> <li>- u opsezima ispod 28 MHz, u svim službama osim radionavigacione službe; ili</li> <li>- u opsezima iznad 28 MHz deljeno sa svemirskim službama; ili</li> <li>- u opsezima iznad 28 MHz gde nema deljenja sa svemirskim službama: <ul style="list-style-type: none"> <li>- u vazduhoplovnoj mobilnoj službi, služba meteorološke pomoći; ili</li> <li>- u svim drugim službama, ako izračena snaga nije dostavljena</li> </ul> </li> </ul> <p>U slučaju prijemne kopnene stanice, potrebno ako pridružena izračena snaga emitujuće stanice nije dostavljena</p> <p>U slučaju tipične predajne stanice, potrebno ako izračena snaga nije dostavljena</p>			+	+	+	X		8A[α]
8.4	8AB	<p>maksimalna gustina snage<sup>1</sup> (dB(W/Hz)) za svaki tip nosioca u proseku raspoređeno za najgori slučaj opsega 4 kHz za nosioce ispod 15 GHz, ili u proseku raspoređeno na najgori 1 MHz opseg za nosioce iznad 15 GHz, isporučeno antenskoj predajnoj liniji</p> <p>Za fiksnu službu u opsezima koji se dele sa svemirskim službama</p>			C					8AB
8.5		<p>maksimalna gustina snage (dB(W/Hz)) u proseku raspoređeno na najgori 4 kHz opseg, izračunata za maksimalnu efektivnu izračenu snagu</p> <p>PRIMEDBA – Za prijemnu kopnenu stanicu, maksimalna gustina snage odnosi se na pridruženu predajnu stanicu</p> <p>U slučaju VHF/UHF radiodifuzne stanice, potrebno za dodele prema § 5.1.3 GE06 Regionalnog sporazuma</p> <p>U slučaju predajne stanice, prijemna kopnene stanice, ili tipične predajne stanice, potrebno za dodele prema GE06 Regionalnog sporazuma</p>	+		+	+	+			

Kolona No.	Identifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Identifikator stavke
8.6	8B	<p>izračena snaga, u dBW, u jednoj od formi opisanih u Nos. <b>1.161</b> do <b>1.163</b></p> <p>PRIMEDBA – Kada adaptivni sistemi u fiksnoj i mobilnoj službi koji rade u opsezima između 300 kHz i 28 MHz (vidi takođe Rezoluciju 729 (Rev.WRC-07)) koriste automatsku kontrolu snage, izračena snaga uključuje nivo snage nivo kontrole snage izlistane pod 8BA</p> <p>Za dodelu u svim službama i frekvencijskim opsezima, osim dodelama prema GE06 Regionalnog sporazuma, potrebno ako je snaga isporučena anteni (8A[α]), ili maksimalno pojačanje (9G), nije dato</p> <p>Za dodelu prema GE06 Regionalnog sporazuma, potrebno ako snaga dostavljena anteni (8A[α]) nije data</p>			+	+	+			8B	
8.7	8BA	<p>opseg kontrole snage, u dB</p> <p>Potrebno za adaptivne sisteme u fiksnoj i mobilnoj službi koji rade u opsezima između 300 kHz i 28 MHz (vidi takođe Rezoluciju 729 (Rev.WRC-07)), ako je automatska kontrola snage korišćena</p>			+					8BA	
8.8	8BH	<p>maksimalna efektivna izračena snaga, u dBW, horizontalno polarizovane komponente</p> <p>Potrebno za horizontalnu i mešovitu polarizaciju</p>	+							8BH	
8.9	8BV	<p>maksimalna efektivna izračena snaga, u dBW, vertikalno polarizovane komponente</p> <p>Potrebno za vertikalnu i mešovitu polarizaciju</p>	+							8BV	
8.10		<p>maksimalna efektivna izračena snaga, u dBW, u ravni definisanoj nagibom snopa ugla</p> <p>Za digitalnu radiodifuznu dodelu u UHF opsegu samo prema GE06 Regionalnom sporazumu</p>	O								
8.11	8D	<p>odnos snage vizuelnog/zvučnog nosioca, u dB</p> <p>Potrebno za analognu televizijsku radiodifuziju</p>	+							8D	

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
8.12	9L	maksimalna efektivna izračena snaga monopola, u dB(kW) Potrebno za GE75 Regionalni sporazum		+							9L
8.13		<b>Za RJ81 i RJ88 Regionalne sporazume</b>									
8.13.1	9I	vrednost zračenja Proizvod r.m.s. karakteristične snage polja u horizontalnoj ravni i kvadratni koren snage		X							9I
8.13.2	9IA	vrednosti zračenja na centralnom pravcu zračenja, u mV/m na 1 km Potrebno za dijagram zračenja antene tipa "M" (vidi 9O)		+							9IA
8.13.3	9P	vrednost specijalnog kvadraturnog faktora, u mV/m na 1 km PRIMEDBA – Specijalni kvadraturni faktor može biti korišćen sa dijagramom zračenja antene tipa "M" ili "E" da zameni normalni prošireni kvadraturni faktor kad su specijalne mere preduzete da se osigura stabilnost dijagrama zračenja		O							9P
9		<b>ANTENSKKE KARAKTERISTIKE</b>									
9.1		<b>Za prenosnu i prijemnu antenu</b>									
9.1.1	9	indikator pokazuje da li je antena usmerena (D) ili neusmerena (ND) U slučaju prijemne koptene stanice, potrebne za dodelu prema GE06 Regionalnom sporazumu	X		X	+		X	X		9



Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LF/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LF/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
9.1.2	9D	kod za tip polarizacije (vidi Predlog) u slučaju predajne stanice, potrebno za dodelu: <ul style="list-style-type: none"> <li>- u fiksnoj službi u opsezima koji se dele sa svemirskim službama; ili</li> <li>- prema GE06 Regionalnom sporazumu</li> </ul> U slučaju prijemne koptene stanice, potrebno za dodelu prema GE06 Regionalnom sporazumu	<b>X</b>		+	+				9D	
9.1.3	9E	visina antene iznad nivoa zemlje, u metrima U slučaju VHF/UHF radiodifuzne stanice, potrebno za ST61, GE84, GE89, ili GE06 Regionalnih sporazuma, i opcionalno za dodele koje nisu predmet ovih Sporazuma U slučaju predajne stanice, potrebno za dodelu: <ul style="list-style-type: none"> <li>- u opsezima koji se dele sa svemirskim službama; ili</li> <li>- prema GE06 Regionalnom sporazumu</li> </ul> U slučaju prijemne koptene stanice, potrebno za dodelu prema GE06 Regionalnom sporazumu	+		+	+				9E	
9.2		<b>Za usmerenu predajnu ili prijemnu antenu</b>									
9.2.1	9C	totalna ugaona širina zračenja glavne latice (širine snopa) mereno horizontalno u ravni koja sadrži smer maksimalnog zračenja, u stupnjevim, unutar kojeg snaga izračena u bilo kom smeru ne pada više od 3 dB ispod snage izračene u smeru maksimalnog zračenja U slučaju predajne stanice, potrebno za sve dodele, osim dodela prema GE06 Regionalnog sporazuma gde je opcionalno U slučaju prijemne koptene stanice, za dodelu jedino prema GE06 Regionalnog sporazuma			+	<b>O</b>		<b>X</b>		9C	

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa							Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LF/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LF/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
9.2.2		antensko pojačanje prema horizontu Za dodelu samo prema GE06 Regionalnog sporazuma			O	O											
9.2.3	9K	najniža ukupna temperatura šuma prijemnog sistema, u kelvinima Za pridruženu prijemnu antenu u fiksnoj službi koja radi u opsezima koji se dele jedini sa svemirskim službama			C					9K							
9.3		<b>Za predajnu antenu</b>															
9.3.1	9EA	visina mesta iznad nivoa mora, u metrima U slučaju VHF/UHF radiodifuzne stanice, potrebno za dodele prema ST61, GE84, GE89, ili GE06 Regionalnih sporazuma, i opcionalno za dodele koje ne potpadaju pod Sporazum U slučaju predajne stanice, potrebno za dodelu: – u fiksnoj i mobilnoj službi u opsezima koji se dele sa svemirskim službama; ili – prema GE06 Regionalnom sporazumu	+		+					9EA							
9.3.2	9EB	maksimalna efektivna visina antene, u metrima, iznad prosečne visine tla između 3 i 15 km od predajne antene U slučaju predajne stanice, potrebno za dodelu prema GE06 Regionalnom sporazumu	X		+					9EB							
9.3.3	9EC	efektivna visina antene, u metrima, iznad srednje visine zemlje između 3 i 15 km od predajne antene, na 36 različitih azimuta u 10° intervalima (na.pr. 0°, 10°, ..., 350°), mereno u horizontalnoj ravni Severno u smeru kazaljke na satu U slučaju VHF/UHF radiodifuzne stanice, potrebno za dodelu prema ST61, GE84, GE89 ili GE06 Regionalnih sporazuma U slučaju predajne stanice, potrebno za dodelu prema GE06 Regionalnom sporazumu	+		+					9EC							

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
9.3.4	9G	<p>maksimalno pojačanje antene (izotropno, relativno kratkoj vertikalnoj anteni ili relativno prema polutalasnom dipolu, po mogućnosti) prenosne antene (vidi No. <b>1.160</b>)</p> <p>Za usmerenu antenu, pojačanje je u smeru maksimalnog zračenja</p> <p>U slučaju predajne stanice, ili tipične predajne stanice:</p> <ul style="list-style-type: none"> <li>- za sve frekvencijske opsege i službe, osim dodela prema GE06 Regionalnom sporazumu, potrebno ako je antena: <ul style="list-style-type: none"> <li>- usmerena, uključujući gde antenski snop rotira ili se pomiče; ili</li> <li>- ne-usmerena i snaga antene (8A[α]) ili izračena snaga (8B) nije data</li> </ul> </li> <li>- za namenu prema GE06 Regionalnog sporazuma potrebno ako izračena snaga (8B) nije data</li> </ul> <p>U slučaju pomorske mobilne frekvencijske namene, potrebne ako je antena usmerena, uključujući kada antenski snop rotira ili se pomiče</p>			+		+	+		9G	
9.3.5		projektovana frekvencija predajne antene							X		
9.3.6		<p>ugao nagiba snopa, u stepenima</p> <p>Ugao nagiba snopa se meri od horizontalne ravni prema zemlji i predznak ugla je negativan PRIMEDBA – U nekim radiodifuznim definicijama, ugao može da ima obrnuti predznak</p> <p>Za digitalnu radiodifuznu dodelu u UHF opsegu jedino prema GE06 Regionalnom sporazuma</p>	O								
9.3.7	9J	izmereni dijagram zračenja antene, referentni dijagram zračenja ili simboli u standardnim referencama za korišćenje u koordinaciji			O				X	9J	

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa							
			Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
9.4	9AB	<b>Za usmerenu predajnu antenu gde antenski snop rotira ili se pomiče</b>								9AB
9.4.1	9AB[α]	početni azimut za raspon radnih uglova za glavni snop antenske ose, mereno u horizontalnoj ravni od Severa u smeru kazaljke na satu			X			X		9AB[α]
9.4.2	9AB[β]	krajnji azimut za raspon radnih uglova za glavni snop antenske ose, mereno u horizontalnoj ravni od Severa u smeru kazaljke na satu			X			X		9AB[β]
9.5		<b>Za usmerenu predajnu antenu gde antenski snop ne rotira i ne pomiče se</b>								
9.5.1	9A	azimut maksimalnog zračenja predajne antene, mereno u horizontalnoj ravni od severa u smeru kazaljke na satu			X			X	X	9A
9.5.2	9B	elevacioni ugao maksimalne usmerenosti, u stepenima Potrebno za dodelu u opsezima koji se dele sa svemirskim službama			+					9B
9.5.3	9R	ugao skretanja meren između pravca maksimalne radijacije i smera neskrenute radijacije							X	9R
9.5.4	9NH	vrednost pojačanja horizontalno polarizovane komponente, na 36 različitih azimuta u 10° intervalima (na.pr. 0°, 10°, ..., 350°), mereno u horizontalnoj ravni Severno u smeru kazaljke na satu, u odnosu na maksimalnu efektivnu izračenu snagu ove komponente, u dB  Za sve dodele, osim digitalnih radiodifuznih dodela prema GE06 Regionalnog sporazuma i radiodifuznih dodela prema § 5.1.3 GE06 Regionalnom sporazumu, potrebno ako je polarizacija horizontalna ili mešovita	+							9NH

Kolona No.	Identifikator stavke	<p style="text-align: center;"><b>Opis podatka i zahtevi</b></p> <p style="text-align: center;"><b>Obaveštenje u vezi sa</b></p>	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Identifikator stavke
9.5.5	9NV	<p>vrednost pojačanja vertikalno polarizovane komponente, na 36 različitih azimuta u 10° intervalima (na.pr. 0°, 10°, ..., 350°), mereno u horizontalnoj ravni Severno u smeru kazaljke na satu, u odnosu na maksimalnu efektivnu izračenu snagu ove komponente, u dB</p> <p>Za sve dodele, osim digitalnih radiodifuznih dodela prema GE06 Regionalnog sporazuma i radiodifuznih dodela prema § 5.1.3 GE06 Regionalnom sporazumu, potrebno ako je polarizacija horizontalna ili mešovita</p>	+							9NV
9.5.6		<p>vrednost pojačanja horizontalno polarizovane komponente u horizontalnoj ravni, normalizovanoj na 0 dB, na 36 različitih azimuta u 10° intervalima (na.pr. 0°, 10°, ..., 350°), mereno u horizontalnoj ravni Severno u smeru kazaljke na satu, u odnosu na maksimalnu efektivnu izračenu snagu ove komponente, u dB</p> <p>U slučaju VHF/UHF radiodifuzne stanice, za digitalnu radiodifuznu dodelu prema GE06 Regionalnom sporazumu i dodeli prema § 5.1.3 GE06 Regionalnog sporazuma, potrebno ako je polarizacija horizontalna ili mešovita</p> <p>U slučaju predajne stanice, za dodelu prema § 5.1.3 GE06 Regionalnog sporazuma, potrebno ako je polarizacija horizontalna ili mešovita</p>	+		+					
9.5.7		<p>vrednost pojačanja vertikalno polarizovane komponente u horizontalnoj ravni, normalizovanoj na 0 dB, na 36 različitih azimuta u 10° intervalima (na.pr. 0°, 10°, ..., 350°), mereno u horizontalnoj ravni Severno u smeru kazaljke na satu, u odnosu na maksimalnu efektivnu izračenu snagu ove komponente, u dB</p> <p>U slučaju VHF/UHF radiodifuzne stanice, za digitalnu radiodifuznu dodelu prema GE06 Regionalnom sporazumu i dodeli prema § 5.1.3 GE06 Regionalnog sporazuma, potrebno ako je polarizacija vertikalna ili mešovita</p> <p>U slučaju predajne stanice, za dodelu prema § 5.1.3 GE06 Regionalnog sporazuma, potrebno ako je polarizacija vertikalna ili mešovita</p>	+		+					

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa							
			Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
9.6	9Q	simbol za identifikaciju tipa antene Tip A – obična vertikalna antena Tip B – usmerena ili kružna (omnidirectional) antena složene konstrukcije		X						9Q
9.7		<b>Za antenu tipa A (obična vertikalna antena)</b>								
9.7.1	9E[α]	fizička dužina u metrima predajne antene Potrebno za GE75 Regionalni sporazum		+						9E[α]
9.7.2	9F	električna dužina predajne antene, u stepenima Potrebno za RJ81 ili RJ88 Regionalnih sporazuma		+						9F
9.8		<b>Za stanicu prema GE75 Regionalnom sporazumu sa antenom tipa B (usmerena antena, ili kružna (omnidirectional) antena složene konstrukcije)</b>								
9.8.1	9GH	antensko pojačanje, u dB, u horizontalnoj ravni, na 36 različitih azimuta u 10° intervalima (na.pr. 0°, 10°, ..., 350°), mereno u horizontalnoj ravni Severno u smeru kazaljke na satu		X						9GH
9.8.2	9GV	antensko pojačanje, u dB, u vertikalnoj ravni, na 36 različitih azimuta u 10° intervalima (na.pr. 0°, 10°, ..., 350°), mereno u horizontalnoj ravni Severno u smeru kazaljke na satu, i na deset različitih elevacija u 10° intervalima (na pr. 0°, 10°, ..., 90°) mereno u vertikalnoj ravni PRIMEDBA – Ako administracije imaju poteškoće u davanju ove informacije, mogu dati preporuku za bilo koju drugu informaciju koja može biti od pomoći (na pr. ITU-R Preporuka, dijagram zračenja antene) Potrebno za dodelu za korišćenje u noćnom radu		+						9GV

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa	
			Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2
			Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21
			Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)
			Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
9.9		<b>Za stanice prema RJ81 ili RJ88 Regionalnih sporazuma sa antenom tipa B (usmerena antena, ili kružna (omnidirectional) antena složene konstrukcije)</b>		
9.9.1	9O	simbol koji identifikuje tip dijagrama zračenja antene (T, M, ili E)		X
9.9.2		<b>Za dijagram zračenja antene tipa M</b>		
9.9.2.1	9NA	serijski broj pojačanja opisano stavkama 9IA, 9AA i 9CA		X
9.9.2.2	9AA	centralni azimut pojačanja (centar raspona) u stepenima		X
9.9.2.3	9CA	totalni raspon pojačanja, u stepenima		X
9.9.3		<b>Za svaki toranj antene tipa B iz RJ81 ili RJ88 Regionalnih sporazuma</b>		
9.9.3.1	9T1	serijski broj svakog od antenskih tornjeva čije karakteristike su opisane u stavkama 9T2 do 9T8		X
9.9.3.2	9T8	simbol za strukturu antenskog tornja		X
9.9.3.3	9T7	električka visina, u stepenima, dotičnog antenskog tornja Potrebno ako antenski toranj nije popunjen niti sekcionalni (vidi 9.9.4)		+
9.9.3.4	9T2	odnos polja antenskog tornja i polja referentnog antenskog tornja Potrebno ako se antena sastoji iz dva ili više tornjeva		+
9.9.3.5	9T3	pozitivna ili negativna fazna razlika u polju antenskog tornja u odnosu na polje referentnog antenskog tornja, u stepenima Potrebno ako se antena sastoji iz dva ili više tornjeva		+

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi  Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
9.9.3.6	9T4	električki razmak antenskog tornja od referentne tačke, u stepenima Potrebno ako se antena sastoji iz dva ili više tornjeva		+						9T4
9.9.3.7	9T5	ugaona orijentacija antenskog tornja od referentne tačke, u stepenima (u smeru kazaljke na satu) od Severa Potrebno ako se antena sastoji iz dva ili više tornjeva		+						9T5
9.9.4		<b>Za svaki toranj antene tipa B koji je popunjen ili sekcionalan u skladu sa Regionalnom administrativnom MF radiodifuznom konferencijom (Region 2) Rio de Janeiro, Sporazumi 1981 ili 1988</b>								
9.9.4.1	9T9A	opis popunjenog ili sekcionalnog antenskog tornja		X						9T9A
9.9.4.2	9T9B	opis popunjenog ili sekcionalnog antenskog tornja Potrebno ako je simbol strukture antenskog tornja (9T8) 1, 2, 5, 6, 7, 8 ili 9		+						9T9B
9.9.4.3	9T9C	opis popunjenog ili sekcionalnog antenskog tornja Potrebno ako je simbol strukture antenskog tornja (9T8) 2, 5, 7 ili 8		+						9T9C
9.9.4.4	9T9D	opis popunjenog ili sekcionalnog antenskog tornja Potrebno ako je simbol strukture antenskog tornja (9T8) 2, 5 ili 8		+						9T9D
10		<b>RADNI ČASOVI</b>								
10.1	10B	regularni časovi rada (u časovima i minutama od ... do ...) frekvencijske dodele, u UTC	X	O	X	X	X	X	X	10B
10.2	10B[α]	kod perioda lokalnog rada (vidi Predgovor)		X						10B[α]
10.3	10D	procenjeni časovi najvećeg saobraćaja						X		10D



Kolona No.	Identifikator stavke	Opis podatka i zahtevi  Obaveštenje u vezi sa	Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Identifikator stavke
10.4	10E	procenjeni dnevni volumen saobraćaja						X		10E
11		<b>KOORDINACIJA I SPORAZUM</b>								
11.1	11	simbol svake administracije sa kojom je koordinacija uspešno ostvorena Potrebno ako je koordinacija neophodna i postignuta je prema relevantnim odredbama Pravilnika o radiokomunikacijama	+	O	+	+	O	+		11
11.2		deklaracija obaveštavajuće administracije da su svi uslovi vezani za primedbu u potpunosti zadovoljeni za upisivanje podnesene dodele u MIFR Potrebno za digitalnu radiodifuznu dodelu prema § 5.1.2 GE06 Regionalnog sporazuma	+							
11.3		potpisani pristanak od obaveštavajuće administracije da podnesena dodela za upisivanje u MIFR neće uzrokovati neprihvatljivu interferenciju i da neće tražiti zaštitu zbog toga Potrebno za dodele prema § 5.1.8 GE06 Regionalnog sporazuma	+							
11.4		potpisani pristanak od obaveštavajuće administracije da podnesena dodela za upisivanje u MIFR neće uzrokovati neprihvatljivu interferenciju i da neće tražiti zaštitu zbog toga Potrebno za dodele prema § 5.1.8 GE06 Regionalnog sporazuma			+	+	+			
12		<b>UPRAVLJAČKA ADMINISTRACIJA ILI AGENCIJA</b>								
12.1	12A	simbol upravljačke agencije	O	O	O	O	O		O	12A
12.2	12B	simbol adrese administracije odgovorne za stanicu i kojoj treba slati saopštenje o hitnim stvarima koje se tiču interfejsa, kvalitet emisija i pitanja koja se odnose na tehničke operacije sklopa (vidi Član 15, takođe Predgovor) U slučaju VHF/UHF radiodifuzne stanice, predajne stanice, ili prijemne koptene stanice, potrebno za primenu Člana 11	+	X	+	+	X		X	12B

Kolona No.	Indentifikator stavke	Opis podatka i zahtevi	Obaveštenje u vezi sa							
			Radiodifuzne (zvuk i televizija) stanice u VHF/UHF opsegu do 960 MHz, za primenu No. 11.2 i No. 9.21	Radiodifuzne (zvuk) stanice u LE/MF opsezima, za primenu No. 11.2	Predajne stanice (osim radiodifuznih stanica u planiranim LE/MF opsezima, u HF opsezima rukovođeno Članom 12, i u VHF/UHF opsezima do 960 MHz), za primenu No. 11.2 i No. 9.21	Prijemne koptene stanice, za primenu No. 11.9 i No. 9.21	Tipične predajne stanice, za primenu No. 11.17	Pomorska mobilna frekvencijska namena, za primenu modifikacije plana pod Dodatkom 25 (Nos. 25/1.1.1, 25/1.1.2, 25/1.25)	Radiodifuzne stanice u HF opsezima, za primenu No. 12.16	Indentifikator stavke
13		<b>PRIMEDBE</b>								
13.1	13C	Primedbe za pomoć Birou u procesiranju obaveštenja	O	O	O	O	O	O	O	13C

ADD COM6/398/5 (B21/415/5)

TABELA 2

Karakteristike frekvencijskih dodela za stanice na visokoj platformi (HAPS) u zemaljskim službama

Stavke u Dodatku	<i>1 - GENERALNE KARAKTERISTIKE ZA HAPS</i>	Predajna stanica u opsezima izlistanim u No. 5.388A za primenu No. 11.2	Prijemna stanica u opsezima izlistanim u No. 5.388A za primenu of No. 11.9	Predajna stanica u opsezima izlistanim u Nos. 5.537A i 5.552A za primenu No. 11.2	Prijemna stanica u opsezima izlistanim u Nos. 5.543A i 5.552A za primenu No. 11.9
	<b>GENERALNE INFORMACIJE</b>				
1.B	simbol obaveštavajuće administracije (vidi Predgovor)	X	X	X	X
1.[D]	kod odredbe u Pravilniku o radiokomunikacijama pod kojim je obavest podnesena	X	X	X	X
1.[α]	jedinstveni identifikator dat od administracije stanice	X	X	X	X
	<b>LOKACIJA STANICE</b>				
1.4.a	ime pod kojim je stanica poznata	X	X	X	X
1.4.b	kod geografskog područja, iznad kojeg je stanica locirana (vidi Predgovor)	X	X	X	X
1.4.c	nominalne geografske koordinate stanice Geografska dužina i širina su date u stepenima, minutama i sekundama	X	X	X	X
1.4.[α]	nominalna visina stanice prosečno iznad površine mora, u metrima	X	X	X	X
1.4.[β]	<b>Tolerancije lokacije stanice</b>				
1.4.[β].1.a	planirani limit tolerancije geografske širine severno, koristeći d.m.s jedinice	X	X	X	X
1.4.[β].1.b	planirani limit tolerancije geografske širine južno, koristeći d.m.s jedinice	X	X	X	X
1.4.[β].2.a	planirani limit tolerancije geografske dužine istočno, koristeći d.m.s jedinice	X	X	X	X
1.4.[β].2.b	planirani limit tolerancije geografske dužine zapadno, koristeći d.m.s jedinice	X	X	X	X
1.4.[β].3	planirana tolerancija visine, u metrima	X	X	X	X
1.[7]	<b>SAGLASNOST SA TEHNIČKIM ILI RADNIM OGRANIČENJIMA</b>				
1.[7].b	saglasnost da HAPS ne prelazi pfd izvan opsega -165 dB(W/(m <sup>2</sup> · 4 kHz)) na Zemljinoj površini u opsezima 2 160-2 200 MHz u Regionu 2 i 2 170-2 200 MHz u Regionima 1 i 3 (vidi Rezoluciju 221 (Rev.WRC-07))	X			
1.[7].c	saglasnost da HAPS ne prelazi pfd izvan opsega -165 dB(W/(m <sup>2</sup> · MHz)) za upadne uglove (θ) manje od 5° iznad horizontalne ravni, -165 + 1.75 (θ - 5) dB(W/(m <sup>2</sup> · MHz)) za upadne uglove između 5° i 25° i -130 dB(W/(m <sup>2</sup> · MHz)) za upadne uglove između 25° i 90° (vidi Rezoluciju 221 (Rev.WRC-07))	X			

Stavke u Dodatku	<i><b>1 - GENERALNE KARAKTERISTIKE ZA HAPS</b></i>	Predajna stanica u opsezima izlistanim u No. 5.388A za primene No. 11.2	Prijemna stanica u opsezima izlistanim u No. 5.388A za primene of No. 11.9	Predajna stanica u opsezima izlistanim u Nos. 5.537/A i 5.552A za primenu No. 11.2	Prijemna stanica u opsezima izlistanim u Nos. 5.543A i 5.552A za primene No. 11.9
1.[7].d	saglasnost da neželjena gustina snage u anteni HAPS Zemaljske stanice u opsegu 31.3-31.8 GHz ne treba da prelazi -106 dB(W/MHz) pod uslovima čistog neba i -100 dB(W/MHz) pod kišnim uslovima (vidi Rezoluciju <b>145 (Rev.WRC-07)</b> ) Potrebno u opsegu 31-31.3 GHz				+
1.[7].e	saglasnost da maksimalna gustina snage u jednoj tipičnoj HAPS anteni Zemaljske stanice u Pokrivanju urbanog područja (UAC) ne treba da pređe 6.4 dB(W/MHz) za elevacione uglove antene Zemaljske stanice veće od 30° i manje ili jednake 90° (vidi Rezoluciju <b>122 (Rev.WRC-07)</b> ) Potrebno u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz				+
1.[7].f	saglasnost da maksimalna gustina snage u jednoj tipičnoj HAPS anteni Zemaljske stanice u Pokrivanju urbanog područja (UAC) ne treba da pređe 22.57 dB(W/MHz) za elevacione uglove antene Zemaljske stanice veće od 15° i manje ili jednake 90° (vidi Rezoluciju <b>122 (Rev.WRC-07)</b> ) Potrebno u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz				+
1.[7].g	saglasnost da maksimalna gustina snage u jednoj tipičnoj HAPS anteni Zemaljske stanice u Pokrivanju ruralnog područja (RAC) ne treba da pređe 28 dB(W/MHz) za elevacione uglove antene Zemaljske stanice veće od 5° i manje ili jednake 15° (vidi Rezoluciju <b>122 (Rev.WRC-07)</b> ) Potrebno u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz				+
1.[7].h	saglasnost da razdvajajuća daljina između podnožja HAPS i radio astronomske stanice koja radi u opsegu 48.94-49.04 GHz unutar teritorije druge administracije treba da bude veća od 50 km (vidi Rezoluciju <b>122 (Rev.WRC-07)</b> ) Potrebno u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz			+	
1.11	<b>KOORDINACIJA I SPORAZUM</b>				
1.11.a	simbol svake administracije sa kojom je koordinacija bila uspešno izvedena, uključujući gde je sporazum prevazišao limite propisane u Pravilniku u radiokomunikacijama Potrebno ako je koordinacija neophodna i dobijena u skladu sa relevantnim odredbama Pravilnika o radiokomunikacijama	+	+	+	+
	<b>RADNA ADMINISTRACIJA ILI AGENCIJA</b>				
1.12.a	simbol radne agencije	O	O	O	O
1.12.b	simbol za adresu administracije odgovorne za stanicu i kojoj saopštenje o hitnim stvarima treba da se pošalje u pogledu interfejsa, kvaliteta emisija i pitanja koja se odnose na tehnički rad veza (vidi Član 15)	X	X	X	X
	<b>NAPOMENE</b>				
1.13.c	Napomene za pomoć Birou u procesiranju obaveštenja	O	O	O	O

Stavke u Dodatku	2 - KARAKTERISTIKE KOJE TREBA DA SE OBEZBEDE ZA SVAKI INDIVIDUALNI ILI KOMPOZITNI HAPS ANTENSKI SNOPI	Predajna stanica u opsezima izlistanim u No. 5.388A za primene No. 11.2	Prijemna stanica u opsezima izlistanim u No. 5.388A za primene of No. 11.9	Predajna stanica u opsezima izlistanim u Nos. 5.537A i 5.552A za primenu No. 11.2	Prijemna stanica u opsezima izlistanim u Nos. 5.543A i 5.552A za primene No. 11.9
	<b>IDENTIFIKACIJA I SMER HAPS ANTENSKOG SNOPI</b>				
2.1.a	označavanje HAPS antenskog snopa	X	X	X	X
2.1.b	Indikator koji pokazuje da li je antenski snop, pod 2.1.a, fiksni ili je okrećući i /ili rekonfigurabilan	X	X	X	X
2.1.c	Indikator koji pokazuje da li HAPS antena sledi servisno područje	X		X	
2.1.d	indikator koji pokazuje da li je antenski snop individualan ili kompozitni snop	X	X	X	X
	<b>ANTENSKE KARAKTERISTIKE</b>				
2.9.g	maksimalno kros-polarno izotropsko pojačanje	X	X	X	X
2.9.j	izmereni dijagram zračenja antene, referentni dijagram zračenja ili u standardnim referencama za korišćenje za koordinaciju	X	X		
2.9.[α]	<p>kros-polarne konture antenskog pojačanja nacrtanog na mapi površine Zemlje, poželjno u radijalnoj projekciji od HAPS-a na ravan normalna na osu od centra Zemlje prema HAPS-u</p> <p>HAPS konture antenskog pojačanja treba da su nacrtane kao linije jednakog izotropskog pojačanja, relativno maksimalnom antenskom pojačanju, kada je bilo koja od tih kontura locirana ili potpuno ili delimično izvan teritorije obaveštavajuće administracije</p> <p>Konture antenskog pojačanja treba da uključe efekte planirane tolerancije geografske dužine i širine, planiranu visinsku toleranciju i podešenu tačnost antene, uzimajući u obzir kretanje vidokruga HAPS antena oko efektivnog područja vidokruga.</p>	X	X	X	X

Stavke u Dodatku	3 - KARAKTERISTIKE KOJE TREBA DA SE OBEZBEDE ZA SVAKU FREKVENCIJSKU DODELU ZA SVAKI INDIVIDUALNI ILI KOMPOZITNI HAPS ANTENSKI SNOP	Predajna stanica u opsezima izlistanim u No. 5.388A za primene No. 11.2	Prijemna stanica u opsezima izlistanim u No. 5.388A za primene of No. 11.9	Predajna stanica u opsezima izlistanim u Nos. 5.537A i 5.552A za primenu No. 11.2	Prijemna stanica u opsezima izlistanim u Nos. 5.543A i 5.552A za primene No. 11.9
	<b>DODELJENA FREKVENCIJA</b>				
3.1.a	dodeljena frekvencija, definisana u No. 1.148	X	X	X	X
3.1.b	referentna frekvencija, kako je definisana u Članu 1 Potrebno ako je modulaciona anvelopa asimetrična	+	+	+	+
	<b>DATUM RADA</b>				
3.2.c	datum (aktualan ili predviđen, prema potrebi) od donošenja frekvencijske dodele (nove ili modifikovane) za korišćenje	X	X	X	X
	<b>LOKACIJA PRIDRUŽENIH ANTENA</b>				
	<b>Za područje u kojem pridružene predajne /prijemne zemaljske stanice rade</b>				
3.5.c.[α]	geografske koordinate date zone Minimum od šest geografskih koordinata se zahteva, u stepenima, minutama i sekundama PRIMEDBA – Za fiksnu službu u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz geografske koordinate su date za svaki od UAC, SAC i ako je moguće RAC (vidi najnoviju verziju Preporuke ITU-R F.1500) Potrebno ako niti kružno područje (3.5.e i 3.5.f) niti geografsko područje (3.5.d) nije dato	+	+	+	+
3.5.d	kod geografskog područja (vidi Predgovor) PRIMEDBA – Za fiksnu službu u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz odvojena geografska područja su data za svaki od UAC, SAC i ako je moguće RAC (vidi najnoviju verziju Preporuke ITU-R F.1500) Potrebno ako niti kružno područje (3.5.e and 3.5.f) niti geografske koordinate date zone (3.5.c.[α]) nije dato	+	+	+	+
3.5.e	Geografske koordinate centra kružnog područja u kojem pridružene zemaljske stanice rade Geografska dužina i širina date su u stepenima, minutama i sekundama PRIMEDBA – Za fiksnu službu u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz različiti centri kružnog područja mogu biti dati za UAC, SAC i ako je moguće RAC (vidi najnoviju verziju Preporuke ITU-R F.1500) Potrebno ako niti geografsko područje (3.5.d) niti geografske koordinate date zone (3.5.c.[α]) nije dato	+	+	+	+
3.5.f	radijus, u km, kružnog područja PRIMEDBA – Za fiksnu službu u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz poseban radijus se daje za svaki od UAC, SAC i ako je moguće RAC (vidi najnoviju verziju Preporuka ITU-R F.1500) Potrebno ako niti geografsko područje niti geografske koordinate (3.5.d) date zone (3.5.c.[α]) nije dato	+	+	+	+
	<b>KLASA STANICE I PRIRODA SLUŽBE</b>				
3.6.a	klasa stanice, koristeći simbole iz Predgovora	X	X	X	X
3.6.b	Priroda službe, koristeći simbole iz Predgovora	X	X	X	X
	<b>KLASA EMISIJA I NEOPHODNA ŠIRINA OPSEGA</b> (u skladu sa članom 2 i Dodatkom 1)				
3.7.a	klasa emisije	X	X	X	X
3.7.b	potrebna širina opsega	X	X	X	X

Stavke u Dodatku	3 - KARAKTERISTIKE KOJE TREBA DA SE OBEZBEDE ZA SVAKU FREKVENCIJSKU DODELU ZA SVAKI INDIVIDUALNI ILI KOMPOZITNI HAPS ANTENSKI SNOP	Predajna stanica u opsezima izlistanim u No. 5.388A za primene No. 11.2	Prijemna stanica u opsezima izlistanim u No. 5.388A za primene of No. 11.9	Predajna stanica u opsezima izlistanim u Nos. 5.537A i 5.552A za primenu No. 11.2	Prijemna stanica u opsezima izlistanim u Nos. 5.543A i 5.552A za primene No. 11.9
	<b>KARAKTERISTIKE SNAGE EMISIJA</b>				
3.8.[α]	simbol (X, Y ili Z, po mogućnosti) koji opisuje tip snage (vidi Član 1) koji odgovara klasi emisije	X	X	X	X
3.8.a.[α]	snaga napajanja antene, u dBW, uključujući nivo kontrole snage u 3.8.B.A PRIMEDBA – Za prijemni HAPS, snaga napajanja antene odnosi se na pridruženu predajnu zemaljsku stanicu	X		X	X
3.8AB[α]	maksimalna gustina snage <sup>1</sup> u proseku za najgori 1 MHz opseg za antenu	X		X	
3.8.B.A	raspon kontrole snage, u dB PRIMEDBA – Za prijemni HAPS, kontrola snage se odnosi na njeno korišćenje od strane pridruženih predajnih zemaljskih stanica U slučaju prijemne HAPS, potrebne u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz	X			+
	<b>POLARIZACIJA I TEMPERATURA ŠUMA PRIJEMNOG SISTEMA</b>				
3.9.a	kod za tip polarizacije (vidi Predgovor)	X	X	X	X
3.9.j	referentni dijagram zračenja pridružene zemaljske stanice Potrebno u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz			+	+
3.9.k	najmanja temperatura šuma prijemnog sistema celokupno, u kelvinima, u odnosu na izlaz prijemne antene		X		X
	<b>SATI RADA</b>				
3.10.b	regularni sati rada (u satima i minutama od ... do ...) frekvenijske dodele, u UTC	X	X	X	X

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## ANEKS 2

### Karakteristike satelitskih mreža, zemaljskih stanica ili radio astronomskih stanica<sup>2</sup> (Rev.WRC-07)

#### Informacije koje se odnose na podatke izlistane u sledećim Tabelama

U mnogim slučajevima potrebe za podacima uključuju korišćenje standardnih simbola u podnescima Birou za radiokomunikacije. Ti standardni simboli mogu da se nađu u "Predgovoru za BR IFIC (Svemirske službe), ITU-R internet stranici i Svemirskim Radiokomunikacionim stanicama na DVD-ROM. (U Tabeli, naziva se jednostavno "Predgovor".) Informacije koje se odnose na odredbe o podacima takođe mogu da se nađu u ITU-R Preporukama, na primer, informacije o maski podataka mogu da se nađu u najnovijoj verziji Preporuke ITU-R S.1503, i najnovija verzija Preporuke ITU-R SM.1413 omogućuje generalnu informaciju koja se odnosi na podnošenje podataka.

#### Ključ za simbole korišćene u Tabelama A, B, C i D

X	Obavezna informacija
+	Obavezno pod uslovima specificiranim u koloni 2
O	Opcionalna informacija
C	Obavezno ako se koristi kao baza za ostvarivanje koordinacije sa drugom administracijom
	Stavka podataka nije primenjiva za odgovarajuće obaveštenje

#### Čitanje Tabela Dodatka 4

Pravila za pridruživanje znaka tekstu bazirana su na nazivima kolona Tabela pokrivajući specifične procedure i specifične službe.

1 Ako bilo koja stavka podataka ima neki pridružen uslov, tada ona ima "+".

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A.6.c	ako je postignut sporazum, kod koji se odnosi na odredbu (vidi Predgovor)	+	A.6.c
-------	---	---	-------

C.8.f.1	Nominalni ekvivalent svemirskoj stanici izotropna izračena snaga (e.i.r.p.) na osi snopa Potrebno samo za vezu svemir-svemir	+	C.8.f.1
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2 Podaci grupisani pod zajedničkim podnaslovom koji ograničava raspon procedura, servisa ili frekvencijskih opsega ima "X" kao uslovna priroda se prikazuje u podnaslovu naslova.



A.4.b.5	<b>Za svemirske stanice koje rade u frekventijskom opsegu prema odredbama Nos. 9.11A, 9.12 ili 9.12A, elementi podataka za pravilno karakterisanje orbitalne statistike ne-geostacionarnog satelitskog sistema:</b>		A.4.b.5
A.4.b.5.a	Desno uzlaženje uzlaznog čvora ( $\Omega_j$ ) za $j$ -tu orbitalnu ravan, mereno protivno kazaljki na satu u ekvatorijalnoj ravni iz smera prolećne ravnodnevnicke do tačke gde satelit radi svoj Jug-Sever prelaz ekvatorijalne ravni ( $0^\circ \leq \Omega_j < 360^\circ$ )	<b>X</b>	A.4.b.5.a


3 “U slučaju da”, nakon čega sledi referenca na naziv kolone, koristi se kako je prikazano niže kada su pridruženi uslovi drugačiji za pojedinačne kolone, ili ako indikacija nije ista uzduž svih primenjivih kolona.

A.3.a	Za simbol radne administracije ili agencije (vidi Predgovor) koja je u radnoj kontroli svemirske stanice, zemaljske stanice ili radio astronomske stanice U slučaju Dodatka <b>30B</b> , potrebno samo za obaveštenje pod Članom 8	<b>X</b>	+	A.3.a
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**Fusnote na Tabele A, B, C i D**

- 1 Ne zahteva se za koordinaciju pod No. **9.7A**.
- 2 Najnovija verzija Preporuke ITU-R SF.675 trebalo bi da se koristi u meri u kojoj je primenjiva u računanju maksimalne gustine snage po Hz. Za nosioce ispod 15 GHz, gustina snage je uprosečena za najgori 4 kHz opseg. Za nosioce na ili iznad 15 GHz, gustina snage je uprosečena za 1 MHz opseg. U slučaju dodela sa širinom opsega manjom od naznačenog prosečnog opsega, maksimalna gustina se računa kao da je dodela zauzela prosečnu širinu opsega.

Tabela karakteristika za podnošenje za svemirske i radio astronomske službe (Rev.WRC-07)

Stavke u Dodatku	A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija	
A.1	<b>IDENTITET SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b>											A.1	
A.1.a	identitet satelitske mreže	X	X	X	X	X		X	X	X	A.1.a		
A.1.b	identifikacija snopa U slučaju Dodatka <b>30</b> ili <b>30A</b> , potrebno za modifikaciju, izbacivanje i obveštenje o dodeli u Planu U slučaju Dodatka <b>30B</b> , potrebno za mrežu nastalu od Plana alotmenta							+	+	+	A.1.b		
A.1.e	<b>Identifikacija zemaljske stanice ili radio astronomske stanice:</b>										A.1.e		
A.1.e.1	tip zemaljske stanice (specifične ili tipične)						X				A.1.e.1		
A.1.e.2	ime stanice						X				A.1.e.2	X	
A.1.e.3	<b>Za specifičnu zemaljsku stanicu ili radioastronomsku stanicu:</b>										A.1.e.3		
A.1.e.3.a	zemlja ili geografsko područje u kojoj je stanica locirana, korišćenjem simbola iz Predgovora						X				A.1.e.3.a	X	

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.1.e.3.b	<p>geografske koordinate svakog mesta predajne ili prijemne antene koje čine stanicu (geografska širina i dužina u stepenima i minutima)</p> <p>Za specifičnu zemaljsku stanicu, sekunde treba da su date ako se koordinacijsko područje zemaljske stanice preklapa sa teritorijom druge administracije</p>						X				A.1.e.3.b	X
A.1.f	<b>Simbol administracija i međuvladine organizacije:</b>										A.1.f	
A.1.f.1	simbol obavješavajuće administracije (vidi Predgovor)	X	X	X	X	X	X	X	X	X	A.1.f.1	X
A.1.f.2	ako je obaveštenje podneseno u ime grupe administracija, simbol svake administracije u grupi, koje su podnele informaciju o satelitskoj mreži (vidi Predgovor)	+	+	+	+	+		+	+	+	A.1.f.2	
A.1.f.3	ako je obaveštenje podneseno u ime međuvladine satelitske organizacije, simbol te organizacije (vidi Predgovor)	+	+	+	+	+		+	+	+	A.1.f.3	
A.1.g	Ne koristi se										A.1.g]	
A.1.g.1	Ne koristi se										A.1.g.1	
A.1.g.2	Ne koristi se									+	A.1.g.2	
A.2	<b>DATUM STAVLJANJA U UPOTREBU</b>										A.2	

Stavke u Dodatku	A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.2.a	datum (stvarni ili predviđeni) stavljanja frekvencijske dodele (nove ili modifikovane) u upotrebu  Datum stavljanja u upotrebu označava datum u kojem frekvencijska dodela je stavljena u regularni rad* da omogući publikovanu Radiokomunikacionu službu sa tehničkim parametrima u okviru tehničkih karakteristika iz obaveštenja Birou	X	X	X	X	X	X	X	X	X	A.2.a	
	Kad god se dodela promeni u bilo kojoj od njenih osnovnih karakteristika (osim u slučaju promene pod A.1.a, datum koji se odredi treba biti onaj od zadnje promene (aktualne ili predviđene, po potrebi) * U toku daljeg proučavanja od ITU-R-a o primenljivosti termina "regularan rad" za ne-geostacionarne satelitske mreže, uslovi regularnog rada treba da su ograničeni na geostacionarne satelitske mreže											
A.2.b	za svemirsku stanicu, period važnosti frekvencijskih dodela (vidi Rezoluciju 4 (Rev.WRC-03))	X	X	X	X	X					A.2.b	
A.2.c	datum (stvarni ili predviđeni, po potrebi) od kojeg prijem frekvencijskog opsega počinje ili od kojeg svaka od osnovnih karakteristika je modifikovana										A.2.c	X
A.3	UPRAVLJAČKA ADMINISTRACIJA ILI AGENCIJA										A.3	

Stavke u Dodatku	<p style="text-align: center;"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.3.a	simbol za upravljačku administraciju ili agenciju (vidi Predgovor) koja ima radnu kontrolu svemirske stanice, zemaljske stanice ili radioastronomske stanice U slučaju Dodatka <b>30B</b> , potrebno jedino za obaveštenje pod Članom 8			X	X	X	X	X	X	+	A.3.a	X

Stavke u Dodatku	A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.3.b	simbol adrese administracije (vidi Predgovor) kojoj treba poslati saopštenje o hitnim stvarima u odnosu na interfejs, kvalitet emisija i pitanja koja se odnose na tehnički rad mreže ili stanice (vidi Član 15) U slučaju Dodatka 30B, potrebno samo za obaveštenje pod Članom 8			X	X	X	X	X	X	+	A.3.b	X
<b>A.4</b>	<b>ORBITALNE INFORMACIJE</b>										<b>A.4</b>	
A.4.a	<b>Za svemirsku stanicu na geostacionarnom satelitu:</b>										A.4.a	
A.4.a.1	nominalna geografska dužina orbite geostacionarnog satelita (GSO)	X			X			X	X	X	A.4.a.1	
A.4.a.2	<b>Orbitalne tolerancije</b>											
A.4.a.2.a	planirani limit tolerancije geografske dužine istočno				X			X	X	X	A.4.a.2.a	
A.4.a.2.b	planirani limit tolerancije geografske dužine zapadno				X			X	X	X	A.4.a.2.b	
A.4.a.2.c	planirani nagib skretanja				X					X	A.4.a.2.c	

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.4.a.4	Ne koristi se										A.4.a.4	
A.4.a.4.a	Ne koristi se										A.4.a.4.a	
A.4.a.4.b	Ne koristi se										A.4.a.4.b	
A.4.b	<b>Za svemirske stanice na ne-geostacionarnim satelitima:</b>										A.4.b	
A.4.b.1	broj orbitalnih ravni			X		X					A.4.b.1	
A.4.b.2	kod referentnog tela	X	X			X					A.4.b.2	
A.4.b.3	<b>Za svemirske stanice na ne-geostacionarnim sistemima fiksne satelitske službe koje rade u opsegu 3 400-4 200 MHz:</b>										A.4.b.3	
A.4.b.3.a	maksimalni broj svemirskih stanica ( $N_N$ ) u ne-geostacionarnom satelitskom sistemu koje istovremeno emituju na ko-frekvencijskoj osnovi u fiksnoj satelitskoj službi u Severnoj Hemisferi			X		X					A.4.b.3.a	
A.4.b.3.b	maksimalni broj svemirskih stanica ( $N_N$ ) u ne-geostacionarnom satelitskom sistemu koje istovremeno emituju na ko-frekvencijskoj osnovi u fiksnoj satelitskoj službi u Južnoj Hemisferi			X		X					A.4.b.3.b	

Stavke u Dodatku	<p style="text-align: center;"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.4.b.4	<b>Za svaku orbitalnu ravan, gde je Zemlja referentno telo:</b>										A.4.b.4	
A.4.b.4.a	ugao inklinacije ( $i_j$ ) orbitalne ravni u odnosu na zemaljsku ekvatorijalnu ravan ( $0^\circ \leq i_j < 180^\circ$ )			X		X					A.4.b.4.a	
A.4.b.4.b	broj satelita u orbitalnoj ravni			X		X					A.4.b.4.b	
A.4.b.4.c	period			X		X					A.4.b.4.c	
A.4.b.4.d	visina u kilometrima apogeja svemirske stanice			X		X					A.4.b.4.d	
A.4.b.4.e	visina u kilometrima perigeja svemirske stanice			X		X					A.4.b.4.e	
A.4.b.5	<b>Za svemirske stanice koje rade u frekvencijskom opsegu prema odredbama Nos. 9.11A, 9.12 ili 9.12A, elementi podataka koji precizno karakterišu orbitalnu statistiku ne-geostacionarnog satelitskog sistema:</b>										A.4.b.5	
A.4.b.5.a	Desno uzlaženje uzlaznog čvora ( $\Omega_j$ ) za $j$ -tu orbitalnu ravan, mereno protivno kazaljki na satu u ekvatorijalnoj ravni iz smera prolećne ravnodnevnice do tačke gde satelit radi svoj Jug-Sever prelaz ekvatorijalne ravni ( $0^\circ \leq \Omega_j < 360^\circ$ )					X					A.4.b.5.a	
A.4.b.5.b	Inicijalni fazni ugao ( $\omega_i$ ) $i$ -tog satelita u njegovoj orbitalnoj ravni u referentno vreme $t = 0$ , mereno od					X					A.4.b.5.b	



Stavke u Dodatku	<p style="text-align: center;"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
	tačke uzlaznog čvora ( $0^\circ \leq \omega_i < 360^\circ$ )										A.4.b.5.c	
A.4.b.5.c	argument perigeja ( $\omega_p$ ), meren u orbitalnoj ravni, u smeru kretanja, od uzlaznog čvora do perigeja ( $0^\circ \leq \omega_p < 360^\circ$ )					<b>X</b>						

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.4.b.6	<p><b>Za svemirske stanice koje rade u frekencijskom opsegu prema Nos. 22.5C, 22.5D ili 22.5F, elementi podataka za precizno karakterisanje orbitalnog rada ne-geostacionarnih satelitskih sistema:</b></p>										A.4.b.6	
A.4.b.6.a	<p><b>Za svaki raspon visina:</b></p>										A.4.b.6.a	
A.4.b.6.a.1	maksimalan broj ne-geostacionarnih satelita koji emituju sa preklapajućim frekvencijama ka datim lokacijama					X					A.4.b.6.a.1	
A.4.b.6.a.2	pridruženi start visinskog raspona					X					A.4.b.6.a.2	
A.4.b.6.a.3	pridruženi kraj visinskog raspona					X					A.4.b.6.a.3	
A.4.b.6.b	minimalna visina svemirske stanice iznad površine Zemlje sa koje bilo koji satelit emituje					X					A.4.b.6.b	
A.4.b.6.c	indikator koji pokazuje da li svemirska stanica koristi podešavanje stanice za održavanje ponovljenog kruženje iznad iste linije na Zemlji					X					A.4.b.6.c	
A.4.b.6.d	ako svemirska stanica koristi podešavanje stanice za održavanje ponovljenog kruženja iznad iste linije na Zemlji, vreme u sekundama potrebno da se uspostavi njihova početna pozicija, na pr. takvo da svi sateliti budu na istoj poziciji u odnosu na Zemlju i jedan drugog					+					A.4.b.6.d	

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.4.b.6.e	indikator koji pokazuje da li svemirska stanica bi trebala da bude modelirana sa specifičnom brzinom precesije uzlaznog čvora orbite umesto $J_2$ termina					<b>X</b>					A.4.b.6.e	
A.4.b.6.f	ako se svemirska stanica modeluje sa specifičnom brzinom precesije uzlaznog čvora orbite umesto $J_2$ termina, brzina precesije u stepenima/danu, mereno protivno smeru kazaljke na satu u ekvatorijalnoj ravni					+					A.4.b.6.f	
A.4.b.6.g	geografska dužina uzlaznog čvora ( $\theta_j$ ) za $j$ -tu orbitalnu ravan, mereno protivno kazaljki na satu u ekvatorijalnoj ravni od Griniča do tačke gde satelitska orbita radi svoj Jug-Sever prelaz ekvatorijalne ravni ( $0^\circ \leq \theta_j < 360^\circ$ )  <i>Napomena</i> – Za izračunavanje epfd referenca na tačku na Zemlji se koristi i stoga “geografska dužina uzlaznog čvora” je potrebna. Svi sateliti u konstelaciji moraju koristiti isto referentno vreme					<b>X</b>					A.4.b.6.g	
A.4.b.6.h	vreme (dan:meseć:godina) kada je satelit na lokaciji definisanoj geografskom dužinom uzlaznog čvora ( $\theta_j$ ), (vidi Primedbu pod A.4.b.6.g)					<b>X</b>					A.4.b.6.h	

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.4.b.6.i	vreme (sati:minute) kada je satelit na lokaciji definisanoj geografskom dužinom uzlaznog čvora ( $\theta$ ), (vidi Primedbu pod A.4.b.6.g)					X					A.4.b.6.i	
A.4.b.6.j	tolerancija geografske dužine geografske dužine uzlaznog čvora					X					A.4.b.6.j	
A.4.b.7	<b>Za svemirske stanice koje rade u frekventijskom opsegu prema Nos. 22.5C, 22.5D ili 22.5F, elementi podataka koji precizno karakterišu performanse ne-geostacionarnog satelitskog sistema:</b>										A.4.b.7	
A.4.b.7.a	maksimalni broj ne-geostacionarnih satelita koji primaju istovremeno sa preklapajućim frekvencijama od pridruženih zemaljskih stanica u okviru date ćelije					X					A.4.b.7.a	
A.4.b.7.b	prosečan broj pridruženih zemaljskih stanica sa preklapajućim frekvencijama po kvadratnom kilometru unutar ćelije					X					A.4.b.7.b	
A.4.b.7.c	prosečna udaljenost, u kilometrima, između ko-frekvencijskih ćelija					X					A.4.b.7.c	

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.4.b.7.d	<b>Za isključenu zonu oko geostacionarne satelitske orbite:</b>										A.4.b.7.d	
A.4.b.7.d.1	tip zone (baziran na topocentričnom uglu, satelitski baziranom uglu ili drugoj metodi uspostavljanja isključene zone)					X					A.4.b.7.d.1	
A.4.b.7.d.2	ako je zona bazirana na topocentričnom uglu ili satelitski baziranom uglu, širina zone u stepenima					+					A.4.b.7.d.2	
A.4.b.7.d.3	ako se koristi neki alternativni metod za uspostavljanje isključene zone, detaljan opis mehanizma izbegavanja					+					A.4.b.7.d.3	
A.4.c	<b>Za zemaljsku stanicu:</b>										A.4.c	
A.4.c.1	identitet pridružene svemirske stanice sa kojom treba da se uspostavi komunikacija						X				A.4.c.1	
A.4.c.2	ako komunikacija treba da se uspostavi sa geostacionarnom svemirskom stanicom, njena orbitalna pozicija						+				A.4.c.2	
A.5	<b>KOORDINACIJE</b>										A.5	
A.5.a.1	simbol bilo koje administracije (vidi Predgovor) sa kojom je koordinacija uspešno ostvarena Potrebno jedino u slučaju obaveštenja				+	+	+ <sup>1</sup>				A.5.a.1	
A.5.a.2	simbol bilo koje međuvladine organizacije (vidi				+	+	+ <sup>1</sup>				A.5.a.2	

Stavke u Dodatku	<p style="text-align: center;"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
	Predgovor) sa kojom je koordinacija uspešno ostvarena Potrebno jedino u slučaju obaveštenja											
A.5.b.1	simbol bilo koje administracije (vidi Predgovor) sa kojom je koordinacija tražena ali nije završena				0	0	0				A.5.b.1	
A.5.b.2	simbol bilo koje međuvladine organizacije (vidi Predgovor) sa kojom je koordinacija tražena ali nije ostvarena				0	0					A.5.b.2	
A.5.c	pripadni kod odredbe (vidi Predgovor) pod kojim je koordinacija tražena ili, ako ili A.5.a.1 (i A.5.a.2) ili A.5.b.1 (i A.5.b.2) je podneseno				+	+	+ <sup>1</sup>				A.5.c	

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.6	<p align="center"><b>SPORAZUMI</b></p>										A.6	
A.6.a	ako je moguće, simbol bilo koje administracije ili administracije koja reprezentuje grupu administracija (vidi Predgovor) sa kojom je sporazum postignut, uključujući slučajeve kada sporazum prevazilazi limite propisan u toj Regulativi				+	+	+ <sup>1</sup>	+	+	+	A.6.a	
A.6.b	ako je moguće, simbol bilo koje međuvladine organizacije (vidi Predgovor) sa kojom je sporazum postignut, uključujući slučajeve kada sporazum prevazilazi limite propisan u toj Regulativi				+	+	+ <sup>1</sup>	+	+	+	A.6.b	
A.6.c	ako je sporazum postignut, pripadni kod provizije (vidi Predgovor)				+	+	+ <sup>1</sup>	+	+	+	A.6.c	
A.7	<p align="center"><b>SPECIFIČNE KARAKTERISTIKE MESTA ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>										A.7	
A.7.a.1	horizont elevacionog ugla, u stepenima, za svaki azimut oko svake zemaljske stanice						+ <sup>1</sup>				A.7.a.1	
A.7.a.2	udaljenost, u kilometrima, od zemaljske stanice prema horizontu za svaki azimut oko zemaljske stanice						0				A.7.a.2	

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.7.b.1	<p>planirani minimalni ugao elevacije antenske ose glavnog snopa, u stepenima, od horizontalne ravni</p> <p>Za određivanje minimalnog ugla elevacije zemaljske stanice, posebnu pozornost trebalo bi posvetiti mogućem radu u nagnutoj orbiti pridružene geostacionarne svemirske stanice</p> <p>U slučaju zemaljske stanice, potrebno za rad geostacionarnih satelita</p>						+ <sup>1</sup>				A.7.b.1	X
A.7.b.2 A.7.c.1	<p>planirani maksimalni ugao elevacije antenske ose glavnog snopa, u stepenima, od horizontalne ravni</p> <p>početni smer planiranog raspona radnih azimutnih uglova za antensku osu glavnog snopa, u stepenima, u smeru kazaljke na satu Severno</p> <p>Za određivanje početnog azimuta zemaljske stanice, posebnu pozornost trebalo bi posvetiti mogućem radu u nagnutoj orbiti pridružene geostacionarne svemirske stanice</p> <p>U slučaju zemaljske stanice, potrebno za rad geostacionarnih satelita</p>						+ <sup>1</sup>				A.7.b.2 A.7.c.1	X X



Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.7.c.2	<p>krajnji smer planiranog raspona radnih azimutnih uglova za antensku osu glavnog snopa, u stepenima, u smeru kazaljke na satu Severno</p> <p>Za određivanje krajnjeg azimuta zemaljske stanice, posebnu pozornost trebalo bi posvetiti mogućem radu u nagnutoj orbiti pridružene geostacionarne svemirske stanice</p> <p>U slučaju zemaljske stanice, potrebno za rad geostacionarnih satelita</p>						+ <sup>1</sup>				A.7.c.2	X
A.7.d	visina, u metrima, antene prosečno iznad površine mora						+ <sup>1</sup>				A.7.d	
A.7.e	<p>minimalni ugao elevacije antenske ose glavnog snopa, u stepenima, od horizontalne ravni za svaki azimut oko Zemaljske stanice</p> <p>Potrebno za zemaljske stanice koje rade sa ne-geostacionarnim svemirskim stanicama</p>						+				A.7.e	
A.7.f	<p>dijametar antene, u metrima</p> <p>Potrebno za zemaljske stanice fiksne satelitske službe koje rade u frekvencijskom opsegu 13.75-14 GHz</p>						+ <sup>1</sup>				A.7.f	
A.8	Ne koristi se										A.8	
A.9	Ne koristi se										A.9	

Stavke u Dodatku	A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.10	<b>DIJAGRAMI KOORDINACIONOG PODRUČJA ZEMALJSKE STANICE</b>										A.10	
A.10.a	dijagrami bi trebali da budu nacrtani u odgovarajućoj razmeri, pokazujući, za prenos i prijem, lokaciju zemaljske stanice i njena pridružena koordinaciona područja, ili koordinaciono područje u odnosu na servisno područje u kojoj namerava da radi mobilna Zemljina stanica Potrebno jedino za obaveštenje						+				A.10.a	
A.11	<b>REGULARNI SATI RADA</b>										A.11	
A.11.a	početno vreme UTC							X	X		A.11.a	
A.11.b	krajnje vreme UTC							X	X		A.11.b	
A.12	<b>RASPON AUTOMATSKE KONTROLE POJAČANJA, U dB</b>								X		A.12	
A.13	<b>REFERENCE NA PUBLIKOVANE SPECIJALNE SEKCIJE BIROOVOG MEĐUNARODNOG CIRKULARA FREKVENCIJSKIH INFORMACIJA (vidi Predgovor)</b>										A.13	
A.13.a	referenca i broj naprednih publikovanih informacija u skladu sa No. 9.1				X	X	X				A.13.a	

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.13.b	referenca i broj zahteva za koordinaciju u skladu sa No. <b>9.6</b> U skladu sa obaveštenjem o Zemljinoj stanici, referenca na Specijalnu sekciju pridružene satelitske mreže treba da se pruži U slučaju obaveštenja o Zemljinoj stanici koordinisanoj pod No. <b>9.7A</b> , broj koordinisane Specijalne sekcije te zemaljske stanice treba da se pruži				<b>X</b>	<b>X</b>	<b>X</b>				A.13.b	
A.13.c	referenca i broj informacije u skladu sa Članom 4 Dodatka <b>30</b>							<b>X</b>			A.13.c	
A.13.d	referenca i broj informacije u skladu sa Članom 4 Dodatka <b>30A</b>								<b>X</b>		A.13.d	
A.13.e	referenca i broj informacije u skladu sa Članom 6 Dodatka <b>30B</b>						<b>X</b>			<b>X</b>	A.13.e	
<b>A.14</b>	<b>ZA STANICE KOJE RADE U FREKVENCIJSKOM OPSEGU PREMA Nos. 22.5C, 22.5D ILI 22.5F: SPEKTRALNE MASKE</b>										<b>A.14</b>	
A.14.a	<b>Za svaku e.i.r.p. masku korišćenu od ne-geostacionarne svemirske stanice:</b>										A.14.a	

Stavke u Dodatku	<p style="text-align: center;"><i>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</i></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod ili pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.14.a.1	identifikacioni kod maske					X					A.14.a.1	
A.14.a.2	najmanja frekvencija za koju maska vredi					X					A.14.a.2	
A.14.a.3	najveća frekvencija za koju maska vredi					X					A.14.a.3	
A.14.a.4	uzorak maske definisan u smislu snage u referentnoj širini opsega za seriju uglova izvan ose u odnosu na specificiranu referentnu tačku					X					A.14.a.4	
A.14.b	<b>Za svaku pridruženu zemaljsku stanicu e.i.r.p. masku:</b>										A.14.b	
A.14.b.1	identifikacioni kod maske					X					A.14.b.1	
A.14.b.2	najmanja frekvencija za koju maska vredi					X					A.14.b.2	
A.14.b.3	najveća frekvencija za koju maska vredi					X					A.14.b.3	
A.14.b.4	minimalni ugao elevacije na kojem bilo koja pridružena Zemljina stanica može da emituje ka ne-geostacionarnom satelitu					X					A.14.b.4	
A.14.b.5	minimalni razdvajajući ugao između luka geostacionarne satelitske orbite i pridružene ose glavnog snopa zemaljske stanice na kojoj pridružena Zemljina stanica može da emituje prema ne-geostacionarnom satelitu					X					A.14.b.5	
A.14.b.6	uzorak maske definisan u smislu snage u referentnoj širini opsega za seriju uglova izvan ose u odnosu na					X					A.14.b.6	

Stavke u Dodatku	<p style="text-align: center;"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
	specificiranu referentnu tačku											
A.14.c	<p><b>Za svaki pfd maske korišćen od ne-geostacionarne svemirske stanice:</b></p> <p><i>Primedba</i> – pfd maska svemirske stanice definiše se pomoću maksimalne gustine fluksa snage koji generiše bilo koja svemirska stanica u interferirajućem ne-geostacionarnom satelitskom sistemu kako se vidi iz bilo koje tačke na površini Zemlje</p>										A.14.c	
A.14.c.1	identifikacioni kod maske					X					A.14.c.1	
A.14.c.2	najmanja frekvencija za koju maska vredi					X					A.14.c.2	
A.14.c.3	najveća frekvencija za koju maska vredi					X					A.14.c.3	
A.14.c.4	tip maske					X					A.14.c.4	
A.14.c.5	uzorak maske snage gustine fluksa definisan u tri dimenzije					X					A.14.c.5	

Stavke u Dodatku	<p align="center"><i>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</i></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.15	<p align="center"><b>OBAVEZA U VEZI USKLAĐENOSTI SA DODATNOM RADNOM EKVIVALENTNOM SNAGOM GUSTINE FLUKSA, <math>epfd_{\downarrow}</math>, OGRANIČENJA</b></p>										A.15	
A.15.a	<p>obaveza da će podneseni zahtevi za sistem zadovoljiti dodatne radne <math>epfd_{\downarrow}</math> limite koji su specificirani u Tabeli <b>22-4A1</b> pod No. <b>22.5I</b></p> <p>Potrebno samo za ne-geostacionarne satelitske sisteme koji rade u fiksnoj satelitskoj službi u opsezima 10.7-11.7 GHz (u svim Regionima), 11.7-12.2 GHz (Region 2), 12.2-12.5 GHz (Region 3), i 12.5-12.75 GHz (Regioni 1 i 3)</p>					+					A.15.a	

Stavke u Dodatku	<p align="center"><i>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</i></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.16	<p align="center"><b>OBAVEZA U VEZI USKLAĐENOSTI SA OGRANIČENJIMA SNAGE IZVAN OSE ILI SNAGE GUSTINE FLUKSA, pfd, OGRANIČENJA</b></p>										A.16	
A.16.a	<p>obaveza da pridružene zemaljske stanice koje rade sa geostacionarnom satelitskom mrežom u fiksnoj satelitskoj službi zadovoljavaju ograničenja snage izvan ose dato u Nos. <b>22.26</b> do <b>22.28</b> ili <b>22.32</b> (po potrebi) pod uslovima specificiranim u Nos. <b>22.30</b>, <b>22.31</b> i <b>22.34</b> do <b>22.39</b></p> <p>Potrebno samo kada zemaljske stanice jesu predmet tih ograničenja snage</p>				+						A.16.a	
A.16.b	<p>Obaveze administracija da će podneseni zahtevi za sistem zadovoljiti jednoulazna ograničenja snage gustine fluksa koja su specificirana u No. <b>5.502</b></p> <p>Potrebno samo za specifične antene zemaljske stanice manje od 4,5 m u promeru koje rade sa geostacionarnim svemirskim stanicama u fiksnoj satelitskoj službi u opsegu 13.75-14 GHz</p>						+				A.16.b	

Stavke u Dodatku	<p style="text-align: center;"><i>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</i></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.17	<p style="text-align: center;"><b>USKLAĐENOST SA SNAGOM GUSTINE FLUKSA, pfd, OGRANIČENJA</b></p>										A.17	
A.17.a	<p>obaveza usklađenosti sa nivoom snage gustine fluksa po satelitu proizvedenog na površini Zemlje od <math>-129 \text{ dB(W/(m}^2 \cdot \text{MHz))}</math> na svakih 1 MHz opsega pod uslovima prostiranja u slobodnom prostoru</p> <p>Potrebno jedino za satelitske sisteme koji rade u radionavigacionoj satelitskoj službi u opsegu 1 164-1 215 MHz</p>				+	+					A.17.a	
A.17.b.1	<p>izračunata agregatna snaga gustine fluksa proizvedena na površini Zemlje od bilo kojeg geostacionarnog radionavigacionog satelitskog sistema u opsegu 4 990-5 000 MHz u 10 MHz širini opsega, kako je definisano u odlučuje 1 Rezolucije <b>741 (WRC-03)</b></p> <p>Potrebno samo za geostacionarne satelitske sisteme koji rade u radionavigacionoj satelitskoj službi u opsegu 5 010-5 030 MHz</p>				+						A.17.b.1	



Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.17.b.2	<p>izračunata agregatna snaga gustine fluksa proizvedena na površini Zemlje od svih svemirskih stanica unutar bilo kojeg sistema radionavigacione satelitske službe u opsegu 5 030-5 150 MHz u 150 kHz širini opsega, kako je definisano u No. <b>5.443B</b></p> <p>Potrebno samo za geostacionarne satelitske sisteme koji rade u radionavigacionoj satelitskoj službi u opsegu 5 010-5 030 MHz</p>				+	+					A.17.b.2	
A.17.b.3	<p>Ekvivalentna snaga gustine fluksa proizvedena na površini Zemlje od svih svemirskih stanica unutar bilo kojeg sistema ne-geostacionarne radionavigacione satelitske službe u opsegu 4 990-5 000 MHz u 10 MHz širini opsega, kako je definisano u <i>odlučuje 2</i> Rezolucije <b>741 (WRC-03)</b></p> <p>Potrebno samo za geostacionarne satelitske sisteme koji rade u radionavigacionoj satelitskoj službi u opsegu 5 010-5 030 MHz</p>					+					A.17.b.3	

Stavke u Dodatku	<p align="center"><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.17.c	<p>agregatna snaga gustine fluksa proizvedena na površini Zemlje u opsegu 15.35-15.4 GHz, kako je definisano u No. <b>5.511A</b></p> <p>Potrebno samo za ne-geostacionarne satelitske sisteme koji rade u fiksnoj satelitskoj službi (spojne veze) u opsegu 15.43-15.63 GHz (svemir-Zemlja)</p>					+					A.17.c	
A.17.d	<p>Prosečna snaga gustine fluksa proizvedena na površini Zemlje od strane bilo kog senzora u svemiru, kako je definisano u No. <b>5.549A</b></p> <p>Potrebno samo za satelitske sisteme koji rade u službi satelitskog istraživanja Zemlje (aktivno) ili službe istraživanja svemira (aktivno) u opsegu 35.5-36 GHz</p>				+	+					A.17.d	
A.17.e.1	<p>izračunata agregatna snaga gustine fluksa proizvedena na mestu radio astronomske stanice u opsegu 42.5-43.5 GHz, kako je definisano u No. <b>5.551H</b></p> <p>Potrebno samo za ne-geostacionarne satelitske sisteme koji rade u fiksnoj satelitskoj službi i radiodifuznoj satelitskoj službi u opsegu 42-42.5 GHz</p>					+					A.17.e.1	

Stavke u Dodatku	<p><i>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</i></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radioastronomija
A.17.e.2	<p>Izračunata snaga gustine fluksa proizvedena na mestu radio astronomske stanice u opsegu 42.5-43.5 GHz, kako je definisano u No. <b>5.551I</b></p> <p>Potrebno samo za sisteme geostacionarne satelitske službe koji rade u fiksnoj satelitskoj službi i radiodifuznoj satelitskoj službi u opsegu 42-42.5 GHz</p>				+						A.17.e.2	
<b>A.18</b>	<b>SAGLASNOST SA OBAVEŠTENJEM VAZDUHOPLOVNE ZEMALJSKE STANICE</b>										<b>A.18</b>	
A.18.a	<p>obaveza da karakteristike vazduhoplovne zemaljske stanice (AES) u vazduhoplovnoj mobilnoj satelitskoj službi bude u okviru karakteristika specifične i/ili tipične zemaljske stanice publikovane od strane Biroa za svemirsku stanicu kojoj je AES pridružen</p> <p>Potrebno samo za opseg 14-14.5 GHz, kada jedna vazduhoplovna Zemljina stanica u vazduhoplovnoj mobilnoj satelitskoj službi komunicira sa svemirskom stanicom u fiksnoj satelitskoj službi</p>				+	+					A.18.a	
<b>A.19</b>	<b>SAGLASNOST SA § 6.26 ČLANA 6 DODATKA 30B</b>										<b>A.19</b>	
A.19.a	<p>Obaveza da korišćenje dodele neće uzrokovati neprihvatljivu interferenciju, niti tražiti zaštitu zbog toga,</p>									+	A.19.a	

	<p>Stavke u Dodatku</p>
<p>onim dodelama za koje pristanak još treba da se dobije Potrebno ako je obaveštenje podneseno pod § 6.25 Člana 6 Dodatka <b>30B</b></p>	<p><b>A - GENERALNE KARAKTERISTIKE SATELITSKE MREŽE, ZEMALJSKE STANICE ILI RADIO ASTRONOMSKE STANICE</b></p>
	<p>Napredna publikacija geostacionarne satelitske mreže</p>
	<p>Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9</p>
	<p>Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9</p>
	<p>Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)</p>
	<p>Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži</p>
	<p>Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod pod Dodacima 30A ili 30B)</p>
	<p>Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)</p>
	<p>Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)</p>
	<p>Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)</p>
	<p>Stavke u Dodatku</p>
	<p>Radioastronomija</p>

Stavke u Dodatku	<b>B - KARAKTERISTIKE KOJE TREBA DA IMA SVAKI SATELITSKI ANTENSKI SNOPI ILI SVAKA ZEMLJINA STANICA ILI RADIO ASTRONOMSKA ANTENA</b>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obavještenje ili koordinacija o Zemljinoj stanici (uključujući obavještenje pod pod Dodacima 30A ili 30B)	Obavještenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obavještenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obavještenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radio astronomija
<b>B.1</b>	<b>IDENTIFIKACIJA I SMER SATELITSKOG ANTENSKOG SNOPI</b>										<b>B.1</b>	
B.1.a	označavanje satelitskog antenskog snopa Za zemaljsku stanicu, označavanje satelitskog antenskog snopa pridružene svemirske stanice			X	X	X	X	X	X	X	B.1.a	
B.1.b	indikator koji pokazuje da li je antenski snop, pod B.1.a, fiksni ili da li se okreće i / ili je rekonfigurabilan			X	X	X		X	X	X	B.1.b	
<b>B.2</b>	<b>INDIKATOR PREDAJE / PRIJEMA ZA SNOPI SVEMIRSKE STANICE ILI PRIDRUŽENE SVEMIRSKE STANICE</b>	X	X	X	X	X	+ <sup>1</sup>			X	<b>B.2</b>	
<b>B.3</b>	<b>KARAKTERISTIKE ANTENE SVEMIRSKE STANICE</b>										<b>B.3</b>	
B.3.a	<b>Za svaku antenu svemirske stanice:</b>										B.3.a	
B.3.a.1	maksimalno kros-polarno izotropsko pojačanje, u dBi Kada se koristi okrećući snop (vidi No. 1.191), ako je efektivno područje vidljivosti (vidi No. 1.175) indentično sa globalnim područjem servisa, maksimalno antensko pojačanje, u dBi, je primjenjivo na sve tačke vidljive površine Zemlje			X	X	X		X	X	X	B.3.a.1	
B.3.a.2	ako je ne-eliptičan snop, maksimalno pojačanje krospolarne izotropske antene, u dBi							+	+		B.3.a.2	

Stavke u Dodatku	<p align="center"><b>B - KARAKTERISTIKE KOJE TREBA DA IMA SVAKI SATELITSKI ANTENSKI SNOPI I SVAKA ZEMLJINA STANICA ILI RADIO ASTRONOMSKA ANTENA</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obavještenje ili koordinacija o Zemljinoj stanici (uključujući obavještenje pod pod Dodacima 30A ili 30B)	Obavještenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obavještenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obavještenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radio astronomija
B.3.b	<b>Konture antenskog pojačanja:</b>										B.3.b	
B.3.b.1	<p>konture kros-polarnog antenskog pojačanja nacrtane na mapi površine Zemlje, poželjno u radijalnoj projekciji od satelita na ravan upravnu na osu od centra Zemlje do satelita</p> <p>Konture pojačanja svemirske stanice treba da su nacrtane kao linije istog nivoa izotropskog pojačanja, minimalno u intervalima - 2, - 4, - 6, - 10 i - 20 dB i na 10 dB nakon toga, po potrebi, relativno na maksimalno pojačanje antene, kada je bilo koja od tih kontura smeštena ili potpuno ili delimično bilo gde unutar limita vidljivosti Zemlje iz datog geostacionarnog satelita</p> <p>Kad god je moguće, konture pojačanja antene svemirske stanice trebalo bi da su date u numeričkom formatu (na pr. jednačinom ili tabelarno)</p>				X			+	+	+	B.3.b.1	

Stavke u Dodatku	<p align="center"><b>B - KARAKTERISTIKE KOJE TREBA DA IMA SVAKI SATELITSKI ANTENSKI SNOG ILI SVAKA ZEMLJINA STANICA ILI RADIO ASTRONOMSKA ANTENA</b></p>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obavještenje ili koordinacija o Zemljinoj stanici (uključujući obavještenje pod pod Dodacima 30A ili 30B)	Obavještenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obavještenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obavještenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radio astronomija
	<p>Gde je okrećući snop (vidi No. <b>1.191</b>) korišćen, ako je područje vidljivosti (vidi No. <b>1.175</b>) manje od globalnog područja servisa, konture su rezultat pomicanja vidnog polja okrećućeg snopa oko ograničenja definisanog područjem efektivne vidljivosti i treba da su date kako je gore opisano ali takođe treba da uključe 0 dB linije jednakog relativnog pojačanja</p> <p>Konture antenskog pojačanja treba da uključe efekte planiranog nagiba skretanja, dužinske tolerancije i planirane ukazujuće tačnosti antene</p> <p>U slučaju Dodatka <b>30</b>, <b>30A</b> ili <b>30B</b>, potrebno samo za ne-eliptične snopove</p>											
B.3.b.2	ako je ne-eliptični snop, konture krospolarnog pojačanja treba da su date kako je definisano pod B.3.b.1							+	+		B.3.b.2	

Stavke u Dodatku	<b>B - KARAKTERISTIKE KOJE TREBA DA IMA SVAKI SATELITSKI ANTENSKI SNOPI I SVAKA ZEMLJINA STANICA ILI RADIO ASTRONOMSKA ANTENA</b>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obavještenje ili koordinacija o Zemljinoj stanici (uključujući obavještenje pod pod Dodacima 30A ili 30B)	Obavještenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obavještenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obavještenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radio astronomija
B.3.c	<b>Dijagrami zračenja antene:</b>										B.3.c	
B.3.c.1	dijagram zračenja kros-polarne antene  U slučaju geostacionarnih svemirskih stanica, potrebno samo kad je snop zračenja antene usmeren prema drugom satelitu  U slučaju Dodataka 30, 30A ili 30B, potrebno samo za eliptične antenske snopove			X	+	X		+	+	+	B.3.c.1	
B.3.c.2	ako je eliptičan snop, dijagram zračenja kros-polarne antene							+	+		B.3.c.2	
B.3.d	ukazujuća tačnost antene  U slučaju Dodataka 30, 30A ili 30B, potrebno jedino za eliptične snopove				X			+	+	+	B.3.d	
B.3.e	ako svemirska stanica radi u opsegu namenjenom za smer Zemlja-svemir i smer svemir-Zemlja, pojačanje antene u smeru onih delova geostacionarne satelitske orbite koja nije ometana od Zemlje				+				+		B.3.e	
B.3.f	<b>Za svemirske stanice podneseno u skladu sa Dodatkom 30, 30A ili 30B:</b>										B.3.f	
B.3.f.1	Vidno polje ili ciljna tačka antenskog snopa (geografska dužina i širina)							X	X	X	B.3.f.1	



Stavke u Dodatku	<b>B - KARAKTERISTIKE KOJE TREBA DA IMA SVAKI SATELITSKI ANTENSKI SNOP ILI SVAKA ZEMLJINA STANICA ILI RADIO ASTRONOMSKA ANTENA</b>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obavještenje ili koordinacija o Zemljinoj stanici (uključujući obavještenje pod pod Dodacima 30A ili 30B)	Obavještenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obavještenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obavještenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radio astronomija
B.3.f.2	<b>Za svaki eliptički snop:</b>										B.3.f.2	
B.3.f.2.a	rotaciona tačnost, u stepenima							X	X	X	B.3.f.2.a	
B.3.f.2.b	orijentacija glavne ose, u stepenima, suprotno kazaljki na satu od Ekvatora							X	X	X	B.3.f.2.b	
B.3.f.2.c	glavna osa, u stepenima, na pola snage širine snopa							X	X	X	B.3.f.2.c	
B.3.f.2.d	mala osa, u stepenima, na pola snage širine snopa							X	X	X	B.3.f.2.d	
<b>B.4</b>	<b>DODATNE KARAKTERISTIKE ZA ANTENU NE-GEOSTACIONARNE SVEMIRSKJE STANICE</b>										<b>B.4</b>	
B.4.a.1	referentni broj svake orbitalne ravni u kojoj se karakteristike antene svemirske stanice koriste			X		X					B.4.a.1	
B.4.a.2	ako karakteristike antene svemirske stanice nisu iste za svaki satelit u specificiranoj orbitalnoj ravni, referentni broj svakog satelita u specificiranoj orbitalnoj ravni, u kojoj se karakteristike antene svemirske stanice koriste			+		+					B.4.a.2	
B.4.a.3	<b>Za svemirske stanice podneseno u skladu sa Nos. 9.11A, 9.12 , 9.12A ili za aktivne ili pasivne senzore na ne -geostacionarnoj satelitskoj mreži koje ne podležu koordinaciji pod Sekcijom II Člana 9:</b>										B.4.a.3	
B.4.a.3.a	<b>Za uglove orijentacije satelitskih predajnih i prijemnih antenskih snopova:</b>										B.4.a.3.a	

Stavke u Dodatku	B - KARAKTERISTIKE KOJE TREBA DA IMA SVAKI SATELITSKI ANTENSKI SNOPI I SVAKA ZEMLJINA STANICA ILI RADIO ASTRONOMSKA ANTENA	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obavještenje ili koordinacija o Zemljinoj stanici (uključujući obavještenje pod pod Dodacima 30A ili 30B)	Obavještenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obavještenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obavještenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radio astronomija
B.4.a.3.a.1	orijentacioni ugao alfa, u stepenima (vidi najnoviju verziju Preporuke ITU-R SM.1413)			X		X					B.4.a.3.a.1	
B.4.a.3.a.2	orijentacioni ugao beta, u stepenima (vidi najnoviju verziju Preporuke ITU-R SM.1413)			X		X					B.4.a.3.a.2	
B.4.b	<b>Za svemirske stanice podneseno u skladu sa Nos. 9.11A, 9.12 ili 9.12A:</b>										B.4.b	
B.4.b.1	<b>Ne koristi se</b>										B.4.b.1	
	Ne koristi se											
	Ne koristi se											
B.4.b.2	pojačanje satelitske antene $G(\theta_e)$ kao funkcija ugla elevacije ( $\theta_e$ ) na fiksnoj tački na Zemlji					X					B.4.b.2	
B.4.b.3	gubici širenja kao funkcija ugla elevacije (određuje se jednačinom ili se daje u grafičkom formatu)					X					B.4.b.3	
B.4.b.4	<b>Za svaki snop:</b>										B.4.b.4	
B.4.b.4.a	maksimalna vršna snopa e.i.r.p./4 kHz					X					B.4.b.4.a	
B.4.b.4.b	prosečna vršna snopa e.i.r.p./4 kHz					X					B.4.b.4.b	
B.4.b.4.c	maksimalna vršna snopa e.i.r.p./1 MHz					X					B.4.b.4.c	
B.4.b.4.d	prosečna vršna snopa e.i.r.p./1 MHz					X					B.4.b.4.d	

Stavke u Dodatku	B - KARAKTERISTIKE KOJE TREBA DA IMA SVAKI SATELITSKI ANTENSKI SNOP ILI SVAKA ZEMLJINA STANICA ILI RADIO ASTRONOMSKA ANTENA	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obavještenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obavještenje ili koordinacija o Zemljinoj stanici (uključujući obavještenje pod pod Dodacima 30A ili 30B)	Obavještenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obavještenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obavještenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radio astronomija
B.4.b.5	izračunata vršna vrednost snage gustine fluksa proizvedene unutar $\pm 5^\circ$ nagnutosti geostacionarne satelitske orbite  Potrebno samo za fiksnu satelitsku službu (svemir-Zemlja) u opsegu 6 700-7 075 MHz					+					B.4.b.5	
<b>B.5</b>	<b>KARAKTERISTIKE ANTENE ZEMALJSKE STANICE</b>										<b>B.5</b>	
B.5.a	izotropsko pojačanje, u dBi, antene u smeru maksimalnog zračenja (vidi No. <b>1.160</b> )						X				B.5.a	
B.5.b	pola snage širine snopa, u stepenima						+ <sup>1</sup>				B.5.b	
B.5.c	mereni dijagram zračenja antene ili referentni dijagram zračenja koji se koristi za koordinaciju  Za koordinaciju pod No. <b>9.7A</b> , referentni dijagram zračenja treba biti naveden						X				B.5.c	
<b>B.6</b>	<b>KARAKTERISTIKE RADIO ASTRONOMSKE ANTENE</b>										<b>B.6</b>	
B.6.a	tip antene (vidi Predgovor)										B.6.a	X
B.6.b	dimenzije antene (vidi Predgovor)										B.6.b	X
B.6.c	efektivno područje antene (vidi Predgovor)										B.6.c	X



Stavke u Dodatku	C - KARAKTERISTIKE KOJE TREBA DA IMA SVAKA GRUPA FREKVENCIJSKIH DODELA ZA SATELITSKI ANTENSKI SNOPI I SVAKU ZEMALJSKU STANICU ILI RADIO ASTRONOMSKU ANTENU	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodatka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod Dodatcima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj -satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radio astronomija
C.1	<b>FREKVENCIJSKI RASPON</b>										C.1	
C.1.a	donja granica frekvencijskog raspona unutar kojeg će nosioci i širina opsega emisije biti locirani za svako Zemlja-svemir ili svemir-Zemlja područje službe, ili za svako svemir-svemir prespajanje	X	X	X						X	C.1.a	
C.1.b	gornja granica frekvencijskog raspona unutar kojeg će nosioci i širina opsega emisije biti locirani za svako Zemlja-svemir ili svemir-Zemlja područje službe, ili za svako svemir-svemir prespajanje	X	X	X						X	C.1.b	

C.2	DODELJENA FREKVENCIJA (FREKVENCIJE)									C.2	
C.2.a.1	<p>dodeljena frekvencija (frekvencije), kako je definisano u No. <b>1.148</b></p> <ul style="list-style-type: none"> <li>- u kHz do 28 000 kHz uključujući</li> <li>- u MHz iznad 28 000 kHz do 10 500 MHz uključujući</li> <li>- u GHz iznad 10 500 MHz</li> </ul> <p>Ako su osnovne karakteristike identične, sa izuzetkom dodeljene frekvencije, lista frekvencijskih dodela može da bude data</p> <p>U slučaju napredne publikacije, potrebno samo za aktivne senzore</p> <p>U slučaju geostacionarnih i ne-geostacionarnih satelitskih mreža, potrebno za sve svemirske aplikacije osim pasivnih senzora</p> <p>U slučaju Dodatka <b>30B</b>, potrebno samo za obaveštenje pod Članom 8</p>			+	+	+	X	X	X	+	C.2.a.1
C.2.a.2	broj kanala							X	X		C.2.a.2

C.2.b	<p>centar posmatranog frekvencijskog opsega</p> <ul style="list-style-type: none"> <li>- u kHz do 28 000 kHz uključujući</li> <li>- u MHz iznad 28 000 kHz do 10 500 MHz uključujući</li> <li>- u GHz iznad 10 500 MHz</li> </ul> <p>U slučaju satelitskih mreža, potrebno samo za pasivne senzore</p>			+	+	+					C.2.b	X	
C.2.c	ako frekvencijska dodela treba biti popunjena pod No. 4.4, indikacija o tome			+	+	+	+					C.2.c	+
<b>C.3</b>	<b>DODELJENI FREKVENCIJSKI OPSEG</b>										<b>C.3</b>		
C.3.a	<p>širina dodeljenog frekvencijskog opsega, u kHz (vidi No. 1.147)</p> <p>U slučaju napredne publikacije, potrebno jedino za aktivne senzore</p> <p>U slučaju geostacionarnih i ne-geostacionarnih satelitskih mreža, potrebno za sve svemirske primene osim za pasivne senzore</p> <p>U slučaju Dodatka 30B, potrebno samo za obaveštenje pod Članom 8</p>			+	+	+	X	X	X	+	C.3.a		

C.3.b	širina frekvencijskog opsega, u kHz, posmatrano po stanici U slučaju satelitskih mreža, potrebno samo za pasivne senzore			+	+	+					C.3.b	X
<b>C.4</b>	<b>KLASA STANICE I PRIRODA SLUŽBE</b>										<b>C.4</b>	
C.4.a	klasa stanice, koristeći simbole iz Predgovora	X	X	X	X	X	X	X	X	X	C.4.a	X
C.4.b	priroda službe koja radi, koristeći simbole iz Predgovora	X	X	X	X	X	X				C.4.b	X
<b>C.5</b>	<b>TEMPERATURA ŠUMA PRIJEMNOG SISTEMA</b>										<b>C.5</b>	
C.5.a	najmanja temperatura šuma prijemnog sistema, u kelvinima, koja se odnosi na izlaz prijemne antene svemirske stanice U slučaju satelitskih mreža, potrebno za sve svemirske primene osim za aktivne ili pasivne senzore			+	+	+			X	X	C.5.a	



C.5.b	najmanja temperatura šuma prijemnog sistema, u kelvinima, koja se odnosi na izlaz prijemne antene zemaljske stanice pod uslovima čistog neba  Ova vrednost treba da bude naznačena za nominalnu vrednost ugla elevacije kad je pridružena predajna stanica na geostacionarnom satelitu i, u drugim slučajevima, za minimalnu vrednost ugla elevacije						<b>X</b>			C.5.b	
C.5.c	ukupna temperatura šuma prijemnog sistema, u kelvinima, koja se odnosi na izlaz prijemne antene									C.5.c	<b>X</b>
C.5.d	<b>Za aktivne senzore:</b>									C.5.d	
C.5.d.1	temperatura šuma sistema na izlazu procesora signala			<b>X</b>	<b>X</b>	<b>X</b>				C.5.d.1	
C.5.d.2	širina opsega šuma predajnika			<b>X</b>	<b>X</b>	<b>X</b>				C.5.d.2	

C.6	POLARIZACIJA									C.6
C.6.a	tip polarizacije (vidi Predgovor) U slučaju cirkularne polarizacije, ovo uključuje smisao polarizacije (vidi Nos. <b>1.154</b> i <b>1.155</b> ) U slučaju svemirske stanice podneseno u skladu sa Dodatkom <b>30</b> ili <b>30A</b> , vidi § 3.2 Aneksa 5 Dodatka <b>30</b>			X	X	X	+ <sup>1</sup>	X	X	C.6.a
C.6.b	Ako se koristi linearna polarizacija, ugao, u stepenima, meren protivno smeru kazaljke na satu u ravni normalnoj na osu snopa od ekvatorijalne ravni do električnog vektora talasa kako se vidi sa satelita U slučaju svemirske stanice podneseno u skladu sa Dodatkom <b>30</b> ili <b>30A</b> , vidi § 3.2 Aneksa 5 Dodatka <b>30</b>			+	+	+	+ <sup>1</sup>	+	+	C.6.b

<b>C.7</b>	<p><b>NEOPHODNA ŠIRINA OPSEGA I KLASA EMISIJE</b>          (u skladu sa Članom 2 i Dodatkom 1)          Za naprednu publikaciju ne-geostacionarne satelitske mreže koja ne podleže koordinaciji pod Sekcijom II Člana 9, izmene ove informacije u okviru limita specificiranih pod C.1 ne treba da se tiču razmatranja obaveštenja pod Članom 11          Nije potrebno za aktivne ili pasivne senzore</p>									<b>C.7</b>	
C.7.a	<p>Neophodna širina opsega i klasa emisije: za svaki nosioc          U slučaju Dodatka 30B, potrebno jedino za obaveštenje pod Članom 8</p>			<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	+	C.7.a
C.7.b	<p>Frekvencija nosioca ili frekvencije emisija</p>			<b>X</b>	<b>C</b>	<b>C</b>	<b>C</b>				C.7.b

C.8	KARAKTERISTIKE SNAGE EMISIJE Ne treba za pasivne senzore								C.8		
C.8.a	<b>Za slučaj kad individualni nosioci mogu biti identifikovani:</b>									C.8.a	
C.8.a.1	Maksimalna vrednost vršne snage obvojnice, u dBW, dovedena na ulaz antene za svaki tip nosioca Potrebno ako niti C.8.b.1 ni C.8.b.3.a nije dato		+	+	+	C				C.8.a.1	
C.8.a.2	Maksimalna gustina snage, u dB(W/Hz), dovedena na ulaz antene za svaki tip nosioca <sup>2</sup> Potrebno ako niti C.8.b.2 niti C.8.b.3.b nije dato		+	+	+	O				C.8.a.2	

C.8.b	<b>Za slučaj kada nije moguće identifikovati pojedinačne nosioce:</b>										C.8.b	
C.8.b.1	<p>ukupna vršna snaga obvojnice, u dBW, dovedena na ulaz antene</p> <p>Za koordinaciju ili obaveštenje Dodatka <b>30A</b> zemaljske stanice vrednosti treba da uključuju maksimalan raspon kontrole snage</p> <p>Potrebno ako niti C.8.a.1 ni C.8.b.3.a nije dato</p>			+	+	+	+ <sup>1</sup>	X	X		C.8.b.1	
C.8.b.2	<p>Maksimalna gustina snage, u dB(W/Hz), dovedena na ulaz antene<sup>2</sup></p> <p>Za koordinaciju ili obaveštenje Dodatka <b>30A</b> zemaljske stanice vrednosti treba da uključuju maksimalan raspon kontrole snage</p> <p>Potrebno ako niti C.8.a.2 ni C.8.b.3.b nije dato</p>			+	+	+	+ <sup>1</sup>	X	X	X	C.8.b.2	

C.8.b.3	<b>Za klasu aktivnih senzora:</b>									C.8.b.3	
C.8.b.3.a	ukupna vršna snaga obvojnice, u dBW, dovedena na ulaz antene Potrebno ako niti C.8.a.1 ni C.8.b.1 nije dato			+	+	+				C.8.b.3.a	
C.8.b.3.b	prosečna gustina snage, in dB(W/Hz), dovedena na ulaz antene Potrebno ako niti C.8.a.2 ni C.8.b.2 nije dato			+	+	+				C.8.b.3.b	
C.8.c	<b>Minimalne vrednosti snage:</b> Za sve primene u svemiru osim aktivnih i pasivnih senzora									C.8.c	
C.8.c.1	minimalna vršna snaga obvojnice, u dBW, dovedena na ulaz antene za svaki tip nosioca Ako nije dato, rezultat za odsutnost pod C.8.c.2			+	+	+	+ <sup>1</sup>			C.8.c.1	
C.8.c.2	ako C.8.c.1 nije dato, razlog za odsutnost minimalne vrednosti vršne snage obvojnice			+	+	+	+ <sup>1</sup>			C.8.c.2	

C.8.c.3	minimalna gustina snage, u dB(W/Hz), dovedena na ulaz antene za svaki tip nosioca <sup>2</sup> Ako nije dato, razlog za odsutnost pod C.8.c.4			+	+	+	+ <sup>1</sup>			C.8.c.3	
C.8.c.4	ako C.8.c.3 nije dato, razlog za odsutnost minimalne gustine snage			+	+	+	+ <sup>1</sup>			C.8.c.4	
C.8.d.1	minimalna vršna snaga obvojnice, u dBW, dovedena na ulaz antene za svaku satelitsku graničnu širinu opsega Za satelitski transponder, ovo odgovara maksimalnoj zasićenoj vršnoj snazi obvojnice Potrebno samo za svemir-Zemlja ili svemir-svemir vezu			0	+	+				C.8.d.1	
C.8.d.2	Svaka satelitska granična širina opsega Za maksimalnu zasićenu vršnu snagu obvojnice satelitskog transpondera, ovo odgovara širini opsega svakog transpondera Potrebno samo za svemir-Zemlja ili svemir-svemir vezu, ako je različito od stavke C.3.a			0	+	+				C.8.d.2	
C.8.e.1	za svemir-Zemlja, Zemlja-svemir ili svemir-svemir veze. Za svaki tip nosioca, veći od ili odnosa nosioc prema šumu, u dB, potrebno da se zadovolje performanse veze u uslovima čistog neba ili odnosa nosioc prema šumu, u dB, potrebno da se zadovolje kratkoročni ciljevi veze uključujući neophodne margine Ako nije dato, razlog odsutnosti pod C.8.e.2			+	+	+	+ <sup>1</sup>			C.8.e.1	
C.8.e.2	ako C.8.e.1 nije dato, razlog odsutnosti odnosa nosioc prema šumu			+	+	+	+ <sup>1</sup>			C.8.e.2	
C.8.f.1	Nominalna ekvivalentna izotropski izračena snaga (e.i.r.p.) svemirske stanice na osi snopa Potrebno jedino za vezu svemir-svemir			+						C.8.f.1	

C.8.f.2	nominalna ekvivalentna izotropski izračena snaga (e.i.r.p.) pridružene svemirske stanice na osi snopa Potrebno samo za vezu svemir-svemir			+						C.8.f.2	
C.8.g.1	maksimalna ukupna snaga, u dBW, svih nosioca (po transponderu, po mogućnosti) dovedene na ulaz predajne antene zemaljske stanice ili pridružene zemaljske stanice Nije potrebno za koordinaciju specifične zemaljske stanice pod Nos. <b>9.15</b> , <b>9.17</b> ili <b>9.17A</b>				C	C	C			C.8.g.1	
C.8.g.2	Ukupna snaga svih nosioca (po transponderu, po mogućnosti) dovedena na ulaz predajne antene zemaljske stanice ili pridružene zemaljske stanice Nije potrebno za koordinaciju specifične zemaljske stanice pod Nos. <b>9.15</b> , <b>9.17</b> ili <b>9.17A</b>				C	C	C			C.8.g.2	





C.9	<b>INFORMACIJE O KARAKTERISTIKAMA MODULACIJE</b> Za sve svemirske primene, osim aktivnih i pasivnih senzora								C.9		
C.9.a	<b>Za svaki nosioc, saglasno prirodi signala koji moduliše nosioc:</b>									C.9.a	
C.9.a.1	tip modulacije		O	C	+		X	X		C.9.a.1	
C.9.a.2	U slučaju ne-geostacionarne svemirske stanice potrebno samo za Nos. <b>9.11A, 9.12</b> ili <b>9.12A</b> <b>Za frekvenciju nosioca modulisanog frekvencijski-deljenim multikanalnim telefonskim osnovnim opsegom (FDM/FM) ili signalom koji može da bude reprezentovan sa multikanalnim telefonskim osnovnim opsegom:</b>									C.9.a.2	
C.9.a.2.a	Najniža frekvencija osnovnog opsega		O	C	C					C.9.a.2.a	
C.9.a.2.b	Najviša frekvencija osnovnog opsega		O	C	C					C.9.a.2.b	
C.9.a.2.c	r.m.s. frekvencijska devijacija pojačanog (na nekim frekvencijama) signala za test ton kao funkcija frekvencije osnovnog opsega		O	C	C					C.9.a.2.c	
C.9.a.3	<b>Za frekvencije nosioca modulisanog televizijskim signalom:</b>									C.9.a.3	
C.9.a.3.a	Frekvencijska devijacija od vrha do vrha pojačanog (na nekim frekvencijama) signala		O	C	C		X	X		C.9.a.3.a	
C.9.a.3.b	Karakteristike pojačanja (na nekim frekvencijama)		O	C	C		X	X		C.9.a.3.b	
C.9.a.3.c	Ako je primenjivo, karakteristike multipleksiranja video signala sa zvučnim signalom ili drugim signalima		O	C	C		+	+		C.9.a.3.c	
C.9.a.4	<b>Za nosioc fazno modulisan digitalnim signalom:</b>									C.9.a.4	
C.9.a.4.a	brzina prenosa podataka		O	C	C					C.9.a.4.a	
C.9.a.4.b	broj faza		O	C	C					C.9.a.4.b	
C.9.a.5	<b>Za amplitudno modulisan nosioc (uključujući sa jednim bočnim opsegom):</b>									C.9.a.5	
C.9.a.5.a	priroda modulišućeg signala, što je moguće preciznije		O	C	C					C.9.a.5.a	
C.9.a.5.b	vrsta korišćene amplitudske modulacije		O	C	C					C.9.a.5.b	

C.9.a.6	<b>Za frekvencijski modulisan nosioc:</b>									C.9.a.6	
C.9.a.6.a	Frekvencijska devijacija od vrha do vrha, u MHz, talasnog oblika za ravnomerno raspoređivanje energije		O	C	C		X	X		C.9.a.6.a	
C.9.a.6.b	frekvencija pomicanja, u kHz, talasnog oblika za ravnomerno raspoređivanje energije		O	C	C		X	X		C.9.a.6.b	
C.9.a.6.c	talasni oblik za ravnomerno raspoređivanje energije		O	C	C		X	X		C.9.a.6.c	
C.9.a.7	ako se koriste druge forme modulacije osim frekvencijske modulacije, tip ravnomernog raspoređivanja energije		O	C	C		+	+		C.9.a.7	
C.9.a.8	Za sve tipove modulacije, one pojedinosti koje mogu biti korisne za proučavanje interferencije		O	C	C					C.9.a.8	
C.9.a.9	TV standard		O	C	C		X	X		C.9.a.9	
C.9.b	<b>Za analogne nosioce:</b>									C.9.b	
C.9.b.1	Karakteristike radiodifuzije zvuka						X	X		C.9.b.1	
C.9.b.2	Kompozicija osnovnog opsega						X	X		C.9.b.2	
C.9.c	<b>Za ne-geostacionarnu svemirsku stanicu podneseno u skladu sa Nos. 9.11A, 9.12 ili 9.12A:</b>									C.9.c	
C.9.c.1	tip višestrukog pristupa					X				C.9.c.1	
C.9.c.2	spektralna maska					X				C.9.c.2	
C.9.d	<b>Za stanice koje rade u frekvencijskom opsegu prema Nos. 22.5C, 22.5D ili 22.5F:</b>									C.9.d	
C.9.d.1	Tip maske					X				C.9.d.1	
C.9.d.2	identifikacijski kod pfd maske					X				C.9.d.2	
C.9.d.3	identifikacijski kod e.i.r.p. maske svemirske stanice					X				C.9.d.3	
C.9.d.4	identifikacijski kod e.i.r.p. maske zemaljske stanice					X				C.9.d.4	
<b>C.10</b>	<b>TIP I IDENTITET PRIDRUŽENE STANICE (STANICA)</b>  (pridružena stanica može biti neka druga svemirska stanica, tipična Zemljina stanica neke mreže ili specifična Zemljina stanica)  Za sve svemirske primene osim aktivnih i pasivnih senzora									<b>C.10</b>	
C.10.a	<b>Za pridruženu svemirsku stanicu:</b>									C.10.a	
C.10.a.1	identitet stanice		X	X	X					C.10.a.1	
C.10.a.2	Ako je pridružena svemirska stanica u geostacionarnoj orbiti, njena nominalna dužina		+	+	+					C.10.a.2	
C.10.b	<b>Za pridruženu zemaljsku stanicu:</b>									C.10.b	



C.10.d.4	širina snopa, u stepenima, između tačaka polovine snage (opisano detaljno ako nema simetrije)			<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	ili izmereni kros-polarni dijagram zračenja antene ili kros-polarni referentni dijagram zračenja			<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	ili izmereni kros-polarni dijagram zračenja antene ili kros-polarni referentni dijagram zračenja							<b>X</b>	<b>X</b>		C.10.d.5.b	
C.10.d.6	ako je pridružena stanica prijemna Zemljina stanica, najniža ukupna temperatura šuma prijemnog sistema, u kelvinima, koja se odnosi na izlaz prijemne antene zemaljske stanice pod uslovima čistog neba			<b>+</b>	<b>+</b>	<b>+</b>				<b>+</b>	C.10.d.6	
C.10.d.7	dijametar antene, u metrima u slučajevima drugačijim od onih u Dodatku <b>30A</b> , potrebno za mreže fiksne satelitske službe koje rade u frekvencijskom opsegu 13.75-14 GHz i za mreže pomorske mobilne satelitske službe koje rade u frekvencijskom opsegu 14-14.5 GHz				<b>+</b>	<b>+</b>			<b>X</b>		C.10.d.7	
C.10.d.8	ekvivalentni dijametar antene (na pr. dijametar, u metrima, parabolične antene sa istim performansama izvan ose kao prijemna antena pridružene zemaljske stanice)							<b>X</b>			C.10.d.8	

C.11	<b>SERVISNO PODRUČJE</b> Za sve svemirske primene osim aktivnih i pasivnih senzora										C.11	
C.11.a	servisno područje ili područja satelitskog snopa na Zemlji, kada pridružene predajne ili prijemne stanice jesu zemaljske stanice  Za svemirsku stanicu podneto prema Dodatku <b>30</b> , <b>30A</b> ili <b>30B</b> , servisno područje identifikovano skupom od maksimalno dvadeset testnih tačaka i konturom servisnog područja na površini Zemlje ili definisano minimalnim uglom elevacije  Za naprednu publikaciju satelitskih mreža koje podležu koordinaciji, samo lista zemalja i geografskih područja, koristeći simbole iz Predgovora, ili govorni opis servisnog područja treba da se podnese	X	X	X	X	X	X	X	X	C.11.a		

C.11.b	<p>odgovarajuće informacije potrebne za proračun zahvaćenog područja (kako je definisano u Preporuci ITU-R M.1187-1)</p> <p>Potrebno samo za ne-geostacionarnu svemirsku stanicu u mobilnoj satelitskoj službi podneseno u skladu sa No. <b>9.11A</b></p>					+				C.11.b	
<b>C.12</b>	<b>POTREBNI ODNOS ZAŠTITE</b>									<b>C.12</b>	
C.12.a	<p>minimalni prihvatljivi agregatni odnos nosioca prema šumu, ako je manji od 21 dB</p> <p>Odnos nosioca prema šumu izražava se kao snaga uprosečena po neophodnoj širini opsega modulisanih željenih i interferirajućih signala, pretpostavljajući da i željeni nosioc i interferirajući signali imaju ekvivalentne širine opsega i modulacione tipove</p>								+	C.12.a	

C.13	KARAKTERISTIKE POSMATRANJA ZA RADIOASTRONOMSKE STANICE								C.13	
C.13.a	klasa posmatranja koja treba da se izvode na frekvencijskom opsegu prikazano pod C.3.b – Klasa A posmatranja jesu ona u kojima osetljivost opreme nije primarni faktor – Klasa B posmatranja jesu ona takve prirode da mogu biti rađena jedino sa naprednim niskošumnim prijemnicima korišćenjem najbolje tehnike								C.13.a	X
C.13.b	tip radioastronomske stanice u frekvencijskom opsegu prikazanom pod C.3.b – Pojedinačni tanjirasti, "S", teleskop korišćen za posmatranja spektralnih linija ili kontinuuma korišćenjem Pojedinačnih tanjirastih ili usko povezanih nizova – Vrlo duga osnovna linija interferometrijske (VLBI), "V", stanice korišćeno samo za VLBI posmatranja								C.13.b	X
C.13.c	minimalni ugao elevacije $\theta_{min}$ na kojem radio astronomska stanica izvodi posmatranja putem pojedinačnih tanjirastih teleskopa ili VLBI u frekvencijskom opsegu								C.13.c	X



<b>C.14</b>	<b>Ne koristi se</b>												<b>C.14</b>		
<b>C.15</b>	<b>OPIS GRUPA POTREBNIH U SLUČAJU NEISTOVREMENIH EMISIJA</b>												<b>C.15</b>		
C.15.a	ako je deo ekskluzivne operacione grupe, grupni identifikacioni kod											+	+	+	C.15.a
<b>C.16</b>	<b>OPIS AKTIVNIH I PASIVNIH SENZORSKIH SISTEMA</b>												<b>C.16</b>		
C.16.a	<b>Za aktivne senzore:</b>												C.16.a		
C.16.a.1	širina impulsa, u μs			X	X	X									C.16.a.1
C.16.a.2	frekvencija ponavljanja impulsa, u kHz			X	X	X									C.16.a.2
C.16.b	<b>Za pasivne senzore:</b>												C.16.b		
C.16.b.1	prag osetljivosti, u kelvinima			X	X	X									C.16.b.1

<b>Stavke u Dodatku</b>	<i>D - CELOKUPNE KARAKTERISTIKE VEZE</i>	Napredna publikacija geostacionarne satelitske mreže	Napredna publikacija ne-geostacionarne satelitske mreže prema koordinaciji pod Sekcijom II Člana 9	Napredna publikacija ne-geostacionarne -satelitske mreže koja nije predmet koordinacije pod Sekcijom II Člana 9	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži (uključujući funkcije svemirskih operacija pod Članom 2A Dodataka 30 ili 30A)	Obaveštenje ili koordinacija o geostacionarnoj satelitskoj mreži	Obaveštenje ili koordinacija o Zemljinoj stanici (uključujući obaveštenje pod Dodacima 30A ili 30B)	Obaveštenje o satelitskoj mreži u radiodifuznoj - satelitskoj službi pod Dodatkom 30 (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži (spojne veze) pod dodatkom 30A (Članovi 4 i 5)	Obaveštenje o satelitskoj mreži u fiksnoj satelitskoj službi pod Dodatkom 30B (Članovi 6 i 8)	Stavke u Dodatku	Radio astronomija
		Za službe izvan Plana, administracije mogu da podnesu ove podatke ako žele ali samo kad se jednostavni transponderi menjanja frekvencije koriste u svemirskim stanicama na geostacionarnim satelitima										
<b>D.1</b>	<b>VEZA IZMEĐU ZEMLJA-SVEMIR I SVEMIR-ZEMLJA FREKVENCIJA U MREŽI</b>											<b>D.1</b>

D.1.a	konekcija između frekvencijskih dodela veza prema gore i veza prema dole za svaku nameravanu kombinaciju prijemnih i predajnih snopova U slučaju Dodatka <b>30</b> ili <b>30A</b> , potrebno samo u Regionu 2 U slučaju Dodatka <b>30B</b> , potrebno osim za podnesak za samo jednu vezu				<b>0</b>			+	+	+	D.1.a	
<b>D.2</b>	<b>POJAČANJA EMISIJA I PRIDRUŽENA EKVIVALENTNA TEMPERATURA ŠUMA SATELITSKE VEZE</b>										<b>D.2</b>	
D.2.a	<b>Za svaku stavku pod D.1.a:</b>										D.2.a	
D.2.a.1	najniža ekvivalentna temperatura šuma satelitske veze Te vrednosti treba da su navedene za nominalnu vrednost ugla elevacije				<b>0</b>						D.2.a.1	
D.2.a.2	Pridruženo pojačanje emisije najniže temperature šuma ekvivalentne satelitske veze Te vrednosti treba da su naznačene za nominalnu vrednost ugla elevacije Pojačanje emisije se izračunava od izlaza prijemne antene svemirske stanice ka izlazu prijemne antene zemaljske stanice				<b>0</b>						D.2.a.2	
D.2.b.1	vrednost temperature šuma pridružene ekvivalentne satelitske veze koja odgovara najvećem odnosu pojačanja emisije i ekvivalentne temperature šuma satelitske veze				<b>0</b>						D.2.b.1	
D.2.b.2	vrednosti pojačanja emisije koja odgovaraju najvećem odnosu pojačanja emisije i ekvivalentne temperature šuma satelitske veze				<b>0</b>						D.2.b.2	

DODATAK 5 (Rev.WRC-07)

**Identifikacija administracija sa kojima se ostvaruje koordinacija ili zatražen sporazum pod odredbama Člana 9**

TABELA 5-1 (Rev.WRC-07)

**Tehničke karakteristike koordinacije**  
(vidi Član 9)

**MOD** COM5/287/6 (B8/293/10) (R4/335/62)

Referenca na Član 9	Slučaj	Frekvencijski opsezi (i Region) službe za koju je zatražena koordinacija	Prag/uslov	Metod proračuna	Primedbe
No. 9.7 GSO/GSO	Stanica u satelitskoj mreži koja koristi geostacionarne satelitske orbite (GSO), u bilo kojoj službi satelitske radiokomunikacije, u frekvencijskom opsegu i Regionu gde ta služba nije predmet Plana, u odnosu na bilo koju drugu koja koristi tu orbitu, u bilo kojoj radiokomunikacionoj službi u frekvencijskom opsegu i u Regionu gde ta služba nije predmet Plana, sa izuzetkom koordinacije između zemaljskih stanica koje rade u smeru suprotnom emisiji	1) 3 400-4 200 MHz 5 725-5 850 MHz (Region 1) i 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 (Region 1 i 3) 12.7-12.75 GHz (Region 2) i 13.75-14.5 GHz	i) Širina opsega preklapanja, i ii) bilo koja mreže u fiksnoj satelitskoj službi (FSS) i bilo kojih pridruženih funkcija (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od $\pm 10^\circ$ nominalne orbitalne pozicije predložene mreže u FSS  i) Širina opsega preklapanja, i ii) bilo koja mreža u FSS ili radiodifuzna satelitska služba (BSS), koja nije predmet Plana, i bilo koje pridružene funkcije svemirske operacije (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od $\pm 9^\circ$ od nominalne orbitalne pozicije predložene mreže u FSS ili BSS, koja nije predmet Plana		Uz pažnju prema svemirskim službama izlistanim u koloni prag/uslovi u opsezima u 1), 2), 3), 4), 5), 6), 7) i 8), administracija može zahtevati, shodno No. 9.41, da bude uključena u zahteve za koordinaciju, navodeći mreže za koje vrednost od $\Delta T/T$ izračunato po metodu u § 2.2.1.2 i 3.2 Dodatka 8 prelazi 6%. Kada Biro, na zahtev dotične administracije, prouči tu informaciju shodno No. 9.42, metod proračuna dat u § 2.2.1.2 i 3.2 Dodatka 8 treba da se koristi

TABELA 5-1 (nastavak) (Rev.WRC-07)

Referenca na Član 9	Slučaj	Frekvencijski opsezi (i Region) službe za koju je zatražena koordinacija	Prag/uslov	Metod proračuna	Primedbe
No. 9.7 GSO/GSO (nastavak.)		3) 17.7-20.2 GHz, (Regioni 2 i 3), 17.3-20.2 GHz (Region 1) i 27.5-30 GHz  4) 17.3-17.7 GHz (Regioni 1 i 2)	i) Širina opsega preklapanja, i ii) bilo koja mreža u FSS i bilo koje pridružene funkcije svemirske operacije (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od $\pm 8^\circ$ nominalne orbitalne pozicije predložene mreže u FSS  i) Širina opsega preklapanja, i ii) a) bilo koja mreža u FSS i bilo koje pridružene funkcije svemirske operacije (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od $\pm 8^\circ$ nominalne orbitalne pozicije predložene mreže u FSS,  ili b) bilo koja mreža u BSS i bilo koje pridružene funkcije svemirske operacije (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od $\pm 8^\circ$ nominalne orbitalne pozicije predložene mreže u FSS		

TABELA 5-1 (nastavak) (Rev.WRC-07)

Referenca na Član 9	Slučaj	Frekvencijski opsezi (i Region) službe za koju je zatražena koordinacija	Prag/uslov	Metod proračuna	Primedbe
No. 9.7 GSO/GSO (nastavak.)		5) 17.7-17.8 GHz	i) Širina opsega preklapanja, i ii) a) bilo koja mreža u FSS i bilo koje pridružene funkcije svemirske operacije (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od $\pm 8^\circ$ nominalne orbitalne pozicije predložene mreže u BSS,  ili b) bilo koja mreža u BSS i bilo koje pridružene funkcije svemirske operacije (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od $\pm 8^\circ$ nominalne orbitalne pozicije predložene mreže u FSS  PRIMEDBA – No. 5.517 se primenjuje u Regionu 2.		
		6) 18.0-18.3 GHz (Region 2) 18.1-18.4 GHz (Regioni 1 i 3)	i) Širina opsega preklapanja, i ii) bilo koja mreža u FSS ili meteorološko satelitska služba i bilo koje pridružene funkcije svemirske operacije (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od $\pm 8^\circ$ nominalne orbitalne pozicije predložene mreže u FSS ili meteorološke satelitske službe		

TABELA 5-1 (nastavak) (Rev.WRC-07)

Referenca na Član 9	Slučaj	Frekvencijski opsezi (i Region) službe za koju je zatražena koordinacija	Prag/uslov	Metod proračuna	Primedbe
No. 9.7 GSO/GSO (nastavak)		<p>7) Opsezi iznad 17.3 GHz, osim onih definisanih u § 3) i 6)</p> <p>8) Opsezi iznad 17.3 GHz osim onih definisanih u § 4) i 5)</p>	<p>i) Širina opsega preklapanja, i</p> <p>ii) bilo koja mreža u FSS i bilo koje pridružene funkcije svemirske operacije (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od <math>\pm 8^\circ</math> nominalne orbitalne pozicije predložene mreže u FSS (vidi takođe rezoluciju <b>901 (Rev.WRC-07)</b>)</p> <p>i) Širina opsega preklapanja, i</p> <p>ii) bilo koja mreža u FSS ili BSS, koja nije predmet Plana, i bilo koje pridružene funkcije svemirske operacije (vidi No. 1.23) sa svemirskom stanicom unutar orbitalnog luka od <math>\pm 8^\circ</math> nominalne orbitalne pozicije predložene mreže u FSS ili BSS, koja nije predmet Plana, osim slučaja mreže u FSS s pažnjom prema mreži u FSS (vidi takođe Rezoluciju <b>901 (Rev.WRC-07)</b>)</p>		

TABELA 5-1 (nastavak) (Rev.WRC-07)

Referenca na Član 9	Slučaj	Frekvencijski opsezi (i Region) službe za koju je zatražena koordinacija	Prag/uslov	Metod proračuna	Primedbe
No. 9.7 GSO/GSO (nastavak)		9) Svi frekvencijski opsezi, osim onih u 1), 2), 3), 4, 5), 6), 7) i 8), namenjeni svemirskoj službi, i opsezi u 1), 2), 3), 4), 5), 6), 7) i 8) gde je radio služba predložene mreže ili dotičnih mreža drugačijih od svemirskih službi izlistanih u prag/uslovi koloni, ili u slučaju koordinacije svemirskih stanica koje rade u suprotnom smeru od emisije	i) Širina opsega preklapanja, i ii) Vrednost od $\Delta T/T$ prelazi 6%	Dodatak 8	U primeni Člana 2A Dodatka 30 za funkcije svemirske operacije korišćenjem zaštitnih opsega definisanih u § 3.9 Aneksa 5 Dodatka 30, prag/uslovi specificirano za FSS u opsezima u 2) se primenjuje. U primeni Člana 2A Dodatka 30A za funkcije svemirske operacije korišćenjem zaštitnih opsega definisanih u § 3.1 i 4.1 Aneksu 3 Dodatka 30A, prag/uslov specificiran za FSS u opsezima u 7) se primenjuje

MOD COM4/211/7 (B3/224/21) (R2/266/13)

TABELA 5-1 (nastavak) (Rev.WRC-07)

Referenca na Član 9	Slučaj	Frekvencijski opsezi (i Region) službe za koju je zatražena koordinacija	Prag/uslov	Metod proračuna	Primedbe
No. <b>9.11</b> GSO, ne-GSO/ zemaljske	Svemirska stanica u BSS u bilo kom opsegu deljenom na jednakoj primarnoj osnovi sa zemaljskim službama i gde BSS nije predmet Plana, s pažnjom prema svemirskim službama	620-790 MHz 1 452-1 492 MHz 2 310-2 360 MHz 2 535-2 655 MHz (Nos. <b>5.417A</b> i <b>5.418</b> ) 12.5-12.75 GHz (Regionu 3) 17.3-17.8 GHz (Regionu 2) 21.4-22 GHz (Regionima 1 i 3) 74-76 GHz	Preklapanja širina opsega: Detaljni uslovi promene No. <b>9.11</b> u opsezima 2 630-2 655 MHz i 2 605-2 630 MHz dati su u Rezoluciji <b>539 (Rev.WRC-03)</b> za ne-GSO BSS (zvuk) sisteme shodno Nos. <b>5.417A</b> i <b>5.418</b> , i u Nos. <b>5.417A</b> i <b>5.418</b> za GSO BSS (zvuk) mreže shodno tim odredbama. Rezolucija [ <b>COM4/1</b> ] ( <b>WRC-07</b> ) se primenjuje u opsegu 620-790 MHz	Provera korišćenjem dodeljenih frekvencija i širina opsega	

MOD COM5/230/7 (B4/234/6) (R3/292/98)

TABELA 5-1 (nastavak) (Rev.WRC-07)

Referenca na Član 9	Slučaj	Frekvencijski opsezi (i Region) službe za koju je zatražena koordinacija	Prag/uslovi	Metod proračuna	Primedbe
...					
No. <b>9.13</b> GSO/ne-GSO	Stanica u GSO satelitskoj službi u frekvencijskim opsezima koji su naznačeni u fusnoti No. <b>9.11A</b> ili No. <b>9.13</b> , u odnosu na bilo koju drugu ne-GSO satelitsku mrežu, sa izuzetkom koordinacije između zemaljskih stanica koje rade u smeru suprotnom od emisije	Frkvencijski opsezi koji su naznačeni u fusnoti No. <b>9.11A</b> ili No. <b>9.13</b>	1) Preklapanja širina opsega 2) Za opseg 1 668-1 668.4 MHz u odnosu na MSS koordinaciju mreže sa <b>SRS</b> (pasivnim) mrežama, dodatno na preklapanje širina opsega, e.i.r.p. spektralna gustina mobilnih zemaljskih stanica u GSO mreži mobilne satelitske službe koja radi u tom opsegu prelazi -2.5 dB(W/4 kHz) ili snagu gustine spektra dovedenu na antenu mobilne Zemaljske stanice prelazi -10 dB(W/4 kHz)	1) Provera korišćenjem dodeljenih frekvencija i širina opsega 2) Provera korišćenjem podataka iz Dodatka <b>4</b> MSS mreže	



MOD COM4/392/17 (B19/413/22)

TABELA 5-1 (nastavak) (Rev.WRC-07)

Referenca na Član 9	Slučaj	Frekvencijski opsezi (i Region) službe za koju je zatražena koordinacija	Prag/uslovi	Metod proračuna	Primedbe
...					
No. <b>9.19</b> Zemaljske, GSO, ne-GSO/ GSO, ne-GSO	Bilo koja emitujuća stanica zemaljske službe ili emitujuća stanica u FSS (Zemlja-svemir) u frekvencijskom opsegu deljenom na jednakoj primarnoj osnovi sa BSS, u odnosu na tipične zemaljske stanice uključene u servisno područje svemirske stanice u BSS	Opsezi izlistani u No. <b>9.11</b> , opseg 2 520-2 670 MHz i opseg 11.7-12.7 GHz	i) Neophodno prekrivanje širina opsega; i ii) snaga gustine fluksa (pfd) interferirajuće stanice na rubu BSS područja prekrivanja prelazi dozvoljeni nivo	Provera korišćenjem dodeljenih frekvencija i širina opsega	Vidi takođe Član 6 Dodatka <b>30</b>
...					

MOD COM4/392/17bis (B19/413/23)

TABELA 5-1 (nastavak) (Rev.WRC-07)

Referenca na Član 9	Slučaj	Frekvencijski opsezi (i Region) službe za koju je zatražena koordinacija	Prag/uslovi	Metod proračuna	Primedbe
...					
No. 9.14 Ne-GSO/ zemaljske, GSO/ zemaljske	Svemirska stanica u satelitskoj mreži u frekvencijskim opsezima navedenih u fusnoti No. 9.11A ili No. 9.14, s pažnjom prema stanicama zemaljskih službi gde su pragovi prevaziđeni	1) Frekvencijski opsezi navedeni u fusnoti No. 9.11A; očo  2) 11.7-12.2 GHz (Region 2 GSO FSS)	1) Vidi § 1 Aneksa 1 ovog Dodatka; U opsezima specificiranim u No. 5.4A01, detaljni uslovi za primenu No. 9.14 jesu dati u No. 5.4A01 za MSS mreže ili  2) U opsegu 11.7-12.2 GHz (Region 2 GSO FSS): -124 dB(W/(m <sup>2</sup> · MHz)) za 0° ≤ θ ≤ 5° -124 + 0.5 (θ - 5) dB(W/(m <sup>2</sup> · MHz)) za 5° < θ ≤ 25° -114 dB(W/(m <sup>2</sup> · MHz)) za θ > 25° gde θ je upadni ugao dolazećeg talasa iznad horizontalne ravni (stepeni)	1) Vidi § 1 Aneksa 1 ovog Dodatka	

MOD COM4/392/18 (B19/413/24)

TABELA 5-2 (nastavak) (WRC-07)

Frekvencijski opseg (MHz)	Zemaljska služba koja se obezbeđuje	Vrednosti praga koordinacije				
		GSO svemirske stanice		Ne-GSO svemirske stanice		
		pfd (po svemirskoj stanici) faktori proračuna (PRIMEDBA 2)		pfd (po svemirskoj stanici) faktori proračuna (PRIMEDBA 2)		% FDP (u 1 MHz) (PRIMEDBA A 1)
		<i>P</i>	<i>R</i> dB/stepeni	<i>P</i>	<i>r</i> dB/stepeni	
...						
SUP 2 500-2 520						
SUP 2 520-2 535						
...						

**MOD** COM5/287/7 (B8/293/11) (R4/335/63)

DODATAK 7 (Rev.WRC-07)

**Metode određivanja koordinacionog područja oko zemaljske stanice u  
frekvencijskim opsezima između 100 MHz i 105 GHz**

DODATAK 7

**Sistemske parametri i prethodno određene koordinacijske udaljenosti za  
određivanje koordinacionog područja oko zemaljske stanice**

MOD COM4/318/12 (B11/329/9) (R6/410/14)

TABELA 7b (WRC-07)

Parametri potrebni za određivanje koordinacijske udaljenosti za predajnu zemaljsku stanicu

Obeležje predajne svemirske radiokomunikacione službe	Fiksna-satelitska, mobilna -satelitska	Fiksna-satelitska	Fiksna-satelitska	Fiksna-satelitska	Fiksna-satelitska	Svemirska operacija	Fiksna-satelitska, mobilna-satelitska, meteorološka-satelitska	Fiksna-satelitska	Fiksna-satelitska	Fiksna-satelitska	Fiksna-satelitska <sup>3</sup>	Fiksna-satelitska	Fiksna-satelitska <sup>3</sup>						
Frekvencijski opsezi (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						
Obeležje prijemne zemaljske službe	Fiksna, mobilna	Vazduhoplovna radionavigacijska	Vazduhoplovna mobilna (R)	Radio-lokacijska	Fiksna, mobilna	Fiksna, mobilna	Fiksna, mobilna	Fiksna, mobilna	Fiksna, mobilna	Radiolokaciona radionavigaciona (samo kopno)	Vazduhoplovna radionavigaciona	Fiksna, mobilna	Fiksna, mobilna						
Metoda korišćenja	§ 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						
Modulacija na zemaljskoj stanici <sup>1</sup>	A				A N	A N	A N	A N	A N	A N	-	N	N						
Parametri i kriterijumi interferencije zemaljske stanice	$P_0$ (%)	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	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	0.0025			
	$N_L$ (dB)	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			
Parametri zemaljske stanice	$G_x$ (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		
Referentna širina opsega	$B$ (Hz)	$4 \times 10^3$	$150 \times 10^3$	$10^6$		$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$4 \times 10^3$	$10^6$	$10^7$		$10^6$	$10^6$		
Dozvoljena snaga interferencije	$P_r(p)$ (dBW) in $B$	-140	-160	-143		-131	-103	-131	-103	-131	-103	-128	-98	-128	-98	-131		-113	-113

<sup>1</sup> A: analogna modulacija; N: digitalna modulacija.

<sup>2</sup> Parametri za zemaljsku stanicu pridruženu sa transhorizentalnim sistemima se koriste. Radio -relejni parametri optičke vidljivosti pridruženi frekvencijskom opsegu 5 725-7 075 MHz mogu takođe da se koriste da se odredi suplementarna kontura sa izuzetkom  $G_x = 37$  dBi.

<sup>3</sup> Spojne veze ne –geostacionarnih satelitskih sistema u mobilnoj satelitskoj službi.

<sup>4</sup> Spojni gubici nisu uključeni.

<sup>5</sup> Aktuelni frekvencijski opsezi jesu 7 100-7 155 MHz i 7 190-7 235 MHz za službu koja radi u sve miru i 7 145-7 235 MHz za službu istraživanja svemira.

MOD COM5/287/8 (B8/293/12) (R4/335/64)

TABELA 8d (Rev.WRC-07)

Parametri potrebni za određivanje koordinacijske udaljenosti za prijemnu zemaljsku stanicu

Obeležje prijemne svemirske radiokomunikacione službe	Meteorološko - satelitska	Fiksna-satelitska	Fiksna-satelitska	Radio-difuzna-satelitska	Satelitsko istraživanje Zemlje - <sup>4</sup>	Satelitsko istraživanje zemlje -	Istraživanje svemira (duboki svemir)	Istraživanje svemira		Fiksna-satelitska <sup>6</sup>	Fiksna-satelitska <sup>5</sup>	Mobilna-satelitska	Radiodifuzna-satelitska, fiksna-satelitska	Mobilna-satelitska	Radio-navigacijska	Radiodifuzna-satelitska
								Bez posade	S posadom							
Frekvencijski opsezi (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
Obeležje predajne zemaljske stanice	Fiksna, mobilna	Fiksna, mobilna	Fiksna, mobilna	Fiksna, mobilna	Fiksna, mobilna	Fiksna, mobilna	Fiksna, radionavigaciona	Fiksna, mobilna		Fiksna, mobilna	Fiksna, mobilna	Fiksna, mobilna	Radiodifuzna, fiksna	Mobilna	Mobilna	Fiksna, mobilna, radiodifuzna
Korišćena metoda	§ 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
Modulacija na Zemljinoj stanici <sup>1</sup>	N	N	N		N	N	N	N		N	N	N	-	N		
Parametri i kriterijumi interferencije zemaljske stanice	$p_0$ (%)	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					
Parametrizemaljske stanice	$E$ (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	
Referentna širina opsega <sup>6</sup>	$B$ (Hz)	$10^7$	$10^6$	$10^6$		$10^7$	$10^7$	1	1	$10^6$	$10^6$	$10^6$	$10^6$			
Dozvoljena snaga interferencije	$P_f(p)$ (dBW) in $B$	-115	-140	-137		-120	-116	-216	-217	-140						

- <sup>1</sup> A: analogna modulacija; N: digitalna modulacija.
- <sup>2</sup> *E* se definiše kao ekvivalentna izotropna izračena snaga interferirajuće zemaljske stanice u referentnoj širini opsega opsega.
- <sup>3</sup> Ne-geostacionarne spojne veze mobilne satelitske službe.
- <sup>4</sup> Ne-geostacionarni satelitski sistemi.
- <sup>5</sup> Geostacionarni satelitski sistemi.
- <sup>6</sup> Ne-geostacionarni sistemi fiksne satelitske službe.

**MOD** COM5/216/9 (B3/224/22) (R2/266/14)

TABELA 10 (WRC-07)

**Prethodno određene koordinacijske udaljenosti**

Situacija frekventijskog deljenja		Koordinacijska udaljenost (u situacijama deljenja uključujući službe namenjene sa jednakim pravima) (km)
Tip zemaljske stanice	Tip zemaljske stanice	
...	...	...
Na zemlji u opsezima u kojima situacija frekventijskog deljenja nije pokrivena u gornjim redovima	Mobilna (vazduhoplov)	500

**MOD** COM6/229/7

DODATAK 10 (Rev.WRC-03)\*

**Izveštaj o štetnim frekvencijama**

(Pogledati Član 15, Deo VI)

**SUP** COM4/211/8 (B3/224/23)

DODATAK 13 (Rev.WRC-03)\*

**Komunikacije za slučaj nesreće i bezbednosti (non-GMDSS)**

**MOD** COM4/296/45 (B9/305/47) (R4/335/65)

DODATAK 14 (Rev.WRC-07)

**Fonetska azbuka i slikovni kod**

(vidi Članove **30** i **57**) (WRC-07)

**MOD** COM4/296/46 (B9/305/48) (R4/335/66)

DODATAK 15 (Rev.WRC-07)

**Frekvencije za komunikacije za slučaj nesreće i bezbednosti za GMDSS sistem**

(Vidi Član 31)

Frekvencije za komunikacije za slučaj nesreće i bezbednosti za GMDSS date su u Tabelama 15-1 i 15-2 za frekvencije ispod i iznad 30 MHz, respektivno.



TABELA 15-1 (WRC-07)

**Frekvencije ispod 30 MHz**

<b>Frekvencija (kHz)</b>	<b>Opis korišćenja</b>	<b>Primedbe</b>
490	MSI	Frekvencija 490 kHz se koristi isključivo za pomorske bezbednosne informacije (MSI). (WRC-03)
518	MSI	Frekvencija 518 kHz se koristi isključivo od strane međunarodnog NAVTEX sistema.
*2 174.5	NBDP-COM	
*2 182	RTP-COM	Frekvencija 2 182 kHz koristi klasu emisije J3E. Vidi takođe No. <b>52.190</b> .
*2 187.5	DSC	
3 023	AERO-SAR	Vazduhoplovne frekvencije nosioca (referentne) 3 023 kHz i 5 680 kHz mogu biti korišćene za međusobnu komunikaciju između mobilnih stanica angažovanih u koordiniranim operacijama pretrage i spasavanja, i za komunikacije između tih stanica i kopnenih stanica koje učestvuju, u skladu sa odredbama Dodatka <b>27</b> (vidi Nos. <b>5.111</b> i <b>5.115</b> ).
*4 125	RTP-COM	Vidi takođe No. <b>52.221</b> . Frekvencija nosioca 4 125 kHz može biti korišćena od strane stanica na vazduhoplovima za komunikaciju sa stanicama pomorske mobilne službe u slučaju nesreće i bezbednosti, uključujući pretragu i spašavanje (vidi No. <b>30.11</b> ).
*4 177.5	NBDP-COM	
*4 207.5	DSC	
4 209.5	MSI	Frekvencija 4 209.5 kHz se isključivo koristi za NAVTEX-tip emisija (vidi Rezoluciju <b>339 (Rev.WRC-03)</b> ).
4 210	MSI-HF	
5 680	AERO-SAR	Vidi primedbu pod 3 023 kHz gore.
*6 215	RTP-COM	Vidi takođe 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	

TABELA 15-1 (kraj) (WRC-07)

Frekvencija (kHz)	Opis korišćenja	Primedbe
*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	

**Legenda:**

**AERO-SAR** Ova vazduhoplovna (referentna) frekvencija nosioca može da se koristi u slučaju nesreće i bezbednosti od strane mobilnih stanica angažovanih u koordiniranim operacijama pretrage i spasavanja.

**DSC** Te frekvencije se koriste isključivo za pozive u slučaju nesreće i bezbednosti korišćenjem digitalnog selektivnog pozivanja u skladu sa No. **32.5** (vidi Nos. **33.8** i **33.32**). (WRC-07)

**MSI** U pomorskoj mobilnoj službi, ove frekvencije se koriste isključivo za emisije pomorskih bezbednosnih informacija (MSI) (uključujući meteorološka i navigaciona upozorenja i hitne informacije) od obalskih stanica ka brodovima, putem uskopojasne mašinske telegrafije.

**MSI-HF** U pomorskoj mobilnoj službi, te frekvencije se isključivo koriste za emisije MSI na pučini od strane obalskih stanica ka brodovima, putem uskopojasne mašinske telegrafije.

**NBDP-COM** Te frekvencije se isključivo koriste za komunikacije za slučaj nesreće i bezbednosti (saobraćaj) putem uskopojasne mašinske telegrafije.

**RTP-COM** Te frekvencije nosioca koriste za komunikacije za slučaj nesreće i bezbednosti (saobraćaj) putem radio telefonije.

\* Izuzev kako je propisano ovom Regulativom, svaka emisija sposobna da izazove štetne smetnje komunikacijama za slučaj nesreće, alarma, vanredne situacije i bezbednosti na frekvencijama označenim zvezdicom (\*) je zabranjena. Svaka emisija koja izazive štetne smetnje komunikacijama za slučaj nesreće, i bezbednosti na bilo kojoj od diskretnih frekvencija naznačenih u ovom Dodatku je zabranjena. (WRC-07)

TABELA 15-2 (WRC-07)

**Frekvencije iznad 30 MHz (VHF/UHF)**

Frekvencija (MHz)	Opis korišćenja	Primedbe
*121.5	AERO-SAR	<p>Vazduhoplovna frekvencija za opasnost 121.5 MHz koristi se u slučaju nesreće i opasnosti za radiotelefoniju od strane stanica vazduhoplovne mobilne službe korišćenjem frekvencija u opsegu između 117.975 MHz i 137 MHz. Ta frekvencija može takođe biti korišćena za te svrhe od stanica u čamcima za spašavanje. Radio far za indicaciju pozicije u slučaju opasnosti koristi frekvenciju 121.5 MHz kako je naznačeno u Preporuci ITU-R M.690-1.</p> <p>Mobilne stanice pomorske mobilne službe mogu da komuniciraju sa stanicama vazduhoplovne mobilne službe na vazduhoplovnoj frekvenciji za opasnost 121.5 MHz samo u slučaju nesreće i vanredne situacije, i na vazduhoplovnoj pomoćnoj frekvenciji 123.1 MHz za koordinirane operacije traženja i spasavanja, koristeći emisije klase A3E za obe frekvencije (vidi takođe Nos. <b>5.111</b> i <b>5.200</b>). One tada treba da su u skladu sa svakim specijalnim aranžmanom između zainteresovanih vlada kod kojih je vazduhoplovna mobilna služba regulisana.</p>
123.1	AERO-SAR	<p>Vazduhoplovna pomoćna frekvencija 123.1 MHz, koja je pomoćna vazduhoplovnoj frekvenciji za opasnost 121.5 MHz, služi za korišćenje od strane stanica vazduhoplovne mobilne službe i od strane ostalih mobilnih i kopnenih stanica angažovanih u koordiniranim operacijama pretrage i spasavanja (vidi takođe No. <b>5.200</b>).</p> <p>Mobilne stanice pomorske mobilne službe mogu komunicirati sa stanicama vazduhoplovne mobilne službe na vazduhoplovnoj frekvenciji za opasnost 121.5 MHz samo u slučaju nesreće i vanredne situacije, i na vazduhoplovnoj pomoćnoj frekvenciji 123.1 MHz za koordinirane operacije pretrage i spasavanja, koristeći emisije klase A3E za obe frekvencije (vidi takođe Nos. <b>5.111</b> i <b>5.200</b>). One tada treba da su u skladu sa svakim specijalnim aranžmanom između zainteresovanih vlada kod kojih je vazduhoplovna mobilna služba regulisana.</p>
156.3	VHF-CH06	<p>Frekvencija 156.3 MHz može biti korišćena za komunikaciju između brodskih stanica i vazduhoplovnih stanica angažovanih u koordiniranim operacijama pretrage i spasavanja. Ona takođe može biti korišćena od stanica na vazduhoplovima da komuniciraju sa brodskim stanicama u ostale bezbednosne svrhe (vidi takođe Primedbu <i>f</i>) u Dodatku <b>18</b>).</p>
*156.525	VHF-CH70	<p>Frekvencija 156.525 MHz se koristi u pomorskoj mobilnoj službi za pozive u slučaju nesreće i bezbednosti korišćenjem digitalnog selektivnog pozivanja (vidi takođe Nos. <b>4.9</b>, <b>5.227</b>, <b>30.2</b> i <b>30.3</b>).</p>

TABELA 15-2 (kraj) (WRC-07)

Frekvencija(MHz)	Opis korišćenja	Primedbe
156.650	VHF-CH13	Frekvencija 156.650 MHz se koristi za komunikacije brod-brod u vezi bezbednosti plovidbe u skladu sa Primedbom k) u Dodatku 18.
*156.8	VHF-CH16	Frekvencija 156.8 MHz se koristi za komunikacije za slučaj nesreće i bezbednosti za radiotelefoniju. Dodatno, frekvencija 156.8 MHz može biti korišćena od strane stanica na vazduhoplovu samo u sigurnosne svrhe.
*161.975	AIS-SART VHF CH AIS 1	AIS 1 se koristi za AIS predajnike za pretragu i spašavanje (AIS-SART) za korišćenje u operacijama pretrage i spasavanja.
*162.025	AIS-SART VHF CH AIS 2	AIS 2 se koristi za AIS predajnike za pretragu i spašavanje (AIS-SART) za korišćenje u operacijama pretrage i spasavanja.
*406-406.1	406-EPIRB	Ovaj frekvencijski opseg se ekskluzivno koristi od strane satelitske indikacije pozicije u slučaju opasnosti sa radio farovima u smeru Zemlja-svemir (vidi No. 5.266).
1 530-1 544	SAT-COM	Dodatno na njegovu raspoloživost za rutinske svrhe nevezano za bezbednost, opseg 1 530-1 544 MHz se koristi u slučaju nesreće i bezbednosti u smeru svemir-Zemlja u pomorskoj mobilnoj satelitskoj službi. GMDSS komunikacije za slučaj nesreće, vanredne situacije i bezbednosti imaju prioritet u ovom opsegu (vidi No. 5.353A).
*1 544-1 545	D&S-OPS	Korišćenje opsega 1 544-1 545 MHz (svemir-Zemlja) ograničeno je na operacije u slučaju nesreće i bezbednosti (vidi No. 5.356), uključujući spojne veze satelita potrebne za prespajanje satelitskih emisija radio farova indikacije pozicije u slučaju opasnosti ka Zemljinim stanicama i uskopojasnih (svemir-Zemlja) vezama od svemirskih stanica ka mobilnim stanicama.
1 626.5-1 645.5	SAT-COM	Dodatno na njegovu raspoloživost za rutinske svrhe nevezano za bezbednost, opseg 1 626.5-1 645.5 MHz se koristi u slučaju nesreće i bezbednosti u smeru Zemlja-svemir u pomorskoj mobilnoj satelitskoj službi. GMDSS komunikacije za slučaj nesreće, vanredne situacije i bezbednosti imaju prioritet u ovom opsegu (vidi No. 5.353A).
*1 645.5-1 646.5	D&S-OPS	Korišćenje opsega 1 645.5-1 646.5 MHz (Zemlja-svemir) je ograničeno na operacije u slučaju nesreće i bezbednosti (vidi No. 5.375).
9 200-9 500	SARTS	Ovaj frekvencijski opseg koriste radarski transponderi za olakšavanje pretrage i spasavanja.

**Legenda:**

**AERO-SAR** Ova vazduhoplovna (referentna) frekvencija nosioca može da se koristi u slučaju nesreće i bezbednosti od strane mobilnih stanica angažovanih u koordiniranim operacijama pretrage i spasavanja.

**D&S-OPS** Korišćenje ovih opsega ograničeno je na operacije za slučaj nesreće i bezbednosti od strane satelitskih radio farova indikacije pozicije u slučaju opasnosti (EPIRBs).

**SAT-COM** Ova frekvencija je dostupna za slučaj nesreće i bezbednosti u pomorskoj mobilnoj satelitskoj službi (vidi Primedbe).

**VHF-CH#** Ove VHF frekvencije se koriste za slučaj nesreće i bezbednosti. Kanalni broj (CH#) se odnosi na VHF kanal kako je izlistano u Dodatku 18, što takođe treba da se dogovori.

**AIS** Ove frekvencije se koriste od strane automatskog identifikacionog sistema (AIS), koji bi trebao da radi u skladu sa najnovijom verzijom Preporuke ITU-R M.1371. (WRC-07)

\* Izuzev kako je propisano ovom Regulativom, svaka emisija sposobna da izazove štetne smetnje komunikacijama za slučaj nesreće, alarma, vanredne situacije i bezbednosti na frekvencijama označenim zvezdicom (\*) je zabranjena. Svaka emisija koja izaziva štetne smetnje komunikacijama za slučaj nesreće, i bezbednosti na bilo kojoj od diskretnih frekvencija naznačenih u ovom Dodatku je zabranjena. (WRC-07)

**MOD** COM4/332/177 (B14/365/40) (R7/411/210)

## DODATAK 16 (Rev.WRC-07)

(Vidi Članove 42 i 51)

### **Sekcija I – Brodske stanice za koje je potrebno da se instaliraju GMDSS po međunarodnom sporazumu**

Te stanice treba da imaju:

- 1 licencu propisanu Članom 18;
- 2 sertifikat jednog ili više operatora;
- 3 dnevnik u kojem se sledeće beleži kako se pojavljuje, zajedno sa vremenom nastanka, osim ako su administracije usvojile druge aranžmane za beleženje svih informacija koje dnevnik sadrži:
  - a) zbir komunikacija koje se odnose na saobraćaj u slučaju nesreće, vanredne situacije i bezbednosti;
  - b) reference na važne incidente u službi;
- 4 *Lista brodskih stanica i dodela identiteta pomorskoj mobilnoj službi* (vidi Član 20) u štampanom ili elektronskom formatu;
- 5 *Lista obalskih stanica i stanica specijalne službe* (vidi Član 20) u štampanom ili elektronskom formatu;
- 6 *Priručnik za korišćenje za pomorsku mobilnu i pomorsku mobilnu satelitsku službu* (vidi Član 20) u štampanom ili elektronskom formatu.

PRIMEDBA – Neka administracija može da izuzme brod od obaveze nošenja dokumenata spomenutih u stavkama 5 i 6 gore pod različitim okolnostima (na primer, kada taj brod nosi ekvivalentne informacije za navedeno područje trgovine za taj brod).

### **Sekcija II – Ostale brodske stanice za koje se zahteva radio instalacija po regionalnom ili međunarodnom sporazumu**

Te stanice treba da imaju:

- 1 licencu propisanu Članom 18;
- 2 sertifikat jednog ili više operatora;
- 3 dnevnik ili neki drugi aranžmani koje administracije mogu usvojiti za tu svrhu, u kojem zbir komunikacija koje se odnose na saobraćaj u slučaju nesreće i vanredne situacije treba da bude zabeležen zajedno sa vremenom nastanka;
- 4 *Lista brodskih stanica i dodela identiteta pomorskoj mobilnoj službi* (vidi Član 20) u štampanom ili elektronskom formatu;
- 5 relevantna pravila i procedure radiokomunikacija, na pr. *Priručnik za korišćenje za pomorsku mobilnu i pomorsku mobilnu satelitsku službu* (vidi Član 20) u štampanom ili elektronskom formatu.

PRIMEDBA – Neka administracija može izuzeti brod od obaveze nošenja dokumenata spomenutih u stavkama 4 i 5 gore pod raznim okolnostima (na primer, kada taj brod nosi ekvivalentne informacije za naznačeno trgovačko područje broda).

### **Sekcija III – Ostale brodske stanice**

Te stanice treba da imaju:

- 1 dokumente spomenute u stavkama 1 i 2 Sekcije II;
- 2 dokumenti spomenuti u stavkama 4 i 5 Sekcije II, u skladu sa zahtevima zainteresovanih administracija. PRIMEDBA – Neka administracija može izuzeti brod od obaveze nošenja dokumenata spomenutih u stavki 2 gore pod raznim okolnostima (na primer, kada taj brod nosi ekvivalentne informacije za naznačeno trgovačko područje broda. Administracije mogu takođe, po obostranom sporazumu, izuzeti brodove koji saobraćaju samo između njihovih nacionalnih područja jurisdikcije od licenciranja propisanog Članom 18 i nošenja dokumenata spomenutim u stavki 1 gore, obezbeđujući da ta plovila inače budu licencirana ili autorizovana regulativom.

### **Sekcija IV – Avionske stanice**

Te stanice treba da imaju:

- 1 dokumente spomenute u stavkama 1 i 2 Sekcije I;
- 2 dnevnik, osim ako su administracije usvojile druge aranžmane za beleženje svih informacija koje bi dnevnik trebao da sadrži;
- 3 one publikovane dokumente, u štampanom ili elektronskom formatu, koji sadrže službene informacije koje se odnose na stanice koje avionska stanica može da koristi za vršenje službe.

### **DODATAK 17 (Rev.WRC-07)**

#### **Frekvencije i kanalski aranžmani u visoko frekvencijskim opsezima za pomorsku mobilnu službu**

(Vidi Član 52)

**MOD** COM4/380/58 (B17/404/62)

**DEO A – Tabela podopsega** (WRC-07)

**SUP** COM4/380/59 (B17/404/63)

*h)*

**MOD** COM4/380/60 (B17/404/64)

- i)* Za korišćenje frekvencija nosioca 4 125 kHz, 6 215 kHz, 8 291 kHz, 12 290 kHz i 16 420 kHz u ovim podopsezima od strane brodskih i obalskih stanica za slučaj nesreće i bezbednosti, od strane radiotelefonijske sa jednim bočnim opsegom, vidi Član 31.

**DEO B – Kanalski aranžmani** (WRC-07)

**Sekcija I – Radiotelefonijska**

**MOD** COM4/380/61 (B17/404/65)

5A Za korišćenje frekvencija nosioca:

4 125 kHz (Kanal No. 421);

6 215 kHz (Kanal No. 606);

8 291 kHz (Kanal No. 833);

12 290 kHz (Kanal No. 1221);

16 420 kHz (Kanal No. 1621);

U Pod-Sekciji A, od strane obalskih i brodskih stanica u slučaju nesreće i bezbednosti, vidi Član 31. (WRC-07)

**MOD** COM4/380/62 (B17/404/66)

<sup>5</sup> Za uslove korišćenja frekvencije nosioca 6 215 kHz, vidi Dodatak 15.

**MOD** COM4/296/47 (B9/305/49) (R4/335/67)

**DODATAK 18 (Rev.WRC-07)**

**Tabela emitujućih frekvencija u VHF  
opsegu pomorske mobilne**

(Vidi Član 52)

PRIMEDBA A – Za pomoć u razumevanju Tabele, vidi Primedbe *a*) do *q*) niže. (WRC-07)

**ADD** COM4/296/48 (B9/305/50) (R4/335/68)

PRIMEDBA B – Tabela niže definiše numerisanje kanala za pomorske VHF komunikacije bazirano na 25 kHz razmaka kanala i korišćenje nekoliko dupleksnih kanala, ali takođe dozvoljava korišćenje 12.5 kHz razmaka kanala. Numerisanje kanala za 12.5 kHz kanale i konverzija dvofrekvencijskih kanala za jednofrekvencijsku operaciju treba biti u skladu sa Preporukom ITU-R M.1084-4 Aneks 4, Tabela 1 i 3. (WRC-07)

**MOD** COM4/296/49 (B9/305/51) (R4/335/69)

Označava č kanala	Primedbe	Emitujuće frekvencije (MHz)		Međubrod ske	Pristanišne operacije i kretanje brodova		Javna koresponde ncija
		Od broda	Od obalske stanice		Jednofrekv encijska	Dvofrekvenc ijska	
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	Digitalno selektivno pozivanje u slučaju nesreće, bezbednosti i pozivanja			
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		



Označava č kanala	Primedbe	Emitujuće frekvencije (MHz)		Medubrod ska	Pristanišne operacije i kretanje brodova		Javna koresponde ncija
		Od obalskih stanica	Od obalskih stanica		Jednofrekv encijska	Dvofrekvenc ijska	
16	<i>f)</i>	156.800	156.800	NESREĆA, BEZBEDNOST I POZIVANJE			
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				

### Primedbe koje se odnose na Tabelu

#### Generalne primedbe

**MOD** COM4/296/50 (B9/305/52) (R4/335/70)

- e) Administracije mogu primeniti 12.5 kHz kanalsko preklapanje na ne-interferencijskoj osnovi na 25 kHz kanale, u skladu sa najnovijom verzijom Preporuke ITU-R M.1084, omogućujući:
- da neće uticati na 25 kHz kanale frekvencija za slučaj nesreće i bezbednosti pomorske mobilne službe iz sadašnjeg Dodatka, naročito kanale 06, 13, 15, 16, 17, i 70, niti tehničke karakteristike utvrđene u Preporuci ITU-R M.489-2 za te kanale;
  - implementacija 12.5 kHz kanalskog preklapanja i sledstveno nacionalne potrebe treba da su predmet koordinacije sa zainteresovanom administracijom. (WRC-07)

**MOD** COM4/296/51 (B9/305/53) (R4/335/71)

#### Specifične primedbe

- f) Frekvencije 156.300 MHz (kanal 06), 156.525 MHz (kanal 70), 156.800 MHz (kanal 16), 161.975 MHz (AIS 1) i 162.025 MHz (AIS 2) mogu takođe da koriste avionske stanice za operacije pretrage i spasavanja i druge komunikacije u vezi sa bezbednošću. (WRC-07)

**MOD** COM4/296/52 (B9/305/54) (R4/335/72)

- l) Ovi kanali (AIS 1 i AIS 2) se koriste za automatski sistem identifikacije (AIS) sposoban da obezbedi globalni rad, osim ako su druge frekvencije namenjene na regionalnoj osnovi u tu svrhu. Takvo korišćenje trebalo bi da bude u skladu sa najnovijom verzijom Preporuke ITU-R M.1371. (WRC-07)
- m) Ovi kanali mogu da rade kao jednofrekvencijski kanali i predmet su koordinacije sa dotaknutom administracijom. (WRC-07)
- o) Ovi kanali mogu da se koriste da omoguće opsege za nove tehnologije, i predmet su koordinacije sa dotaknutom administracijom. Stanice koje koriste te kanale ili opsege za nove tehnologije ne smeju da uzrokuju štetne smetnje, niti da traže zaštitu zbog toga, drugim stanicama koje rade u skladu sa Članom 5. Projektovanje takvih sistema treba biti takvo da spreči mogućnost interferencije detektovanju AIS signala na 161.975 ili 162.025 MHz. (WRC-07)

**ADD** COM4/296/53 (B16/401/5)

- p) Dodatno, AIS 1 i AIS 2 može da koristi mobilna satelitska služba (Zemlja-svemir) za prijem AIS emisija sa brodova. (WRC-07)

**ADD** COM4/296/54 (B9/305/56) (R4/335/73)

- q) Kod korišćenja tih kanala (10 i 11), sve mere trebalo bi preduzeti da se izbegnu štetne smetnje kanalu 70. (WRC-07)

**SUP** COM4/211/9 (B3/224/24) (R2/266/15)

### DODATAK 19

## Tehničke karakteristike radio farova za određivanje pozicije u slučaju opasnosti koji rade na frekvenciji nosioca 2 182 kHz

DODATAK 30 (Rev.WRC-07)\*

**Odredbe za sve službe i pridružene Planove i Liste<sup>1</sup> za radiodifuznu satelitsku službu u frekvencijskim opsezima  
11.7-12.2 GHz (u Regionu 3), 11.7-12.5 GHz (u Regionu 1)  
i 12.2-12.7 GHz (u Regionu 2) (WRC-03)**

(Vidi Članove 9 i 11) (WRC-03)

## ČLAN 2A (Rev.WRC-07)

### Korišćenje zaštitnih opsega

**MOD** COM5/307/3 (B11/329/10) (R6/410/15)

2A.1 Korišćenje zaštitnih opsega definisanih u § 3.9 Aneksa 5 da se omoguće funkcije svemirskih operacija u skladu sa No. 1.23 za podršku radu geostacionarnih satelitskih mreža u radiodifuznoj satelitskoj službi (BSS) nije predmet primene Sekcije I Člana 9.

2A.1.1 Koordinacija između dodela namenjenih da omoguće funkcije svemirskih operacija i dodele BSS koje su predmet Plana treba da bude ostvarena korišćenjem odredbi Člana 7.

2A.1.2 Koordinacija između dodela namenjenih da omoguće funkcije svemirskih operacija i službi koje nisu predmet Plana treba da bude ostvarena korišćenjem odredbi Nos. 9.7, 9.17, 9.18 i pridruženih odredbi Sekcije II Člana 9, ili § 4.1.1 d) ili 4.2.3 d) Člana 4, po potrebi.

2A.1.3 Koordinacija modifikacija Plana Regiona 2 ili dodela za uključanje u Listu Regiona 1 i 3 sa dodelama namenjenih da omoguće te funkcije treba da se ostvari korišćenjem § 4.1.1 e) ili 4.2.3 e), po potrebi, Člana 4.

2A.1.4 Zahtevi za gorepomenutom koordinacijom treba da su poslati Birou od zahtevajuće administracije, zajedno sa odgovarajućim informacijama izlistanim u Dodatku 4.

2A.2 Bilo koja dodela namenjena da omogući te funkcije za podršku geostacionarnim satelitskim mrežama u BSS treba da ima obaveštenje po Članu 11 i stavljena na korišćenje unutar sledećih rokova:

2A.2.1 a) za slučaj gde su pridružene BSS dodele sadržane u jednom od početnih Planova (Planovi Regiona 2 uključeni u Pravilnik o radiokomunikacijama na WARC Orb-85 i Plan Regiona 1 i 3 usvojeno na WRC-2000), unutar regulatornih rokova napomenutih u § 4.1.3 ili § 4.2.6 Člana 4 od datuma kad je Biro primio kompletne podatke iz Dodatka 4 za one dodele namenjene da omoguće funkcije svemirskih operacija;

2A.2.2 b) za slučaj kada su pridružene BSS dodele podnesene pod § 4.1.3 ili § 4.2.6 Člana 4 za stavke u Listi Regiona 1 i 3 ili modifikacije Plana Regiona 2, unutar regulatornih okvira naznačenih u § 4.1.3 ili § 4.2.6 Člana 4 za one pridružene BSS dodelama;

2A.2.3 c) za slučaj kada su pridružene BSS dodele već stavljene na korišćenje u skladu sa Planom o radiokomunikacijama, unutar regulatornog roka naznačenog u § 4.1.3 i § 4.2.6 Člana 4 od datuma kad je Biro primio kompletne podatke iz Dodatka 4 za one dodele namenjene da omoguće funkcije svemirskih operacija.

2A.3 Sekcija II Člana 23 ne primenjuje se na dodele u zaštitnim opsezima namenjenim da omoguće gore pomenute funkcije.

## ČLAN 4 (Rev.WRC-03)

### Procedure za modifikaciju Plana Regiona 2 ili za dodatna korišćenja u Regionima 1 i 3<sup>3</sup>

**MOD** COM5/307/4 (B11/329/11) (R6/410/16)

4.1.3 Administracija, ili jedna koja radi u ime grupe imenovanih administracija, koja namerava da uključi novu ili modifikovanu dodelu u Listu treba da pošalje Birou, ne ranije od osam godina ali poželjno ne kasnije od dve godine pre datuma kad dodela treba da se stavi na korišćenje, relevantne informacije izlistane u Dodatku 4. Dodela u Listi treba da istekne ako nije stavljeno na

korišćenje unutar osam godina nakon datuma kada je Biro primio relevantne kompletne informacije<sup>5</sup>. Predložena nova ili modifikovana dodela koja nije uključena u listu unutar osam godina nakon datuma kada je Biro primio relevantne kompletne informacije treba takođe da istekne<sup>5</sup>. (WRC-07)

**MOD** COM5/307/5 (B11/329/12) (R6/410/17)

4.1.5 Biro treba da odredi, na bazi Aneksa 1, administraciju za čije frekvencijske dodele se smatra da su dotaknute. Biro treba da publikuje<sup>7</sup>, u specijalnoj sekciji BR IFIC, kompletne informacije primljene pod § 4.1.3, zajedno sa imenima dotaknutih administracija, odgovarajuće mreže fiksne satelitske službe, odgovarajuće dodele radiodifuzne satelitske službe i zemaljske stanice, po potrebi. Biro treba odmah da pošalje telegram/faks administraciji koja je predložila dodelu, skrećući njenu pažnju na informacije sadržane u relevantnom BR IFIC. (WRC-07)

#### 4.1.5

**MOD** COM5/308/5 (B10/326/5) (R6/410/18)

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<sup>7</sup> Ako uplata nije primljena u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o toj meri i da dotična mreža navedena u publikaciji ne treba više da bude uzimana u razmatranje od strane Biroa i drugih administracija. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore pomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

**MOD** COM5/307/6 (B11/329/13) (R6/410/19)

4.1.6 Biro treba da pošalje telegram/faks administracijama izlistanim u Specijalnoj sekciji BR IFIC, skrećući njihovu pažnju na sadržane informacije. (WRC-07)

**MOD** COM5/379/5 (B16/401/6)

4.1.11 Ako, u traženju pristanka, neka administracija modifikuje svoj početni predlog, ona mora ponovo da primeni odredbe iz § 4.1 i naredne procedure u slučajevima kada:

- dodele bilo koje druge administracije primljene u Birou u skladu sa § 4.1.3 ili § 4.2.6, ili § 7.1 Člana 7, ili No. 9.7 pre nego što je taj modifikovani predlog primljen pod § 4.1.12;
- dodele bilo koje administracije sadržane u Planovima ili Listama; *ili*
- zemaljske službe bilo koje druge administracije,

smatraju se dotaknute i primaju više interferencije kao rezultat modifikacija od onih proizvedenih početnim predlogom. (WRC-07)

#### 4.1.1.5

**MOD** COM5/308/6 (B10/326/6) (R6/410/20)

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<sup>8</sup> Ako uplata nije primljena u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o toj meri i da dotična mreža navedena u publikaciji ne treba više da bude uzimana u razmatranje od strane Biroa i drugih administracija. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore pomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

**MOD** COM5/307/7 (B11/329/14) (R6/410/21)

4.2.6 Administracija, ili jedna<sup>13</sup> koja radi u ime grupe imenovanih administracija, koja namerava da uradi modifikacije na Plan Regiona 2 treba da pošalje Birou, ne ranije od osam godina ali poželjno ne kasnije od dve godine pre datuma kad dodela treba da se stavi na korišćenje, relevantne informacije izlistane u Dodatku 4. Modifikacije na taj Plan treba da istekne ako nije stavljeno na korišćenje unutar osam godina nakon datuma kada je Biro primio relevantne kompletne informacije<sup>14</sup>. Zahtev za modifikaciju koji nije uključen u listu unutar osam godina nakon datuma kada je Biro primio relevantne kompletne informacije treba takođe da istekne<sup>14</sup>. (WRC-07)

**MOD** COM5/307/8 (B11/329/15) (R6/410/22)

4.2.8 Biro treba da odredi, na bazi Aneksa 1, administraciju za čije frekvencijske dodele se smatra da su dotaknute, u okviru značenja § 4.2.3. Biro treba publikovati<sup>16</sup>, u specijalnoj sekciji BR IFIC, kompletne informacije primljene pod § 4.2.6, zajedno sa imenima dotaknutih administracija, odgovarajuće mreže fiksne satelitske službe, odgovarajuće dodele radiodifuzne satelitske službe i zemaljske stanice, po potrebi. Biro treba odmah poslati telegram/faks administraciji koja je predložila dodelu, skrećući njenu pažnju na informacije sadržane u relevantnom BR IFIC. (WRC-07)

#### 4.2.8

**MOD** COM5/308/7 (B10/326/7) (R6/410/23)

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<sup>16</sup> Ako uplata nije primljena u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o toj meri i da dotična mreža navedena u publikaciji ne treba više da bude uzimana u razmatranje od strane Biroa i drugih administracija. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore pomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

**MOD** COM5/307/9 (B11/329/16) (R6/410/24)

4.2.9 Biro treba da pošalje telegram/faks administracijama izlistanim u Specijalnoj sekciji BR IFIC, skrećući njihovu pažnju na sadržane informacije. (WRC-07)

**MOD** COM5/307/10 (B11/329/17) (R6/410/25)

4.2.10 Administracija koja smatra da je trebala biti uključena u publikaciju naznačenu pod § 4.2.8 gore treba, unutar četiri meseca od datuma publikacije u relevantnom BR IFIC, i dajući tehničke razloge za taj postupak, zatražiti da Biro uključi njeno ime u publikaciju. Biro treba da prouči tu informaciju na bazi Aneksa 1 i treba da informiše obe Administracije o svojim zaključcima. Ako bi Biro pristao da reaguje na zahtev administracije, on treba da publikuje jedan dodatak na publikaciju pod § 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> Ako uplata nije primljena u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o toj meri i da dotična mreža navedena u publikaciji ne treba više da bude uzimana u razmatranje od

strane Biroa i drugih administracija. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore pomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

**MOD** COM5/308/9 (B10/326/9) (R6/410/27)

#### ČLAN 5 (WRC-03)

### **Obaveštenje, ispitivanje i upisivanje u Glavni Međunarodni Frkvencijski Registar frekvencijskih dodela svemirskim stanicama u radiodifuznoj satelitskoj službi**<sup>ADD 17A</sup> (WRC-07)

**ADD** COM5/308/10 (B10/326/10) (R6/410/28)

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<sup>17A</sup> Ako uplata nije primljena u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju specificiranu u § 5.1.6 i odgovarajuće stavke u Glavni Registar pod § 5.2.2, 5.2.2.1, 5.2.2.2 ili 5.2.6, po mogućnosti, i odgovarajuće stavke uključene u Plan na i nakon 3.6.2000. ili u Listi, po mogućnosti, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o takvoj akciji. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore pomenutom Odlukom Saveta 482 osim ako je uplata već primljena. Vidi takođe rezoluciju **905 (WRC-07)**. (WRC-07)

**MOD** COM5/307/11 (B11/329/18) (R6/410/29)

5.2.2 Kad je Biro došao do povoljnog nalaza poštujući § 5.2.1 *a*), 5.2.1 *b*) i 5.2.1 *c*), frekvencijska dodela neke administracije treba biti upisana u Glavni registar. Datum kada je Biro primio obavest treba biti upisan u Glavni Registar. U odnosima između administracija, sve frekvencijske dodele stavljene na korišćenje u skladu sa odgovarajućim Regionalnim Planom i upisane u Glavni registar treba smatrati da imaju jednak status nezavisno o datumu prijema upisanom u Glavni registar za tu frekvencijsku dodelu. (WRC-07)

**MOD** COM5/307/12 (B11/329/19) (R6/410/30)

5.2.2.1 Kad je Biro došao do povoljnog nalaza poštujući § 5.2.1 *a*), 5.2.1 *c*) i 5.2.1 *d*), frekvencijska dodela neke administracije treba biti upisana u Glavni registar. Datum kada je Biro primio obavest treba biti upisan u Glavni Registar. U odnosima između administracija, sve frekvencijske dodele stavljene na korišćenje u skladu sa odgovarajućim Regionalnim Planom i upisane u Glavni registar treba smatrati da imaju jednak status nezavisno o datumu prijema upisanom u Glavni registar za tu frekvencijsku dodelu. Kad se upisuju te dodele, Biro treba da naznači pomoću odgovarajućeg simbola karakteristike koje imaju vrednost drugačiju od one koja se pojavljuje u odgovarajućem regionalnom Planu. (WRC-07)

**MOD** COM5/307/13 (B11/329/20) (R6/410/31)

5.2.2.2 U slučaju Regiona 2, gde je Biro došao do povoljnog nalaza poštujući § 5.2.1 *a*) i 5.2.1 *c*), ali jedan nepovoljan nalaz poštujući § 5.2.1 *b*) and 5.2.1 *d*), treba ispitati obavest u odnosu na uspešnu primenu odredbi Rezolucije **42 (Rev.WRC-03)**. Frekvencijska dodela za koju su odredbe Rezolucije **42 (Rev.WRC-03)** bile uspešno primenjene treba biti upisana u Glavni registar sa odgovarajućim simbolom za indikaciju njenog privremenog statusa. Datum primanja obavesti od strane Biroa treba biti unesen u Glavni registar. U odnosima između administracija sve frekvencijske dodele stavljene na korišćenje nakon uspešne primene odredaba Rezolucije **42 (Rev.WRC-03)** i upisane u Glavni registar treba da se smatraju da imaju isti status nezavisno o datumu prijema upisanom u Glavni Registar za te frekvencijske dodele. (WRC-07)

**MOD** COM5/307/14 (B11/329/21) (R6/410/32)

5.2.3 Kad god se frekvencijska dodela upiše u Glavni registar, nalaz do kojeg je došao Biro treba da se naznači. (WRC-07)

**MOD** COM5/307/15 (B11/329/22) (R6/410/33)

5.2.9 Datum stavljanja na korišćenje o kojem je obavestila zainteresovana administracija treba biti upisan u Glavni registar. (WRC-07)

**MOD** COM5/307/16 (B11/329/23) (R6/410/34)

5.3.1 Svaka frekvencijska dodela za koju je izdato obaveštenje na koju su primenjene procedure iz Člana 4 i koja je privremeno zapisana pod § 5.2.7 treba biti stavljena na korišćenje ne kasnije od kraja perioda datog pod § 4.1.3 ili 4.2.6 Člana 4. Bilo koja druga frekvencijska dodela privremeno upisana pod § 5.2.7 treba biti stavljena na korišćenje do datuma naznačenih u obavesti. Osim ako je Biro informisan od obaveštavajuće administracije o stavljanju na korišćenje dodele pod § 5.2.8, on treba, ne kasnije od petnaest dana pre datuma za puštanje u rad u obaveštenju ili kraja regulatornog perioda ustanovljenog pod § 4.1.3 ili 4.2.6 Člana 4, po potrebi, poslati podsetnik zahtevajući potvrdu da je dodela stavljena na korišćenje unutar regulatornog perioda. Ako Biro ne primi tu potvrdu u roku trideset dana nakon datuma obaveštavanja o stavljanju na korišćenje ili perioda datog pod § 4.1.3 ili 4.2.6 Člana 4, kao što može biti, on treba da poništi stavku u Glavnom registru. (WRC-07)

## ČLAN 10

### **Plan za radiodifuznu satelitsku službu u frekvencijskom opsegu 12.2-12.7 GHz u Regionu 2**

**MOD** COM5/216/10 (B3/224/25) (R2/266/16)

*(Primedba za Tabelu 3)*

Primedba – Administracije izlistane u tabeli 3 identifikovane su na bazi kriterijumuma usvojenih na Regionalnoj Administrativnoj Konferenciji za Planiranje Radiodifuzne satelitske službe u Regionu 2 (Geneva, 1983) (RARC Sat-R2), kako je prikazano u Tabeli 2. WRC-2000 i WRC-03 revidirale su kriterijume primenjive za određivanje dotaknutih administracija. Zbog toga, Biro, kad primi obaveštenje za dodelu u Planu Regiona 2, treba da odluči koje zemlje su dotaknute na bazi revidiranih kriterijuma usvojenih na WRC-03, što može da dovede do različitog skupa dotaknutih administracija od onog trenutno sadržanih u Tabeli 3. (WRC-07)

## ČLAN 11 (Rev.WRC-03)

### **Plan za radiodifuznu satelitsku službu u frekvencijskim opsezima 11.7-12.2 GHz u Regionu 3 i 11.7-12.5 GHz u Regionu 1**

11.2 TEKST ZA PRIMEDBE U KOLONI ZA NAPOMENE PLANA (WRC-03)



SUP COM5/328/1 (B12/346/1) (R6/410/35)

TABELA 2

ADD COM5/328/5 (B12/346/2) (R6/410/36)

TABELA 2 (WRC-07)

**Dotaknute administracije i odgovarajuće mreže/snopovi identifikovani na osnovu Primedbe 5 u § 11.2 Člana 11**

Ime snopa	Kanali	Ref. Tabela 1	Dotaknute administracije *	Dotaknute mreže /snopovi/zemaljske stanice *
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

Ime snopa	Kanali	Ref. Tabela 1	Dotaknute administracije *	Dotaknute mreže /snopovi/zemaljske stanice *
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

Ime snopa	Kanali	Ref. Tabela 1	Dotaknute administracije *	Dotaknute mreže /snopovi/zemaljske stanice *
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

\* Administracije i odgovarajuće mreže/snopovi/zemaljske stanice čije dodele mogu primiti interferenciju od snopa prikazanog u levoj koloni.

SUP COM5/328/2 (B12/346/3) (R6/410/37)

TABELA 3

ADD COM5/328/6 (B12/346/4) (R6/410/38)

TABELA 3 (WRC-07)

**Dotaknute administracije i odgovarajuće mreže/snopovi identifikovani na osnovu Primedbi 6 i 7 u § 11.2 Člana 11**

Ime snopa	Kanali	Prime dbe	Dotaknute administracije *	Dotaknute mreže /snopovi*
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

Ime snopa	Kanali	Prime dbe	Dotaknute administracije *	Dotaknute mreže /snopovi*
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

Ime snopa	Kanali	Prime dbe	Dotaknute administracije *	Dotaknute mreže /snopovi*
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

\* Administracije i odgovarajuće mreže/snopovi čije dodele mogu uzrokovati interferenciju snopu prikazanom u levoj koloni.

SUP COM5/328/3 (B12/346/5) (R6/410/39)

TABELA 4

ADD COM5/328/7 (B12/346/6) (R6/410/40)

TABELA 4 (WRC-07)

**Dotaknute administracije i odgovarajuće zemaljske stanice identifikovani na osnovu Primedbe 8 u § 11.2 Člana 11**

Ime snopa	Kanali	Dotaknute administracije *	Dotaknute zemaljske stanice *
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>	

\* Administracije i odgovarajuće zemaljske stanice čije dodele mogu uzrokovati interferenciju snopu prikazanom u levoj koloni.

<sup>1</sup> Identifikacija ovih administracija bazirana je na tipičnoj dodeli zemaljske stanice kako je upisano u Glavnom registru.

SUP COM5/328/4 (B12/346/7) (R6/410/41)

TABELA 6A

ADD COM5/328/8 (B12/346/8) (R6/410/42)

TABELA 6A (WRC-07)

**Osnovne karakteristike Plana za Regione 1 i 3 (sortirano po administracijama)**

1 Admin. simbol	2 Identifikacija snopa	3 Orbitalna pozicija	4 Vidokrug		5 Karakteristike antene svemirske stanice			6 Kod antene svemirske stanice	7 Oblikovani snop	8 Pojačanje antene svemirske stanice		9 Antena zemaljske stanice		10 Polarizacija		11 e.i.r.p.	12 Označavanje emisije	13 Identitet svemirske stanice	14 Grupni kod	15 Status	16 Primedbe
			Duž.	Šir.	Glavna osa	Mala osa	Usmerenje			Kopolarna	Kros-polarna	Kod	Pojačanje	Tip	Ugao						
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											
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice							Antena zemaljske stanice		Polarizacija		e.i.r.p.	Označavanje emisije	Identitet svemirske stanice	Grupni kod	Status	Primedbe	
						Duž.	Šir.			Glavna osa	Mala osa	Usmerenje			Ko-polarna							Kros-polarna	Kod	Pojačanje	Tip							Ugao
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											
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice							Antena zemaljske stanice		Polarizacija		e.i.r.p.	Označavanje emisije	Identitet svemirske stanice	Grupni kod	Status	Primedbe	
						Duž.	Šir.			Glavna osa	Mala osa	Usmerenje			Ko-polarna							Kros-polarna	Kod	Pojačanje	Tip							Ugao
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		01	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		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											
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
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice						
Duž.	Šir.	Glavna osa				Mala osa	Usmerenje	Kopolarna	Kros-polarna	Kod	Pojačanje	Tip			Ugao						
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
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice						
Duž.	Šir.	Glavna osa				Mala osa	Usmerenje	Ko-polarna	Kros-polarna	Kod	Pojačanje	Tip			Ugao						
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_MAU		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
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug	Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Ko-polarna	Kros-polarna	Antena zemaljske stanice							
			Duž.	Šir.	Glavna osa	Mala osa	Usmerenje					Kod	Pojačanje	Tip	Ugao						
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								
			Vidokrug		Karakteristike antene svemirske stanice					Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice		Antena zemaljske stanice								Polarizacija		e.i.r.p.	Označavanje emisije	Identitet svemirske stanice	Grupni kod	Status	Primedbe
			Duž.	Šir.	Glavna osa	Mala osa	Usmerenje					Kopolarna	Kros-polarna	Kod	Pojačanje							Tip	Ugao						
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
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice						
Duž.	Šir.	Glavna osa				Mala osa	Usmerenje	Ko-polarna	Kros-polarna	Kod	Pojačanje	Tip			Ugao						
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

ANEKS 1 (Rev.WRC-03)

**Ograničenja za određivanje da li je služba neke administracije dotaknuta predloženom modifikacijom Plana Regiona 2 ili predloženom novom ili modifikovanom dodelom u Listi Regiona 1 i 3 ili kad je neophodno pod ovim Dodatkom za traženje pristanka od bilo koje druge administracije<sup>25</sup>**

MOD COM5/216/13 (B3/224/28) (R2/266/17)

**7 Ograničenja za izmenu ekvivalentne temperature šuma za zaštitu fiksne satelitske službe (Zemlja-svemir) u Regionu 1 od modifikacija Plana Regiona 2 u opsegu 12.5-12.7 GHz**

Poštujući § 4.2.3 *e*) Člana 4, smatra se da je neka administracija dotaknuta ako predložena modifikacija Plana Regiona 2 može da rezultuje u:

- vrednosti  $\Delta T/T$  njenih preklapajućih frekvencijskih dodela u fiksnoj satelitskoj službi u Regionu 1 koja rezultuje od predloženih modifikacija bude veća od vrednosti  $\Delta T/T$  koja rezultuje od dodele u Planu Regiona 2 od datuma stupanja na snagu Finalnih akata Konferencije 1985; *i*
- vrednosti  $\Delta T/T$  njenih preklapajućih frekvencijskih dodela u fiksnoj satelitskoj službi u Regionu 1 koja rezultuje od predloženih modifikacija prelazi 6%,

koristeći metodu iz dodatka 8 (Slučaj II). (WRC-07)

ANEKS 4 (Rev.WRC-03)

**Potreba za koordinacijom emitujuće svemirske stanice u fiksnoj satelitskoj službi ili u radiodifuznoj satelitskoj službi kada ta služba nije predmet Plana: U Regionu 2 (11.7-12.2 GHz) poštujući Plan, Lista ili predložene nove ili modifikovane dodele u Listi Regiona 1 i 3; u Regionu 1 (12.5-12.7 GHz) i u Regionu 3 (12.2-12.7 GHz) u odnosu na Plan ili predložene modifikacije Plana u Regionu 2; u Regionu 3 (12.2-12.5 GHz) poštujući Plan, Lista ili predložene nove ili modifikovane dodele u Listi za Region 1**

(Vidi Član 7)

MOD COM5/216/14 (B3/224/29) (R2/266/18)

Poštujući § 7.1 i 7.2 Člana 7, koordinacija emitujuće svemirske stanice u fiksnoj satelitskoj službi (FSS) (svemir-Zemlja) Regiona 2 ili Regiona 3 je potrebna kada, pod uslovima prostiranja u slobodnom prostoru, snaga gustine fluksa na bilo kojem delu servisnog područja preklapajućih frekvencijskih dodela u BSS neke administracije u Regionu 1 ili Regionu 3 prelazi sledeće vrednosti: (WRC-07)

## ANEKS 5

### **Tehnički podaci korišćeni u određivanju odredbi i pridruženih Planova i Lista Regiona 1 i 3, koje bi trebalo koristiti za njihove primene<sup>34</sup> (Rev.WRC-03)**

**MOD** COM5/216/15 (B3/224/30) (R2/266/19)

#### **3.7.1**

...

U revidiranju ovog Plana na WRC-97, minimalni dijametar prijemne antene bio je takav da je širina snopa na polovini snage bila 2.86°. (WRC-07)

...

**MOD** COM5/216/16 (B3/224/31) (R2/266/20)

*(Slika 7bis - Kros-polarni dijagram zračenja)*

#### **3.7.2**

...

$G_{cross}(\varphi) = G_{max} - 17 + C$  **Error!** for  $\varphi_0 \leq \varphi < \varphi_1$  (WRC-07)

...



DODATAK 30A (Rev.WRC-07)\*

**Odredbe i pridruženi Planovi i Liste<sup>1</sup> za spojne veze za radiodifuznu satelitsku službu (11.7-12.5 GHz u Regionu 1, 12.2-12.7 GHz u Regionu 2 i 11.7-12.2 GHz u Regionu 3) u frekvencijskim opsezima 14.5-14.8 GHz<sup>2</sup> i 17.3-18.1 GHz u Regionima 1 i 3, i 17.3-17.8 GHz u Regionu 2** (WRC-03)

(Vidi Članove **9** i **11**) (WRC-03)

**ČLAN 2A** (Rev.WRC-07)

**Korišćenje zaštitnih opsega**

**MOD** COM5/307/17 (B11/329/24) (R6/410/43)

2A.1 Korišćenje zaštitnih opsega definisano u § 3.1 i 4.1 Aneksa 3 za omogućavanje funkcija svemirskih operacija u skladu sa No. **1.23** za podršku radu geostacionarnih satelitskih mreža za spojnu vezu radiodifuzne satelitske službe (BSS) nije predmet primene Sekcije I Člana **9**.

2A.1.1 Koordinacija između dodela namenjenih za omogućavanje funkcija svemirskih operacija i dodele spojne veze za BSS koje podležu Planu treba da bude ostvareno korišćenjem odredbi Člana 7.

2A.1.2 Koordinacija između dodela namenjenih za omogućavanje funkcija svemirskih operacija i servisa koje ne podležu Planu treba biti ostvarena korišćenjem odredbi iz Nos. **9.7, 9.17, 9.17A, 9.18**, i pridruženih odredbi Sekcije II Člana **9**, po potrebi.

2A.1.3 Koordinacija modifikacija Plana za spojne veze u Regionu 2 ili dodela za uključenje u Listu spojnih veza u Regionima 1 i 3, sa dodelama namenjenih da omoguće te funkcije treba biti ostvarena korišćenjem § 4.1.1 *d*) Člana 4.

2A.1.4 Zahtevi za gore pomenutu koordinaciju trebaju biti poslani Birou od zahtevajuće administracije, zajedno sa odgovarajućim informacijama izlistanim u Dodatku **4**.

2A.2 Bilo koja dodela namenjena da omogući te funkcije za podršku geostacionarno satelitskoj mreži za BSS spojne veze treba da ima obaveštenje pod Članom **11** i stavljanje na korišćenje unutar sledećih rokova:

2A.2.1 *a)* za slučaj kada su pridružene dodele BSS spojnih veza sadržane u jednom od početnih Planova (Planovi Regiona 2 uključeni u Pravilnik o radiokomunikacijama na WARC Orb-85 i Plan Regiona 1 i 3 usvojen na WRC-2000), unutar regulatornog roka naznačenog u § 4.1.3 ili 4.2.6 Člana 4 od datuma kad je Biro primio kompletne podatke iz Dodatka **4** za one dodele koje su namenjene da omoguće funkcije svemirskih operacija;

2A.2.2 *b)* za slučaj gde pridružene dodele BSS spojne veze jesu podnesene pod § 4.1.3 ili § 4.2.6 Člana 4 za stavku u Listi Regiona 1 i 3 ili modifikaciju Plana Regiona 2, unutar regulatornog roka naznačenog u § 4.1.3 ili § 4.2.6 Člana 4 za one pridružene dodele BSS spojnih veza;

2A.2.3 *c)* za slučaj kada su dodele pridruženih BSS spojnih veza već stavljene na korišćenje u skladu sa Pravilnikom o radiokomunikacijama, unutar regulatornog roka naznačenog u § 4.1.3 i § 4.2.6 Člana 4 od datuma kad je Biro primio kompletne podatke iz Dodatka **4** za one dodele namenjene za omogućavanje tih funkcija svemirskih operacija.

ČLAN 4 (Rev.WRC-03)

**Procedure za modifikaciju Plana spojnih veza u Regionu 2  
ili za dodatna korišćenja u Regionima 1 i 3**

**MOD** COM5/307/18 (B11/329/25) (R6/410/44)

4.1.3 Administracija, ili jedna koja radi u ime grupe imenovanih administracija, koja namerava da uključi novu ili modifikovanu dodelu u Listu spojnih veza treba da pošalje Birou, ne ranije od osam godina ali poželjno ne kasnije od dve godine pre datuma za koji dodela treba da se stavi na korišćenje, relevantne informacije izlistane u Dodatku 4. Dodela u Listi spojnih veza treba da istekne ako nije stavljena na korišćenje unutar osam godina nakon datuma kada je Biro primio relevantne kompletne informacije. Predložena nova ili modifikovana dodela koja nije uključena u Listu unutar osam godina nakon što je Biro primio relevantne kompletne informacije<sup>7</sup> treba takođe da istekne. (WRC-07)

**MOD** COM5/307/19 (B11/329/26) (R6/410/45)

4.1.5 Biro treba da odredi, na osnovu Aneksa 1, administracije čije frekvencijske dodele se smatra da su dotaknute. Biro treba da publikuje<sup>9</sup>, u Specijalnoj sekciji od BRIFIC, kompletne informacije primljene pod § 4.1.3, zajedno sa imenima dotaknutih administracija, odgovarajuće mreže fiksne satelitske službe, i odgovarajuće dodele spojnih veza radiodifuzne satelitske službe, po potrebi. Biro treba odmah da pošalje telegram/faks administraciji koja je predložila dodelu, skrećući njenu pažnju na informacije sadržane u relevantnom BR IFIC. (WRC-07)

**4.1.5**

**MOD** COM5/308/11 (B10/326/11) (R6/410/46)

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<sup>9</sup> Ako uplata nije primljena u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o takvoj akciji i da dotična mreža naznačena u publikaciji neće više biti uzimana u razmatranje od Biroa i drugih administracija. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore pomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

**MOD** COM5/307/20 (B11/329/27) (R6/410/47)

4.1.6 Biro treba da pošalje telegram /faks administracijama izlistanim u specijalnoj sekciji BR IFIC, skrećući njihovu pažnju na sadržane informacije. (WRC-07)

**MOD** COM5/379/6 (B16/401/7)

4.1.11 Ako, u traženju pristanka, neka administracija modifikuje svoj početni predlog, ona treba ponovo da primeni odredbe od § 4.1 i sledeće procedure u slučajevima kada:

- dodele bilo koje administracije primljene u Birou u skladu sa § 4.1.3 ili § 4.2.6, ili § 7.1 Člana 7, ili No. 9.7 pre primanja tog modifikovanog predloga pod § 4.1.12; ili
- dodela bilo koje druge administracije sadržane u Planovima ili Listama ili,

smatra se da su dotaknute i da primaju više interferencije kao rezultat modifikacija, nego kad su proizvedene po početnom predlogu. (WRC-07)

#### 4.1.15

**MOD** COM5/308/12 (B10/326/12) (R6/410/48)

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<sup>10</sup> Ako uplata nije primljena u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o takvoj akciji i da dotična mreža naznačena u publikaciji neće više biti uzimana u razmatranje od Biroa i drugih administracija. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore pomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

**MOD** COM5/307/21 (B11/329/28) (R6/410/49)

4.2.6 Administracija, ili jedna<sup>16</sup> koja radi u ime grupe imenovanih administracija, koja namerava da uradi modifikaciju u Planu spojnih veza za Region 2 treba da pošalje Birou, ne ranije od osam godina ali poželjno ne kasnije od dve godine pre datuma za koji dodela treba da se stavi na korišćenje, relevantne informacije izlistane u Dodatku 4. Modifikacija toga Plana treba da istekne ako dodela nije stavljena na korišćenje unutar osam godina nakon datuma kada je Biro primio relevantne kompletne informacije<sup>17</sup>. Zahtev za modifikaciju koji nije uključen u taj Plan unutar osam godina nakon što je Biro primio relevantne kompletne informacije<sup>17</sup> treba takođe da istekne. (WRC-07)

**MOD** COM5/307/22 (B11/329/29) (R6/410/50)

4.2.8 Biro treba da odredi, na osnovu Aneksa 1, administracije čije frekvencijske dodele se smatra da su dotaknute u smislu § 4.2.2. Biro treba da publikuje<sup>19</sup>, u Specijalnoj sekciji od BRIFIC, kompletne informacije primljene pod § 4.2.6, zajedno sa imenima dotaknutih administracija, odgovarajuće mreže fiksne satelitske službe, i odgovarajuće dodele spojnih veza radiodifuzne satelitske službe, po potrebi. Biro treba odmah da pošalje telegram/faks administraciji koja je predložila dodelu, skrećući njenu pažnju na informacije sadržane u relevantnom BR IFIC. (WRC-07)

#### 4.2.8

**MOD** COM5/308/13 (B10/326/13) (R6/410/51)

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<sup>19</sup> Ako uplata nije primljena u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o takvoj akciji i da dotična mreža naznačena u publikaciji neće više biti uzimana u razmatranje od Biroa i drugih administracija. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore pomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

**MOD** COM5/307/23 (B11/329/30) (R6/410/52)

4.2.9 Biro treba da pošalje telegram /faks administracijama izlistanim u Specijalnoj sekciji BR IFIC, skrećući njihovu pažnju na sadržane informacije. (WRC-07)

**MOD** COM5/307/24 (B11/329/31) (R6/410/53)

4.2.10 Administracija koja smatra da je trebala biti uključena u publikaciju naznačenu pod § 4.2.8 gore treba, unutar četiri meseca od datuma publikacije u relevantnom BR IFIC, i dajući tehničke razloge za taj postupak, zatražiti da Biro uključi njeno ime u publikaciju. Biro treba da prouči tu informaciju na bazi Aneksa 1 i treba da informiše obe Administracije o svojim

zaključcima. Ako bi Biro pristao da reaguje na zahtev administracije, on treba da publikuje jedan dodatak na publikaciju pod § 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> Ako uplata nije primljena u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji popune za pokrivanje troškova za satelitske mreže, Biro treba da poništi publikaciju, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o takvoj akciji i da dotična mreža naznačena u publikaciji neće više biti uzimana u razmatranje od Biroa i drugih administracija. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore pomenutom Odlukom Saveta 482 osim ako je uplata već primljena. (WRC-07)

**MOD** COM5/308/15 (B10/326/15) (R6/410/55)

### ČLAN 5 (Rev.WRC-03)

#### **Koordinacija, obaveštenje, ispitivanje i upisivanje u MIFR frekvencijskih dodela za spojne veze predajnih zemaljskih stanica i prijemnih svemirskih stanica u fiksnoj satelitskoj službi**<sup>21, ADD 21A</sup> (WRC-07)

**ADD** COM5/308/16 (B10/326/16) (R6/410/56)

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<sup>21A</sup> Ako uplate nisu primljene u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji pokrivanja točkova za popune satelitske mreže, Biro treba da poništi publikaciju specificiranu u § 5.1.10 i odgovarajuće stavke u Glavnom registru pod § 5.2.2, 5.2.2.1 ili 5.2.2.2, po potrebi, i odgovarajuće stavke uključene u Plan na i nakon 3.6.2000. ili u Listi, po potrebi, nakon informisanja zainteresovanih administracija. Biro treba da informiše sve administracije o takvoj meri. Biro treba da pošalje podsetnik obaveštavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore spomenutom Odlukom Saveta 482 osim ako plaćanje nije već primljeno. Vidi takođe Rezoluciju **905 (WRC-07)**. (WRC-07)

**MOD** COM5/307/25 (B11/329/32) (R6/410/57)

5.2.2 Kad je Biro došao do povoljnog nalaza poštujući § 5.2.1 a), 5.2.1 b), 5.2.1 c) i 5.2.1 f) frekvencijska dodela neke administracije treba biti upisana u Glavni registar. Datum kada je Biro primio obavest treba biti upisan u Glavni Registar. U odnosima između administracija, sve frekvencijske dodele stavljenе na korišćenje u skladu sa Planom spojnih veza i upisane u Glavni registar treba smatrati da imaju jednak status nezavisno o datumu prijema upisanom u Glavni registar za tu frekvencijsku dodelu. (WRC-07)

**MOD** COM5/307/26 (B11/329/33) (R6/410/58)

5.2.2.1 Kad je Biro došao do povoljnog nalaza poštujući § 5.2.1 a), 5.2.1 c), 5.2.1 d) and 5.2.1 f) frekvencijska dodela neke administracije treba biti upisana u Glavni registar. Datum kada je Biro primio obavest treba biti upisan u Glavni Registar. U odnosima između administracija, sve frekvencijske dodele stavljenе na korišćenje u skladu sa Planom spojnih veza i upisane u Glavni registar treba smatrati da imaju jednak status nezavisno o datumu prijema upisanom u Glavni registar za tu frekvencijsku dodelu. Prilikom upisivanja tih dodela, Biro treba da naznači putem jednog odgovarajućeg simbola karakteristike koje imaju drugačije vrednosti nego one koje se pojavljuju u Planu. (WRC-07)

**MOD** COM5/307/27 (B11/329/34) (R6/410/59)

5.2.2.2 U slučaju Regiona 2, kad je Biro došao do povoljnog nalaza poštujući § 5.2.1 *a*) i 5.2.1 *c*) ali jedan nepovoljan nalaz poštujući § 5.2.1 *b*) and 5.2.1 *d*), treba ispitati obavest u odnosu na uspešnu primenu odredbi Rezolucije **42 (Rev.WRC-03)**. Frekvencijska dodela za koju su odredbe Rezolucije **42 (Rev.WRC-03)** bile uspešno primenjene treba biti upisana u Glavni registar sa odgovarajućim simbolom za indikaciju njenog privremenog statusa. Datum primanja obavesti od strane Biroa treba biti unesen u Glavni registar. U odnosima između administracija sve frekvencijske dodele stavljene na korišćenje nakon uspešne primene odredaba Rezolucije **42 (Rev.WRC-03)** i upisane u Glavni registar treba da se smatraju da imaju isti status nezavisno o datumu prijema upisanom u Glavni Registar za te frekvencijske dodele. Ako je nalaz poštujući § 5.2.1 *e*), po potrebi, nepovoljan, obaveštenje odmah treba biti vraćeno avionskom poštom obaveštavajućoj administraciji. (WRC-07)

**MOD** COM5/307/28 (B11/329/35) (R6/410/60)

5.2.3 Kad god je frekvencijska dodela upisana u Glavni Registar, nalaz do kojeg je Biro došao treba biti naznačen. (WRC-07)

**MOD** COM5/307/29 (B11/329/36) (R6/410/61)

5.2.9 Datum stavljanja na korišćenje iz obaveštenja zainteresovane administracije treba biti upisan u Glavni registar. (WRC-07)

**MOD** COM5/307/30 (B11/329/37) (R6/410/62)

5.3.1 Bilo koja frekvencijska dodela iz obaveštenja na koju su primenjene procedure Člana 4 i koja je privremeno upisana pod § 5.2.7 treba biti stavljena na korišćenje ne kasnije od kraja perioda datog pod § 4.1.3 ili 4.2.6 Člana 4. Bilo koja druga frekvencijska dodela privremeno upisana pod § 5.2.7 treba biti stavljena na korišćenje do datuma naznačenom u obaveštenju. Osim ako je obaveštavajuća administracija informisala Biro o stavljanju na korišćenje dodele pod § 5.2.8, on treba, ne kasnije od petnaest dana pre datuma iz obaveštenja o stavljanju na korišćenje ili kraja regulatornog perioda ustanovljenog pod § 4.1.3 ili 4.2.6 Člana 4, po potrebi, poslati podsetnik zahtevajući potvrdu da je dodela stavljena na korišćenje unutar regulatornog perioda. Ako Biro ne primi tu potvrdu unutar trideset dana nakon datuma iz obaveštenja o stavljanju na korišćenje ili perioda datog pod § 4.1.3 or 4.2.6 Člana 4, kao što može biti, on treba da poništi stavku u Glavnom registru. (WRC-07)

## ČLAN 9A (Rev.WRC-03)

### **Plan za spojne veze za radiodifuznu satelitsku službu u fiksnoj satelitskoj službi u frekvencijskim opsezima 14.5-14.8 GHz i 17.3-18.1 GHz u Regionima 1 i 3**

9A.2 TEKST ZA BELEŠKE U KOLONI ZA PRIMEDBE PLANA SPOJNIH VEZA ZA REGIONE 1 I 3 (WRC-03)

**SUP** COM5/328/9 (B12/346/9) (R6/410/63)

TABELA 1A

**ADD** COM5/328/12 (B12/346/10) (R6/410/64)

TABELA 1A (WRC-07)

**Dotaknute administracije i odgovarajuće mreže/snopovi identifikovani na osnovu Primedbe 5 u § 9A.2 Člana 9A**

Ime snopa	Kanali	Dotaknute administracije*	Dotaknute mreže/snopovi*
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

\* Administracije i odgovarajuće mreže ili snopovi čije dodele mogu primiti interferenciju od snopa prikazanog u levoj koloni.

**SUP** COM5/328/10 (B12/346/11) (R6/410/65)

TABELA 1B

**ADD** COM5/328/13 (B12/346/12) (R6/410/66)

TABELA 1B (WRC-07)

**Dotaknute administracije i odgovarajuće mreže/snopovi identifikovani na osnovu Primedbi 6 i 7 u § 9A.2 Članu 9A**

Ime snopa	Kanali	Prime dba	Dotaknute administracije*	Dotaknute mreže/snopovi*
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

\* Aadministracije ili odgovarajuće mreže ili snopovi čije dodele mogu uzrokovati snopu prikazanom u levoj koloni.

SUP COM5/328/11 (B12/346/13) (R6/410/67)

TABELA 3A2

ADD COM5/328/14 (B12/346/14) (R6/410/68)

TABELA 3A2 (WRC-07)

Osnovne karakteristike Plana spojnih veza Regiona 1 i 3 u frekvencijskom opsegu 17.3-18.1 GHz (sortirano po administracijama)

1	2	3	4		5			6	7	8		9		10		11	12	13	14	15	16	17					
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice								Antena zemaljske stanice		Polarizacija		
						Duž.	Šir.			Velika osa	Mala osa	Usmerenje			Ko-polarna								Kros-polarna	Kod	Pojačanje	Tip	Ugao
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						



1	2	3	4					6	7	8		9		10		11	12	13	14	15	16	17					
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice								Antena zemaljske stanice		Polarizacija		
						Duž.	Šir.			Velika osa	Mala osa	Usmerenje			Ko-polarna								Kros-polarna	Kod	Pojačanje	Tip	Ugao
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		5			6	7	8		9		10		11	12	13	14	15	16	17					
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice								Antena zemaljske stanice		Polarizacija		
						Duž.	Šir.			Velika osa	Mala osa	Usmerenje			Ko-polarna								Kros-polarna	Kod	Pojačanje	Tip	Ugao
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					6	7	8		9		10		11	12	13	14	15	16	17					
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice								Antena zemaljske stanice		Polarizacija		
						Duž.	Šir.			Velika osa	Mala osa	Usmerenje			Ko-polarna								Kros-polarna	Kod	Pojačanje	Tip	Ugao
BUL	BUL02000	-1.20	25.00	43.00	1.04	0.60	165.00	MODRSS		46.50		MODTES	57.00	CL		83.0		27MOG7W			P						
CAF	CAF25800	-13.20	21.00	6.30	2.25	1.68	31.00	MODRSS		38.67		MODTES	57.00	CR		84.0		27MOG7W			P						
CBG	CBG29900	86.00	104.89	12.79	1.12	0.94	32.89	MODRSS		44.22		MODTES	57.00	CR		84.0		27MOG7W			P						
CHN	CHN15400	62.00	101.90	33.50	5.10	2.80	143.00	MODRSS		32.90		MODTES	57.00	CR		84.0		27MOG7W		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		27MOG7W		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		27MOG7W		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		27MOG7W		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		27MOG7W		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		27MOG7W		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		27MOG7W			P						
CLN	CLN21900	50.00	80.60	7.70	1.18	0.60	106.00	MODRSS		45.95		MODTES	57.00	CL		84.0		27MOG7W			P						
COD	COD_100	-19.20	21.85	-3.40				CB_RSS_CODA		38.36		MODTES	57.00	CL		84.0		27MOG7W			P						
COG	COG23500	-13.20	14.60	-0.70	2.02	1.18	59.00	MODRSS		40.67		MODTES	57.00	CR		84.0		27MOG7W			P						
COM	COM20700	29.00	44.10	-12.10	0.76	0.60	149.00	MODRSS		47.86		MODTES	57.00	CR		84.0		27MOG7W			P						
CPV	CPV30100	-33.50	-24.12	16.09	0.77	0.63	94.46	MODRSS		47.56		MODTES	57.00	CL		84.0		27MOG7W			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		27MOG7W			P						
CVA	CVA08300	-1.20	13.02	42.09	0.75	0.66	20.53	MODRSS		47.48		MODTES	57.00	CR		84.0		27MOG7W			P						
CVA	CVA08500	-1.20	13.02	42.09	0.75	0.66	20.53	MODRSS		47.48		MODTES	57.00	CR		84.0		27MOG7W			P						
CYP	CYP08600	-1.20	33.45	35.12	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27MOG7W			P						
CZE	CZE14401	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CR		84.0		27MOG7W			P						
CZE	CZE14402	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27MOG7W			P						
CZE	CZE14403	-12.80	16.77	46.78	1.71	0.89	149.15	MODRSS		42.64		MODTES	57.00	CL		84.0		27MOG7W		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		27MOG7W			P						
DJI	DJI09900	16.80	42.68	11.68	0.60	0.60	90.00	MODRSS		48.88		MODTES	57.00	CL		84.0		27MOG7W			P						
DNK	DNK_100	-25.20	5.28	61.83				CB_RSS_DNKA		48.88		MODTES	57.00	CL		79.5		27MOG7W			P						
DNK	DNK09000	-33.50	14.34	61.72	1.83	0.60	151.50	MODRSS		44.05		MODTES	57.00	CR		84.0		27MOG7W			P						
DNK	DNK09100	-33.50	-14.94	63.79	1.52	0.60	168.57	MODRSS		44.86		MODTES	57.00	CR		84.0		27MOG7W			P						
E	E_100	-30.00	-9.40	34.15				CB_RSS_E_A		44.79		MODTES	57.00	CR		84.0		27MOG7W		01	P	6					
E	HISP27D4	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	55.00	CR		82.5		27MOG7W--	HISPASAT-1	01	PE						
E	HISP27D6	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	58.50	CR		83.5		27MOG7W--	HISPASAT-1	01	PE						
E	HISP33D4	-30.00	-3.10	39.90					ECO	43.00	18.70	MODTES	55.00	CR		82.5		33MOG7W--	HISPASAT-1	01	PE						
E	HISP33D6	-30.00	-3.10	39.90					ECO	43.00	18.70	MODTES	58.50	CR		83.5		33MOG7W--	HISPASAT-1	01	PE						
E	HISPASA4	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	55.00	CR		82.5		27MOF8W	HISPASAT-1	01	PE						
E	HISPASA6	-30.00	-3.10	39.90					ECO	43.00	18.70	R13TES	58.50	CR		83.5		27MOF8W	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		27MOG7W		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		27MOG7W			P						
EST	EST06100	44.50	25.40	59.18	0.67	0.60	5.99	MODRSS		48.42		MODTES	57.00	CR		84.0		27MOG7W			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		27MOG7W		21	P						

1	2	3	4					6	7	8		9		10		11	12	13	14	15	16	17					
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice								Antena zemaljske stanice		Polarizacija		
						Duž.	Šir.			Velika osa	Mala osa	Usmerenje			Ko-polarna								Kros-polarna	Kod	Pojačanje	Tip	Ugao
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					6	7	8		9		10		11	12	13	14	15	16	17					
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice								Antena zemaljske stanice		Polarizacija		
						Duž.	Šir.			Velika osa	Mala osa	Usmerenje			Ko-polarna								Kros-polarna	Kod	Pojačanje	Tip	Ugao
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_MAUA		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						

1	2	3	4					6	7	8		9		10		11	12	13	14	15	16	17					
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice								Antena zemaljske stanice		Polarizacija		
						Duž.	Šir.			Velika osa	Mala osa	Usmerenje			Ko-polarna								Kros-polarna	Kod	Pojačanje	Tip	Ugao
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		5			6	7	8		9		10		11	12	13	14	15	16	17					
			Admin. simbol	Identifikacija snopa	Orbitalna pozicija	Vidokrug				Karakteristike antene svemirske stanice			Kod antene svemirske stanice	Oblikovani snop	Pojačanje antene svemirske stanice								Antena zemaljske stanice		Polarizacija		
						Duž.	Šir.			Velika osa	Mala osa	Usmerenje			Ko-polarna								Kros-polarna	Kod	Pojačanje	Tip	Ugao
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						

### ANEKS 3

## **Tehnički podaci korišćeni u uspostavljanju odredbi i pridruženih Planova i Lista spojnih veza u Regionima 1 i 3, koje bi trebalo koristiti za njihovu primenu<sup>36</sup> (Rev.WRC-03)**

**MOD** COM6/341/22 (B14/365/41) (R7/411/211)

### **2.2 Kišno pojačanje**

...

Korak 6 ostaje isti osim što frekvencijski ovisni koeficijenti  $k$  i  $\alpha$  treba da budu dobijeni iz Preporuke ITU-R P.838-3. (WRC-07)

...

**MOD** COM5/385/1A (B18/405/1)

### **DODATAK 30B (Rev.WRC-07)**

## **Odredbe i pridruženi Plan za fiksnu-satelitsku službu u frekvencijskim opsezima 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz i 12.75-13.25 GHz**

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## ČLAN 1

### Cilj odredaba i pridruženi Plan

**MOD** COM5/385/1 (B18/405/3)

1.2 Procedure propisane u ovom dodatku ne smeju ni u kom slučaju sprečiti implementaciju dodela u saglasnosti sa nacionalnim allotmentima Plana. (WRC-07)

## ČLAN 2

### Definicije

**MOD** COM5/385/2 (B18/405/4)

2.2 *Plan*: Plan za fiksnu satelitsku službu u frekvencijskim opsezima sadržano u Dodatku, sastojeći se od nacionalnih allotmenta. (WRC-07)

**ADD** COM5/385/3 (B18/405/5)

2.2bis *Lista dodela (u daljem tekstu, "Lista")*: Lista pridružena Planu koja sadrži dodele koje rezultuju uspešnom primenom odredaba Člana 6 Dodatka **30B** ili primenom Rezolucije [**COM5/7**] (**WRC-07**). (WRC-07)

**MOD** COM5/385/4 (B18/405/6)

2.3 *Allotment*: U ovom Dodatku, allotment obuhvata:

- nominalnu orbitalnu poziciju;
- širinu opsega od 800 MHz (veza prema gore i prema dole) u frekvencijskim opsezima izlistanim u Članu 3 ovog Dodatka;
- servisno područje za nacionalno pokrivanje

. (WRC-07)

**MOD** COM5/385/5 (B18/405/7)

2.4 *Postojeći sistemi*: Oni satelitski sistemi u frekvencijskim opsezima pokrivenim ovim dodatkom koji su identifikovani u Rezoluciji [**COM5/7**] (**WRC-07**). (WRC-07)

**SUP** COM5/385/6 (B18/405/8)

2.5

**MOD** COM5/385/7 (B18/405/9)

2.6 *Dodatni sistem*: Za primarnu odredbu ovog dodatka, dodatni sistem je sistem za koji dodela podnesena od neke administracije nije rezultat konverzije allotmenta u dodele. Kod podnošenja za dodatni sistem, nacionalni allotment u Planu od administracije koja je izvršila podnošenje treba biti zadržana. Podnošenje za dodatni sistem može biti izvršeno u ime grupe imenovanih administracija, sa jednom administracijom označenom da radi kao obaveštavajuća administracija u vezi tog dodatnog sistema. (WRC-07)

**]ADD** COM5/385/8 (B18/405/10)

2.6bis Kod podnošenja za dodatni sistem, administracije treba da su potpuno saglasne sa zahtevima propisanim u Članu 44 Statuta ITU. Posebno, te administracije treba da ograniče broj orbitalnih pozicija i pridruženog spektra tako da:

- a) orbitalni/spektralni prirodni resursi se koriste racionalno, efikasno i ekonomično; i  
b) korišćenje višestrukih orbitalnih lokacija za prekrivanje istog servisnog područja se izbegava. (WRC-07)

### ČLAN 3

#### Frekvencijski opsezi

### ČLAN 4

#### Izvršenje odredbi i pridruženi Plan

SUP COM5/385/9 (B18/405/11)

### ČLAN 5 (WRC-03)

#### Plan i pridružena Lista dodela

MOD COM5/385/10 (B18/405/12)

### ČLAN 6 (Rev.WRC-07)

MOD COM5/385/11 (B18/405/13)

#### Procedure za konverziju alotmenta u dodelu, za uvođenje dodatnog sistema ili za modifikaciju dodele u Listi<sup>MOD 1, ADD 1A</sup> (WRC-07)

MOD COM5/385/12 (B18/405/14)

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<sup>1</sup> Ako uplate nisu primljene u skladu sa odredbama Odluke Saveta 482, sa izmenama, o implementaciji pokrivanja toškova za popune satelitske mreže, Biro treba da poništi publikaciju specificiranu u § 6.7 i/ili 6.23 i odgovarajuće stavke u Listi pod § 6.23 i/ili 6.25, po potrebi, i obnovi sve te alotmente u Planu, nakon informisanja zainteresovanih administracija. Biro treba da informiše sve administracije o takvoj meri i da mreža naznačena u dotičnoj publikaciji ne treba više da se razmatra ni od Biroa niti od drugih administracija. Biro treba da pošalje podsetnik obavješavajućoj administraciji ne kasnije od dva meseca pre isteka roka plaćanja u skladu sa gore spomenutom Odlukom Saveta 482 osim ako plaćanje nije već primljeno. Vidi takođe rezoluciju **905 (WRC-07)**. (WRC-07)

ADD COM5/385/13 (B18/405/15)

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<sup>1A</sup> Rezolucija **49 (Rev.WRC-07)** se primenjuje.

SUP COM5/385/14 (B18/405/16)

#### Sekcija I – Procedura za konverziju alotmenta u dodelu

SUP COM5/385/15 (B18/405/17)

#### Sekcija IA – Procedura za konverziju alotmenta u dodelu koja nije u saglasnosti sa delom A Plana ili nije saglasna sa Aneksom 3B

SUP COM5/385/16 (B18/405/18)

#### Sekcija IB – Procedura za upisivanje u Listu postojećih sistema sadržano u Delu B Plana

**SUP** COM5/385/17 (B18/405/19)

**Sekcija II – Procedura za uvođenje jednog subregionalnog sistema**

**MOD** COM5/385/18 (B18/405/20)

6.1 kada jedna administracija namerava da konvertuje jedan alotment u dodelu ili kad neka administracija, ili jedna koja radi u ime grupe imenovanih administracija<sup>ADD 1B</sup>, namerava da uvede dodatni sistem ili modifikuje karakteristike dodela u Listi koje su stavljene na korišćenje, ona treba, ne ranije od osam godina i ne kasnije od od dve godine pre planiranog datuma stavljanja dodele na korišćenje, poslati Birou informaciju naznačenu u Dodatku 4<sup>ADD 1C, ADD 1D</sup>. (WRC-07)

**ADD** COM5/385/19 (B18/405/21)

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<sup>1B</sup> Kadgod, pod § 6.1, neka administracija radi u ime grupe imenovanih administracija, svi članovi te grupe zadržavaju pravo da odgovore u vezi sa njihovim vlastitim alotmentima ili dodelama.

<sup>1C</sup> Podnošenje može sadržavati konverziju 6/4 GHz ili 13/10-11 GHz dela (veze prema gore i veze prema dole) alotmenta u dodelu omogućujući da je orbitalna lokacija dodele ista kao nekonvertovani deo alotmenta.

<sup>1D</sup> Podnesci za dodatne sisteme mogu uključiti korišćenje jedino svemir-Zemlja ili Zemlja-svemir veza.

**ADD** COM5/385/20 (B18/405/22)

6.2 Ako Biro nađe da su informacije koje je primio pod § 6.1 nekompletne, Biro treba odmah da zatraži svako potrebno pojašnjenje i informaciju koja nije podnesena od dotične administracije.

**SUP** COM5/385/21 (B18/405/23)

6.39 to 6.42

**MOD** COM5/385/22 (B18/405/24)

6.3 Po primanju kompletnog obaveštenja pod § 6.1, Biro treba da ga ispita u vezi sa njegovom saglasnošću sa:

a) Tabela frekvencijskih namena i druge odredbe<sup>ADD 1E</sup> Pravilnika o radiokomunikacijama, osim onih odredbi koje se odnose na saglasnost sa Planom fiksne satelitske službe; i

b) Aneks 3 ovom Dodatku.

**ADD** COM5/385/23 (B18/405/25)

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<sup>1E</sup> "Ostale provizije" treba da su identifikovane i uključene u Pravila procedure.

**ADD** COM5/385/24 (B18/405/26)

6.4 Kada ispitivanje poštujući § 6.3 dovede do nepovoljnog nalaza, relevantan deo obaveštenja treba da se vrati obaveštavajućoj administraciji sa indikacijom odgovarajuće akcije.

6.5 Kada ispitivanje svake dodele u obaveštenju primljenom pod § 6.1 u odnosu na § 6.3 vodi do povoljnog nalaza, Biro treba da koristi metod iz Aneksa 4 da odredi administracije čije:

a) alotmente u Planu; ili

b) dodele koje se pojavljuju u Listama; ili

c) dodele koje je Biro ranije ispitao pod ovim paragrafom nakon primanja kompletne informacije u skladu sa § 6.1 ovog Člana,

se smatraju da su dotaknute od strane bilo koje dodele u obaveštenju.

6.6 Biro treba da identifikuje one administracije čija teritorija je uključena u servisno područje dodele koja se ispituje. Obaveštavajuća administracija treba da traži pristanak od svake administracije čija teritorija delimično ili u celosti uključena u nameravano servisno području dodele.

6.7 Biro treba da publikuje, u Specijalnoj sekciji svog BR IFIC, kompletne informacije primljene pod § 6.1 i ispitane pod § 6.5, zajedno sa:

a) imenima administracija identifikovanih pod § 6.5 i odgovarajućih alotmenta u Planu, dodela u Listi i dodela za koje je Biro prethodno primio kompletne informacije u skladu sa § 6.1 i koje je ispitao pod § 6.5 ovog Člana;

b) imenima administracija identifikovanih pod § 6.6.

6.8 Sledeći ispitivanje pod § 6.5 i 6.6, Biro treba odmah da pošalje telegram ili faks administraciji koja je podnela obavest pod § 6.1, skrećući pažnju na zahteve koji se traže i dobijajući pristanak onih administracija identifikovanih u Specijalnoj sekciji BR IFIC publikovanoj pod § 6.7.

6.9 Biro treba odmah da pošalje telegram ili faks svakoj administraciji izlistanoj u Specijalnoj sekciji BR IFIC publikovanoj pod § 6.7, skrećući njenu pažnju na informacije koje su sadržane.

6.10 Komentari od administracija identifikovanih kao dotaknute pod § 6.5 u Specijalnoj sekciji BR IFIC publikovano pod § 6.7 treba da su poslate Birou i administracija koja je podnela obaveštenje pod § 6.1, ili direktno ili kroz Biro, unutar perioda od četiri meseca nakon datuma publikovanja u BR IFIC. Kada neka administracija ne odgovori unutar perioda od četiri meseca, smatra se da ta administracija nije pristala na predloženu dodelu, osim ako su odredbe od § 6.13 do 6.15 primenjene.

Gore pomenuti period od četiri meseca treba biti povećan za administraciju koja je zatražila pomoć od Biroa za maksimum trideset dana od datuma kad je Biro saopštio rezultat svoje akcije.

6.11 Trideset dana pre isticanja spomenutog perioda od četiri meseca, Biro treba da razošilje telegram-podsetnik ili faks svakoj administraciji izlistanoj u Specijalnoj sekciji publikovanoj pod § 6.7 koja nije dala svoj komentar pod § 6.10, stavljajući materiju njoj na pažnju.

6.12 Administracija koja smatra da je trebala da bude identifikovana u publikaciji gore navedenoj pod § 6.7 treba, u toku od četiri meseca od datuma publikacije relevantnog BR IFIC, zahtevati od Biroa da uključi njeno ime u publikaciju istovremeno dajući razlog za to. Biro treba da prouči tu informaciju na bazi Aneksa 4 i da informiše obe, dotaknutu administraciju i administraciju koja je podnela obaveštenje o svojim zaključcima. Ako bi Biro pristao na zahtev administracije, on treba da publikuje dodatak na publikaciju pod § 6.7.

6.13 Nakon istog vremenskog perioda kao što je onaj naznačen u § 6.10, obaveštavajuća administracija može zahtevati od Biroa da pomogne u vezi administracije koja nije odgovorila unutar tog vremenskog perioda.

6.14 Biro, postupajući po zahtevu za pomoć pod § 6.13, treba da pošalje podsetnik administraciji koja nije odgovorila, zahtevajući odluku.

6.14*bis* Petnaest dana pre isteka 30-dnevnog perioda napomenutog u § 6.15, Biro treba da pošalje podsetnik gore pomenutoj administraciji skrećući njenu pažnju na posledice ako ne odgovori.

6.15 Ako nikakva odluka nije saopštena Birou u roku od trideset dana nakon datuma od slanja podsetnika pod § 6.14, smatraće se da je administracija koja nije poslala odluku pristala na predloženu dodelu.

6.16 Neka administracija može u bilo koje vreme ili nakon gore pomenutog perioda od četiri meseca da informiše Biro o svom prigovoru o uključenju u servisno područje bilo koje dodele, čak i ako je ta dodela uneta u Listu. Biro će tada da obavesti administraciju odgovornu za dodelu i da isključi teritoriju i testne tačke unutar teritorije administracije koja je uložila prigovor iz servisnog područja. Biro treba da ažurira referentnu situaciju bez preispitivanja ranijih provera.

6.17 Ako se postigne sporazum sa administracijama publikovano u skladu sa § 6.7, administracija koja predlaže novu ili modifikovanu dodelu može zahtevati od Biroa da dodela bude unesena u Listu, ukazujući na finalne karakteristike dodele zajedno sa imenima administracija sa kojima je sporazum postignut. U tu svrhu, ona treba da pošalje Birou informacije specificirane u Dodatku 4. U podnošenju obaveštenja, administracija može da zahteva da Biro ispita obaveštenje pod § 6.19, 6.21 i 6.22 (stavka u Listi) i Član 8 ovog Dodatka (obaveštavanje).

6.18 Ako je informacija koju je Biro primio pod § 6.17 nekompletna, Biro će momentalno da zatraži svako potrebno pojašnjenje i informaciju koju dotična administracija nije dostavila.

6.19 Nakon primanja kompletnog obaveštenja pod § 6.17, Biro treba da ispita svaku dodelu u obaveštenju:

- a) u vezi sa zahtevom obaveštavajuće administracije da zatraži pristanak od onih administracija naznačenih u § 6.6;
- b) u vezi sa njegovom saglasnošću u vezi sa Tabelom frekvencijskih namena i ostale odredbe<sup>ADD 1F</sup> Pravilnika o radiokomunikacijama, osim onih odredbi koje se odnose na saglasnost sa Planom fiksne satelitske službe; i
- c) u vezi sa njegovom saglasnošću sa Aneksom 3 ovog Dodatka.

**ADD** COM5/385/25 (B18/405/27)

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<sup>1F</sup> "Ostale odredbe" treba da budu identifikovane i uključene u Pravila procedure.

**ADD** COM5/385/26 (B18/405/28)

6.20 Kada ispitivanje poštujući § 6.19 neke dodele primljene pod § 6.17 dovede do nepovoljnog nalaza, obaveštenje treba biti vraćeno obaveštavajućoj administraciji sa napomenom da će naredno podnošenje pod § 6.17 biti smatrano da ima novi datum prijema.

6.21 Kada ispitivanje poštujući § 6.19 neke dodele primljene pod § 6.17 dovede do povoljnog nalaza, Biro treba da koristi metodu iz Aneksa 4 da ispita da li se dodirnite administracije i odgovarajuće:

- a) alotmente u Planu;
- b) dodele koje se pojavljuju u Listi sa datumom prijema ispitivanog obaveštenja podnesenog pod § 6.1;
- c) dodele za koje je Biro ranije primio kompletne informacije u skladu sa § 6.1 i proveo ispitivanje pod § 6.5 ovog Člana sa datumom prijema ispitivanog obaveštenja podnesenog pod § 6.1;

navedene u Specijalnoj sekciji publikovanoj pod § 6.7 i čiji pristanak nije bio dat pod § 6.17 još smatraju dodirnete tom dodelom.

6.22 Biro treba da odluči da li finalne karakteristike neke dodele primljene pod § 6.17 uzrokuju više interferencije ispitujući da li one smanjuju *C/I* vrednost veze prema gore i veze prema dole jednog alotmenta u Planu ili dodele u Listi ili dodele za koju je Biro primio kompletnu informaciju u skladu sa ovim članom pre datuma primanja kompletnog obaveštenja pod § 6.17. Ako finalne karakteristike uzrokuju više interferencije nego što je proizvedeno sa karakteristikama podnetim ranije pod § 6.1 alotmentu u Planu ili dodeli u Listi ili dodeli za koju je Biro primio kompletnu informaciju u skladu sa ovim Članom, Biro treba da koristi metod iz Aneksa 4 da odredi da li taj alotment ili dodela se smatra da je dotaknuta predloženom dodelom u odsustvu eksplicitnog pristanka identifikovanih administracija.

**SUP** COM5/385/27 (B18/405/29)

6.43bis

**ADD** COM5/385/28 (B18/405/30)

6.23 U slučaju povoljnog nalaza pod § 6.21 i 6.22, Biro treba da unese predloženu dodelu u Listu<sup>ADD 1G</sup> i publikuje u Specijalnoj sekciji svog BR IFIC karakteristike dodele primljene pod § 6.17, zajedno sa imenima administracija sa kojima su odredbe ovog Člana uspešno primenjene. Administracija može zatim dati obaveštenje za dodelu u skladu sa Članom 8 ovog Dodatka.

**ADD** COM5/385/29 (B18/405/31)

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<sup>1G</sup>U slučaju konverzije alotmenta u dodelu, deo alotmenta koji je bio konvertovan treba da se ukloni iz plana i referentna situacija treba da je ažurirana.

**ADD** COM5/385/30 (B18/405/32)

6.24 Kada ispitivanje pod § 6.21 ili 6.22 dovede do nepovoljnog nalaza, Biro treba da vrati obaveštenje primljeno pod § 6.17 obaveštavajućoj administraciji zajedno sa imenima administracija sa kojima neophodni sporazumi pod § 6.21 ili 6.22 nisu bili dati i sa indikacijom da će naredno podnošenje pod § 6.17 biti razmatrano sa novim datumom prijema.

6.25 Nakon što je obaveštenje vraćeno pod § 6.24, ako bi obaveštavajuća administracija ponovo podnela obaveštenje i insistirala na njegovom ponovnom razmatranju, Biro, pod uslovom povoljnog nalaza pod § 6.21 i 6.22 u odnosu na alotmente u Planu, treba da unese dodelu privremeno u Listu, sa navođenjem onih administracija čije dodele jesu baza nepovoljnog nalaza. Stavka u Listi treba da se promeni od privremene na definitivnu samo ako Biro dobije obaveštenje da su svi traženi sporazumi postignuti.

6.26 Obaveštenja dobijena pod § 6.25 treba takođe da uključuju potpisani pristanak obaveštavajuće administracije, ukazujući da korišćenje jedne dodele upisane u Listu pod § 6.25 neće uzrokovati neprihvatljivu interferenciju, niti će se tražiti zaštita zbog toga, onim dodelama za koje sporazum još treba da se postigne.

6.27 Kad je neka dodela unesena privremeno u Listu pod odredbama § 6.25, ta dodela ne treba da se uzima u obzir kod ažuriranja referentne situacije onih dodela koje su osnova za nepovoljan nalaz. Ako Biro dobije informaciju da je neki sporazum postignut, referentna situacija te dodele treba da se ažurira.

6.28 Ako dodele koje su osnova za nepovoljan nalaz ne bi bile stavljene na korišćenje unutar perioda specificiranog u § 6.1, tada status dodele u Listi treba biti odgovarajuće preispitan.

6.29 Ako bi neprihvatljiva interferencija bila uzrokovana nekom dodelom unesenom u Listu pod § 6.25 bilo kojoj dodeli u Listi koja je bila baza za neslaganje, obavestavajuća administracija dodele unesene u Listu pod § 6.25 trebala bi, nakon primanja saveta o tome, odmah eliminisati tu neprihvatljivu interferenciju.

**SUP** COM5/385/31 (B18/405/33)

6.44 do 6.53

**MOD** COM5/385/32 (B18/405/34)

6.30 Kada neka dodela uključena u Listu nije više potrebna, obavestavajuća administracija treba o tome da informiše Biro.

**ADD** COM5/385/33 (B18/405/35)

6.31 Datum o stavljanju na korišćenje može obavestavajuća administracija da produži sve do ne više od osam godina od datuma kada je Biro primio kompletno obaveštenje pod § 6.1.

6.32 Trideset dana pre datuma stavljanja na korišćenje pod § 6.31, Biro treba da pošalje telegram-podsetnik ili faks obavestavajućoj administraciji koja nije dodelu stavila na korišćenje, skrećući pažnju na tu stvar.

6.33

Kada:

- i) neka dodela nije više potrebna; *ili*
- ii) neka dodela upisana u Listu i stavljena na korišćenje bila je suspendovana za period koji prelazi dve godine i završava i nakon datuma isteka naznačenog u § 6.31; *ili*
- iii) neka dodela upisana u Listu nije stavljena na korišćenje unutar perioda od osam godina nakon što je Biro primio kompletne informacije pod § 6.1, sa izuzetkom dodela koje su podnele nove Zemlje članice gde se § 6.35 i 7.7 primenjuje,

Biro treba:

- a) publikovati u Specijalnoj sekciji svog BR IFIC poništavanje Specijalnih sekcija i dotičnih dodela upisane u Dodatku **30B** Liste;
- b) ako je poništena dodela rezultat konverzije alotmenta bez modifikacije, da obnovi alotment u Dodatku **30B** Plana;
- c) ako je poništena dodela rezultat konverzije alotmenta sa modifikacijama, obnoviti alotment sa istom orbitalnom lokacijom i tehnički parametri poništene dodele osim za njeno servisno područje, koje treba da bude nacionalna teritorija administracije čiji alotment se obnavlja; *i*
- d) ažurirati referentnu situaciju za alotmente Plana i dodela u Listi.

6.34 Kada predložena nova ili frekvencijska dodela nije ispunila sve zahteve za unošenje u Listu, u skladu sa § 6.23 ili 6.25, do datuma isteka naznačenog u § 6.31, Biro treba da publikuje u Specijalnoj sekciji BR IFIC poništavanje dotičnih Specijalnih sekcija.

6.35 Procedura ovog Člana može biti primenjena od administracije zemlje\* koja se pridružila Uniji kao ITU Država članica i nema nacionalnu

i alotment u Planu ili dodelu u Listi koja proizilazi iz konverzije nekog alotmenta u nameri da uključi nove dodele u Listu. Nakon kompletiranja procedure, od sledeće konferencije o radiokomunikacijama može biti zatraženo da uzme u obzir, između dodela uključenih u Listu nakon uspešnog kompletiranja ove procedure, uključivanje u Plan novog alotmenta preko nacionalne teritorije nove Zemlje članice.

6.36 Ako dodele spomenute u § 6.35 preko nacionalne teritorije administracije ne bi bile stavljene na korišćenje u toku osam godina nakon što je Biro primio relevantnu kompletnu informaciju pod § 6.1, one bi trebale biti zadržane u Listi do završetka WRC momentalno sledeći uspešan završetak procedure naznačene u § 6.35.

**SUP** COM5/385/34 (B18/405/36)

**Sekcija III – Dopunske odredbe primenjive na dodatna korišćenja u planiranim opsezima**

**MOD** COM5/385/35 (B18/405/37)

**ČLAN 7** (Rev.WRC-07)

**Procedura za dodavanje novih alotmenta u Plan za novu Zemlju članicu Unije**

**MOD** COM5/385/36 (B18/405/38)

7.1 Administracija zemlje \*\* koja se pridružila Uniji kao Zemlja članica i nema ni jedan nacionalni alotment u Planu<sup>ADD 1H</sup> ili neku dodelu iz konverzije nekog alotmenta treba da dobije jedan nacionalni alotment pomoću sledeće procedure.

**ADD** COM5/385/37 (B18/405/39)

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<sup>1H</sup> Sledeći WRC-07, administracija Ukrajine može, po izuzetnom osnovu, podneti zahtev za jedan alotment u zamenu za njen postojeći alotment.

**MOD** COM5/385/38 (B18/405/40)

7.2 Administracija može da podnese svoj zahtev Birou za jedan alotment, sa sledećim informacijama:

- a) geografske koordinate od ne više od dvadeset testnih tačaka za određivanje minimalne elipse za pokrivanje svoje nacionalne teritorije;
- b) nadmorsku visinu svake njene testne tačke;

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\* Ova procedura se može primeniti na Palestinu kako bi se dobile dodele u Dodatku **30B** Plana. Ovakve dodele važe ekskluzivno samo za Palestinu i u skladu su sa Izraelsko-Palestinskim Privremenim Sporazumom od 28. septembra 1995. godine, Rezolucija 741 Saveta i Rezolucije 99 (Antalija 2006) Konferencije opunomoćenika. Ovo je bez predrasuda stvar budućih sporazuma između Države Izrael i Palestine.

\*\* Ova procedura se može primeniti na Palestinu kako bi se dobile dodele u Dodatku **30B** Plana. Ovakve dodele važe ekskluzivno samo za Palestinu i u skladu su sa Izraelsko-Palestinskim Privremenim Sporazumom od 28. septembra 1995. godine, Rezolucija 741 Saveta i Rezolucije 99 (Antalija 2006) Konferencije opunomoćenika. Ovo je bez predrasuda stvar budućih sporazuma između Države Izrael i Palestine.



c) bilo koji specijalni zahtev koji treba da se razmotri do razumne veličine.

**MOD** COM5/385/39 (B18/405/41)

7.3 Nakon primanja kompletnih informacija (spomenutih u § 7.2 gore), Biro treba ekspeditivno i pre podnošenja za koja ispitivanje pod § 6.5 nije još počelo, identifikovati odgovarajuće tehničke karakteristike i pridružene orbitalne lokacije za potencijalne nacionalne alotmente. Biro treba da pošalje ovu informaciju zahtevajućim administracijama.

**SUP** COM5/385/40 (B18/405/42)

7.4

**ADD** COM5/385/41 (B18/405/43)

7.4 Nakon primanja odgovora od Biroa pod § 7.3, zahtevajuća administracija treba, unutar trideset dana, naznačiti koje je od predloženih orbitalnih lokacija sa pridruženim tehničkim parametrima, koje je Biro naznačio, odabrala. Za vreme tog perioda, zahtevajuća administracija može u svakom trenutku da zatraži pomoć Biroa.

7.4bis Ako izbor za neki alotment pod § 7.4 Biro ne primi unutar naznačenog roka, Biro će nastaviti ispitivanje podnesaka pod § 6.5, ili narednog podneska pod Članom 7, prema potrebi, i informisati zahtevajuću administraciju da će njen zahtev biti procesiran pod § 7.5 kada je Biro informisan o izabranoj orbitalnoj lokaciji.

7.5 Nakon primanja zahteva pod § 7.4, Biro treba da procesira zahtev pre podnošenja za koja ispitivanje pod § 6.5 nije još počelo i, koristeći Aneксе 3 i 4, u odnosu na njegovu saglasnost sa:

- a) Tabelom frekvencijskih namena i ostalih odredbi<sup>ADD II</sup> Pravilnika o radiokomunikacijama, osim onih odredbi koje se odnose na saglasnost sa Planom fiksne satelitske službe koje su predmet sledećeg subparagrafa;
- b) namena u Planu;
- c) namena koje se pojavljuju u Listi;
- d) dodela za koje je Biro prethodno primio kompletne informacije i koje su ispitivane, ili su u fazi ispitivanja pod § 6.5.

**ADD** COM5/385/42 (B18/405/44)

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<sup>II</sup> "Ostale odredbe" treba da budu identifikovane i uključene u Pravila procedure.

**ADD** COM5/385/43 (B18/405/45)

7.6 Kada ispitivanje pod § 7.5 dovede do povoljnog nalaza, Biro treba da unese nacionalni alotment nove Zemlje članice Unije u plan i publikuje karakteristike dotičnog alotmenta i rezultat svog ispitivanja u Specijalnoj sekciji BR IFIC sa ažuriranom referentnom situacijom.

7.7 U slučaju da nalaz Biroa pod § 7.5 nije povoljan, predloženi alotment Zemlje članice treba da bude tretirana kao podnesak pod § 6.1 i treba da je Biro tretira pre bilo kakvih drugih podnošenja primljenih pod Članom 6, osim za podnošenja koja Biro već ispituje pod § 6.5 u vreme kompletiranja ispitivanja zahteva nove Zemlje članice pod § 7.5.

**MOD** COM5/385/44 (B18/405/46)

**ČLAN 8** (Rev.WRC-07)

**MOD** COM5/385/45 (B18/405/47)

**Procedura za obaveštenje i upisivanje u glavni registar dodela u planiranim opsezima za fiksnu satelitsku službu**<sup>ADD 1J, ADD 1K</sup> (WRC-07)

**ADD** COM5/385/46 (B18/405/48)

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<sup>1J</sup> Ako uplata nije primljena u skladu sa odredbama odluke Saveta 482, sa izmenama, o implementaciji pokrivanja troškova za prijave satelitske mreže, Biro će poništiti publikaciju specificiranu u § 8.5 i 8.12 i odgovarajuće stavke u Glavnom registru pod § 8.11, nakon informisanja zainteresovane administracije. Biro treba da informiše sve administracije o takvoj akciji i da će bilo koje ponovo podneseno obaveštenje biti smatrano kao novo obaveštenje. Biro će poslati podsetnik obaveštavajućoj administraciji ne više od dva meseca pre krajnjeg roka plaćanja u skladu sa gore spomenutom odlukom Saveta 482, osim ako je uplata već primljena. Vidi takođe Rezoluciju [COM5/2] (WRC-07). (WRC-07)

<sup>1K</sup> Rezolucija **49 (Rev.WRC-07)** se primenjuje. (WRC-07)

**MOD** COM5/385/47 (B18/405/49)

8.2 Ako prvo obaveštenje napomenuto u § 8.1 Biro nije primio unutar perioda od osam godina spomenutog u § 6.1 Člana 6, dodele u Listi Biro i administracije ne trebaju više uzimati u obzir. Biro će nakon toga delovati kao da dodela u Listi nije stavljena na korišćenje u saglasnosti sa § 6.1 Člana 6. Biro će da informiše obaveštavajuću administraciju, tri meseca unapred o kraju perioda od osam godina, o akcijama koje namerava da preduzme. (WRC-07)

**SUP** COM5/385/48 (B18/405/50)

8.4

**MOD** COM5/385/49 (B18/405/51)

8.5 Kompletna obaveštenja Biro treba da notira sa njihovim datumom prijema i treba da budu pregledana po redu kako su primana. Nakon primanja kompletnog obaveštenja Biro treba, za ne više od dva meseca, publikovati taj sadržaj, sa bilo kojim dijagramima i mapama i datum primanja, u BR IFIC, što treba da konstituiše potvrdu obaveštavajućoj administraciji o primanju njenog obaveštenja. Kada Biro nije u poziciji da se složi sa rokom napomenutim gore, on će periodično o tom obavestiti administracije, dajući razlog za to. (WRC-07)

**MOD** COM5/385/50 (B18/405/52)

8.9 b) u odnosu na saglasnosti sa Planom fiksne satelitske službe i pridruženim odredbama<sup>ADD</sup>  
<sup>1L</sup>. (WRC-07)

**ADD** COM5/385/51 (B18/405/53)

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<sup>1L</sup> Kad neka administracija obavesti za bilo koju dodelu sa karakteristikama drugačijim od onih unesenih u Listu putem uspešne primene Člana 6 Dodatka **30B**, Biro treba da preduzme izračunavanje da odredi da li predložene nove karakteristike povećavaju nivo interferencije prema drugim alotmentima i dodelama u Planu i Listi. Povećanje interferencije zbog karakteristika drugačijih od onih unesenih u Listu biće ispitano upoređujući *C/I* odnose tih drugih alotmenta i dodela, koji rezultuju iz korišćenja predloženih novih karakteristika od predmeta dodele na jednoj strani, i onih dobijenih od karakteristika predmeta dodele u Listi, na drugoj strani. Taj *C/I* proračun se izvodi pod istim tehničkim pretpostavkama i uslovima. (WRC-07)

**MOD** COM5/385/52 (B18/405/54)

8.13 Obaveštenje o promeni u karakteristikama neke dodele koja je već upisana, kako je specificirano u Dodatku **4**, Biro treba da ispita pod § 8.8 i 8.9 po potrebi. Svaka promena karakteristika jedne dodele, koja je obaveštena i potvrđena da je bila stavljena na korišćenje, treba biti stavljena na korišćenje unutar osam godina od datuma obaveštenja za modifikaciju. Sve promene karakteristika neke dodele za koje ima obaveštenje ali nisu još stavljene na korišćenje treba da budu stavljene na korišćenje unutar perioda datog za to u § 6.1 ili 6.31 Člana 6. (WRC-07)

**SUP** COM5/385/53 (B18/405/55)

8.14

**MOD** COM5/385/54 (B18/405/56)

8.16 Sve frekvencijske dodele obaveštene unapred o njihovom stavljanju na korišćenje treba da se unesu privremeno u Glavni registar. Bilo koja frekvencijska dodela privremeno unesena pod tom odredbom treba biti stavljena na korišćenje ne kasnije od kraja perioda datog za to u § 6.1. Osim ako Biro nije bio informisan od obaveštavajuće administracije o stavljanju na korišćenje dodele, on treba, ne kasnije od 15 dana pre isteka regulatornog perioda uspostavljenog pod § 6.1, da pošalje podsetnik zahtevajući potvrdu da je dodela stavljena na korišćenje unutar regulatornog perioda. Ako Biro ne primi tu potvrdu unutar 30 dana nakon perioda datog pod § 6.1, on treba poništiti stavku u Glavnom registru. (WRC-07)

**MOD** COM5/385/55 (B18/405/57)

8.17 Kada je korišćenje upisane dodele svemirskoj stanici suspendovano za period koji ne prelazi osamnaest meseci, obaveštavajuća administracija treba, što pre je moguće, da informiše Biro o datumu kad je to korišćenje suspendovano i datumu kada će dodela biti data ponovo na regularno korišćenje. Taj drugi datum ne sme preći dve godine od datuma suspenzije. Ako dodela nije stavljena ponovo na korišćenje u roku od dve godine nakon datuma suspenzije, Biro treba da poništi dodelu u Glavnom registru i primeni odredbe iz § 6.33. (WRC-07)

**MOD** COM5/385/56 (B18/405/58)

## ČLAN 9 (Rev.WRC-07)

### Generalne odredbe

**MOD** COM5/385/57 (B18/405/59)

9.1 Plan je ograničen na nacionalne sisteme koji pružaju usluge na nacionalnom nivou. Međutim, administracije mogu u skladu s odlukama Člana 6, konvertovati svoje namene ili predložiti dodatne sisteme da omoguće nacionalne i multinacionalne usluge.

**SUP** COM5/385/57B (B18/405/60)

9.2

**MOD** COM5/385/58 (B18/405/61)

**ČLAN 10** (Rev.WRC-07)

**MOD** COM5/385/59 (B18/405/62)

**Plan za fiksnu satelitsku službu u opsezima 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 NAZIVI KOLONA PLANA

**MOD** COM5/385/61 (B18/405/64)

Col. 2 *Nominalne pozicije orbita*, u stepenima

**SUP** COM5/385/62 (B18/405/65)

Col. 3

**SUP** COM5/385/63 (B18/405/66)

Col. 4

**MOD** COM5/385/64 (B18/405/67)

Col. 3 *Longituda optičke ose*, u stepenima

**MOD** COM5/385/65 (B18/405/68)

Col. 4 *Latituda optičke ose*, u stepenima

**MOD** COM5/385/66 (B18/405/69)

Col. 5 *Velika osa eliptičnog preseka snopa*, u stepenima

**MOD** COM5/385/67 (B18/405/70)

Col. 6 *Mala osa eliptičnog preseka snopa*, u stepenima

**MOD** COM5/385/68 (B18/405/71)

Col. 7 *Orijentacija elipse* određena je na sledeći način: u ravni normalnoj na osu snopa, smer glavne ose elipse definisan je uglom merenim suprotno kazaljci na satu od linije paralelne ekvatorijalnoj ravni do glavne ose elipse, do najbližeg stepena

**MOD** COM5/385/69 (B18/405/72)

Col. 8 *Gustina e.i.r.p. zemaljske stanice*(dB(W/Hz))

**MOD** COM5/385/70 (B18/405/73)

Col. 9 *Gustina e.i.r.p. satelita*(dB(W/Hz))

**MOD** COM5/385/71 (B18/405/74)

Col. 10 *Primedbe*

**SUP** COM5/385/72 (B18/405/75)

**ADD** COM5/385/73 (B18/405/76)

1 Dodele konvertovane iz namena.

**SUP** COM5/385/74 (B18/405/77)

2

**ADD** COM5/385/75 (B18/405/78)

2 Administracija Luksemburga (LUX) pristala je da radi sa LUX-30B-6 satelitskom mrežom u okviru karakteristika uključenih u Listu **30B**, kao što je modifikovano za vreme WRC-07, da se odmah eliminiše interferencija koja bi mogla da bude uzrokovana od LUX-30B-6 na nacionalnu namenu Islamske Republike Iran (IRN00000) (IRN).

**SUP** COM5/385/76 (B18/405/79)

3

**ADD** COM5/385/77 (B18/405/80)

3 Namena konvertovana u dodelu sa jednim snopom i zatim obnovljen u Planu.

**SUP** COM5/385/78 (B18/405/81)

4

**SUP** COM5/385/79 (B18/405/82)

5

**MOD** COM5/385/80 (B18/405/83)

*Napomena Sekretarijata (primenjiva kad se nalazi zvezdica (\*)u koloni 10):* Treba napomenuti da je taj snop namenjen da bude implementovan kao deo više-snopovske mreže, koja radi iz jedne lokacije u orbiti. U okviru bilo koje više-snopovske mreže, svi snopovi su odgovornost jedne administracije, tako da njihova međusobna interferencija neće da bude razmatrana na Konferenciji. Broj koji se nalazi u numeričkom kodu nakon zvezdice služi za identifikaciju višesnopovske mreže.

**SUP** COM5/385/81 (B18/405/84)

**B NAZIVI KOLONA DELA B PLANA**

**A.2 TEKST ZA SIMBOLE U KOLONAMA ZA NAPOMENU PLANA**

**SUP** COM5/403/1 (B20/414/11)

Tabela sa Dodatkom 30B Plana (stranice od AP30B-20 do 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	

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
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	
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	

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
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	
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	

4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
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	
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



4 500-4 800 MHz, 6 725-7 025 MHz

1	2	3	4	5	6	7	8	9	10
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	
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
VIN00000	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)

## ČLAN 11

### Period za koji važe odredbe i odgovarajući Plan

**MOD** COM5/385/83 (B18/405/86)

11.2 Ove odredbe i odgovarajući Plan moraju u svakom slučaju ostati na snazi do njihove revizije na kompetentnoj konferenciji o radiokomunikacijama, sazvanoj u skladu sa odgovarajućim odlukama važećeg ITU Statuta i Konvencije. (WRC-07)

**MOD** COM5/385/84 (B18/405/87)

## ANEKS 1 (WRC-03)

**MOD** COM5/385/85 (B18/405/88)

### Parametri koji karakterišu Plan namene fiksne satelitske službe

**SUP** COM5/385/86 (B18/405/89)

**Deo A – Tehnički podaci korišćeni pri uspostavljanju Plana namene i odgovarajućih odredbi**

**MOD** COM5/385/87 (B18/405/90)

### 1.2 Parametri koji se koriste za proračun gustine snage zemaljskih i svemirskih stanica

Odnos nosioc/šum ( $C/N$ ) je sledeći:

- a) odnos  $C/N$  za link ka svemiru prelazi 21 dB pod kišnim uslovima sa minimalnom gustinom snage predajnika zemaljske stanice od  $-60$  dB(W/Hz) prosečno u potrebnom opsegu modulisanog nosioca;
- b) odnos  $C/N$  za link ka zemlji prelazi 15 dB pod kišnim uslovima;
- c) za opseg 6/4 GHz, gornji  $C/N$  odnosi budu premašeni u 99.95% godine (NAPOMENA – Margina kišnog slabljenja je ograničena na maksimalno 8 dB);
- d) za opsege 13/10-11 GHz, gornji  $C/N$  odnosi budu premašeni 99.9% godine (NAPOMENA – Margina kišnog slabljenja je ograničena na maksimalno 8 dB);
- e) korišćeni modeli gasnog atmosferskog slabljenja i kišnog slabljenja su oni opisani u Preporukama ITU-R P.676-7 i ITU-R P.618-9. (WRC-07)

**MOD** COM5/385/88 (B18/405/91)

### 1.3 Elevacioni ugao antene zemaljske stanice

Minimalni elevacioni ugao za svaku tačku testiranja uključenu u servisno područje baziran je na sledećem:

$10^\circ$  za  $R_p \leq 40$  mm/h;

$20^\circ$  za  $40 < R_p \leq 70$  mm/h;

$30^\circ$  za  $70 < R_p \leq 100$  mm/h;

$40^\circ$  za  $R_p > 100$  mm/h.

Gde je  $R_p$  stopa padavina premašena za bilo koji dati procenat  $p$  prosečne godine, izračunat u saglasnosti sa Preporukom ITU-R P.837-5. Administracije mogu izabrati manje elevacione uglove za svoja područja servisiranja. Za zemlje na većim širinama ili razdvojenim teritorijama, u odsustvu

takvog zahteva, ako se ne mogu postići gornje minimalne vrednosti ugla elevacije, primenjuje se najveći elevacioni ugao koji dovodi do nenultog opsega mogućih orbitalnih pozicija. U planinskim krajevima, elevacioni ugao specificiraju zainteresovane administracije. (WRC-07)

**MOD** COM5/385/89 (B18/405/92)

#### **1.4 Kriterijum interferencije**

Plan se pripremao imajući u vidu da se omogući za svaku namenu ukupna agregatna vrednost nosioca prema interferenciji, u uslovima slobodnog prostora, 21 dB ili više, i jedna ukupna jednoulazna vrednost nosioca prema interferenciji, u uslovima slobodnog prostora od 25 dB. (WRC-07)

**MOD** COM5/385/90 (B18/405/93)

#### **1.6 Karakteristike zemaljske stanice**

1.6.1 Dijametar antena zemaljske stanice iznosi:

5.5 m za 6/4 GHz opseg;

2.7 m za 13/10-11 GHz opseg. (WRC-07)

1.6.2 Kod prijemnog sistema svemirske stanice temperatura šuma na izlasku prijemne antene iznosi:

95 K za 4 GHz opseg;

125 K za 10-11 GHz opseg. (WRC-07)

1.6.3 Efikasnost antene zemaljske stanice je 70%.

1.6.3bis Pojačanja antena zemaljske stanice za gorespecificirane dijemetre i efikasnost za označene izračunate frekvencije je sledeći:

50.4 dBi na 6 875 MHz;

47.0 dBi na 4 650 MHz;

49.8 dBi na 13.0 GHz;

48.4 dBi na 11.075 GHz. (WRC-07)

1.6.4 Prikladan obrazac za referentnu antenu zemaljske stanice prikazan je niže u Tabeli

1. (WRC-07)



TABELA 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				
Gde je:						
<table border="1"> <tr> <td><math>D</math>: dijametar antene</td> <td><b>Error! Objects cannot be created from editing field codes.</b> izraženo u istim jedinicama</td> </tr> <tr> <td><math>\lambda</math>: talasna dužina</td> <td></td> </tr> </table>			$D$ : dijametar antene	<b>Error! Objects cannot be created from editing field codes.</b> izraženo u istim jedinicama	$\lambda$ : talasna dužina	
$D$ : dijametar antene	<b>Error! Objects cannot be created from editing field codes.</b> izraženo u istim jedinicama					
$\lambda$ : talasna dužina						
$\varphi$ : ugao otklona antene od ose (u stepenima)						
<table border="1"> <tr> <td><math>G_1</math>: pojačanje prve bočne latice = <b>Error! Objects cannot be created from editing field codes.</b> dBi</td> </tr> </table>			$G_1$ : pojačanje prve bočne latice = <b>Error! Objects cannot be created from editing field codes.</b> dBi			
$G_1$ : pojačanje prve bočne latice = <b>Error! Objects cannot be created from editing field codes.</b> dBi						
$\varphi_m = \frac{20\lambda}{D} \times \sqrt{G_{max} - G_1} \quad \text{degrees}$						
$\eta$ : efikasnost antene						

**MOD** COM5/385/91 (B18/405/94)

**1.7 Karakteristike svemirske stanice** (WRC-07)

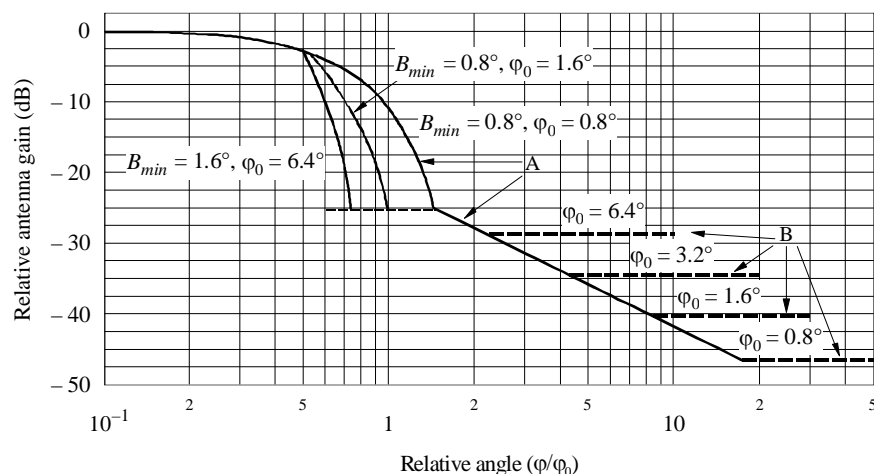
1.7.1 Plan namene je baziran na korišćenju antena svemirske stanice sa snopovima eliptičnog preseka.

1.7.2 Karakteristike zračenja antene prikazane su na Slici 1.

**MOD** COM5/385/92 (B18/405/95)

SLIKA 1\* (WRC-07)

**Reference patterns for satellite antennas with fast roll-off in the main beam**



RP/A1-02

\* Slika 1 prikazuje dijagrame za neke kombinacije  $B_{min}$  i  $\varphi_0$ . (WRC-07)

$$G_{max} = 44.45 - 10 \log (\varphi_{01} \cdot \varphi_{02}) \quad \text{dBi} \quad (\text{WRC-07})$$

*Kriva A:* dB relativno prema pojačanju glavnog snopa

$$-12 (\varphi/\varphi_0)^2 \quad \text{for } 0 \leq (\varphi/\varphi_0) \leq 0.5$$

**-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 for **Error! Objects cannot be created from editing field codes.**

$$-(22 + 20 \log (\varphi/\varphi_0)) \quad \text{for } (\varphi/\varphi_0) > 1.45$$

nakon preseka sa Krivom B: Kriva B.

*Kriva B:* Minus pojačanje na osi (Kriva B predstavlja primer od četiri antene sa različitim vrednostima  $\varphi_0$  kako je naznačeno na Slici 1. Pojačanje na osi ovih antena je približno 28.3, 34.3, 40.4 i 46.4 dBi) (WRC-07)

gde:

$\varphi$ : ugao otklona od ose (u stepenima)

$\varphi_0$ : presečni HPBW u smeru od interesa (u stepenima)

$\varphi_{01}, \varphi_{02}$ : HPBW po velikoj i maloj osi eliptičnog snopa (u stepenima) (WRC-07)

**Error! Objects cannot be created from editing field codes.**

gde je:

**Error! Objects cannot be created from editing field codes.**

1.7.3 Kod prijemnog sistema svemirske stanice temperatura šuma na izlasku prijemne antene iznosi:

500 K za 6 GHz opseg;

550 K za 13 GHz opseg.

1.7.4 Minimalna veličina širine snopa, u smislu HPBW, je  $1.6^\circ$  za 6/4 GHz opseg i  $0.8^\circ$  za 13/10-11 GHz opseg.

1.7.5 Efikasnost antene svemirske stanice je 55%.

1.7.6 Devijacija antenskog snopa svemirske stanice od nominalnog smera pokazivanja ograničena je na  $0.1^\circ$  u bilo kom smeru. Rotaciona tačnost eliptičnih snopova je  $\pm 1.0^\circ$ .

SUP COM5/385/93 (B18/405/96)

**Sekcija B – Generalizovani parametri koji se koriste za određivanje da li su predložene satelitske mreže u skladu s Planom**

SUP COM5/385/94 (B18/405/97)

## ANEKS 2 (WRC-03)

**Osnovni podaci koji treba da se nalaze u obaveštenjima vezano sa stanicama fiksne satelitske službe koje su u fazi dizajniranja koristeći frekvencijske opsege iz Plana**

SUP COM5/385/95 (B18/405/98)

## ANEKS 3A

### **Kriterijumi za odlučivanje kada se predložene dodele smatraju saglasne sa Planom**

**SUP** COM5/385/96 (B18/405/99)

## ANEKS 3B

### **Koncept makrosegmentacije**

**ADD** COM5/385/97 (B18/405/100)

## ANEKS 3 (WRC-07)

### **Ograničenja koja se primenjuju na podneske primljene pod Članom 6 ili Članom 7<sup>1M</sup>**

Pod pretpostavkom da se propagacija odvija u uslovima slobodnog prostora, snaga gustine fluksa (svemir-Zemlja) predložene nove namene ili dodele, nastala na bilo kojem delu površine Zemlje ne sme da pređe :

- $-127.5 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  u 4 500-4 800 MHz opsegu; i
- $-114.0 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  u 10.70-10.95 GHz i 11.20-11.45 GHz opsezima.

Pod pretpostavkom da se propagacija odvija u uslovima slobodnog prostora, snaga gustine fluksa (svemir-Zemlja) predložene nove namene ili dodele ne sme da pređe:

- $-140.0 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  prema bilo kojoj lokaciji u geostacionarnoj-satelitskoj orbiti lociranoj za više od  $10^\circ$  od predložene orbitalne pozicije u 6 725-7 025 MHz opsegu, ili
- $-133.0 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  prema bilo kojoj lokaciji u geostacionarnoj-satelitskoj orbiti lociranoj za više od  $9^\circ$  od predložene orbitalne pozicije u 12.75-13.25 GHz opsegu.

**MOD** COM5/385/98 (B18/405/101)

## ANEKS 4 (Rev.WRC-07)

### **Kriterijumi za određivanje da li se smatra da je neka namena ili dodela dotaknuta**

Smatra se da je neka namena ili dodela dotaknuta predloženom novom namenom ili dodelom:

1 ako je orbitalni razmak između njene orbitalne pozicije i orbitalne pozicije predložene nove namene ili dodele jednak ili manji od:

- 1.1  $10^\circ$  u 4 500-4 800 MHz (svemir-Zemlja) i 6 725-7 025 MHz (Zemlja-svemir) opsezima;
- 1.2  $9^\circ$  u 10.70-10.95 GHz (svemir-Zemlja), 11.20-11.45 GHz (svemir-Zemlja) i 12.75-13.25 GHz (Zemlja-svemir) opsezima;

i

2 ako najmanje jedan od sledećih uslova nije zadovoljen:

- 2.1 izračunata<sup>1</sup> prosta Zemlja-svemir vrednost nosioca prema interferenciji  $(C/I)_u$  u svakoj tački testiranja pridruženoj nameni ili dodeli koja se razmatra je veća ili jednaka

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<sup>1M</sup> Ova ograničenja ne važe za dodele zabeležene u Listi pre 17.11.2007.

referentnoj vrednosti koja je 30 dB, ili  $(C/N)_u + 9$  dB<sup>2</sup>, ili bilo kojoj već prihvaćenoj Zemlja-svemir prostoj vrednosti  $(C/I)_u^3$ , koja god je najmanja;

2.2 izračunata<sup>1</sup> prosta svemir-Zemlja vrednost nosioca prema interferenciji  $(C/I)_d$  bilo gde u servisnoj oblasti namene ili dodele koja se razmatra je veća ili jednaka referentnoj vrednosti koja je 26.65 dB, ili  $(C/N)_d + 11.65$  dB<sup>5</sup>, ili bilo kojoj već prihvaćenoj svemir-Zemlja prostoj vrednosti  $(C/I)_u^3$ , koja god je najmanja;

2.3 izračunata<sup>1</sup> ukupna agregatna vrednost  $(C/I)_u$  u svakoj tački testiranja pridruženoj nameni ili dodeli koja se razmatra, veća je ili jednaka referentnoj vrednosti koja je 21 dB, ili  $(C/N)_t + 7$  dB<sup>6</sup>, ili bilo kojoj već prihvaćenoj ukupnoj agregatnoj vrednosti  $(C/I)_u^3$ , koja god je najmanja, s tolerancijom 0.25 dB<sup>7</sup> u slučaju dodela koje ne proizilaze iz konverzije neke namene u dodelu bez modifikacije, ili kada se modifikacija nalazi unutar karakteristične anvelope inicijalne namene.

**MOD** COM5/385/99 (B18/405/102)

## DODATAK 1 NA ANEKS 4 (WRC-07)

### Metod određivanja sveukupne proste i agregatne vrednosti nosioca prema interferenciji uprosečeno po potrebnoj širini opsega modulisanog nosioca

#### 1 Prosti $C/I$

Ova sekcija opisuje metodu izračunavanja potencijala proste interferencije.

Ovaj metod je baziran na prostom odnosu interferencije nosioca prema šumu  $(C/I)$  koji data namena ili dodela urađena u skladu sa odredbama Dodatka **30B** može da očekuje zbog emisije predložene nove dodele ili modifikacije. Proste uzlazne  $(C/I)_u$  i silazne  $(C/I)_d$  vrednosti uzrokovane jednom interferirajućom satelitskom mrežom date su sa:

$$(C/I)_u = 10 \log_{10} \left( \frac{P_1 g_1 g_2(\varphi) l_{su'}}{P_1' g_1'(\theta) g_2(\rho) l_{su}} \right), \text{ dB}$$

$$(C/I)_d = 10 \log_{10} \left( \frac{P_3 g_3(\varphi) g_4 l_{sd'}}{P_3' g_3'(\eta) g_4(\xi) l_{sd}} \right), \text{ dB}$$

---

<sup>1</sup> Uključujući preciznost izračunavanja 0.05 dB.

<sup>2</sup>  $C/N_u$  je izračunat kao u Dodatku 2 ovog Aneksa.

<sup>3</sup> Isključujući vrednosti prihvaćene u skladu sa § 6.15 Člana 6.

<sup>1</sup> Uključujući preciznost izračunavanja 0.05 dB.

<sup>5</sup>  $C/N_d$  je izračunat kao u Dodatku 2 ovog Aneksa.

<sup>3</sup> Isključujući vrednosti prihvaćene u skladu sa § 6.15 Člana 6.

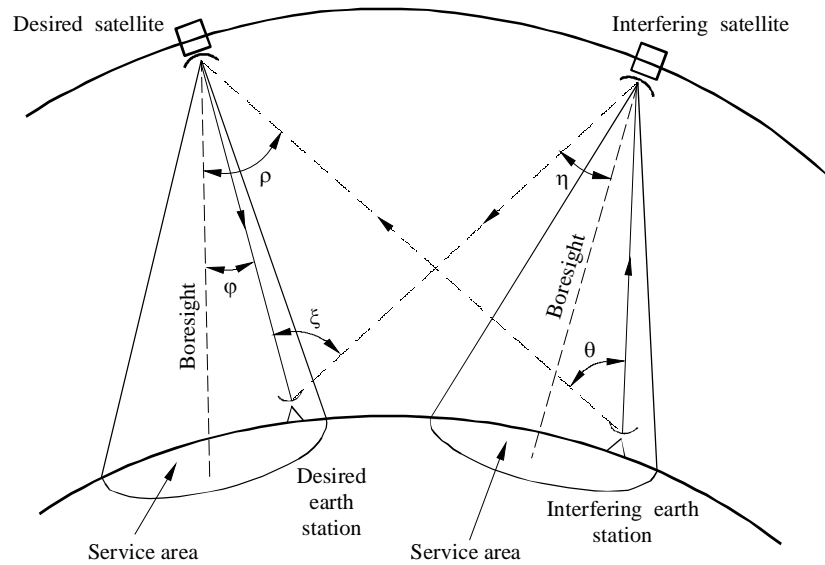
<sup>1</sup> Uključujući preciznost izračunavanja 0.05 dB.

<sup>6</sup>  $(C/N)_t$  je izračunat kao u Dodatku 2 ovog Aneksa.

<sup>3</sup> Isključujući vrednosti prihvaćene u skladu sa § 6.15 Člana 6.

<sup>7</sup> Uključeno preciznost izračunavanja 0.05 dB .

FIGURE 1



AP30BA4-01

gde je:

$\theta$ ,  $\varphi$ ,  $\rho$ ,  $\eta$ ,  $\xi$  su uglovi definisani u Fig. 1, gore.

U sledećem, svi pokazatelji su numerički pokazatelji snage.

- $p_1$ : gustina snage, uprosečeno po potrebnoj širini opsega modulisanog nosioca, uvedena u predajnu antenu željene zemaljske stanice (W/Hz)
- $g_1$ : maksimalno pojačanje predajne antene željene Zemaljske stanice
- $l_{su}$ : gubitak na stazi u slobodnom prostoru željenog signala na stazi prema gore
- $l_{su}'$ : gubitak na stazi u slobodnom prostoru interferentnog signala na stazi prema gore
- $g_2(\varphi)$ : pojačanje prijemne antene željene svemirske stanice u smeru željene zemaljske stanice
- $g_2$ : maksimalno pojačanje prijemne antene željene svemirske stanice
- $p_1'$ : gustina snage, uprosečeno po potrebnoj širini opsega modulisanog nosioca, uvedena u predajnu antenu interferirajuće zemaljske stanice (W/Hz)
- $g_1'(\theta)$ : antensko pojačanje interferirajuće zemaljske stanice u smeru željenog satelita
- $l_{sd}$ : gubitak na stazi u slobodnom prostoru željenog signala na stazi prema dole
- $l_{sd}'$ : gubitak na stazi u slobodnom prostoru interferentnog signala na stazi prema dole
- $g_2(\rho)$ : antensko pojačanje prijemne antene željene zemaljske stanice u smeru interferirajuće zemaljske stanice
- $p_3$ : gustina snage, uprosečeno po potrebnoj širini opsega modulisanog nosioca, uvedena u predajnu antenu željene zemaljske stanice (W/Hz)
- $g_3(\varphi)$ : antensko pojačanje željene svemirske stanice u smeru željene zemaljske stanice

- $g_3$ : maksimalno pojačanje predajne antene željene svemirske stanice  
 $g_4$ : maksimalno pojačanje prijemne antene željene zemaljske stanice  
 $p_3'$ : gustina snage, u prosečno po potrebnoj širini opsega modulisanog nosioca, uvedena u predajnu antenu interferirajuće svemirske stanice (W/Hz)  
 $g_3'(\eta)$ : antensko pojačanje predajne antene željene svemirske stanice u smeru željene zemaljske stanice  
 $g_4(\xi)$ : antensko pojačanje željene zemaljske stanice u smeru interferirajućeg satelita

Ukupan prosti  $(C/I)_t$  u datoj tački testiranja veze prema dole, uzrokovan jednom interferirajućom namenom ili dodelom iznosi:

$$(C/I)_t = -10 \log_{10} \left[ 10^{-\frac{(C/I)_{u_{min}}}{10}} + 10^{-\frac{(C/I)_d}{10}} \right] \text{ dB}$$

gde je:

$(C/I)_{u_{min}}$ : najniža vrednost  $C/I$  između svih tačaka testiranja veze prema gore

$(C/I)_d$ : vrednost  $C/I$  veze prema gore u razmatranim tačkama testiranja.

PRIMEDBA –Kad je implementirana samo jedna veza prema dole ili prema gore u opsezima koji podležu Dodatku 30B, samo doprinos od veze koja je implementirana u opsezima koji podležu Dodatku 30B treba da se ukalkuliše u proračun  $(C/I)_t$ .

## 2 Agregatni $C/I$

Agregatni  $(C/I)_{agg}$  u da toj tački testiranja veze prema dole:

$$(C/I)_{agg} = -10 \log_{10} \left( \sum_j^n 10^{-\frac{(C/I)_{t_j}}{10}} \right) \text{ dB}$$

$$j = 1, 2, 3 \dots n,$$

gde je:

$(C/I)_{t_j}$ : ukupan odnos nosioca prema interferenciji uzrokovan interferencijom od  $j$ -te namene ili dodele izračunate korišćenjem metode ukupnog prostog  $(C/I)_t$  kako je propisano u § 1 Dodatka 1 ovog Aneksa; i

gde je:

$n$ : ukupan broj interferirajućih namena ili dodela za koje je orbitalno razdvajanje sa željenim satelitom manje ili jednako  $10^\circ$  u slučaju 6/4 GHz opsega i manje ili jednako  $9^\circ$  u slučaju 13/10-11 GHz opsega.

**ADD** COM5/385/100 (B18/405/103)

### DODATAK 2 ANEKSA 4 (WRC-07)

## Metod određivanja vrednosti nosioca prema šumu ( $C/N$ )

Vrednost nosioca prema šumu za vezu prema gore  $(C/N)_u$  i nosioca prema šumu za vezu prema dole  $(C/N)_d$  računa se na sledeći način:

$$(C/N)_u = 10 \log_{10} \left( \frac{p_1 \cdot g_1 \cdot g_2(\varphi)}{k \cdot T_s \cdot l_{su}} \right) \quad \text{dB}$$

$$(C/N)_d = 10 \log_{10} \left( \frac{p_3 \cdot g_4 \cdot g_3(\varphi)}{k \cdot T_e \cdot l_{sd}} \right) \quad \text{dB}$$

gde je:

U sledećem, svi odnosi su numerički odnosi snaga.

- $p_1$ : gustina snage, uprosečena preko potrebne širine opsega modulisanog nosioca, što napaja predajnu antenu zemaljske stanice (W/Hz)
- $g_1$ : maksimalno pojačanje predajne antene zemaljske stanice
- $l_{su}$ : gubitak u slobodnom prostoru signala iz gornje staze
- $g_2(\varphi)$ : pojačanje prijemne antene svemirske stanice u smeru zemaljske stanice
- $T_s$ : temperatura šuma prijemnog sistema svemirske stanice koja se odnosi na izlaz prijemne antene
- $p_3$ : gustina snage, uprosečena preko potrebne širine opsega modulisanog nosioca, što napaja predajnu antenu svemirske stanice (W/Hz)
- $g_3(\varphi)$ : pojačanje predajne antene svemirske stanice u smeru zemaljske stanice
- $l_{sd}$ : gubitak u slobodnom prostoru signala iz donje staze
- $g_4$ : maksimalno pojačanje prijemne antene zemaljske stanice
- $T_e$ : temperatura šuma prijemnog sistema zemaljske stanice koja se odnosi na izlaz prijemne antene
- $k$ : Bolcmanova konstanta.

Ukupna vrednost nosioca prema šumu  $(C/N)_t$  tada se izračunava na sledeći način:

$$(C/N)_t = -10 \log_{10} \left[ 10^{-\frac{(C/N)_{u_{min}}}{10}} + 10^{-\frac{(C/N)_d}{10}} \right] \quad \text{dB}$$

gde je:

$(C/N)_{u_{min}}$ : najniža vrednost  $C/N$  između svih tačaka testiranja veze prema gore,

$(C/N)_d$ : vrednost  $C/N$  veze prema dole u razmatranim tačkama testiranja.

**PRIMEDBA** –Kad je implementirana samo jedna veza prema dole ili prema gore u opsezima koji podležu Dodatku **30B**, samo doprinos od veze koja je implementirana u opsezima koji podležu Dodatku **30B** treba da se ukalkuliše u proračun  $(C/N)_t$ .

**SUP** COM5/385/101 (B18/405/104)

ANEKS 5 (WRC-03)

**Primena PDA koncepta (unapred definisanog luka)**

SUP COM5/385/102 (B18/405/105)

ANEKS 6 (WRC-03)

**Tehnička sredstva pogodna za izbegavanje nekompatibilnosti izađu sistema  
fiksne satelitske službe u fazi njihove implementacije**

MOD COM4/211/19 (B3/224/32) (R2/266/21)

DODATAK 42 (Rev.WRC-07)

**Tabela dodeljenih međunarodnih pozivnih prefiksa**

(Vidi Član 19)

1) Izuzmi sledeće stavke iz sadašnje tabele:

Pozivni prefiks	Dodeljen
T9A-T9Z	Bosnia and Herzegovina
YTA-YUZ	Serbia and Montenegro
YZA-YZZ	Serbia and Montenegro
4NA-4OZ	Serbia and Montenegro

2) Dodaj sledeće stavke u sadašnju tabelu:

Pozivni prefiks	Dodeljen
E5A-E5Z	New Zealand – Cook Islands
E7A-E7Z	Bosnia and Herzegovina
XXA-XXZ	China (People's Republic of) – Macao
YTA-YUZ	Serbia (Republic of)
4OA-4OZ	Montenegro (Republic of)

(WRC-07)

(WRC-07)

(WRC-07)

(WRC-07)

(WRC-07)



## **REZOLUCIJE**

**MOD** COM4/296/55 (B9/305/57) (R5/336/1)

**REZOLUCIJA 18 (Rev.WRC-07)**

**Koja se odnosi na proceduru za identifikaciju i objavu pozicije brodova i letilica država koje ne učestvuju u oružanom konfliktu<sup>1</sup>**

Svetska konferencija o radio-komunikacijama (Ženeva, 2007),

*imajući u vidu*

- a) značajan rizik prilikom susreta brodova i letilica u blizini područja oružanog konflikta;
- b) da je zbog sigurnosti života i imovine poželjno za brodove i letilice država koje ne učestvuju u oružanom konfliktu da su u stanju da se identifikuju i objave svoju poziciju u takvim okolnostima;
- c) da radio-komunikacije nude takvim brodovima i letelicama brz način samoidentifikacije i omogućavanja objave pozicije pre njihovog ulaska u zone oružanih dejstava i za vreme njihovog prolaska kroz te zone;
- d) da se smatra poželjnim da se omogući dodatni signal i procedura za korišćenje, u skladu sa uobičajenom praksom, u zonama oružanih dejstava za brodove i letilice država kako bi pokazale da ne pripadaju ni jednoj strani u oružanom konfliktu,

*odlučuje*

1 da frekvencije za hitne signale i poruke specificirane u Pravilniku o radio-komunikacijama mogu da koriste brodovi i letilice država koje ne pripadaju ni jednoj strani u oružanom konfliktu, da bi se samoidentifikovali i uspostavili komunikaciju. Emisija će da se sastoji od hitnih i sigurnosnih signala, kako odgovara, opisano u Članu 33 za kojima sledi dodatak od jedne grupe "NNN" u radiotelegrafiji i dodatak jedne reči "NEUTRAL" izgovorene kao na francuskom "neutral" u radiotelefoniji. Čim postane moguće, komunikacije treba da budu prebačene na odgovarajuću radnu frekvenciju;

2 da korišćenje signala kako je opisano u prethodnom paragrafu označava da se poruka koja sledi odnosi na brod ili letelicu države koja ne pripada ni jednoj strani u oružanom konfliktu. Poruka treba da sadrži najmanje sledeće podatke:

- a) pozivni znak ili neki drugi prepoznatljiv način identifikacije takvog broda ili letilice;
- b) poziciju takvog broda ili letilice;
- c) broj i tip takvih brodova ili letilica;
- d) put kojim nameravaju da idu;
- e) procenjeno vreme puta, odlaska i dolaska, po potrebi;
- f) bilo koju drugu informaciju, kao što je visina leta, zaštićene radio frekvencije, jezike i SSR modove i kodove;

3 da odredbe Člana 33 koje se odnose na hitne i sigurnosne emisije, i medicinski transporti treba da zatraže korišćenje hitnih i sigurnosnih signala, na odgovarajući način, za takav brod ili letelicu;

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<sup>1</sup> Administracije se pozivaju da prouče tekst ove Rezolucije i da daju eventualne predloge za buduću nadležnu Konferenciju .

4 da identifikacija i lokacija brodova države koja ne pripada ni jednoj strani u oružanom konfliktu može biti ostvarena pomoću pomorskih radarskih transpondera. Identifikacija i lokacija letilica države koja ne pripada ni jednoj strani u oružanom konfliktu može biti ostvarena korišćenjem SSR sistema u skladu s procedurama koje preporučuje Međunarodna organizacija za civilno vazduhoplovstvo (ICAO);

5 da se korišćenje gore navedenih signala ne bi usaglašavalo ili uključivalo priznavanje bilo kakvih prava i obaveza države koja ne pripada ni jednoj strani u oružanom konfliktu ili pripada strani u konfliktu, osim što može biti priznato zajedničkim sporazumom između strana u konfliktu i strane koja to nije;

6 da se podstiču strane u konfliktu da uđu u takve sporazume,  
*nalaže se Generalnom Sekretaru*

da prosledi sadržaj ove Rezolucije Međunarodnoj pomorskoj organizaciji, Međunarodnoj organizaciji za civilno vazduhoplovstvo, Međunarodnom Komitetu Crvenog Krsta, i Međunarodnoj federaciji Crvenog krsta i zajednicama Crvenog polumeseca, za takvu akciju koju bi mogle smatrati odgovarajućom

*nalaže se ITU-R-u*

da preporuči odgovarajući signal u sistemu za digitalno selektivno pozivanje za korišćenje u pomorskoj mobilnoj službi i ostale potrebne informacije, konsultujući zainteresovane organizacije.

**MOD** COM6/251/1 (B5/267/1) (R3/292/99)

## REZOLUCIJA 26 (Rev.WRC-07)

### **Fusnote u Tabeli namene frekvencijskih opsega u Članu 5 Pravilnika o radio-komunikacijama**

Svetska konferencija o radio-komunikacijama (Ženeva, 2007),

*imajući u vidu*

- a) da su fusnote sastavni deo Tabele namene frakvencijskih opsega u Pravilniku o radio-komunikacijama i, kao takve, spadaju u deo teksta međunarodnog ugovora;
- b) da fusnote u Tabeli namene frekvencijskih opsega treba da su jasne, koncizne i lake za razumevanje;
- c) da fusnote treba da se odnose direktno na predmet namene frekvencijskih opsega;
- d) da, su, u nameri da se osigura da fusnote dozvoljavaju izmene u Tabeli namene frekvencijskih opsega bez uvođenja suvišnih komplikacija, potrebni principi kako da se fusnote koriste;
- e) da se, momentalno, fusnote usvajaju na kompetentnim svetskim konferencijama o radiokomunikacijama i bilo koji dodatak, modifikacija, ili brisanje fusnote se razmatra i prihvata na kompetentnoj konferenciji;
- f) da neki problemi koji se tiču fusnota za neku zemlju mogu da budu razrešeni putem primene specijalnog sporazuma razmotrenog u Članu 6;
- g) da su u nekim slučajevima administracije suočene sa značajnim teškoćama zbog nesaglasnosti ili propusta u fusnotama;
- h) da u svrhu ažurnog održavanja fusnota u Tabeli namene frekvencijskih opsega, trebalo bi da postoje jasne i efektivne smernice za dodavanja, modifikovanja i brisanja fusnota;

*odlučuje*

- 1 da kad god je moguće, fusnote u Tabeli namene frekvencijskih opsega treba da budu ograničene na menjanje, ograničavanje i ostale promene na odgovarajućim namenama, a ne da se bave radom stanica, dodelama frekvencija i drugim stvarima;
- 2 da bi Tabela namene frekvencijskih opsega trebala da uključuje samo one fusnote koje imaju međunarodne implikacije u korišćenju radio-frekvencijskog spektra;
- 3 da fusnote u Tabeli namene frekvencijskih opsega treba jedino da budu usvojene u cilju :
  - a) da se postigne fleksibilnost u Tabeli namene frekvencijskih opsega;
  - b) da se zaštite relevantne namene u samoj Tabeli i u drugim fusnotama u skladu sa Sekcijom II Člana 5;
  - c) da se uvedu ili prelazna ili stalna ograničenja novoj službi da bi se postigla kompatibilnost; ili
  - d) da se izađe u susret specifičnim zahtevima neke zemlje ili regiona kad je nepraktično zadovoljavati takve zahteve na drugi način u Tabeli namene frekvencijskih opsega;
- 4 da fusnote koje služe zajedničkoj svrsi treba da budu u zajedničkom formatu, i gde je moguće, da budu grupisane u jedinstvenu fusnotu sa odgovarajućim referencama na pripadni frekvencijski opseg

*dalje odlučuje*

- 1 da dodavanje bilo koje nove fusnote ili modifikacija postojeće fusnote treba da bude razmatrano na Svetskoj konferenciji o radio-komunikacijama samo kada :
  - a) dnevni red dotične konferencije eksplicitno uključuje opseg na koji se predložena dodatna ili modifikovana fusnota odnosi; ili
  - b) frekvencijski opsezi kojima zahtevani dodaci ili izmene fusnote pripadaju su razmatrani u toku konferencije i konferencija odluči da vrši izmene u tim opsezima; ili
  - c) dodatak ili izmena fusnote je specijalno uključena u dnevni red konferencije kao rezultat uvažavanja predloga podnesenog od jedne ili više administracija;
- 2 da predloženi dnevni red za sledeće Svetske konferencije o radio-komunikacijama treba da uključuje jednu stalnu tačku dnevnog reda koja bi dozvoljavala razmatranje predloga administracija za brisanje domaćih fusnota, ako više ne trebaju;
- 3 da bi u slučajevima koji nisu obuhvaćeni *daljim odlukama* 1 i 2, predlozi za nove fusnote ili izmene postojećih fusnota mogli izuzetno biti razmatrani na Svetskoj konferenciji o radio-komunikacijama ako se tiču ispravki očiglednih propusta, protivrečnosti, dvosmislenosti ili štamparskih grešaka i ako su podneseni ITU-u kako je predviđeno u No. 40 Generalnih Pravila Konferencija, Skupština i Skupova Unije (Antalya, 2006)

*nalaže se administracijama*

- 1 da periodično pregledavaju fusnote i predlažu brisanja njihovih domaćih fusnota ili domaćih imena iz fusnota, na odgovarajući način;
- 2 da uzmu u obzir gore pomenute *dalje odluke* prilikom pravljenja predloga za Svetske konferencije o radio-komunikacijama.

**MOD** COM6/206/1 (B2/213/1) (R1/221/6)

## REZOLUCIJA 27 (Rev.WRC-07)

### **Korišćenje sjedinjenja po naznaci u Pravilniku o radio-komunikacijama**

Svetska konferencija o radio-komunikacijama (Ženeva, 2007),

*imajući u vidu*

a) da je princip prisajedinjenja dokumenata po naznaci, u kojem se u glavnom dokumentu samo spominje drugi, prihvaćen u WRC-95, revidiran u WRC-97 i dalje revidiran u WRC-2000 (vidi Aneксе 1 i 2 na ovu Rezoluciju);

b) da postoje odredbe u Pravilniku o radio-komunikacijama koje sadrže delove kod kojih ne može jasno da se razlikuje da li je njihov status obavezno ili neobavezno

*prepoznajući*

da reference na Rezolucije ili Preporuke Svetske konferencije o radiokomunikacijama (WRC) ne zahtevaju specijalne procedure, i prihvatljive su za razmatranje, budući da je (WRC) prihvatio te tekstove,

*odlučuje*

1 da će za potrebe Pravilnika o radio-komunikacijama, termin “prisajedinjenje po naznaci” biti primenjeno samo na one naznake koje treba da postanu obavezujuće;

2 da kad se razmatra uvođenje novih slučajeva prisajedinjenja po naznaci, takvo prisajedinjenje treba da bude što manje i urađeno primenjujući sledeće kriterijume:

- samo tekstovi koji su relevantni za određenu tačku dnevnog reda WRC-a mogu doći u obzir;
- pravilan metod za naznake određuje se na bazi principa postavljenih u Dodatku 1 ove Rezolucije;
- uputstva sadržana u Dodatku 2 ove Rezolucije primenjuju se da osiguraju da se primenio pravilan način naznake za datu svrhu;

3 da se procedura opisana u Dodatku 3 ove Rezolucije primenjuje za odobravanje prisajedinjenja po naznaci ITU-R Preporuka ili dela toga;

4 da se postojeće naznake u ITU-R Preporukama revidiraju da bi se pojasnilo da li je naznaka obavezujuća ili neobavezujuća u skladu da Dodatkom 2 ove Rezolucije;

5 da se ITU-R Preporuke, ili deo njih, prisajedinjene po naznaci u zaključku svake WRC, sakupe i objave u knjizi Pravilnika o radio-komunikacijama (vidi Dodatak 3 ove Rezolucije),

*nalaže Direktorcu Biroa za radiokomunikacije*

1 da predoči ovu rezoluciju Skupštini za Radiokomunikacije i ITU-R Studijskoj Grupi;

2 da pronađu odredbe i fusnote Pravilnika o radio-komunikacijama koje sadrže naznake u ITU-R Preporukama i stave sugestije na uvid bilo kojoj budućoj akciji drugog zasedanja Tela za pripremu konferencije, kao i za uključivanje u Izveštaj Direktora sledećoj WRC;

3 da pronađu odredbe i fusnote Pravilnika o radio-komunikacijama koje sadrže naznake na WRC rezolucije koje sadrže naznake na ITU-R preporuke, i stave sugestije na uvid bilo kojoj budućoj akciji drugog zasedanja Tela za pripremu konferencije, kao i za uključivanje u Izveštaj Direktora sledećoj WRC,

*poziva administracije*

da podnesu predloge za buduće konferencije, uzimajući u obzir izveštaje CPM-a, u cilju pojašnjavanja statusa naznaka, gde su ostale neodređenosti oko statusa naznaka u smislu obavezno-neobavezno, imajući u vidu dopune tih naznaka:

- i) za koje se ispostavi da su obavezujuće prirode, označavajući takve naznake da su inkorporirane kao naznake upotrebljavajući čisti povezujući jezik u saglasnosti sa Aneksom 2;
- ii) da nemaju obavezujući karakter, tako kao da se odnose na "najnoviju" verziju Preporuka.

**ANEKS 1 NA REZOLUCIJU 27 (Rev.WRC-07)**

**Principi prisajedinjenja po naznaci**

1 Za potrebe Pravilnika o radio-komunikacijama, izraz "prisajedinjenje po naznaci" primenjuje se samo na naznake označene da budu obavezujuće.

2 Kada je relevantni tekst kratak, naznačeni materijal treba da se stavi u Pravilnik o radio-komunikacijama, ne koristeći prisajedinjenje po naznaci.

*2bis* Kada je obavezujuća naznaka na neku ITU-R Preporuku, ili njen deo, uključena u odluke neke WRC odluke, koja je sama citirana u odredbi ili fusnoti Pravilnika o radio-komunikacijama koristeći propisani rečnik (na.pr. "shall"), ta ITU-R Preporuka ili deo nje takođe se smatra prisajedinjen po naznaci.

3 Tekst koji nije obavezujuće prirode ili koji se odnosi na druge tekstove koji nisu obavezujuće prirode ne treba da se prisajedini po naznaci.

4 Ako je, od slučaja do slučaja, odlučeno da se materijal po naznaci uključi na obaveznoj osnovi, primenjuju se sledeće odredbe:

4.1 tekst koji se uključuje po naznaci ima isti ugovorni status kao sam Pravilnik o radio-komunikacijama;

4.2 naznaka mora da bude izričita, da specificira specifičan deo teksta (ako je podesno) i verziju ili broj izdanja;

4.3 tekst uključen po naznaci mora da bude podnesen na usvajanje od kompetentne WRC u skladu sa odlukama 3;

4.4 svi tekstovi uključeni po naznaci objavljuju se kad se završi WRC, u skladu sa odlukama 5.

5 Ako je, između WRC-a, tekst uključen po naznaci (na pr. ITU-R Preporuka) promenjen, naznaka u Pravilniku o radio-komunikacijama nastavlja da se primenjuje na ranije verzije uključene po naznaci do vremena kada kompetentna WRC pristane da uključi novu verziju. Mehanizam za razmatranje takvog koraka dat je u Rezoluciji **28 (Rev.WRC-03)**.

**ANEKS 2 NA REZOLUCIJU 27 (Rev.WRC-07)**

**Aplikacija za prisajedinjenje po naznaci**

Za vreme uvođenja novih slučajeva prisajedinjenja po naznaci u odredbama Pravilnika o radio-komunikacijama ili revidiranja postojećih slučajeva prisajedinjenja po naznaci, administracije i ITU-R bi trebale adresirati sledeće faktore da bi osigurale da je primenjena ispravna metoda za nameravanu svrhu, saglasno za svaku referencu da li je obavezujuća (na pr, prisajedinjena po naznaci) ili neobavezujuća

### **Obavezujuće reference**

- 1 obavezujuća referenca upotrebljava jasan jezik za povezivanje, na pr. “shall”;
- 2 obavezujuća referenca se eksplicitno i specifično prepoznaje;
- 3 ukoliko je nameravani naznačeni materijal, u celosti nepodesan za tekst sa statusom ugovora, naznaka će biti ograničena na samo one delove pomenutog materijala koji je podesan, na pr. “Aneks A na Preporuku ITU-R Z.123-4”.

### **Neobavezujuće reference**

- 4 Neobavezujuće reference ili nejasne reference koje su predodređene da budu neobavezujuće (na pr. prisajedinjene po naznaci ) koriste odgovarajući jezik, kao “should” or “may”. Taj odgovarajući jezik može da se odnosi na najnoviju verziju Preporuke. Svaki odgovarajući jezik može u budućnosti biti promenjen na bilo kojoj budućoj WRC.

## **ANEKS 3 NA REZOLUCIJU 27 (Rev.WRC-07)**

### **Procedura koju primenjuje WRC za odobravanje uključivanja po naznaci ITU-R Preporuka ili dela njih**

Naznačeni tekst treba da bude dostupan delegacijama dovoljno dugo vremena za sve administracije da se konsultuju na ITU jeziku. Jedna kopija teksta treba da bude dostupna svakoj administraciji kao konferencijski dokument.

Za vreme trajanja svake WRC, lista tekstova prisajedinjenih po naznaci treba da bude razvijena i održavana od strane komiteta. Ta lista biće publikovana kao konferencijski dokument po redu sa ostalim razvojem za vreme konferencije.

Nakon završetka svake WRC, Biro i Generalni Sekretarijat modifikovaće knjigu Pravilnika o radio-komunikacijama koja služi kao skladište tekstova prisajedinjenih po naznaci u skladu sa razvojem na konferenciji kako je zabeleženo u gore pomenutom dokumentu.

**MOD** COM5/384/1 (B16/401/8)

## **REZOLUCIJA 49 (Rev.WRC-07)**

### **Administriranje s dužnom pažnjom koje se primenjuje za neke satelitske radiokomunikacione službe**

Svetska konferencija o radio-komunikacijama (Ženeva, 2007),

*imajući u vidu*

- a) da je Rezolucija 18 Konferencije opunomoćenika (Kjoto, 1994) naložila Direktoruro Biroa za radiokomunikacije da inicira reviziju nekoliko važnih pitanja koji se tiču koordinacije međunarodne satelitske mreže i da napravi preliminarni izveštaj za WRC-95 i finalni izveštaj za WRC-97;
- b) da je Direktor Biroa dostavio sveobuhvatni izveštaj za WRC-97, uključujući izvestan broj preporuka za delovanje što je pre moguće i za određivanje područja koja zahtevaju dalje proučavanje;
- c) da je jedna od preporuka u Direktorovom izveštaju za WRC-97 da bi administriranje s dužnom pažnjom trebalo da bude prihvaćeno kao način adresiranja problema rezervacije orbite i spektralnih kapaciteta bez da se stvarno koriste;

- d) iskustvo bi trebalo da se postigne u primeni administrativnih s dužnom pažnjom procedura, prihvaćenih od WRC-97, i da nekoliko godina bude potrebno da se vidi da li administriranje sa dužnom pažnjom daje zadovoljavajuće rezultate;
- e) novi regulatorni prilaz bi mogao da bude pažljivo razmatran da bi se izbegli kontra efekti na mrežama koje već prolaze kroz različite faze procedura;
- f) da Član 44 Ustava daje osnovne principe za upotrebu radio-frekvencijskog spektra i da geostacionarnih satelita i ostalih satelitskih orbita, uzimajući u obzir potrebe zemalja u razvoju, *imajući u vidu sledeće*
- g) da je WRC-97 odlučio da redukuje vremenske okvire za uvođenje satelitske mreže u upotrebu;
- h) da WRC-2000 smatra rezultate implementacije administriranja s dužnom pažnjom, i priprema report za 2002 Konferenciju Opunomoćenika u odgovoru na Rezoluciju 85 (Mineapolis, 1998), *odlučuje*

1 procedura administriranja s dužnom pažnjom sadržana u Aneksu 1 ove Rezolucije treba da se primenjuje od 22.11.1997. za satelitske mreže i satelitske sisteme fiksne-satelitske mreže, mobilne satelitske mreže ili radiodufuzne satelitske službe za koje su objavljene informacije pod No. **9.2B**, ili za koje zahtev za modifikacije u Planu Regiona 2 u članku 4, § 4.2.1 b) Dodataka **30** i **30A** koji uključuje dodavanje novih frekvencija ili pozicija orbita, ili za koje zahtev za modifikacije Plana Regiona 2 u Članku 4, § 4.2.1 a) Dodaci **30** and **30A** koje proširuju područje službe na drugu zemlju ili zemlje površ postojećeg područja službe, ili za koje zahtev za dodatno korišćenje u Regionima 1 i 3 u § 4.1 Članka 4 Dodatka **30** i **30A**, ili za koje podnošenje informacije pod suplementarnim odredbama podesnim za dodatne upotrebe u planiranim opsezima definisanim u Članku 2 Dodatka **30B** (Sekcija III Članka 6) je Biro primio iza 22.11.1997., ili za koje podnošenje u Članku 6 dodatka **30B (Rev.WRC-07)** je primljeno na ili nakon 17.11.2007., sa izuzetkom podnesaka novih Članica koje traže prikupljanje njihovih dodela<sup>3</sup> za uključivanje u Plan Dodataka **30B**;

2 da za satelitske mreže ili satelitske sisteme razmatrane u § 1 ili 3 Dodatka 1 ove Rezolucije koje nisu još zabeležene u Glavnom Međunarodnom Registru Frekvencija (MIFR) do 22.11.1997., za koje je objavljena informacija u No. **1042** Pravilnika o radiokomunikacijama (izdanje 1990, revidirano 1994) ili za aplikaciju Sekcije III of Članka 6 Dodatka **30B** koju je Biro primio pre 22.11.1997, odgovorna administracija treba da podnese Birou kompletnu informaciju s dužnom pažnjom u saglasnosti sa Aneksom 2 ove Rezolucije ne posle 21.11.2004. , ili pre isteka naznačenog perioda puštanja satelitske mreže u upotrebu, plus svaki dodatni period koji ne prelazi tri godine shodno aplikaciji No. **1550** Pravilnika o radiokomunikacijama (izdanje 1990, revidirano 1994) ili datuma specificiranim u odgovarajućim odredbama Članka 6 Dodatka **30B**, kad god je datum raniji. Ako je datum početka upotrebe, uključujući gorespomenuta pomeranja, pre 1.07.1998, odgovorna administracija treba da podnese Birou kompletnu informaciju s dužnom pažnjom u skladu sa Aneksom 2 ove Rezolucije ne kasnije od 1.07.1998;

*2bis* da za satelitsku mrežu ili satelitski sistem razmatran u § 2 Aneksu 1 ove Rezolucije koji nisu zabeleženi u MIFR do 22.11.1997., za koje je zahtev za modifikaciju Plana u Dodacima **30** i **30A** stigao u Biro pre 22.11.1997., dotična administracija treba da podnese Birou kompletnu informaciju sa dužnom pažnjom u skladu sa Aneksom 2 ove Rezolucije što pre je moguće pre

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<sup>3</sup> Vidi § 2.3 Dodatka **30B (Rev.WRC-07)**.



završetka perio postavljenog za granicu puštanja u upotrebu u skladu sa odgovarajućim odlukama iz Člana 4 u Dodatku **30** i odgovarajućim odlukama iz Člana 4 Dodatka **30A**;

3 da za satelitsku mrežu ili satelitski sistem razmatran u § 1, 2 ili 3 u Aneksu 1 ove Rezolucije koji su zabeleženi u MIFR do 22.11.1997., dotična administracija treba da podnese Birou kompletnu informaciju sa dužnom pažnjom u skladu sa Aneksom 2 ove Rezolucije ne kasnije od 21.11.2000, ili pre naznačenog datuma puštanja satelitske mreže u upotrebu (uključujući i dodatni period), zavisno koji datum pada kasnije;

4 da šest meseci pre datuma isteka koji je specificiran u odluci 2 ili gorenavedenoj 2bis, ako dotična administracija nije podnela informacije s dužnom pažnjom, Biro će poslati podsetnik toj administraciji;

5 da ako se ustanovi da su informacije s dužnom pažnjom nekompletne, Biro će smesta zahtevati od dotične administracije da dostavi nedostajuće informacije. U svakom slučaju, kompletne informacije s dužnom pažnjom treba da budu u Birou pre isteka datuma specificiranog u odluci 2 ili gorenavedenoj 2bis, ako je podesno, i Biro treba da ih objavi u Međunarodnom cirkularu za informacije o frekvencijama (BR IFIC);

6 da ako kompletne informacije s dužnom pažnjom ne budu primljene u Birou pre isteka datuma specificiranog u odluci 2 ili gorenavedenoj 2bis, zahtev za koordinaciju ili zahtev za modifikaciju Plana u Dodacima **30** i **30A** ili za aplikaciju Sekcije III članka 6 Dodatka **30B** kako je pokriveno gorepomenutom Odlukom 1 podneseno Birou biće poništen. Bilo koja modifikacija Plana (Dodaci **30** i **30A**) prestaje da važi, i svako zapisivanje u MIFR kao i zapisivanje u Dodatak **30B** Listu Biro treba da obriše nakon što je informisao zainteresovane administracije. Biro treba da objavi te informacije u BR IFIC.

*takođe odlučuje*

da su procedure u ovoj Rezoluciji dodaci odredaba iz Članova 9 ili 11 Pravilnika o radiokomunikacijama ili Dodataka **30**, **30A** or **30B**, ako je podesno i u ovom slučaju, ne utiču na zahtev za koordinaciju prema tim odredbama (Dodaci **30**, **30A**) u zavisnosti od širenja područja službe na drugu zemlju ili zemlje povrh postojećeg područja službe

*nalaže se Direktoru Biroa za radiokomunikacije*

da izvesti narednu kompetentnu svetsku konferenciju o radiokomunikacijama o rezultatima implementacije procedure administriranja s dužnom pažnjom.

#### ANEKS 1 NA REZOLUCIJU 49 (Rev.WRC-07)

1 Svaka satelitska mreža ili satelitski sistem fiksne satelitske službe, mobilno- satelitska služba ili radiodifuzna-satelitska služba sa dodeljenim frekvencijama koje podležu koordinaciji pod Nos. **9.7**, **9.11**, **9.12**, **9.12A** i **9.13** i Rezoluciji **33 (Rev.WRC-03)** treba da budu podvrgnuti ovim procedurama.

2 Svaki zahtev za izmenu Plana u Regionu 2 prema odgovarajućim odredbama iz Člana 4 Dodaci **30** i **30A** koji uključuje dodavanje novih frekvencija ili mesta u orbiti ili izmenu Plana u Regionu 2 prema odgovarajućim odredbama iz Člana 4 Dodaci **30** i **30A** koji povećava područje službe na drugu zemlju ili zemlje pored postojećeg područja službe ili zahtev za dodatna korišćenja u Regionima 1 i 3 prema odgovarajućim odredbama iz Člana 4 Dodaci **30** i **30A** treba da budu podvrgnuti ovim procedurama.

3 Svako podnošenje informacije prema Članu 6 Dodatak **30B (Rev.WRC-07)**, sa izuzetkom podnesaka novih zemalja članica koje traže prikupljanje njihovih nacionalnih raspodela za uključenje u Dodatak **30B** Plana treba da budu podvrgnuti ovim procedurama.

4 Administracija koja zahteva koordinaciju za satelitsku mrežu pod gorepomenutim § 1 treba da dostavi Birou što ranije pre isteka roka postavljenog za stavljanje u upotrebu u No. **9.1**, informacije s dužnom pažnjom koje se odnose na satelitsku mrežu i proizvođača svemirskog broda navedene u Aneksu 2 ove Rezolucije.

5 Administracija koja zahteva izmenu Plana u Regionu 2 ili dodatna korišćenja u Regionima 1 i 3 Dodaci **30** i **30A** pod gorepomenutim § 2 treba da dostavi Birou što ranije pre isteka roka postavljenog za stavljanje u upotrebu prema odgovarajućim odlukama iz Člana 4 Dodatak **30** i odgovarajućim odlukama iz Člana 4 Dodatak **30A**, informacije s dužnom pažnjom koje se odnose na identitet satelitske mreže i proizvođača svemirskog broda navedene u Aneksu 2 ove Rezolucije.

6 Administracija koja primenjuje Član 6 Dodatka **30B (Rev.WRC-07)** pod gorepomenutim § 3 treba da dostavi Birou što ranije pre isteka roka postavljenog za stavljanje u upotrebu prema § 6.1 ovog Člana informacije s dužnom pažnjom koje se odnose na identitet satelitske mreže i proizvođača svemirskog broda navedene u Aneksu 2 ove Rezolucije.

7 Informacije koje se podnose prema gorepomenutim § 4, 5 ili 6 moraju biti potpisane od autorizovanog lica administracije za obaveštenje ili neke administracije koja zastupa imenovanu grupu administracija.

8 Po prijemu informacije s dužnom pažnjom prema gorepomenutim § 4, 5 ili 6, Biro će odmah proveriti da li su informacije kompletne. Ako ustanovi da jesu, Biro treba da objavi te kompletne informacije u BR IFIC u roku od 30 dana.

9 Ako se ustanovi da informacije nisu kompletne, Biro će odmah zahtevati od administracije da dostavi informacije koje nedostaju. U svakom slučaju, kompletne informacije s dužnom pažnjom Biro će da primi u odgovarajućem vremenu specificiranom u gorepomenutim § 4, 5 ili 6, kao što slučaj može biti, u odnosu na datum stavljanja satelitske mreže u upotrebu.

10 Šest meseci pre isteka perioda specificiranog u gorepomenutim § 4, 5 ili 6 i ako administracija odgovorna za satelitsku mrežu nije dostavila nije dostavila informacije s dužnom pažnjom pod gorepomenutim § 4, 5 ili 6, Biro će poslati podsetnik odgovornoj administraciji.

11 Ako Biro ne primi kompletne informacije s dužnom pažnjom u određeno vreme specificirano u ovoj Rezoluciji, mreže pokrivene gorepomenutim § 1, 2 ili 3 neće se više uzimati u obzir i neće biti zapisane u MIFR. Biro će obrisati privremeni zapis iz MIFR nakon što je obavestio zainteresovane administracije. Biro će objaviti te informacije u BR IFIC.

Poštujući zahtev za izmenu Plana u Regionu 2 ili za dodatna korišćenja u Regionima 1 i 3 Dodaci **30** i **30A** pod gorepomenutim § 2, izmene će biti odbačene ako informacije s dužnom pažnjom nisu dostavljene u skladu s ovom Rezolucijom.

Poštujući zahtev za primenu Člana 6 Dodatak **30B (Rev.WRC-07)** pod gorepomenutim § 3, mreža će biti izbrisana iz Liste Dodatka. Kada je neka raspodela iz Dodatka **30B** konvertovana u dodelu, dodela će biti obnovljena u Planu prema § 6.33 c) Člana 6 Dodatak **30B (Rev.WRC-07)**.

12 Administracija koja najavljuje satelitsku mrežu pod gorepomenutim § 1, 2 ili 3 za upis u MIFR treba da dostavi Birou što ranije pre isteka roka postavljenog za stavljanje u upotrebu prema § 6.1 ovog Člana informacije s dužnom pažnjom koje se odnose na identitet satelitske mreže i provajdera za poslove lansiranja navedene u Aneksu 2 ove Rezolucije.

13 Kad je neka administracija kompletirala proceduru s dužnom pažnjom, ali nije urađena koordinacija, to je ne sprečava u primeni No. **11.41**.

## ANEKS 2 NA REZOLUCIJU 49 (Rev.WRC-07)

### **A Identitet satelitske mreže**

- a) Identitet satelitske mreže
- b) Ime administracije
- c) Simbol zemlje
- d) Poziv na unapred objavljene informacije ili na zahtev za modifikaciju Plana za Region 2 ili za dodatna korišćenja u Regionima 1 i 3 prema Dodacima **30** and **30A**; ili pozivanje na proces informisanja prema Članu 6 Dodaci **30** and **30A**; ili pozivanje na proces informisanja prema Članu 6 Dodatak **30B (Rev.WRC-07)**
- e) Poziv na zahtev za koordinaciju (nije primenljiv na Dodatke **30, 30A** i **30B**)
- f) Frekvencijski opsezi
- g) Ime operatora
- h) Ime satelita
- i) Karakteristike orbite.

### **B Proizvođač svemirske letilice\***

- a) Ime proizvođača svemirske letilice
- b) Datum izvršenja ugovora
- c) Ugovorni "okvir isporuke"
- d) Broj nabavljenih satelita.

### **C Provajder službe lansiranja**

- a) Ime provajdera lansirnih uređaja
- b) Datum izvršenja ugovora
- c) Lansirni i orbitni okvir isporuke
- d) Naziv lansirnog uređaja
- e) Naziv i mesto lansirnog kompleksa.

**MOD** COM5/307/31 (B11/329/38) (R6/410/69)

## REZOLUCIJA 55 (Rev.WRC-07)

### **Elektronsko podnošenje formi za obaveštavanje za zemaljske stanice i radio astronomske stanice**

Svetska konferencija za radiokomunikacije (Ženeva, 2007),

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\* BELEŠKA – U slučaju kada ugovor za nabavku satelita pokriva više od jednog satelita, moraju se dati relevantne informacije za svaki satelit.

*s obzirom*

da bi elektronsko podnošenje formi za obaveštavanje za sve satelitske mreže, zemaljske stanice, i radio astronomske stanice u elektronskom formatu olakšalo posao Biroa za radiokomunikacije i administracije, i ubrzalo procesiranje tih obaveštenja

*konstatujući*

da, ako bi se kašnjenje procesiranja vezano za koordinaciju i procedure obaveštavanja nastavilo preko perioda specificiranog u Člancima **9** i **11** kao i Dodacima **30**, **30A** i **30B**, administracije bi mogle da imaju manje vremena u kojem treba da urade koordinaciju,

*odlučuje*

1 da, od 3.6.2000, sva obaveštenja (AP4/II i AP4/III), radio astronomske objave (AP4/IV) i API (AP4/V i AP4/VI) i informacije s dužnom pažnjom (Rezolucija **49 (WRC-07)**) za satelitske službe i zemaljske stanice podnesena Birou za radiokomunikacije shodno Članovima **9** i **11** treba da bude podnesena u elektronskom formatu koji je kompatibilan sa BR formama elektronskih obaveštenja softvera za primanje (SpaceCap);

2 da, od 17.11.2007., sva obaveštenja za satelitske mreže, zemaljske stanice i radio astronomske stanice podnesena Birou shodno Članu **9** i **11**, kao i Dodacima **30** i **30A** i Rezoluciji **49 (WRC-07)**, treba da budu podnesena u elektronskom formatu koji je kompatibilan sa BR formama elektronskih obaveštenja softvera za primanje (SpaceCap i SpaceCom);

3 da, od 1.6.2008, sva obaveštenja za satelitske mreže i zemaljske stanice podnesene Birou za radiokomunikacije shodno Dodatku **30B** treba da budu podnesena u elektronskom formatu koji je kompatibilan sa BR formama elektronskih obaveštenja softvera za primanje (SpaceCap);

4 da, od 3.6.2000, svi grafički podaci pridruženi podnescima adresirani u *odlukama* 1, 2 i 3 trebali bi biti podneseni u grafičkom formatu softvera Biroa za primanje (grafički sistem za upravljanje interferencijom (GIMS)); podnošenje grafike u papirnoj formi i dalje se prihvata

*nalaže Birou za radiokomunikacije*

1 da omogući zahteve i obaveštenja napomenuta u *odlukama* 1, "kako su primljena", na njihovom BR Međunarodnom cirkularu za informacije o frekvencijama CD-ROM, u roku od 30 dana od prijema, i na njegovom veb-sajtu;

2 da obezbedi administracijama najnovije verzije softvera za primnje i validaciju, i sva potrebna tehnička sredstva, i svaku pomoć zahtevanu administracija da im se omogući da se usklade sa gore pomenutim *odlukama* 1 do 4;

3 da objedine softvere za validaciju i primanje do pogodnog praktičnog nivoa,

*poziva administracije*

da dostave, koliko je praktično, grafičke podatke koji se odnose na njihova obaveštenja u formatu kompatibilnom sa softverom Biroa za primanje podataka.

**MOD** COM6/269/1 (B7/283/7) (R5/336/2)

**REZOLUCIJA 63 (Rev.WRC-07)**

### **Zaštita radiokomunikacionih službi od interferencije koju uzrokuje radijacija od industrijske, naučne i medicinske (ISM) opreme**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*imajući u vidu*

- a) da se ISM primene definišu pod RR 1.15 kao “operacije opreme ili aparata namenjene da generišu i koriste radiofrekvencijsku energiju za industrijske, naučne, medicinske, domaće ili slične potrebe, isključujući primene na polju *telekomunikacija*”;
- b) da ISM oprema može da se nalazi na lokacijama gde spoljna radijacija ne može uvek da se izbegne;
- c) da se povećava količina ISM opreme koja radi na raznim frekvencijama u spektru;
- d) da u nekim slučajevima ISM oprema može da izrači značajni deo energije izvan svoje radne frekvencije;
- e) da Preporuka ITU-R SM.1056 preporučuje administracijama upotrebu Publikaciju 11 Specijalnog Međunarodnog Komiteta za Radio Interferenciju (CISPR) kao vodič za ISM opremu za zaštitu radiokomunikacionih službi, ali da CISPR 11 još uvek ne specificira u potpunosti radijacijske limite za sve frekvencijske opsege;
- f) da neke radio službe, posebno one koje koriste male snage električnog polja, mogu da imaju smetnje zbog interferencije koju uzrokuje zračenje ISM opreme, a taj rizik je neprihvatljiv posebno u slučaju radionavigacije ili drugih sigurnosnih službi;
- g) da, u nameri da se ograniče rizici od interferencije na određene delove spektra:
  - da je prethodna Konferencija o radiokomunikacijama Atlantik Siti 1947 i Ženeva 1959, označila izvesne frekvencijske opsege u kojima radiokomunikacione službe moraju da prihvate štetnu interferenciju koju proizvodi ISM oprema;
  - WARC-79 je prihvatio porast broja opsega namenjenih za ISM opremu, ali jedino pod uslovom da limiti zračenja iz takvih uređaja budu specificirani u okviru opsega koji su novo-određeni za upotrebu širom sveta i izvan svih opsega određenih za ISM opremu,

*odlučuje*

da zbog obezbeđivanja adekvatne zaštite Radiokomunikacionim službama, obavezne su studije za limite koji treba da se primene na zračenje ISM opreme u frekvencijskim opsezima označenim u Pravilniku o radiokomunikacijama za to korišćenje i izvan tih opsega,

*poziva ITU-R*

da nastavi, u saradnji sa CISPR, svoje studije koje se odnose na zračenje ISM opreme u frekvencijskim opsezima označenim u Pravilniku o radiokomunikacijama za to korišćenje i izvan tih opsega zbog obezbeđivanja adekvatne zaštite Radiokomunikacionim službama, uz davanje prioriteta kompletiranju studija koje bi omogućile CISPR da definiše limite u Publikaciji CISPR 11 za zračenje iz ISM opreme unutar svih opsega označenih u Pravilniku o radiokomunikacijama za korišćenje takve opreme,

*nalaže se Direktoru Biroa za radiokomunikacije*

- 1 da predoči ovu Rezoluciju u CISPR;
- 2 da dostavi rezultate ovih studija na razmatranje u WRC-11.

**MOD** COM6/208/1 (B2/213/2) (R1/221/7)

**REZOLUCIJA 72 (Rev.WRC-07)**

**Svetske i regionalne pripreme za Svetsku Konferenciju o radiokomunikacijama**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*imajući u vidu*

- a) da mnoge regionalne telekomunikacione organizacije kontinuirano koordinišu svoje pripreme za WRC;
- b) da je mnogo zajedničkih predloga podneseno ovoj Konferenciji od administracija koje učestvuju u pripremama regionalnih telekomunikacionih organizacija;
- c) da je ovo usklađivanje pogleda na regionalnom nivou, zajedno sa mogućnostima međuregionalnih diskusija pre Konferencije, olakšalo posao međusobnog razumevanja i štedelo vreme u toku ranijih WRC;
- d) da će teret priprema budućih konferencija verovatno da poraste;
- e) da navedeno predstavlja veliku korist državama članicama za koordinaciju priprema na svetskom i regionalnom nivou ;
- f) da će uspeh budućih konferencija zavistiti o većoj efikasnosti regionalne koordinacije i interakciji na međuregionalnom nivou pre budućih konferencija, uključujući moguće direktne susrete regionalnih grupa;

g) da postoji potreba za sveobuhvatnom koordinacijom međuregionalnih konsultacija,  
*prepoznajući*

a) *odluku 2* Rezolucije 80 (Rev. Marrakesh, 2002) Konferencije opunomoćenika:

“podržavajući regionalnu harmonizaciju zajedničkih predloga, kao što je navedeno u Rezoluciji 72 (WRC-97), za podnošenje Svetskim Konferencijama o radiokomunikacijama”;

b) *odluku 3* Rezolucije 80 (Rev. Marrakesh, 2002) Konferencije opunomoćenika:

“podstičući obje formalnu i neformalnu saradnju u intervalu između konferencija u pogledu razrešavanja razlika u stvarima koje su već na dnevnom redu konferencije ili novim stvarima”,

*konstatujući*

da su konferencije opunomoćenika rešile da bi Unija trebala da nastavi da razvija tešnje veze sa regionalnim telekomunikacionim organizacijama,

*odlučuje*

da pozove regionalne grupe da nastave svoje pripreme za WRC, uključujući moguće sazivanje zajedničkog skupa regionalnih grupa formalno i neformalno,

*takođe odlučuje da se nalaže Direktoru Biroa za radiokomunikacije*

1 da nastavi konsultovanje regionalnih telekomunikacionih organizacija u smislu koja pomoć može da se pruži njihovim pripremama za buduće svetske konferencije o radiokomunikacijama u sledećim oblastima:

- organizacije pripremnih skupova;
- organizacije informativnih sednica, poželjno pre i posle druge sednice pripremnog skupa konferencije (CPM);
- identifikacije glavnih pitanja koja treba da se razreše na budućoj svetskoj konferenciji o radiokomunikacijama;
- potpore regionalnim i međuregionalnim formalnim i neformalnim skupovima, u cilju postizanja eventualnog približavanja međuregionalnih pogleda na glavna pitanja;

2 shodno Rezoluciji ITU-R 2-5 Skupštine za Radiokomunikacije CPM-a, da pomogne da se osigura da vodstvo CPM-a uradi pregled prezentacije poglavlja CPM Reporta u ranoj fazi sednice CPM-a, kao deo redovno zakazanih skupova, da bi se pomoglo svim učesnicima da razumeju sadržaj CPM Reporta;

3 da podnese izveštaj o rezultatima takvih konsultacija za sledeći WRC,  
*poziva Direktora Biroa za Razvoj Telekomunikacija*

da saraduje sa Direktorom Biroa za Radiokomunikacije u sprovođenju ove Rezolucije.

**MOD** COM6/301/1 (B10/326/17) (R6/410/70)

## REZOLUCIJA 80 (Rev.WRC-07)

### Na šta obratiti pažnju prilikom primene principa ugrađenih u ITU Statut

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*imajući u vidu*

- a) da Članovi 12 i 44 ITU Statuta utvrđuju osnovne principe korišćenja radio-frekvencijskog spektra i geostacionarnog satelita i drugih satelitskih orbita;
- b) da su ti principi uključeni u Pravilnik o radiokomunikacijama;
- c) Član I Sporazuma između Ujedinjenih Nacija i ITU-a određuje da “Ujedinjene Nacije priznaju ITU (u daljem tekstu Uniju) za specijalizovanu agenciju odgovornu za preduzimanje takvih akcija koje mogu biti u skladu sa njihovom osnovnim sredstvima da ostvare tako postavljene zahteve”;
- d) da, u skladu sa Nos. **11.30**, **11.31** i **11.31.2**, primedbe treba da budu razmotrene poštujući Pravilnik o radiokomunikacijama, učujući odredbu koja se odnosi na osnovne principe, odgovarajuća pravila procedura razvijenih za tu svrhu;
- e) da WRC-97 nalaže Bordu za Pravilnik o radiokomunikacijama da razvije u okviru Nos. **11.30**, **11.31** i **11.31.2**, pravila za procedure koje će da se slede u svrhu saglasnosti sa principima u No. **0.3** Preambule Pravilnika o radiokomunikacijama;
- f) da je Bord, u skladu s Rezolucijom **80 (WRC-97)**, podneo izveštaj za WRC-2000 sugerirajući moguća rešenja i navodeći da je, nakon proučavanja Pravilnika o radiokomunikacijama, zaključio da trenutno nema odredbi koje povezuju formalno obaveštavanje ili procedure koordinacije sa principima navedenim u No. **0.3** Preambule Pravilnika o radiokomunikacijama;
- g) da je Pravna potkomisija Komisije za mirno korišćenje svemira Generalne Skupštine Ujedinjenih Nacija napravila nacrt odredaba u tom smislu,

*primajući k znanju*

- a) da, u skladu s odredbama No. 127 Konvencije, Konferencija može davati instrukcije Sektorima Unije;
- b) da će, prema No. 160C Konvencije, Savetodavno telo za radiokomunikacije (RAG) preispitati svaku materiju dobivenu od Konferencije;
- c) RRB izveštaj za WRC-2000 (vidi Aneks 1);
- d) RRB izveštaj za WRC-03 (vidi Aneks 2);

e) da su neke stvari identifikovane u izveštaju pod *primajući k znanju c)* bile razrešene pre WRC-07,

*odlučuje*

1 nalaže se Sektoru za Radiokomunikacije, u skladu sa No. 1 Člana 12 ITU Statuta, da napravisprovede za procedure merenja i analizu primene osnovnih principa sadržanih u Članu 44 ITU Statuta;

2 nalaže se RRB-u da razmotri i preispita moguće preporuke i odredbe nacrti i koje povezuju formalno obaveštavanje, procedure koordinacije i registracije sa principima sadržanim u Članu 44 Konstitucije i No. 0.3 Preambule Pravilnika o radiokomunikacijama, i da izvesti svaku buduću Svetsku konferenciju o radiokomunikacijama u vezi sa ovom Rezolucijom;

3 nalaže se Direktoruro Biroa za Radiokomunikacije da podnese svakoj budućoj Svetskoj konferenciji o radiokomunikacijama detaljan izveštaj o napretku akcije poduzete ovom Rezolucijom,

*poziva*

1 ostale organe Sektora za Radiokomunikacije, posebno RAG, da učini relevantan doprinos Direktoruro Biroa za Radiokomunikacije za uključivanje njegovog izveštaja u svaku buduću Svetsku konferenciju o radiokomunikacijama;

2 administracije da učestvuju u studijama pomenutim u *odlučuje* 1 i u radu RRB-a kako je dano detaljnije u *odlučuje* 2.

#### ANEKS 1 NA REZOLUCIJU 80 (Rev.WRC-07)

#### **RRB Report za WRC-2000**

U RRB Izveštaju za WRC-2000<sup>1</sup>, nekoliko članova Borda zapazilo je izvesne teškoće koje bi administracije mogle da imaju, posebno administracije zemalja u razvoju, kao što su:

- “prvi-dospeo prvi-obrađen” koncept ograničava i katkada sprečava pristup i korišćenje nekih frekvencijskih opsega i pozicija orbite;
- relativni nedostatak za zemlje u razvoju u koordinaciji pregovora zbog različitih razloga kao što je nedostatak resursa i stručnosti;
- primećene razlike u konzistentnosti primene Pravilnika o radiokomunikacijama;
- slanje satelita “na papiru” što ograničava pristup opcijama;
- povećano korišćenje opsega iz Plana iz Dodatka 30 i 30A od strane regionalnih, multikanalnih sistema, što može da promeni osnovno korišćenje tih Planova da se omogući ravnopravan pristup svim zemljama;
- značajno kašnjenje u obradi u Birou za radiokomunikacije dešava se zbog vrlo složenih zahtevanih procedura i velikog broja podnesenih prijavi; ta zakašnjenja doprinose zakašnjenju koordinacije od 18 meseci što bi moglo da se produži na tri godine i da kreira nesigurnu pravnu situaciju, dodatno kašnjenje u procesu koordinacije koji administracije ne mogu da savladaju, i mogućeg gubitka dodele zbog isteka vremena za određivanje namene;
- satelitski sistemi mogu već da se nađu u orbiti pre kompletiranja koordinacije;

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<sup>1</sup> Ovaj izveštaj može da se nađe u Dokumentu 29 za WRC-2000.



- statutarni vremenski okviri, kao oni u No. **11.48**, često mogu biti nedovoljni za zemlje u razvoju da mogu da kompletiraju pravne zahteve kao i dizajn, konstrukciju i lansiranje satelitskih sistema;
- nepostojanje odredbi o međunarodnom nadgledanju koje bi potvrdile puštanje u rad satelitske mreže (dodele i orbite).

## ANEKS 2 REZOLUCIJE 80 (Rev.WRC-07)

### **RRB Report za WRC-03**

U RRB Izveštaju za WRC-03<sup>2</sup>, načini da se zadovolje *odlučuje* 2 Rezolucije **80 (WRC-2000)** obezbeđeni su kako sledi:

- posebne mere za zemlje koje podnose svoju prvu prijavu za satelit:
  - na posebnoj osnovi, specijalna pažnja mogla bi da se pruži zemljama koje podnose svoju prvu prijavu za satelitski sistem, uzimajući u obzir specijalne potrebe zemalja u razvoju;
  - takva razmatranja trebalo bi da uzmu u obzir sledeće:
    - uticaj na druge administracije;
    - satelitsku službu sistema (na.pr. FSS, MSS, BSS);
    - frekvencijski opseg obuhvaćen prijavom;
    - sistem je namenjen da zadovolji direktne potrebe dotičnih zemalja;
- povećanje pravnog vremenskog limita za puštanje u rad:
  - moglo bi da se specificiraju uslovi pod kojim ekstenzijama može biti dodeljen po izuzetnoj osnovi zemljama u razvoju kad nisu u stanju da kompletiraju zahteve u propisanom vremenu, tako da dovoljno vremena za dizajn, izgradnju i lansiranje satelitskih sistema može da se obavi;
  - uslovi kreirani u prethodnom paragrafu trebali bi da budu uključeni u Pravilnik o radiokomunikacijama kao odredbe koje bi omogućile da dodeli ekstenziju.

**MOD** PLEN/422/1

## REZOLUCIJA 86 (Rev.WRC-07)

### **Implementacija Rezolucije 86 (Rev. Marakeš, 2002) Konferencije Opunomoćenika**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je Konferencija Opunomoćenika (Marakeš, 2002) diskutovala o Rezoluciji 86 (Mineapolis, 1998) i odlučila o zahtevu za WRC-03 da odredi oblast i kriterijume koje će da koriste buduće Svetske konferencije o radiokomunikacijama (WRCs) u primeni Rezolucije 86 (Rev. Marakeš, 2002);
- b) Konferencija Opunomoćenika (Antalija, 2006) pozvala je WRC-07 da razmotri Rezoluciju 86 (Marakeš, 2002) i da izvesti o rezultatima 2010 Konferenciju Opunomoćenika,

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<sup>2</sup> Ovaj izveštaj može da se nađe u Adendumu 5 Dokumenta 4 za WRC-03.

*prepoznajući*

da Bord za Pravilnik o Radiokomunikacijama daje sugestije za transformaciju sadržaja Poslovnika u regulatorni tekst u skladu sa Nos. **13.0.1** i **13.0.2** Člana **13** Pravilnika o radiokomunikacijama,

*primajući k znanju*

da administracije takođe žele da daju predloge za transformaciju sadržaja Poslovnika u regulatorni tekst za uključivanje u Pravilnik o Radiokomunikacijama,

*odlučuje da pozove buduće svetske konferencije o radiokomunikacijama*

1 da razmotre sve predloge koji se bave nedostacima i poboljšanjima u naprednim publikacijama, koordinacijom, obaveštavanjem i beleženjem procedura Pravilnika o radiokomunikacijama za dodelu frekvencija koji se odnose na svemirske službe koje je Bord identifikovao i uključio u Poslovnik ili koje su identifikovale administracije ili Biro za radiokomunikacije, kako spada;

2 da osigura da procedure, i odgovarajući dodaci Pravilnika o radiokomunikacijama odražavaju najnovije tehnologije, koliko god je moguće

*poziva administracije*

da razmotre, u sklopu priprema za PP-10, odgovarajuće akcije u vezi sa Rezolucijom 86 (Rev. Marakeš, 2002).

**MOD** COM6/209/1 (B2/213/3) (R1/221/8)

## REZOLUCIJA 95 (Rev.WRC-07)

### **Generalni pregled Rezolucija i Preporuka svetskih administrativnih radio konferencija i svetskih radiokomunikacionih konferencija**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je važno održavati Rezolucije i Preporuke bivših svetskih administrativnih radio konferencija i svetskih konferencija o radiokomunikacijama pod konstantnim preispitivanjem, da bi bile aktuelne;
- b) da izveštaji Direktora Biroa za Radiokomunikacije podneseni bivšim konferencijama pružaju dobru osnovu za generalni pregled Rezolucija i Preporuka bivših konferencija;
- c) da su neki principi i smernice neophodni za buduće konferencije za tretiranje Rezolucija i Preporuka bivših konferencija koje nisu vezane za dnevni red Konferencije,

*odlučuje da pozove buduće kompetentne svetske konferencije o radiokomunikacijama*

1 da preispitaju Rezolucije i Preporuke bivših konferencija koje su u vezi sa dnevnim redom Konferencije s pogledom na moguću reviziju, zamenu ili ukidanje istih, i preduzmu odgovarajuću akciju;

2 da preispitaju Rezolucije i Preporuke bivših konferencija koje nisu u vezi sa nekom tačkom dnevnog reda Konferencije s pogledom na:

- ukidanje onih Rezolucija i Preporuka koje su odradile svoju svrhu ili nisu više potrebne;
- preispitivanje potrebe za onim Rezolucijama i Preporukama, ili delom istih, koje zahtevaju ITU-R studije na kojima nije bilo napretka u vremenu između zadnja dva perioda između konferencija;

- ažuriranje i menjanje Rezolucija i Preporuka, ili delova istih koji nisu više aktuelni, i da se isprave očigledni propusti, nekonzistentnosti i dvoznačnosti ili pravopisne greške i izvrši bilo kakvo podešavanje;
- 3 na početku konferencije, da se odluči koji komitet konferencije ima primarnu odgovornost da preispita svaku Rezoluciju i Preporuku koja se odnosi na gorepomenute *odlučuje* 1 i 2

*nalaže se Direktoru Biroa za radiokomunikacije*

1 da predvodi generalno preispitivanje Rezolucija i Preporuka bivših konferencija i, nakon konsultacije sa Savetodavnom grupom za radiokomunikacije i Predsednikom i Potpredsednikom Studijske grupe za radiokomunikacije, podnese izveštaj drugoj sednici Skupa za pripremu konferencije (CPM) u pogledu *odlučuje* 1 i 2, uključujući nagoveštaj bilo koje tačke dnevnog reda u vezi s time;

2 da uključi u gornji izveštaj, uz saradnju sa Predsednikom Studijske grupe za radiokomunikacije, izveštaj o napretku ITU-R studija po stvarima koje su zahtevane u Rezolucijama i Preporukama bivših konferencija, ali koje nisu stavljene na dnevni red naredne dve konferencije,

*poziva administracije*

da dadu svoj doprinos u implementaciji ove Rezolucije za CPM,

*poziva Skup za pripremu konferencije*

da uključi, u svoj izveštaj, rezultate generalnog preispitivanja Rezolucija i Preporuka prethodnih konferencija, bazirano na doprinosu administracija za CPM, da bi se olakšalo praćenje budućim WRC-ovima.

**ADD** COM6/406/1

## REZOLUCIJA 97 (WRC-07)

### **Privremena primena nekih odredbi iz Pravilnika o radiokomunikacijama prema reviziji na WRC-07 i ukinuće nekih rezolucija i preporuka**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je ova Konferencija usvojila delimičnu reviziju Pravilnika o radiokomunikacijama (RR) u skladu sa uslovima rada koja će stupiti na snagu 1.1.2009.;
- b) da neke od odredbi, sa izmenama i dopunama ove konferencije, treba da budu primenjene privremeno od ranijeg datuma;
- c) da kao generalno pravilo, nove i revidirane rezolucije i preporuke stupaju na snagu u trenutku potpisivanja Finalnih akata konferencije;
- d) da kao generalno pravilo, rezolucije i preporuke koje je WRC odlučio da potisne bivaju ukinute u trenutku potpisivanja Finalnih akata konferencije,

*odlučuje*

1 da od 17.11.2007., sledeće odredbe od RR, kako je revidirano ili postavljeno na ovoj konferenciji, trebaju privremenu primenu: No. **5.4B06** i pridružene namene u tabeli iz Člana **5** vazduhoplovnoj mobilnoj (R) službi u opsegu 960-1 164 MHz, Nos, **5.328B** i **5.329A** i pridružene namene u Tabeli iz Člana **5** radionavigacionoj satelitskoj službi, Nos. **5.379B** i pridružene namene u

Tabeli Člana 5 mobilnoj satelitskoj službi, No. **5.517** i pridružene namene u Tabeli Člana 5 radiodifuznoj satelitskoj i fiksnoj satelitskoj službama, No. **5.538** i pridružene namene u Tabeli Člana 5 fiksnoj satelitskoj službi, **5.BA01** i pridružene namene u Tabeli Člana 5 fiksnoj i mobilnoj službama satelitskog (pasivno) istraživanja Zemlje, **5.BA02** i pridružene namene u Tabeli Člana 5 fiksnoj i mobilnoj službama satelitskog (pasivno) istraživanja Zemlje, **5.BA03** i pridružene namene u Tabeli Člana 5 fiksnoj i fiksnoj satelitskoj službama, **5.403** i pridružene namene u Tabeli Člana 5 mobilnoj satelitskoj, osim vazduhoplovne mobilne satelitske, službi, **5.414** i pridružene namene u Tabeli Člana 5 mobilnoj satelitskoj službi, **5.415** i pridružene namene u Tabeli Člana 5 fiksnoj satelitskoj službi, **5.416** i pridružene namene u Tabeli Člana 5 radiodifuznoj satelitskoj službi, **5.418** i pridružene namene u Tabeli Člana 5 radiodifuznoj satelitskoj i radiodifuznoj službama, **5.419** i pridružene namene u Tabeli Člana 5 mobilnoj satelitskoj službi, **5.420** i pridružene namene u Tabeli Člana 5 mobilnoj satelitskoj, izuzev vazduhoplovne mobilne satelitske službe, **5.420A** i pridružene namene u Tabeli Člana 5 vazduhoplovnoj mobilnoj satelitskoj službi, **5.4A01** i pridružene namene u Tabeli Člana 5, **9.2B.1, 9.14, 9.38.1, 9.41** Člana 9, **A.11.6, 11.15, 11.43A, 11.46, 11.47** Člana 11, **21.16.19, 21.16.x, 21.16.y**, Tabele 21-2, Tabele 21-4, No. **22.2**, Aneksa 2 Dodatka 4, Tabele 5-1 i 5-2 Dodatka 5, Tabele 10 dodatka 7, Dodatak 30, Dodatak 30A, Dodatak 30B, Dodatak 42;

2 da od 17.11.2007., No. **5.518**, koja je potisnuta na ovoj konferenciji, treba da bude ukinuta;

3 da od 1.2.2009., No. **5.199**, koja je potisnuta na ovoj konferenciji, treba da bude ukinuta;

*odlučuje takođe*

1 da ukine sledeće rezolucije od 17.11.2007.:

Rezolucija <b>21 (Rev.WRC-03)</b> ,	Rezolucija <b>415 (WRC-03)</b> ,
Rezolucija <b>56 (Rev.WRC-03)</b> ,	Rezolucija <b>527 (WARC-92)</b> ,
Rezolucija <b>57 (WRC-2000)</b> ,	Rezolucija <b>544 (WRC-03)</b> ,
Rezolucija <b>79 (WRC-2000)</b> ,	Rezolucija <b>545 (WRC-03)</b> ,
Rezolucija <b>87 (WRC-03)</b> ,	Rezolucija <b>670 (WRC-03)</b> ,
Rezolucija <b>88 (WRC-03)</b> ,	Rezolucija <b>728 (Rev.WRC-2000)</b> ,
Rezolucija <b>89 (WRC-03)</b> ,	Rezolucija <b>738 (WRC-03)</b> ,
Rezolucija <b>96 (WRC-03)</b> ,	Rezolucija <b>740 (WRC-03)</b> ,
Rezolucija <b>105 (Orb-88)</b> ,	Rezolucija <b>742 (WRC-03)</b> ,
Rezolucija <b>132 (WRC-97)</b> ,	Rezolucija <b>745 (WRC-03)</b> ,
Rezolucija <b>139 (WRC-2000)</b> ,	Rezolucija <b>746 (WRC-03)</b> ,
Rezolucija <b>141 (WRC-03)</b> ,	Rezolucija <b>747 (WRC-03)</b> ,
Rezolucija <b>146 (WRC-03)</b> ,	Rezolucija <b>802 (WRC-03)</b> ,
Rezolucija <b>228 (Rev.WRC-03)</b> ,	Rezolucija <b>803 (WRC-03)</b> ,
Rezolucija <b>230 (WRC-03)</b> ,	Rezolucija <b>952 (WRC-03)</b>
Rezolucija <b>340 (WRC-97)</b> ,	
Rezolucija <b>353 (WRC-03)</b> ,	
Rezolucija <b>414 (WRC-03)</b> ,	

2 da ukine sledeće preporuke od 17.11.2007.:

Preporuka <b>14 (Mob-87)</b> ,	Preporuka <b>606 (Mob-87)</b> ,
Preporuka <b>318 (Mob-87)</b> ,	Preporuka <b>705</b> ,
Preporuka <b>517 (Rev.WRC-03)</b> ,	Preporuka <b>722 (WRC-03)</b> ,
Preporuka <b>604 (Rev.Mob-87)</b> ,	Preporuka <b>723 (WRC-03)</b> ,
Preporuka <b>605 (Rev.Mob-87)</b> ,	Preporuka <b>800 (WRC-03)</b> ;

3 da ukine Rezoluciju **51 (Rev.WRC-2000)** od 1.1.2010.

**MOD** COM5/284/6 (B8/293/13) (R5/336/3)

### REZOLUCIJA 122 (Rev.WRC-07)

#### **Korišćenje opsega 47.2-47.5 GHz i 47.9-48.2 GHz od strane platformi na velikoj visini u fiksnoj službi i ostalim službama**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je opseg 47.2-50.2 GHz dodeljen fiksnoj, mobilnoj i fiksnoj satelitskoj službi na ko-primarnoj osnovi;
- b) da je WRC-97 donela odredbe za rad stanica na platformi na velikoj visini (HAPS), takođe poznatoj kao stratosferska pojačala, u fiksnoj službi u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz;
- c) da će uspostavljanje stabilnog tehničkog i pravnog okruženja promovisati korišćenje svih ko-primarnih službi u opsegu 47.2-47.5 GHz i 47.9-48.2 GHz;
- d) da su sistemi koji koriste HAPS u poodmakloj fazi razvoja i da su neke zemlje već obavestile ITU o takvim sistemima u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz;
- e) da Preporuke ITU-R F.1500 sadrže karakteristike sistema u fiksnoj službi koji koriste HAPS u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz;
- f) da dok odluka o raspoređivanju HAPS-a može biti donesena na nacionalnoj osnovi, takavo raspoređivanje može uticati na susedne administracije i operatore ko-primarnih službi;
- g) da je ITU-R kompletirao studije koje se bave raspodelom među sistemima koji koriste HAPS u fiksnoj službi i ostalim tipovima sistema u fiksnoj službi u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz;
- h) da je ITU-R kompletirao studije o međusobnoj kompatibilnosti HAPS sistema u 47.2-47.5 GHz i 47.9-48.2 GHz opsezima i radio astronomskoj službi u opsegu 48.94-49.04 GHz;
- i) da No. **5.552** nalaže administracijama da preduzmu sve praktične korake da se rezervišu za fiksnu satelitsku službu (FSS) korišćenje opsega 47.2-49.2 GHz za spojne veze za radiodifuznu satelitsku službu (BSS) koja radi u opsegu 40.5-42.5 GHz, i da ITU-R studije ukazuju da HAPS u fiksnoj službi može da radi pored tih spojnih veza;

j) da su tehničke karakteristike očekivanih BSS spojnih veza i FSS getvej tipa stanice slične;

k) da je ITU-R kompletirao studije koji se bave raspodelom između sistema koji koriste HAPS u fiksnoj službi i fiksnoj satelitskoj službi,

*prepoznajući*

a) da se na duge staze očekuje da opsezi 47.2-47.5 GHz i 47.9-48.2 GHz budu zatraženi za HAPS operacije kod getvej i sveprisutnih terminal aplikacija, za koje već nekoliko administracija ima prijavljene sisteme Birou za radiokomunikacije;

b) da identifikacija zajedničkih podopsega za sveprisutne terminal aplikacije na zemlji koristeći uslugu fiksne službe može da olakša HAPS raspoređivanje i deljenje sa ostalim primarnim servisima u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz;

c) da Preporuka ITU-R SF.1481-1 i Preporuka ITU-R SF.1843 daje informaciju o izvodljivosti HAPS sistema u fiksnoj službi deleći sa FSS;

d) da su ITU-R studije HAPS operacija u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz namenjene za fiksnu službu zaključile da, u nameri deljenja sa FSS (Zemlja-svemir), maksimalna e.i.r.p. gustina emitovanja ka svemiru HAPS terminala na zemlji u opsezima treba, u uslovima čistog neba, biti 6.4 dB(W/MHz) za pokrivanje gradskog područja (UAC), 22.57 dB(W/MHz) za pokrivanje prigradskog područja (SAC) i 28 dB(W/MHz) za pokrivanje seoskog područja (RAC), i da ove vrednosti mogu da se povećaju za najviše 5 dB za vreme kiše;

e) da su ITU-R studije postavile specifične vrednosti snage gustine fluksa koje treba da budu na međunarodnim granicama da se olakša obostrani sporazum o uslovima seljenja za HAPS sa ostalim vrstama fiksne službe u susednoj zemlji;

f) da su FSS satelitske mreže i sistemi sa promerima Zemaljske antene od 2.5 metra ili više, koje rade kao getvej stanice u stanju da koegzistiraju sa sveprisutnim HAPS terminalima,

*odlučuje*

1 da zbog olakšanja koegzistencije sa FSS (Zemlja-svemir), maksimalna e.i.r.p. gustina emisije sveprisutnih HAPS terminala na zemlji ne sme da prelazi sledeće nivoe u uslovima čistog neba:

6.4 dB(W/MHz)                      za UAC            ( $30^\circ < \theta \leq 90^\circ$ )

22.57 dB(W/MHz)                  za SAC            ( $15^\circ < \theta \leq 30^\circ$ )

28 dB(W/MHz)                      za RAC            ( $5^\circ < \theta \leq 15^\circ$ )

gde je  $\theta$  elevacioni ugao terminala na zemlji u stepenima;

2 da maksimalna gustina emisije specificirana u *odluci* 1 može biti povećana, koristeći tehniku kompenzacije fedinga, za najviše 5 dB za vreme kiše;

3 da dijagram zračenja HAPS terminala na zemlji u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz treba da odgovara sledećim dijagramima zračenja antenskog snopa:

$$G(\varphi) = G_{max} - 2.5 \times 10^{-3} \left( \frac{D}{\lambda} \varphi \right)^2 \quad \text{za} \quad 0^\circ < \varphi < \varphi_m$$

$$G(\varphi) = 39 - 5 \log(D/\lambda) - 25 \log \varphi \quad \text{za} \quad \varphi_m \leq \varphi < 48^\circ$$

$$G(\varphi) = -3 - 5 \log(D/\lambda) \quad \text{za} \quad 48^\circ \leq \varphi \leq 180^\circ$$

gde je:

$G_{max}$ : maksimalno pojačanje antene (dBi)

$G(\varphi)$ : pojačanje (dBi) u odnosu na izotropnu antenu

$\varphi$ : ugao odklona od ose (stepeni)

$D$ : antenna diameter }  
 $\lambda$ : wavelength } izraženo u istim jedinicama

$$\varphi_m = \frac{20 \lambda}{D} \sqrt{G_{max} - G_1} \quad \text{stepeni}$$

$G_1$ : pojačanje prednjeg režnja

$$= 2 + 15 \log (D/\lambda) \text{ (dBi);}$$

4 da u svrhu zaštite fiksnih bežičnih sistema susednih administracija od ko-kanalne interferencije, HAPS sistem koji radi u frekvencijskim opsezima 47.2-47.5 GHz i 47.9-48.2 GHz ne sme da prelazi sledeće vrednosti snage gustine fluksa na površini Zemlje na granicama neke administracije, osim ako je dat izričit HAPS:

-141	dB(W/(m <sup>2</sup> · MHz))	za	0° ≤ δ < 3°
-141 + 2(δ - 3)	dB(W/(m <sup>2</sup> · MHz))	za	3° ≤ δ ≤ 13°
-121	dB(W/(m <sup>2</sup> · MHz))	za	13° < δ ≤ 90°

gde je δ upadni ugao nad horizontalnom ravni u stepenima;

5 da, u svrhu zaštite radio astronomskih stanica koje rade u opsegu 48.94-49.04 GHz od neželjenih HAPS emisija u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz, udaljenost razdvajanja između radio astronomske stanice i tačke na Zemlji ispod HAPS platforme mora biti veća od 50 km;

6 da administracije koje planiraju da implementiraju HAPS sistem u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz moraju da objave frekvencijske dodele podnoseći sve obavezne podatke iz Dodatka 4 Birou na proveru saglasnosti u odnosu na gorenavedene odluke 1, 2, 3, 4 i 5 u pogledu na njihovo registrovanje u MIFR;

7 da administracije treba da najave nove elemente za najave koje se odnose na *instrukciju 1 za Direktora Biroa za radiokomunikacije* u nameri da se omogući da Biro izvrši ispitivanja, *poziva administracije*

koje nameravaju da razmeste HAPS sisteme u fiksnoj službi u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz da razmotre specifikaciju korišćenja opsega 47.2-47.35 GHz i 47.9-48.05 GHz za sveprisutne HAPS terminale,

*nalaže se Direktoru Biroa za radiokomunikacije*

1 da održava i procesira najave u vezi HAPS koje je Biro primio pre 20. oktobra 2007. i privremeno zabeležio u MIFR, samo do 1. januara 2012., osim ako je obaveštena administracija informisala Biro pre tog datuma da je dotična dodela počela da radi i dostavile kompletan skup elemenata podataka Dodatka 4;

2 da ispita sve HAPS dodele u fiksnoj službi objavljene pre 20. oktobra 2007. i primeni odredbe iz odluka 1, 2, 3, 4 i 5 i odgovarajuće metodologije kalkulacija uključene u Preporuke ITU-R F.1820 i Preporuke ITU-R SF.1843.

**MOD** COM6/269/2 (B7/283/8) (R5/336/4)

## REZOLUCIJA 143 (Rev.WRC-07)

### **Smernice za implementaciju u primenama velike gustine u fiksnoj satelitskoj službi u frekvencijskim opsezima identifikovanih za te primene**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da zahtev za globalne širokopojasne komunikacione servise stalno raste širom sveta, kao oni koje pružaju primene velike gustine u fiksnoj satelitskoj službi (HDFSS);
- b) da su HDFSS sistemi karakterisani sa fleksibilnim, brzim i sveprisutnim raspoređivanjem velikog broja ekonomičnih svemirskih stanica koje koriste male antene imajući slične tehničke karakteristike;
- c) da je HDFSS jedan napredan širokopojasni koncept komunikacione primene koji će da omogući pristup širokom krugu širokopojasnih telekomunikacionih primena podržanih fiksnim telekomunikacijskim mrežama (uključujući Internet), i tako će da nadopuni ostale telekomunikacione sisteme;
- d) da, kao kod drugih FSS sistema, HDFSS nudi veliki potencijal za brzo uspostavljanje telekomunikacione infrastrukture;
- e) da HDFSS primene mogu da budu ostvarene pomoću satelita za bilo koju orbitu;
- f) da tehnike za smanjenje interferencije jesu i biće nastavljene u ITU-R da olakšaju koegzistenciju među HDFSS zemaljskih stanica i kopnenih službi;
- g) da do danas, studije o praktičnosti implementacije slabljenja interferencije još nisu završene za sve HDFSS zemaljske stanice,

*primećujući*

- a) da No. **5.516B** identifikuje opsege za HDFSS;
- b) da u nekima od tih opsega, FSS namene su ko-primarne sa namenama fiksnih i mobilnih službi, kao i sa drugim službama;
- c) da ova identifikacija ne sprečava korišćenje ovih opsega drugim službama ili drugim FSS primenama, i ne postavlja prioritet u tim Pravilima o radiokomunikacijama među korisnicima opsega;
- d) da u opsegu 18.6-18.8 GHz, FSS namena je ko-primarna sa Satelitskom službom istraživanja Zemlje (EESS) (pasivnom) uz ograničenja Nos. **5.522A** i **5.522B**;
- e) da se radio astronomska posmatranja izvode u opsegu 48.94-49.04 GHz , i da takva osmatranja zahtevaju zaštitu u naznačenim radio astronomskim stanicama;
- f) da ko-frekvencijska podela između predajnih HDFSS zemaljskih stanica i kopnenih službi je otežana u istom geografskom području;
- g) da ko-frekvencijska podela između prijemnih HDFSS zemaljskih stanica i kopnenih stanica u istom geografskom području može biti olakšana implementacijom tehnike slabljenja interferencije , ako je praktično;
- h) da je mnogo FSS sistema već odavno pušteno u rad sa drugim tipovima zemaljskih stanica i karakteristika, ili je planirano da bude pušteno u rad u nekim od frekvencijskih opsega identifikovanih za HDFSS u No. **5.516B**;



i) da se očekuje da HDFSS stanice u tim opsezima budu postavljene u mnogim gradskim, prigradskim i ruralnim područjima globalno na velikom prostoru;

j) da opseg 50.2-50.4 GHz, susedni od opsega 48.2-50.2 GHz (Zemlja-svemir) identifikovan za HDFSS u Regionu 2, je namenjen za EESS (pasivno),

*prepoznajući*

a) da u slučajevima gde FSS zemaljske stanice koriste opsege koje dele na ko-primarnoj osnovi sa kopnenim službama, Pravilnik o radiokomunikacijama uslovljava da zemaljske FSS stanice moraju biti pojedinačno prijavljene Birou kada njihove konture koordinacije zahvataju teritoriju druge administracije;

b) da, kao posledica njihovih generalnih karakteristika, očekuje se da će koordinacija HDFSS zemaljskih stanica sa stanicama fiksne službe na individualnoj osnovi za svaki položaj biti težak i dug proces;

c) da, zbog smanjenja opterećenja za administracije, one mogu da se sporazumeju o pojednostavljenim procedurama koordinacije i odredbama za velik broj sličnih HDFSS zemaljskih stanica pridruženih određenom satelitskom sistemu;

d) da harmonizovani svetski opsezi za HDFSS bi mogli olakšati implementaciju za HDFSS, pomažući na taj način globalni pristup i ekonomski obim,

*prepoznajući dalje*

da HDFSS primene ugrađene u FSS mreže i sisteme jesu predmet svih odluka Pravilnika za radiokomunikacije koje se odnose na FSS, kao što je koordinacija i obaveštavanje shodno Članovima **9** i **11**, uključujući bilo koji zahtev za koordinaciju sa kopnenim službama drugih zemalja i odlukama po Članovima **21** i **22**,

*odlučuje*

da bi administracije koje primenjuju HDFSS trebalo da razmatraju sledeće smernice:

a) pravljenje nekih ili svih frekvencijskih opsega identifikovanih u No. **5.516B** dostupnih za HDFSS primene;

b) prilikom pravljenja frekvencijskih opsega dostupnim po *odluci a*), treba voditi računa:

- da HDFSS razmeštanje može biti pojednostavljeno u opsezima koji se ne dele sa zemaljskim službama;
- u opsezima koji se dele sa kopnenim službama, na uticaj koji će buduće razmeštanje kopnenih stanica imati na postojeći i budući razvoj za HDFSS, i buduće razmeštanje HDFSS zemaljskih stanica imati na postojeći i budući razvoj kopnenih službi;

c) da se uzmu u obzir relevantne tehničke karakteristike koje se primenjuju na HDFSS, kako je identifikovano u ITU-R Preporukama (na pr. Preporuke ITU-R S.524-9, ITU-R S.1594 i ITU-R S.1783);

d) da se uzmu u obzir postojeći i planirani FSS sistemi, sa različitim karakteristikama, u frekvencijskim opsezima u kojima je HDFSS implementiran u skladu sa gornjom *odlukom a*) i uslovima specificiranim u No. **5.516B**,

*poziva administracije*

1 da posvete dužnu pažnju dobicima zbog harmonizovanog korišćenja spektra za HDFSS na globalnoj osnovi, uzimajući u obzir korišćenje i planirano korišćenje tih opsega od svih ostalih službi kojima su ti opsezi namenjeni, kao i drugim tipovima FSS primena;

2 da razmotre implementaciju pojednostavljenih procedura i odluka koje olakšavaju raspoređivanje HDFSS sistema u nekim ili svim opsezima identifikovanim u No. **5.516B**;

3 da kad razmatraju raspoređivanje HDFSS sistema u gornjem delu opsega 48.2-50.2 GHz, da po potrebi uzmu u obzir potencijalni uticaj takvog raspoređivanja na satelitske pasivne službe u susednom opsegu 50.2-50.4 GHz, i da učestvuju u ITU-R studijama kompatibilnosti između tih službi, uzimajući u obzir No. **5.340**;

4 da razmotre, gore dati *poziv administracijama* 3, i gde je praktično, početak raspoređivanja HDFSS zemaljskih stanica u nižem delu opsega 48.2-50.2 GHz.

**MOD** COM6/251/2 (B5/267/2) (R3/292/100)

**REZOLUCIJA 144 (Rev.WRC-07)**

**Posebni zahtevi geografski malih ili uskih zemalja u kojima rade zemaljske stanice u fiksnoj satelitskoj službi u opsegu 13.75-14 GHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je WARC-92 napravio jednu dodatnu namenu fiksnoj satelitskoj službi (FSS) (Zemlja-svemir) u opsegu 13.75-14 GHz;

b) da se taj opseg deli sa radiolokacijskom i radionavigacionom službom;

c) da sledeći odluku WRC-2000 i kompletiranje ITU-R studija, WRC-03 je oživeo i revidirao uslove deljenja za službe u tom opsegu i prihvatio nove propise koji regulišu deljenje između FSS, radiolokacione i radionavigacione službe (vidi No. **5.502**);

d) da ti revidirani uslovi deljenja dodatno dozvoljavaju operacije geostacionarnih FSS stanica u opsegu 13.75-14 GHz sa antenama prečnika između 1.2 m i 4.5 m,

*prepoznajući*

a) da će ti uslovi deljenja iz No. **5.502** značiti da će zemlje koje su geografski male ili uske imati značajne teškoće pri raspoređivanju geostacionarnih FSS zemaljskih stanica u tom opsegu sa antenama prečnika između 1.2 m i 4.5 m;

b) da u nameri da se još više olakša deljenje između FSS i pomorskih radiolokacionih sistema koji rade u radiolokacionoj službi, može da bude potreba za razvojem tehničkih i operativnih metoda;

c) da te tehničke i operativne metode mogu da budu korišćene da dozvole veći razmeštaj FSS zemaljskih stanica u opsegu 13.75-14 GHz u saglasnosti sa No. **5.502** a da štite radiolokacionu službu,

*odlučuje*

1 da nastavi pozivati ITU-R, da nastavi svoje studije kao hitnu stvar, u pogledu razvoja ITU-R Preporuka, koje će uspostaviti tehničke ili operativne metode koje će još više olakšati deljenje i možda dozvoljavati veću fleksibilnost u raspoređivanju FSS zemaljskih stanica u opsegu

13.75-14 GHz, poštujući No. **5.502**, i koje takođe mogu biti korišćene kao osnova za uspostavljanje bilateralnih sporazuma između zainteresovanih administracija;

2 da administracije geografski malih ili uskih zemalja mogu da prekorače ograničenja FSS zemaljskih stanica u snazi gustine fluksa na nultoj nadmorskoj visini u No. **5.502** ako su takve operacije u saglasnosti sa bilateralnim sporazumima administracija koje postavljaju pomorske radiolokacione sisteme u opsegu 13.75-14 GHz, sv u nameri da se pruži dužna pažnja administracijama geografski malih ili uskih zemalja,

*podstiče*

administracije koje postavljaju pomorske i kopnene mobilne radiolokacione sisteme u opsegu 13.75-14 GHz da brzo postignu bilateralne sporazume u vezi rada FSS zemaljskih stanica u tom opsegu sa administracijama geografski malih ili uskih zemalja koje postavljaju te FSS zemaljske stanice, sve u nameri da se ukaže dužna pažnja administracijama geografski malih i uskih zemalja,

*poziva*

1 administracije koje postavljaju pomorske i kopnene mobilne radiolokacione sisteme u opsegu 13.75-14 GHz da učestvuju aktivno u ITU-R studijama koje se odnose na *dluku* 1;

2 administracije geografski malih i uskih zemalja da takođe učestvuju u gorepomenutim studijama.

**MOD** COM5/284/5 (B8/293/14) (R5/336/5)

**REZOLUCIJA 145 (Rev.WRC-07)**

**Korišćenje opsega 27.9-28.2 GHz i 31-31.3 GHz  
za stanice na platformama na velikim visinama  
u fiksnoj službi**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je WRC-97 doneo odluke za rad stanica na platformama na velikim visinama (HAPS), takođe poznatim kao stratosferski repetitori, u  $2 \times 300$  MHz delu za namene fiksne službe u opsezima 47.2-47.5 GHz i 47.9-48.2 GHz;

b) da je WRC-97 usvojio No. **4.15A** koji specificira da emitovanja od ili ka HAPS-u moraju da se vrše u opsezima posebno označenim u Članu **5**;

c) da su u WRC-2000, nekoliko zemalja u Regionu 3 i jedna zemlja u Regionu 1 izrazile potrebu za nižim frekvencijskim opsegom za HAPS zbog preteranog slabljenja za vreme kiše koje se javlja na 47 GHz u tim zemljama;

d) da neke zemlje u Regionu 2 su takođe izrazile interes za korišćenje frekvencijskog opsega nižeg od onih na koji su uzeti u obzir pod a);

e) da je, u nameri da se prilagodi potrebama koje su izrazile zemlje pod c), WRC-2000 usvojio Nos. **5.537A** i **5.543A**, koje su modifikovane u WRC-03 i ponovo u WRC-07 da se odobri korišćenje za HAPS u fiksnoj službi u opsegu 27.9-28.2 GHz i u opsegu 31-31.3 GHz u nekim zemljama Regiona 1 i 3 na osnovu neškodljive interferencije i bez protekcije;

f) da su opsezi 27.9-28.2 GHz i 31-31.3 GHz već vrlo opterećeni ili još više u planu da budu korišćeni od znatnog broja različitih službi i različitih primena u fiksnoj službi;

g) da iako odluka o razmeštanju za HAPS može biti doneta na nacionalnoj bazi, to razmeštanje može da utiče na susedne administracije, naročito u malim zemljama;

- h) da je 31.3-31.8 GHz opseg namenjen radio astronomskoj službi, satelitskoj službi istraživanja Zemlje (pasivno) i službi istraživanja svemira (pasivno), i da je WRC-03 izmenio No. **5.543A** radi specifikacije nivoa signala što bi zaštitilo Satelitsku pasivnu službu i radio astronomske stanice;
- i) da je ITU-R poveo studije koje se bave deljenjem među sistemima koji koriste HAPS u fiksnoj službi i ostalih tipova sistema u fiksnoj službi u opsezima 27.9-28.2 GHz i 31-31.3 GHz dovodeći do Preporuke ITU-R F.1609;
- j) da će rezultati ITU-R studija pokazuju da, u opsezima 27.9-28.2 GHz i 31-31.3 GHz, deljenje među sistemima koji koriste HAPS u fiksnoj službi i ostalih konvencionalnih sistema u fiksnoj službi u istom području zahtevati odgovarajuće tehnike sprečavanja interferencije da budu razvijene i primenjene;
- k) da je ITU-R poveo studije koje se bave kompatibilnošću među sistemima koji koriste HAPS i pasivne službe u opsegu 31.3-31.8 GHz dovodeći do Preporuka ITU-R F.1570 i ITU-R F.1612;
- l) da je ITU-R Uradio Preporuku ITU-R SF.1601 koja sadrži metodologije za izračunavanje interferencije sistema fiksne službe koja koristi HAPS prema GSO FSS sistemima u opsegu 27.9-28.2 GHz;
- m) da bi HAPS tehnički zahtevi trebalo da i dalje budu proučavani sa ciljem da se odrede odgovarajuće mere za zaštitu fiksne službe i ostalih ko-primarnih službi u opsegu 27.9-28.2 GHz,
- odlučuje*

1 da, bez obzira na No. **4.15A**, u Regionu 2 korišćenje HAPS u okviru namene za fiksnu službu u opsezima 27.9-28.2 GHz i 31-31.3 GHz opsezima ne sme uzrokovati štetne smetnje, niti tražiti zaštitu zbog toga, drugim stanicama službi koje rade u skladu sa Tabelom Namena Frekvencija iz Člana 5, i dalje, da će razvoj tih drugih službi biti nastavljen bez ograničenja od HAPS radeći shodno toj Rezoluciji;

2 da bilo koje korišćenje HAPS iz namene za fiksnu službu na 27.9-28.2 GHz shodno gornjoj *odluci* 1 mora biti ograničeno na rad u smeru HAPS-zemlja, i da bilo koje korišćenje HAPS iz namene za fiksnu službu na 31-31.3 GHz mora biti ograničeno na rad u smeru zemlja-HAPS;

3 da sistemi koji koriste HAPS u opsegu 31-31.3 GHz, u skladu s gornjom *odlukom* 1, ne smeju da uzrokuju štetne smetnje radio astronomskoj službi koja je primarno u nameni u opsegu 31.3-31.8 GHz, uzimajući u obzir kriterijum zaštite dat u odgovarajućoj ITU-R Preporuci u RA seriji. Da bi se osigurala zaštita Satelitske pasivne službe, nivo gustine neželjene snage antena na HAPS zemaljskim stanicama u opsegu 31.3-31.8 GHz mora biti ograničen na  $-106$  dB(W/MHz) u uslovima čistog neba i može da se poveća do  $-100$  dB(W/MHz) pod kišnim uslovima da se ublaži feding zbog kiše, tako da efektivni uticaj na pasivni satelit ne prevazilazi uticaj pod uslovima čistog neba;

4 da administracije izlistane u Nos. **5.537A** i **5.543A** koje nameravaju da implementiraju sisteme koji koriste HAPS u fiksnoj službi u opsezima 27.9-28.2 GHz i 31-31.3 GHz moraju da traže izričit pristanak zainteresovanih administracija u odnosu na njihove stanice primarnih službi da bi se osiguralo da su uslovi iz Nos **5.537A** i **5.543A** zadovoljeni, i one administracije u Regionu 2 koje nameravaju da implementiraju sisteme koji koriste HAPS u fiksnoj službi u tim opsezima moraju da traže izričit pristanak zainteresovanih administracija u odnosu na njihove stanice službi koje rade u skladu sa Tabelom Namena Frekvencija iz Člana **5** da se osigura da uslovi iz *odluka* 1 i *odluka* 3 budu zadovoljeni;

5 da administracije koje planiraju da implementiraju HAPS sistem shodno gornjoj odluci 1 moraju da objave dodele podnoseći sve obavezne elemente iz Dodatka 4 Birou za radiokomunikacije na proveru saglasnosti sa *odlukom* 3 i 4 gore,

*poziva ITU-R*

1 da nastavi da radi studije o odgovarajućim tehnikama ublažavanja interferencije za situacije napomenute pod *j*);

2 da razvije zaštitne kriterijume za mobilnu službu koja je primarna u nameni u frekvencijskim opsezima 27.9-28.2 GHz i 31-31.3 GHz iz HAPS u fiksnoj službi.

**ADD** COM5/344/5 (B14/365/49) (R7/411/225)

### REZOLUCIJA 147 (WRC-07)

#### **Limiti snage gustine fluksa za neke sisteme u fiksnoj satelitskoj službi koristeći visoko nagnute orbite koje imaju apogej visinu veću od 18000 km i nagnutost orbite između 35° i 145° u opsegu 17.7-19.7 GHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da se opseg 17.7-19.7 GHz mnogo koristi u mnogim zemljama za fiksnu službu (FS) primene uključujući mrežnu infrastrukturu mobilnih komunikacija;

b) da se u opsegu 17.7-19.7 GHz, nalaze planirani ili postojeći ne-geostacionarni (ne-GSO) sistemi fiksne satelitske službe (FSS) koristeći satelite sa visoko nagnutim orbitama koji imaju visinu apogeja veću od 18000 km i nagnutost orbite između 35° i 145°;

c) da je u tom frekvencijskom opsegu, ITU-R poveo studije na uticaj na FS stanice od pfd proizveden ili će da bude proizveden od ne-GSO FSS sistema od tipova opisanih u *uzimajući u obzir b*);

d) da jedan od tipova sistema iz *uzimajući u obzir b*) pod ITU podnošenje imena USCSID-P, je objavljeno i dato na korišćenje pod primenjivim nivoima snage gustine fluksa (pfd) za 17.7-19.7 GHz opseg u Tabeli **21-4**:

$$-115 \quad \text{dB(W/(m}^2 \cdot \text{MHz)) za } 0^\circ \leq \delta < 5^\circ$$

$$-115 + 0.5(\delta - 5) \quad \text{dB(W/(m}^2 \cdot \text{MHz)) za } 5^\circ \leq \delta \leq 25^\circ$$

$$-105 \quad \text{dB(W/(m}^2 \cdot \text{MHz)) za } 25^\circ < \delta \leq 90^\circ$$

gde je  $\delta$  upadni ugao iznad horizontalne ravni u stepenima,

*prepoznajući*

1 da su studije postavljene u ITU-R, sistema opisanih u *uzimajući u obzir b*), pokazale da sistemi opisani *uzimajući u obzir d*) ne koriste štetne smetnje fiksnoj službi u opsegu 17.7-19.7 GHz;

2 da jedan FSS sistem tipa opisanog u *uzimajući u obzir d*) radi od 1995. na  $-115/-105$  dB(W/(m<sup>2</sup> · MHz)) nivoima i nije bilo nikakve žalbi na štetnje smetnje svakoj stanici bilo kojoj stanici fiksne službe bilo koje administracije,

*odlučuje*

da u opsezima 17.7-19.7 GHz, FSS svemirske stanice koje sada rade u sistemu tipa opisanog u *uzimajući u obzir d*) i za koje su napredne publikacijske informacije primljene u Biro pre 5.6.2003.,

kao i svemirske stanice sa istim parametrima u budućim obaveštenjima za sistem za zamenu, treba da nastave da budu predmet ograničenja snage gustine fluksa:

$$\begin{aligned} -115 & \quad \text{dB(W/(m}^2 \cdot \text{MHz)) za } 0^\circ \leq \delta < 5^\circ \\ -115 + 0.5(\delta - 5) & \quad \text{dB(W/(m}^2 \cdot \text{MHz)) za } 5^\circ \leq \delta \leq 25^\circ \\ -105 & \quad \text{dB(W/(m}^2 \cdot \text{MHz)) za } 25^\circ < \delta \leq 90^\circ \end{aligned}$$

gde je  $\delta$  upadni ugao iznad horizontalne ravni u stepenima.

**ADD** COM5/384/9 (B16/401/9)

## REZOLUCIJA 148 (WRC-07)

### Satelitski sistemi prethodno izlistani u Delu B Plana Dodatka 30B (WARC Orb-88)

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je WARC Orb-88 usvojila Plan za fiksnu satelitsku službu u frekvencijskim opsezima 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz i 12.75-13.25 GHz sadržanih u Dodatku **30B (WARC Orb-88)**;

b) da, kada je Plan usvojen, neki satelitski sistemi u istim frekvencijskim opsezima bili su u fazi koordinacije i već su bili zapisani u MIFR, ili je postojala informacija u odnosu na napredne publikacije primljena od Biroa za radiokomunikacije pre 8.8.1985., i u svim slučajevima izlistano je u Delu B Plana na WARC Orb-88;

c) da u originalnim odredbama Dodatka **30B (WARC Orb-88)**, satelitski sistemi spomenuti *uzimajući u obzir b)* gore referisani su kao “postojeći sistemi”;

d) da satelitski sistemi identificirani u *uzimajući u obzir b)* jesu uključeni u Listu Dodatka **30B** ili stornirani, tako da je Deo B Plana prazan;

e) da je, zbog toga, ova Konferencija potisnula Deo B Plana u dodatku **30B**,

*prepoznajući*

a) da § 9.2 Dodatka **30B (WARC Orb-88)** pokazuje da “Postojeći sistemi izlistani u Delu B Plana mogu da nastave rad još maksimalno 20 godina nakon datuma stupanja na snagu ovoga Dodatka”, i otuda period rada satelitskih sistema u Delu B Plana ističe posle 16.3.2010.;

b) da su neke administracije izrazile želju da produže rad tih sistema nakon roka spomenutog u *prepoznajući a)*;

c) da su satelitski sistemi napomenuti u *uzimajući u obzir b)* kompatibilni sa satelitskim mrežama u Dodatku **30B**,

*odlučuje*

1 da objavljeni period važenja dodela za “postojeće sisteme” kako je naznačeno u *uzimajući u obzir c)* za koje objavljen period važenja ističe pre 16.5.2011. treba biti produžen do tog datuma;

2 da administracije koje nameravaju da i dalje koriste dodele “postojećim sistemima” kako je navedeno u *uzimajući u obzir c)* posle 16.3.2010. treba da o tome informišu Biro za radiokomunikacije pre 16.3.2008., napominjući o kojim dodelama se radi;

3 da, nakon što je administracija obavestila i postupila u skladu sa *odlučuje 2*, dodele “postojećim sistemima” kako je naznačeno u *uzimajući u obzir c*) mogu da nastave rad u saglasnosti sa objavljenim periodom važnosti, uključujući produženje omogućeno u *odlučuje 1*, po potrebi;

4 da neka administracija želeći da još produži objavljeni period važnosti, produžen pod *odlučuje 1*, ako je primenjivo, dodelu “postojećim sistemima” naznačeno u *uzimajući u obzir c*), treba da informiše Biro shodno tome više od tri godine pre isteka objavljenog perioda važnosti, produženog prema *odlučuje 1*, ako je primenjivo, i ako su karakteristike te dodele ostale nepromenjene, Biro treba da izmeni, kako je zatraženo, objavljeni period važenja i da publikuje tu informaciju u Specijalnom delu svoga Međunarodnog cirkulara za informacije o frekvencijama (BR IFIC),

*nalaže Birou za radiokomunikacije*

1 da izbriše iz Glavnog registra i Liste, dodele “postojećim sistemima”, kako je naznačeno u *uzimajući u obzir c*) nakon isteka njihovog objavljenog perioda važnosti, ili ako administracija koja je najavila ne uspe da uskladi sa *odlučuje 2* gore;

2 da izračuna združeni *C/I* “postojećih sistema” kako je naznačeno u *uzimajući u obzir c*) bez uzimanja u obzir interferenciju između tih sistema;

3 da preduzme potrebne akcije u skladu sa *odlučuje 1* i 4.

**ADD** COM5/385/103 (B18/405/108)

## REZOLUCIJA 149 (WRC-07)

### **Implementacija odluka WRC-07 u odnosu na Dodatak 30B Pravilnika o radiokomunikacijama**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je WARC Orb-88 prihvatio Plan za fiksnu satelitsku službu u frekvencijskim opsezima 4 500-4 800 MHz, 6 725-7 025 MHz, 10.70-10.95 GHz, 11.20-11.45 GHz i 12.75-13.25 GHz kako je sadržano u Dodatku **30B (WARC Orb-88)**;

b) da je ova Konferencija revidirala Dodatak **30B** Plan i pridružene regulatorne procedure;

c) da je ova Konferencija prihvatila nove tehničke parametre, kriterijume deljenja i pridružene metode izračunavanja koje su uključene ili naznačene u Aneksima Dodatka **30B (Rev.WRC-07)**;

d) da je prilikom revizije regulatornih procedura, ova Konferencija odlučila da princip garantovanog pristupa spektralnim resursima za sve države članice Unije mora da se održi i, kao posledica toga, najviši prioritet trebalo bi da se daje podnescima iz zemalja koji nemaju nacionalne alotmente u Planu, ili neka dodela u Listi proizlazi iz konverzije nekog alotmenta;

e) da kod regulatornih odredbi usvojenih na WARC Orb-88 i revidiranih na sledećoj konferenciji, podnesci od Država članica koje nemaju nacionalni alotment u Planu, ili neka dodela u Listi proizlazi iz konverzije nekog alotmenta procesirane su da bi se primile zajedno sa ostalim podnescima;

f) da, kao rezultat odluka ove Konferencije, veliki broj Pravila za Procedure razvijene respektujući primene procedura iz Dodatka **30B** treba da bude ponovo pregledan;

g) da, u zaključku ove Konferencije, nalazi se veliki broj podnesaka pod Dodatkom **30B** koji čeka da bude procesiran,

*prepoznajući*

- a) da Biro za radiokomunikacije treba jasne instrukcije sa ove Konferencije kako da implementuje Dodatak **30B (Rev.WRC-07)** i kako da procesira podneske koji su primljeni, ali nisu još procesirani;
- b) da se, od uspostavljanja WARC Orb-88 Plana, geografska situacija nekih ITU Država članica promenila;
- c) da se neke zemlje još nisu pridružile, ili mogu da se pridruže, Uniji kao Država članica, nemaju nacionalni allotment niti neku dodelu u Listi, koja proističe iz konverzije jednog allotmenta;
- d) da Biro za radiokomunikacije treba neko vreme da modifikuje svoj softver da se implementiraju novi kriterijumi prihvaćeni na ovoj Konferenciji,

*odlučuje*

- 1 da revidirani Dodatak **30B** kao što je usvojen na ovoj Konferenciji treba da stupi na snagu od 17.11.2007;
- 2 da prema WRC-07, Biro treba da ažurira i publikuje referentnu situaciju Člana **30B** Plana i Liste, od 17.11.2007., bazirano na odlukama ove Konferencije;
- 3 da jednoulazni *C/I* od 25 dB i jedan združeni *C/I* od 21 dB treba da budu primenjeni kad se procesiraju zahtevi od novih Država Članica primljeni pre 17.11.2007. pod Članom 7 Dodatka **30B**;
- 4 da od 17.11.2007. Biro treba da koristi revidirani Dodatak **30B** kao što je usvojen na ovoj Konferenciji u svom ispitivanju podnesaka primljenih nakon Konferencije isto kao podneske primljene pre 17.11.2007, ali još ne procesirane u to vreme<sup>1</sup>;
- 5 da administracija zemlje koja se priključila Uniji kao Država članica i nema nacionalni allotment u Planu ili dodelu u Listi koja proističe iz konverzije allotmenta, treba da ima pravo da zahteva od Biroa da isključi njenu teritoriju iz servisne zone allotmenta ili dodele, nakon čega Biro treba shodno tome da isključi teritoriju bez negativnog efekta na ostatak zone servisiranja i zatim ponovo proračuna novu referentnu situaciju za Dodatak Plana i Liste;
- 6 da administracije, u saglasnosti sa Članom 44 ITU Statuta, pregledaju svoje podneske pod Dodatkom **30B** primljene pre 17.11.2007. koji još nisu procesirani, u pogledu smanjenja broja podnesaka, i da naznače Birou mreže od kojih se više ne zahteva da budu u razmatranju i procesiranju pod Članom 6 Dodatka **30B**;
- 7 da za podneske primljene pod Dodatkom **30B** pre 17.11.2007. koji još nisu procesirani, administracije mogu da smanje e.i.r.p. gustinu da zadovolje limite Aneksa 3 i daju nove vrednosti pre provere iz Biroa pod § 6.3 Člana 6 Dodatka **30B (Rev.WRC-07)**;
- 8 da urgiraju administracijama<sup>2</sup> da učine krajnje napore da podese prijave primljene od novih Država Članica od ITU.,

*nalaže Bordu za Pravilnik o radiokomunikacijama*

- 1 da preispita tekuća Pravila procedura i napravi neophodne revizije;

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<sup>1</sup> Sa izuzetkom onih slučajeva identifikovanih u revidiranom Dodatku **30B** usvojenom na ovoj Konferenciji.

<sup>2</sup> One administracije koje su dale nepovoljni nalaz u odnosu na podnesak novih država članica.



2 da pripremi neophodna Pravila procedura kao odgovor na moguću nekonzistentnost ili poteškoće koje susreće Biro za radiokomunikacije prilikom primene Dodatka **30B (WRC-07)**;

3 u skladu sa Nos. **13.01** i **13.02**, izvesti sledeću Svetsku konferenciju o radiokomunikacijama o svim mogućim modifikacijama u Pravilniku o radiokomunikacijama da razreši nedoslednosti ili poteškoće koje se susreću u primeni procedura Dodatka **30B (WRC-07)**,  
*nalaže Direktoru Biroa za radiokomunikacije*

1 o revidiranim procedurama Dodatka **30B (WRC-07)** da razmotre zahtevane posledične izmene Odluke Saveta 482;

2 da saopšti administracijama detalje metode interpolacije implementirane za ispitivanja pod Aneksom 4 Dodatka **30B (Rev.WRC-07)**;

3 da preduzme sve moguće mere da bi se učinio dostupan, ne kasnije od 17.11.2008, softver za primenu revidiranih Aneksa 3 i 4 Dodatka **30B (Rev.WRC-07)**,

*poziva administracije*

čija se geografska situacija promenila da procene tehničke parametre njihovih alotmenta u vezi s principima iz Dodatka **30B (Rev. WRC-07)**.

**MOD** COM4/332/74 (B13/347/171) (R7/411/213)

**REZOLUCIJA 212 (Rev.WRC-07)**

### **Implementacija međunarodnih mobilnih telekomunikacija u opsezima 1885-2 025 MHz i 2110-2 200 MHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da Međunarodne mobilne telekomunikacije (IMT) sadrži IMT-2000 i IMT Napredni;

b) da je ITU-R, za WRC-97, preporučio približno 230 MHz da ga koriste zemaljske i satelitske komponente IMT-2000;

c) da su ITU-R studije predvidele da bi dodatni spektar trebao da se podrže budući servisi IMT-Naprednog i da se prilagode budući zahtevi korisnika i postavljanje mreža;

d) da je ITU-R prepoznao da su svemirske tehnike integralni deo od IMT;

e) da je, u No. **5.388**, WARC-92 identifikovao opsege za prilagođavanja izvesnih mobilnih servisa, koji se sada zovu IMT,

*primećuje*

a) da su zemaljske komponente IMT već bile postavljene ili je razmatrano da se postave u opsezima 1 885-2 025 MHz i 2 110-2 200 MHz;

b) da bi dostupnost IMT satelitskih komponenti u opsezima 1 980-2010 MHz i 2 170-2 200 MHz istovremeno sa IMT zemaljskom komponentom u opsezima identifikovanih u No. **5.388** unapredila ukupnu implementaciju i privlačnost za IMT,

*odlučuje*

da administracije koje implementiraju IMT:

a) treba da učine potrebne frekvencije dostupne za razvoj sistema;

b) treba da koriste te frekvencije kod IMT implementacije;

c) treba da koriste relevantne međunarodne tehničke karakteristike, kako je identifikovano u ITU-R i ITU-T Preporukama,

*poziva administracije*

da posvete kod IMT implementacije dužnu pažnju prilagođavanju drugih servisa koji rade u toj oblasti,

*poziva ITU-R*

da nastave svoje studije u pogledu razvoja podesnih i prihvatljivih tehničkih karakteristika za IMT koje će olakšati korišćenje i roming širom sveta, i osigurati da IMT može takođe zadovoljiti telekomunikacione potrebe zemalja u razvoju u ruralnim sredinama.

**MOD** COM6/338/1 (B12/346/15) (R6/410/72)

### REZOLUCIJA 221 (Rev.WRC-07)

#### **Korišćenje Stanica na platformama na velikim visinama za IMT u opsezima 1 885-1 980 MHz, 2 010-2 025 MHz i 2 110-2 170 MHz u Regionima 1 i 3 i 1 885-1 980 MHz i 2 110-2 160 MHz u Regionu 2**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da su opsezi 1 885-2 025 MHz i 2 110-2 200 MHz identifikovani u No. **5.388** kao predviđeni za korišćenje širom sveta za IMT, uključujući opsege 1 980-2 010 MHz i 2 170-2 200 MHz za IMT zemaljske i satelitske komponente IMT;
- b) da je stanica na platformama na velikim visinama (HAPS) definisana u No. **1.66A** kao “stanica smeštena na objektu na visini od 20 do 50 km i na specificiranoj, nominalnoj, fiksnoj tački relativno prema Zemlji”;
- c) da HAPS može da pruži nove vidove IMT servisa sa minimalnom mrežnom infrastrukturom budući da je u mogućnosti pružanja usluga na velikom području uz gusto pokrivanje;
- d) da je HAPS korišćenje kao bazne stanice u IMT zemaljskoj komponenti opcionalno za administracije, i da takvo korišćenje ne bi trebalo da ima bilo kakav prioritet u odnosu na zemaljsko IMT korišćenje;
- e) da, u skladu sa No. **5.388** i Rezolucijom **212 (Rev.WRC-97)**, administracije mogu da koriste opsege identifikovane za IMT, uključujući opsege na koje se odnosi Rezolucija, za stanice primarnih službi kome su namenjeni;
- f) da su ti opsezi namenjeni fiksnoj i mobilnoj službi na ko-primarnoj osnovi;
- g) da, u saglasnosti sa No. **5.388A**, HAPS može da bude korišćen kao bazne stanice u okviru IMT zemaljske komponente u opsezima 1 885-1 980 MHz, 2 010-2 025 MHz i 2 110-2 170 MHz u Regionima 1 i 3 i 1 885-1 980 MHz i 2 110-2 160 MHz u Regionu 2. Njihovo korišćenje za IMT aplikacije koje koriste HAPS kao bazne stanice ne sprečava korišćenje tih opsega od bilo koje druge stanice u službama kojima su namenjeni i ne ustanovljava prioritet u Pravilniku o radiokomunikacijama;
- h) da je ITU-R proučavao deljenje i koordinaciju između HAPS i drugih stanica u okviru IMT, razmatrao kompatibilnost za HAPS u okviru IMT sa nekim službama kojima su namenjeni susedni opsezi, i odobrio Preporuku ITU-R M.1456;
- i) da su radio interfejsi IMT HAPS kompatibilni sa Preporukom ITU-R M.1457;

j) da je ITU-R uputila na deljenje između sistema koji koriste HAPS i nekih postojećih sistema, posebno PCS (personalni komunikacijski sistem), MMDS (višekanalni distribucionni sistem sa više tačaka) i sistemi fiksne službe, koji trenutno rade u nekim zemljama u opsezima 1 885-2 025 MHz i 2 110-2 200 MHz;

k) da su HAPS stanice predviđene da emituju u opsegu 2 110-2 170 MHz u Regionu 1 i 3 i u opsegu 2 110-2 160 MHz u Regionu 2;

l) da administracije koje planiraju da implementiraju HAPS kao jednu IMT baznu stanicu mogu imati potrebu da razmenjuju informacije, na bilateralnoj osnovi, sa drugim zainteresovanim administracijama, uključujući podatke koji opisuju HAPS karakteristike na mnogo detaljniji način nego podaci uključeni u Aneксе 1A i 1B Dodatka 4, kako je napomenuto u Aneksu na tu Rezoluciju,

*odlučuje*

1 da:

1.1 u svrhu zaštite IMT mobilne službe u susednim zemljama od ko-kanalne interferencije, HAPS koji radi kao jedna IMT bazna stanica ne sme da prelazi ko-kanalnu snagu gustine fluksa (pfd) od  $-117 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  na površini Zemlje izvan granica države osim ako izričit sporazum zainteresovane administracije nije postignut u vreme najave za HAPS;

1.2 jedan HAPS koji radi kao IMT bazna stanica ne sme da emituje izvan frekvencijskih opsega 2 110-2 170 MHz u Regionima 1 i 3 i 2 110-2 160 MHz u Regionu 2;

1.3 u Regionu 2, u svrhu zaštite MMDS stanica u nekim susednim zemljama u opsegu 2 150-2 160 MHz od ko-kanalne interferencije, HAPS koji radi kao IMT bazna stanica ne sme da prelazi sledeći ko-kanalni pfd na površini Zemlje izvan granica države osim ako izričit sporazum zainteresovane administracije nije postignut u vreme najave za HAPS;

–  $-127 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  za upadni ugao ( $\theta$ ) manji od  $7^\circ$  iznad horizontalne ravni;

–  $-127 + 0.666 (\theta - 7) \text{ dB(W/(m}^2 \cdot \text{MHz))}$  za upadni ugao između  $7^\circ$  i  $22^\circ$  iznad horizontalne ravni; i

–  $-117 \text{ dB(W/(m}^2 \cdot \text{MHz))}$  za upadni ugao između  $22^\circ$  i  $90^\circ$  iznad horizontalne ravni;

1.4 u nekim zemljama (vidi No. **5.388B**), u svrhu zaštite fiksne i mobilne službe, uključujući IMT mobilne stanice, na njihovim teritorijama od ko-kanalne interferencije koju uzrokuje HAPS radeći kao IMT bazna stanica u skladu sa No. **5.388A** u susednim zemljama, treba da se primene ograničenja iz **5.388B**;

2 da ograničenja koja se odnose na ovu Rezoluciju treba da se primene na sve HAPS koji rade u skladu sa No. **5.388A**;

3 da administracije koje žele da implementiraju HAPS u okviru zemaljskog IMT sistema treba da zadovolje sledeće:

3.1 u svrhu zaštite IMT stanica koje rade u susednim zemljama od ko-kanalne interferencije, HAPS koji radi kao bazna stanica u okviru IMT treba da koristi antene čiji dijagrami zračenja zadovoljavaju sledeće:

$$G(\psi) = G_m - 3(\psi/\psi_b)^2 \quad \text{dBi} \quad \text{za} \quad 0^\circ \leq \psi \leq \psi_1$$

$$G(\psi) = G_m + L_N \quad \text{dBi} \quad \text{za} \quad \psi_1 < \psi \leq \psi_2$$

$$G(\psi) = X - 60 \log(\psi) \quad \text{dBi} \quad \text{za} \quad \psi_2 < \psi \leq \psi_3$$

$$G(\psi) = L_F \quad \text{dBi} \quad \text{za} \quad \psi_3 < \psi \leq 90^\circ$$

gde:

$G(\psi)$  : pojačanje za ugao  $\psi$  od glavnog smera snopa (dBi)

$G_m$  : maksimalno pojačanje u glavnom režnju (dBi)

$\psi_b$  : pola od 3 dB širine snopa u razmatranoj ravni (3 dB ispod  $G_m$ ) (stepeni)

$L_N$  : nivo bližeg bočnog režnja (dB) relativno prema glavnom pojačanju zahtevan dizajnom sistema, koji ima maksimalnu vrednost  $-25$  dB

$L_F$  : nivo daljeg bočnog režnja,  $G_m - 73$  dBi

$\psi_1 = \psi_b \sqrt{-L_N/3}$  stepeni

$\psi_2 = 3.745 \psi_b$  stepeni

$X = G_m + L_N + 60 \log(\psi_2)$  dBi

$\psi_3 = 10^{(X-L_F)/60}$  stepeni

3 dB širina snopa ( $2\psi_b$ ) se procenjuje na:

$(\psi_b)^2 = 7442/(10^{0.1G_m})$  stepeni<sup>2</sup>;

3.2 u svrhu zaštite mobilnih zemaljskih stanica u okviru satelitske komponente IMT od interferencije, HAPS koji radi kao IMT bazna stanica, ne treba da prelazi, izvan vlastitog opsega, pfd od  $-165$  dB(W/(m<sup>2</sup> · 4 kHz)) na površini Zemlje u opsezima 2 160-2 200 MHz u Regionu 2 i 2 170-2 200 MHz u Regionima 1 i 3;

3.3 HAPS koji radi kao IMT bazna stanica, u svrhu zaštite fiksnih stanica od interferencije, ne treba da prelazi sledeća ograničenja za pfd, izvan vlastitog opsega, na površini Zemlje u opsezima 2 025-2 110 MHz:

- $-165$  dB(W/(m<sup>2</sup> · MHz)) za upadne uglove ( $\theta$ ) manje od  $5^\circ$  iznad horizontalne ravni;
- $-165 + 1.75(\theta - 5)$  dB(W/(m<sup>2</sup> · MHz)) za upadne uglove između  $5^\circ$  i  $25^\circ$  iznad horizontalne ravni; i
- $-130$  dB(W/(m<sup>2</sup> · MHz)) za upadne uglove između  $25^\circ$  i  $90^\circ$  iznad horizontalne ravni;

4 da, za olakšavanje konsultacija između administracija, administracije koje planiraju da implementiraju HAPS kao IMT baznu stanicu treba da isporuče zainteresovanim administracijama dodatne podatke izlistane u Aneksu na ovu Rezoluciju, ako se tako zatraži;

5 da administracije koje planiraju da implementiraju HAPS kao IMT baznu stanicu treba da prijave dodelu podnoseći sve zahtevane podatke iz Dodatka 4 Birou za radiokomunikacije na ispitivanje saglasnosti sa odlukama 1.1, 1.3 i 1.4 gore;

6 da, od 5.07.2003., Biro i administracije privremeno primenjuju Nos. **5.388A** i **5.388B** kako je revidirano od WRC-03 za frekvencijske dodele za HAPS napomenuto u ovoj Rezoluciji, uključujući one primljene pre tog datuma ali još ne procesirane od strane Biroa,

*poziva ITU-R*

da razvije, po hitnom postupku, jednu ITU-R Preporuku koja daje tehnička uputstva za olakšavanje konsultacija sa susednim administracijama.

## ANEKS NA REZOLUCIJU 221 (Rev.WRC-07)

### **Karakteristike za HAPS koji radi kao IMT bazna stanica u frekvencijskim opsezima datim u Rezoluciji 221 (Rev.WRC-07)**

#### **A Generalne karakteristike koje treba da budu obezbeđene za stanicu**

##### **A.1 Identitet stanice**

- a) Identitet stanice
- b) Zemlja

##### **A.2 Datum početka korišćenja**

Datum (stvarni ili predviđeni, kako je odgovarajuće) početka korišćenja frekvencijske dodele (nove ili modifikovane).

##### **A.3 Administracija ili operativna agencija**

Simboli administracije ili operativne agencije i za adresu administracije kojoj se obraća za hitne stvari u pogledu interfejsa, kvaliteta emitovanja i pitanja koja se odnose na tehnički rad stanice. (vidi Član 15).

##### **A.4 Informacija o poziciji HAPS-a**

- a) Nominalna geografska dužina za HAPS
- b) Nominalna geografska širina za HAPS
- c) Nominalna visina za HAPS
- d) Planirana dužinska i širinska tolerancija za HAPS
- e) Planirana tolerancija visine za HAPS

##### **A.5 Sporazumi**

Ako je odgovarajuće, simbol zemlje administracije ili administracije koja predstavlja grupu administracija sa kojima je sporazum postignut, uključujući gde je sporazum prevazišao ograničenja propisana u Rezoluciji 221 (Rev.WRC-07).

#### **B Karakteristike koje treba da budu obezbeđene za svaki antenski snop**

##### **B.1 HAPS antenske karakteristike**

- a) Maksimalno izotropsko pojačanje (dBi).
- b) Kontura HAPS antenskog pojačanja nacrtana na mapi površine Zemlje.

#### **C Karakteristike koje treba da budu obezbeđene za svaku frekvencijsku dodelu za HAPS antenski snop**

##### **C.1 Frekvencijski opseg**

##### **C.2 Karakteristike gustine snage emisije**

Maksimalna vrednost maksimalne gustine snage (dB(W/MHz)), uprosečena za najgori 1 MHz koji je primila antena.

## **D Izračunato pfd ograničenje proizvedeno preko svake zemlje u vidnom polju HAPS-a**

Maksimalni pfd izračunati na površini Zemlje unutar teritorija neke administracije iznad kojeg HAPS može da bude u vidnom polju i iznad kojeg izračunati pfd nivoi prelaze limite naznačene u odlukama 1.1, 1.3 i 1.4 Rezolucije **221 (Rev.WRC-07)**.

**MOD** PLEN/408/5 (B24/419/1)

### **REZOLUCIJA 222 (Rev.WRC-07)**

#### **Korišćenje opsega 1 525-1 559 MHz i 1 626.5-1 660.5 MHz za mobilnu satelitsku službu, i studije da se obezbedi dugoročna dostupnost za vazduhoplovnu mobilnu satelitsku (R) službu**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a)* da su pre WRC-97, opsezi 1 530-1 544 MHz (svemir-Zemlja) i 1 626.5-1 645.5 MHz (Zemlja-svemir) bili namenjeni pomorskoj mobilnoj satelitskoj službi u opsezima 1 545-1 555 MHz (svemir-Zemlja) i 1 646.5-1 656.5 MHz (Zemlja-svemir) bili namenjeni na ekskluzivnoj osnovi vazduhoplovnoj mobilnoj satelitskoj (R) službi (AMS(R)S) u većini zemalja;
- b)* da je WRC-97 namenio opsege 1 525-1 559 MHz (svemir-Zemlja) i 1 626.5-1 660.5 MHz (Zemlja-svemir) mobilnoj satelitskoj službi (MSS) da olakša dodeljivanje spektra mnogobrojnim MSS sistemima na fleksibilan i efikasan način;
- c)* da je WRC-97 usvojio No. **5.353A** za davanje prioriteta zahtevima prilagođenja spektra i zaštitu od neprihvatljivih problema sa interferencijom, vanredne situacije i sigurnim komunikacijama za Svetski pomorski sistem za opasnost i bezbednost (GMDSS) u opsezima 1 530-1 544 MHz i 1 626.5-1 645.5 MHz i No. **5.357A** za davanje prioriteta zahtevima za prilagođenje spektra i zaštiti za AMS(R)S od neprihvatljive interferencije omogućujući emitovanje poruka prioritarnim kategorijama 1 do 6 u Članu **44** u opsezima 1 545-1 555 MHz i 1 646.5-1 656.5 MHz;
- d)* da je AMS(R)S jedan od osnovnih elemenata ICAO CNS/ATM da omogući sigurnost i regularnost leta u civilnom vazдушnom saobraćaju,

*uzimajući u obzir takođe*

- a)* da se koordinacija između satelitskih mreža zahteva na bilateralnoj osnovi u skladu s Pravilnikom o radiokomunikacijama, i, u opsezima 1 525-1 559 MHz (svemir-Zemlja) i 1 626.5-1 660.5 MHz (Zemlja-svemir), koordinacija se delimično pomaže regionalnim multilateralnim skupovima;
- b)* da, u tim opsezima, operatori geostacionarnog satelitskog sistema trenutno koriste metod planiranja kapaciteta na multilateralnim sastancima za koordinaciju, uz vođstvo i podršku njihovih administracija, da periodično koordiniraju pristup spektru potrebnom za prilagođavanje njihovih zahteva;
- c)* da su zahtevi za spektar kod MSS mreža, uključujući GMDSS i AMS(R)S, trenutno prilagođeni kroz metodu planiranja kapaciteta i da to, u opsezima na koje se Nos. **5.353A** ili **5.357A** primenjuju, ta metoda, i ostale metode mogu pomoći u prilagođavanju očekivanog povećanja zahteva za spektar za GMDSS i AMS(R)S;
- d)* da je Izveštaj ITU-R M.2073 zaključio da prioriteti i pravo preče kupovine unutar sistema između različitih mobilnih satelitskih sistema nije praktično i, bez značajnijeg napretka u tehnologiji, nije verovatno da će biti izvodljivo zbog tehničkih, funkcionalnih i ekonomskih razloga.

On sumira da prioriteti i unutar sistemsko pravo preče kupovine u realnom vremenu ne bi povećalo efikasnost korišćenja spektra u poređenju sa sadašnjom situacijom, ali bi sigurno suštinski zakomplikovalo proces koordinacije i strukturu mreže;

e) da postoji povećana tražnja za spektrom za AMS(R)S i ne-AMS(R)S od strane nekoliko mobilnih satelitskih sistema u opsezima 1 525-1 559 MHz i 1 626.5-1 660.5 MHz, i da primena ove Rezolucije može da utiče na pružanje usluga ne-AMS(R)S sistema u mobilnoj satelitskoj službi;

f) da budući zahtevi za AMS(R)S i GMDSS spektar mogu tražiti dodatne namene,  
*prepoznajući*

a) da je apsolutni prioritet za sve telekomunikacije koje se tiču sigurnosti života na moru, zemlji i u vazduhu ili u svemiru dat u No. 191 u ITU Statuta;

b) da je Međunarodna organizacija za civilno vazduhoplovstvo (ICAO) usvojila Standarde i Preporučenu praksu (SARPs) za satelitske komunikacije i letilice u skladu sa Konvencijom o Međunarodnoj civilnoj avijaciji;

c) da sve komunikacije u vazдушnom saobraćaju definisane u Dodatku 10 za Konvenciju o Međunarodnoj civilnoj avijaciji budu unutar prioriternih kategorija 1 do 6 Člana **44**;

d) da Tabela 15-2 Apendiksa **15** identifikuje opsege 1 530-1 544 MHz (svemir-Zemlja) i 1 626.5-1 645.5 MHz (Zemlja-svemir) za opasnost i pozivanje u pomorskoj mobilnoj satelitskoj službi, kao i za rutinske ne-sigurnosne svrhe,

*odlučuje*

1 da, kod koordinacije frekvencija za MSS u opsezima 1 525-1 559 MHz i 1 626.5-1 660.5 MHz, administracije treba da osiguraju spektar potreban za opasnost, vanredne situacije i sigurnosne komunikacije GMDSS, kako je razrađeno u Članovima **32** i **33**, u opsezima na koje se No. **5.353A** odnosi, i za AMS(R)S komunikacije unutar prioriternih kategorija 1 do 6 Člana **44** u opsezima gde su No. **5.357A** primene prilagođene;

2 da administracije treba da osiguraju korišćenje najnovijih tehničkih dostignuća, da bi postigle najfleksibilniju i praktičnu upotrebu generičkih namena;

3 da administracije treba da osiguraju da MSS operatori koji imaju saobraćaj koji nije vezan za sigurnost prepuste kapacitete, kako i kada je potrebno, da prilagode zahteve za spektar za opasnost, vanredne situacije i sigurnost komunikacija GMDSS, kako je razrađeno u Članovima **32** i **33**, i za AMS(R)S komunikacije u okviru prioriternih kategorija 1 do 6 Člana **44**; to bi moglo da bude postignuto unapred kroz proces koordinacije u *odluci* 1, i, kad je potrebno, na ostale načine ako su ti načini navedeni kao rezultati studija u *pozivima ITU-R*,

*poziva ITU-R*

da povede, u vreme kad to razmatra WRC-11, odgovarajuće tehničke, operativne, i regulatorne studije da bi se osiguralo dugoročno raspolaganje spektrom za vazduhoplovne mobilne satelitske (R) službe (AMS(R)S) uključujući:

(i) proučiti, hitno, postojeće i buduće zahteve za spektrom vazduhoplovne mobilne satelitske (R) službe;

(ii) proceniti da li dugoročni zahtevi za AMS(R)S mogu biti zadovoljeni u okviru postojećih namena s respektom na No. **5.357A** zadržavajući nepromenjene generičke namene za mobilnu satelitsku službu u opsezima 1 525-1 559 MHz i 1 626.5-1 660.5 MHz, i bez postavljanja nepotrebnih ograničenja na postojeće sisteme koji rade u skladu sa Pravilnikom o radiokomunikacijama;

(iii) kompletirati studije o izvodljivosti i praktičnosti tehničkih sredstava, osim procesa koordinacije pomenutog u *odlukama* 1 ili sredstvima koja se razmatraju u Izveštaju ITU-R M.2073, da bi se osigurao adekvatan pristup spektru radi prilagođenja AMS(R)S zahtevima, kako je gore napomenuto u *odlukama* 3, stalno uzimajući u obzir najnovija tehnička dostignuća da bi se maksimiziralo efikasnost spektra;

(iv) ako procene pomenute u *poziva ITU-R* (i) i (ii) indiciraju da ti zahtevi ne mogu biti zadovoljeni, proučiti postojeće MSS namene ili moguće, nove namene samo da bi se zadovoljilo zahteve vazduhoplovne mobilne satelitske (R) službe za komunikacije sa prioritarnim kategorijama 1 do 6 Člana 44, za globalni i celovit rad civilne avijacije vodeći računa potrebu da se izbegnu nepotrebna ograničenja na postecim sistemima i drugim servisima,

*poziva WRC-11*

da uzme u obzir gornje rezultate ITU-R studija i da preduzme odgovarajuću akciju po tom pitanju, zadržavajući nepromenjenu generičku alokaciju za mobilnu satelitsku službu u opsezima 1 525-1 559 MHz i 1 626.5-1 660.5 MHz,

*poziva*

Međunarodnu organizaciju za civilnu avijaciju (ICAO), Međunarodnu pomorsku organizaciju (IMO), Međunarodnu organizaciju za vazdušni saobraćaj (IATA), zainteresovane administracije i organizacije da učestvuju u studijama napomenutim gore u *pozivima ITU-R*.

**MOD** COM4/332/82 (B13/347/172) (R7/411/214)

## REZOLUCIJA 223 (Rev.WRC-07)

### Dodatni frekvencijski opsezi označeni za IMT

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da su Međunarodne mobilne telekomunikacije (IMT), uključujući IMT-2000 i IMT-Napredni, ITU vizija globalnog mobilnog pristupa;
- b) da IMT sistemi omogućuju telekomunikacione servise na svetskoj osnovi nezavisno od mesta, mreže ili korišćenog terminala;
- c) da IMT omogućuje velik izbor telekomunikacionih servisa podržanih fiksnim telekomunikacionim mrežama (na pr. PSTN/ISDN, brzi Internet), i drugim servisima koji su specifični za mobilne korisnike;
- d) da tehničke karakteristike za IMT-2000 su specificirane u ITU-R i ITU-T Preporukama, uključujući Preporuku ITU-R M.1457, koja sadrži detaljnu specifikaciju radio interfejsa za IMT-2000;
- e) da razvoj IMT-a prati ITU-R;
- f) da je WRC-2000 koncentrisao preispitivanje zahteva za spektar za IMT-2000 na opsege ispod 3 GHz;
- g) da je na WARC-92, 230 MHz spektra označeno za IMT-2000 u opsezima 1 885-2 025 MHz i 2 110-2 200 MHz, uključujući opsege 1 980-2 010 MHz i 2 170-2 200 MHz za satelitske komponente za IMT-2000, u No. **5.388** i odredbama Rezolucije **212 (Rev.WRC-07)**;
- h) da je nakon WARC-92 bio ogroman razvoj u mobilnim komunikacijama uključujući rastući zahtev za širokopojasne multimedijske mogućnosti;



- i) da se opsezi označeni za IMT trenutno koriste za mobilne sisteme ili primene u drugim Radiokomunikacionim službama;
- j) da se Preporuke ITU-R M.1308 odnose na razvoj postojećih mobilnih komunikacionih sistema za IMT-2000, i da se Preporuke ITU-R M.1645 odnose na razvoj IMT sistema i trasiraju njihov budući razvoj;
- k) da su harmonizovani opsezi za IMT širom sveta poželjni da bi se postigao globalni roming i dobici ekonomskog obima;
- l) da su opsezi 1 710-1 885 MHz i 2 500-2 690 MHz namenjeni različitim službama u saglasnosti sa relevantnim odredbama Pravilnika o radiokomunikacijama;
- m) da su opsezi 2 300-2 400 MHz namenjeni mobilnoj službi na ko-primarnoj osnovi u tri ITU Regiona;
- n) da je opseg 2 300-2 400 MHz, ili njegov deo, korišćen ekstenzivno od brojnih administracija za druge službe uključujući vazduhoplovno mobilnu službu za telemetriju u skladu sa relevantnim odlukama u Pravilniku o radiokomunikacijama;
- o) da je IMT već bio raspoređen ili se planiralo da to bude u nekim zemljama u opsegu 1 710-1 885 MHz, 2 300-2 400 MHz i 2 500-2 690 MHz i oprema je lako dostupna;
- p) da su opsezi, ili delovi opsega, 1 710-1 885 MHz, 2 300-2 400 MHz i 2 500-2 690 MHz označeni da ih koriste administracije koje žele da implementiraju IMT;
- q) da će tehnološki napredak i potrebe korisnika promovisati inovacije i ubrzati postavljanje naprednih komunikacionih primena za korisnike;
- r) da tehnološke promene mogu dovesti do daljeg razvoja komunikacionih primena, uključujući IMT;
- s) da je pravovremena dostupnost spektra važna za podršku budućim primenama;
- t) da su IMT sistemi predviđeni da omoguće povećane brzine prenosa podataka i kapacitet koji bi mogao zahtevati veće širine opsega;
- u) da su ITU-R studije predvidele da će trebati dodatni spektar da podrži buduće IMT servise i da prilagodi buduće zahteve korisnika i postavljanja mreže,  
*naglašavajući*
- a) da fleksibilnost mora da se priušti administracijama:
- da odrede, na nacionalnom nivou, koliko spektra da se učini dostupno za IMT iz označenih opsega;
  - da razviju vlastite tranzicione planove, ako je potrebno, da se nadovežu na svoje specifične postavbe postojećih sistema ;
  - da imaju mogućnost za naznačene opsege da budu korišćeni od svih službi kojima je taj opseg namenjen;
  - da odrede dinamiku dostupnosti i korišćenja opsega naznačenih za IMT, da bi zadovoljili posebne zahteve korisnika i ostalo što se razmatra na nacionalnoj osnovi;
- b) da posebne potrebe zemalja u razvoju treba da budu zadovoljene;
- c) da Preporuka ITU-R M.819 opisuje ciljeve koje zadovoljava IMT-2000 da bi zadovoljio potrebe zemalja u razvoju,

*primećujući*

- a) Rezolucije **224 (Rev.WRC-07)** i **225 (Rev.WRC-07)**, koje se takođe odnose na IMT;
- b) da će implikacije deljenja između servisa koji dele opsege naznačene za IMT u No. **5.384A**, kao relevantne, trebati da se još prouče u ITU-R;
- c) da studije u vezi dostupnosti opsega 2 300-2 400 MHz za IMT treba da se izvode u mnogo zemalja, i da dobijeni rezultati utiču na korišćenje tih opsega u tim zemljama;
- d) da, zbog različitih zahteva, neće sve administracije trebati sve IMT opsege naznačene za IMT na toj Konferenciji ili, zbog korišćenja s njihove strane i investiranja u postojeće servise, neće biti u stanju da implementiraju IMT u svim tim opsezima;
- e) da spektar za IMT označen na Konferenciji ne može u potpunosti da zadovoljava očekivanja nekih administracija;
- f) da mobilni komunikacioni sistemi koji su trenutno u radu mogu evoluirati u IMT u njihovim postojećim opsezima;
- g) da službe kao fiksna, mobilna (druga generacija sistema), operacije u svemiru, istraživanje svemira i vazduhoplovna mobilna jesu u radu ili planirane u opsegu 1 710-1 885 MHz, ili u delovima toga opsega;
- h) da u opsegu 2 300-2 400 MHz, ili delovima toga opsega, postoje službe kao fiksna, mobilna, amaterska, radiolokaciona koje su sada u radu ili su planirane da budu u radu u budućnosti;
- i) da službe kao radiodifuzna satelitska, radiodifuzna satelitska (zvuk), mobilna satelitska i fiksna (uključujući distribucijske/komunikacione sisteme u više tačaka) jesu u radu ili u planu u opsegu 2 500-2 690 MHz, ili u delovima toga opsega;
- j) da naznačavanje nekoliko opsega za IMT dozvoljava administracijama da odaberu najbolji opseg ili delove opsega za svoje okolnosti;
- k) da je ITU-R naznačio dodatni rad da označi buduće razvoje u IMT;
- l) da se očekuje da IMT-2000 radio interfejs, kako je definisan u Preporuci ITU-R M.1457 da evoluiru u okviru ITU-R više od onoga što je u početku specificirano, da omogući poboljšane usluge i usluge veće od onih predviđenih u početnim implementacijama;
- m) da označavanje opsega za IMT ne uspostavlja prioritete u Pravilniku o radiokomunikacijama i ne sprečava korišćenje opsega za bilo koju primenu iz službe za koju je namenjen;
- n) da odredbe iz Nos. **5.317A**, **5.384A** i **5.388** ne sprečavaju administracije da izaberu da implementiraju druge tehnologije u frekvencijskim opsezima označenim za IMT, zasnovano na nacionalnim zahtevima,

*prepoznajući*

da bi za neke administracije jedini način da implementiraju IMT bila preraspodela spektra, koja zahteva značajne finansijske investicije,

*odlučuje*

1 da pozove administracije koje implementiraju IMT ili planiraju da implementiraju da IMT bude dostupan, bazirano na zahtevima korisnika i drugim razmatranjima na nacionalnoj bazi, dodatni opsezi ili delovi opsega iznad 1 GHz naznačeno u No. **5.384A** za zemaljsku komponentu od

IMT; dužna pažnja treba biti poklonjena dobicima harmonizovanog korišćenja spektra za zemaljsku komponentu od IMT, uzimajući u obzir službe kojima je taj frekvencijski opseg sada namenjen;

2 da potvrdi da razlike u tekstovima u Nos. **5.384A** i **5.388** ne proizvode razlike u pravnom statusu,

*poziva ITU-R*

1 da prouči uticaj deljenja IMT-a sa ostalim primenama i servisima u opsegu 2 300-2 400 MHz i implementaciju, deljenje i frekvencijske aranžmane za IMT u opsegu 2 300-2 400 MHz;

2 da razvije harmonizovane frekvencijske aranžmane za opseg 2 300-2 400 MHz za rad zemaljske komponente IMT-a, uzimajući u obzir rezultate studija o deljenju;

3 da nastavi studije o daljem poboljšanju za IMT, uključujući odredbe za primene bazirane na Internet protokolu (IP) koje mogu zahtevati neizbalansirane radio resurse između mobilnih i baznih stanica;

4 da nastavi da usmerava da se osigura da IMT može da zadovolji telekomunikacione potrebe zemalja u razvoju i ruralnih sredina u kontekstu gorepomenutih studija;

5 da uključi ove frekvencijske aranžmane i rezultate tih studija u jednu ili više ITU-R Preporuka,

*takođe poziva ITU-R*

da odmah započne ove studije.

**MOD** (R9/425/17)

## REZOLUCIJA 224 (Rev.WRC-07)

### **Frekvencijski opsezi za zemaljske komponente Međunarodnih mobilnih telekomunikacija ispod 1 GHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da Međunarodne mobilne telekomunikacije (IMT) jeste izvorni naziv, obuhvatajući oboje IMT-2000 i IMT-Napredni (vidi Rezoluciju ITU-R 56);

b) da su IMT sistemi namenjeni da omoguće telekomunikacione servise na svetskom nivou, nezavisno od mesta, mreže ili korišćenog terminala;

c) da se delovi opsega 806-960 MHz ekstenzivno koriste u tri Regiona za mobilne sisteme;

d) da su IMT sistemi već raspoređeni u opsegu 806-960 MHz u nekim zemljama tri Regiona;

e) da neke administracije planiraju korišćenje opsega 698-862 MHz, ili delova toga opsega, za IMT;

f) da, kao rezultat tranzicije iz analogne u digitalnu zemaljsku televiziju neke zemlje planiraju da naprave ili već prave opseg 698-862 MHz, ili delove tog opsega, dostupan za primene u mobilnoj službi (uključujući veze prema gore);

g) da je opseg 450-470 MHz namenjen mobilnoj službi na primarnoj osnovi u tri Regiona i da su mobilni IMT sistemi već raspoređeni u nekim zemljama tri Regiona;

- h)* da su rezultati studije deljenja za opseg 450-470 MHz sadržani u Izveštaju ITU-R M.2110;
- i)* da celularni mobilni sistemi u tri Regiona u opsezima ispod 1 GHz rade koristeći razne frekvencijske aranžmane;
- j)* da tamo gde troškovni razlozi nalažu instalaciju manjeg broja baznih stanica, kao u ruralnim i/ili slabo naseljenim područjima, opsezi ispod 1 GHz u principu su pogodni za implementaciju mobilnih sistema uključujući IMT;
- k)* da su opsezi ispod 1 GHz važni, naročito za neke zemlje u razvoju i zemlje gde su ekonomska rešenja za malu gustinu naseljenosti neophodna;
- l)* da Preporuka ITU-R M.819 opisuje ciljeve koje treba da zadovolji IMT-2000 da bi zadovoljio potrebe zemalja u razvoju, i da bi im pomogao da premoste razliku između njihovih komunikacijskih mogućnosti i onih u razvijenim zemljama;
- m)* da Preporuka ITU-R M.1645 takođe opisuje ciljeve u vezi pokrivanja za IMT, *prepoznajući*
- a)* da evolucija mobilnih mreža na celularnoj osnovi za IMT može biti olakšana ako je dozvoljeno da evoluiru u okviru njihovih sadašnjih frekvencijskih opsega;
- b)* da se opseg 450-470 MHz i delovi opsega 746-806 MHz i 806-862 MHz ekstenzivno koriste u mnogim zemljama od različitih drugih zemaljskih mobilnih sistema i primena, uključujući javnu zaštitu, radiokomunikacije za pomoć u slučaju nesreće (vidi Rezoluciju **646 (WRC-03)**);
- c)* da postoji potreba, u mnogim zemljama u razvoju i zemljama sa velikim oblastima gde je mala gustina stanovništva, za ekonomičnom implementacijom IMT-a, i da karakteristike prostiranja frekvencijskih opsega ispod 1 GHz naznačene u Nos **5.XXX\*** i **5.317A** imaju za rezultat veće ćelije;
- d)* da je opseg 450-470 MHz, ili delovi toga opsega, takođe namenjen službama koje nisu mobilna služba;
- e)* da je opseg 460-470 MHz takođe namenjen meteorološkoj satelitskoj službi u saglasnosti sa No. **5.290**;
- f)* da je frekvencijski opseg 470-806/862 MHz takođe namenjen radiodifuznoj službi na primarnoj osnovi u sva tri Regiona i da ga ta služba pretežno koristi, i da se Sporazum GE06 primenjuje u svim zemljama u Regionu 1, osim Mongolije i Islamske Republike Iran u Regionu 3;
- g)* da Sporazum GE06 sadrži odredbe za zemaljsku radiodifuznu službu i ostale primarne zemaljske službe, Plan za digitalnu televiziju, i listu stanica drugih primarnih zemaljskih službi;
- h)* da se očekuje da će prelaz sa analogne na digitalnu televiziju verovatno rezultovati situacijom gde će opseg 470-806/862 MHz biti korišćen ekstenzivno i za analogne i za digitalne emisije i da zahtevi za spektrom za vreme prelaznog perioda mogu biti čak i veći nego kad je samo bio analogni radiodifuzni sistem;
- i)* da vremenski okvir i prelazni period za prebacivanje sa analogne na digitalnu televiziju ne moraju biti jednaki u svim zemljama;
- j)* da nakon prebacivanja sa analogne na digitalnu televiziju, neke administracije mogu odlučiti da koriste celi opseg 698-806/862 MHz ili njegove delove za druge službe za koje je

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\* Beleška Sekretarijata: Ova fusnota se odnosi na 450-470 MHz.

namenjen na primarnoj osnovi, naročito za mobilnu službu za implementaciju IMT-a, dok u drugim zemljama radiodifuzna služba će nastaviti da radi u tom opsegu;

- k) da u opsegu 470-862 MHz, ili delovima tog opsega, postoji jedna namena na primarnoj osnovi za fiksnu službu;
- l) da je, u nekim zemljama, opseg 698-806/862 MHz namenjen mobilnoj službi na primarnoj osnovi;
- m) da je opseg 645-862 MHz namenjen na primarnoj osnovi vazduhoplovnoj radionavigacionoj službi u zemljama navedenim u No. **5.312**;
- n) da će kompatibilnost mobilne službe sa radiodifuznom, fiksnom i vazduhoplovnom radionavigacionom službom u opsegu na koji se odnose *prepoznavanja k) i m)* zhtevati dalje studije u ITU-R,

*naglašavajući*

- a) da je za sve administracije zemaljska radiodifuzija vitalni deo komunikacione i informacione infrastrukture;
- b) da fleksibilnost mora da se priušti administracijama:
  - da odluče, na nacionalnoj osnovi, koliko spektra da bude dostupno za IMT iz naznačenih opsega, uzimajući u obzir tekuće korišćenje spektra i potrebe drugih primena;
  - da razviju vlastite tranzicione planove, ako je potrebno, da se nadovežu na svoje specifične postavbe postojećih sistema;
  - da imaju mogućnost za naznačene opsege da budu korišćeni od svih službi kojima je taj opseg namenjen;
  - da odrede dinamiku dostupnosti i korišćenja opsega naznačenih za IMT, da bi zadovoljili posebne zahteve korisnika i ostalo što se razmatra na nacionalnoj osnovi;
- c) da posebne potrebe i nacionalni uslovi i okolnosti u razvijenim zemljama, uključujući najmanje razvijene zemlje, prezadužene siromašne zemlje sa velikom teritorijom i teritorijama sa malim brojem pretplatnika, moraju da budu zadovoljene;
- d) da dužna pažnja treba biti poklonjena koristi od harmonizovanog korišćenja spektra za zemaljske IMT komponente, vodeći računa o tekućem i planiranom korišćenju tih opsega od svih službi kojima su ti opsezi namenjeni;
- e) da korišćenje frekvencijskih opsega ispod 1 GHz za IMT takođe pomaže da se premoste razlike između retko naseljenih područja i gusto naseljenih područja u različitim zemljama;
- f) da označavanje nekog opsega za IMT ne sprečava korišćenje tog opsega drugim službama i primenama kojima je namenjen;
- g) da je korišćenje opsega 470-862 MHz za radiodifuznu službu i ostale primarne službe takođe pokriveno GE06 Sporazumom;
- h) da zahtevi različitih službi kojima je opseg namenjen, uključujući mobilnu i radiodifuznu službu, trebaju da se uzmu u obzir,

*odlučuje*

1 da administracije koje uvode ili planiraju da uvedu IMT, razmotre korišćenje opsega naznačenih za IMT ispod 1 GHz i mogućnost evolucije mobilnih mreža na celularnoj osnovi za

IMT, u frekvencijskim opsezima naznačenim u Nos **5.XXX\*** i **5.317A**, na osnovu potreba korisnika i drugih razmatranja;

2 da se podstiču administracije da uzimaju u obzir rezultate ITU-R studija napomenutim gore u *poziva ITU-R*, i svaku preporučenu meru prilikom uvođenja primene /sistema u opsezima 790-862 MHz u Regionu 1 i Regionu 3, u opsegu 698-806 MHz u Regionu 2, i u administracijama spomenutim u No. **5.YYY**;

3 da bi administracije trebale uzeti u obzir potrebu za zaštitom postojećih i budućih radiodifuznih stanica, analognih i digitalnih, u 470-806/862 MHz opsegu, kao i ostalih primarnih zemaljskih službi;

4 da administracije koje planiraju da uvedu IMT u opsezima spomenutim u *odlukama 2* treba da izvrše koordinaciju sa svim susednim administracijama pre uvođenja;

5 da u Regionu 1 (osim Mongolije) i u Islamskoj Republici Iranu uvođenje stanica mobilne službe treba biti predmet primena procedura sadržanih u Sporazumu GE06. U tom procesu:

a) administracije koje postavljaju stanice za koje se ne zahteva koordinacija, ili koje nemaju prethodnu saglasnost onih administracija koje mogu biti pogođene, ne smeju da uzrokuju neprihvatljivu interferenciju, niti da traže zaštitu zbog nje, stanicama radiodifuzne službe administracija koje rade u saglasnosti sa GE06 Sporazumom. Treba da se zaključi pismeni pristanak kako se zahteva pod § 5.2.6 iz GE06 Sporazuma;

b) administracije koje postavljaju stanice za koje se ne zahteva koordinacija, ili koje nemaju prethodnu saglasnost onih administracija koje mogu biti pogođene, ne mogu da se bune niti da spreče stavku u GE06 planu ili upisivanje u MIFR dodatnih budućih radiodifuznih raspodela i namena bilo koje druge administracije u GE06 Planu u odnosu na te stanice;

6 da, u Regionu 2, uvođenje IMT-a treba biti predmet odluke svake administracije u prelasku sa analogne na digitalnu televiziju,

*poziva ITU-R*

1 da prouči moguće korišćenje opsega 790-862 MHz u Regionu 1 i u Regionu 3, opseg 698-806 MHz u Regionu 2 i u administracijama pomenutim u No. **5.YYY** u Regionu 3 za nove mobilne i radiodifuzne primene, uključujući uticaj na GE06 Sporazum, gde je moguće, i da sačini ITU-R Preporuke kako da se zaštite službe kojima su sada ti opsezi namenjeni, uključujući radiodifuznu službu i posebno GE06 Plan, kao ažuriran, i njegove buduće nadogradnje;

2 u frekvencijskim opsezima spomenutim u *poziva ITU-R 1*, da prouči kompatibilnost između mobilnih sistema sa različitim tehničkim karakteristikama i pruži smernice za bilo kakav uticaj koji nova razmatranja mogu da imaju na spektralne aranžmane;

3 da uključi rezultate studija pomenutih u *poziva ITU-R 2*, i posebno mere harmonizacije za IMT, u jednu ili više ITU-R Preporuka do 2010.;

4 da razvije harmonizovane frekvencijske aranžmane za opseg 450-470 MHz za rad zemaljskih IMT komponenata, uzimajući u obzir gorepomenuti, *uzimajući u obzir h*).

*poziva Direktora Sektora za razvoj telekomunikacija*

da privuče pažnju Sektora za razvoj telekomunikacija na ovu Rezoluciju.

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\* Beleška Sekretarijata: Ova fusnota se odnosi na 450-470 MHz.

**MOD** COM4/332/79 (B13/347/173) (R7/411/215)

**REZOLUCIJA 225 (Rev.WRC-07)**

**Korišćenje dodatnih frekvencijskih opsega za satelitsku komponentu IMT-a**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da su opsezi 1 980-2 010 MHz i 2 170-2 200 MHz označeni za korišćenje za satelitsku komponentu Međunarodnih mobilnih telekomunikacija (IMT) kroz No. **5.388** i Rezoluciju **212 (Rev.WRC-07)**;

b) Rezolucije **212 (Rev.WRC-07)**, **223 (WRC-07)** i **224 (WRC-07)** o implementaciji zemaljskih i satelitskih komponenti IMT-a;

c) da su opsezi 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 i 2 670-2 690 MHz namenjeni na ko-primarnoj osnovi mobilnim satelitskim službama i ostalim službama u skladu sa Pravilnikom o radiokomunikacijama;

d) da komunikacije u svrhe opasnosti, vanredne situacije i bezbednosti Svetskih pomorskih sistema za opasnost i bezbednost i vazduhoplovne mobilne satelitske službe imaju prioritet nad svim ostalim mobilnim satelitskim komunikacijama u skladu sa Nos. **5.353A** i **5.357A**,

*prepoznajući*

a) da su službe kao radiodifuzna satelitska, radiodifuzna satelitska (zvuk), mobilna satelitska, fiksna (uključujući distribucijske/komunikacione sisteme od tačke do tačke) i mobilne, u radu ili u planu da rade u opsegu 2 500-2 690 MHz, ili u delovima toga opsega;

b) da su druge službe, kao što je mobilna služba, radioastronomska služba i radiodeterminaciona satelitska služba u radu ili planirane u skladu sa Tabelom namene frekvencija, u opsezima 1 518-1 559/1 626.5-1 660.5 MHz, 1 610-1 626.5/2 483.5-2 500 MHz i 1 668-1 670 MHz, i u delovima tih opsega, i da se ti opsezi, ili delovi tih opsega intenzivno koriste u nekim zemljama za aplikacije drugačije nego što je IMT satelitska komponenta, i da studije o deljenju koje vodi ITU-R još nisu završene;

c) da studije o mogućem deljenju i koordinaciji između satelitske komponente IMT-a i zemaljske komponente IMT-a, mobilnih satelitskih primena i ostalih primena velike gustine u drugim službama kao što su komunikacijski/distribucijski sistemi u opsezima 2 500-2 520 MHz i 2 670-2 690 MHz, nisu još završene;

d) da su opsezi 2 520-2 535 MHz i 2 655-2 670 MHz namenjeni mobilnoj satelitskoj, osim vazduhoplovne mobilne satelitske, službi za rad ograničen unutar nacionalnih granica, shodno Nos. **5.403** i **5.420**;

e) Rezoluciju ITU-R 47 o studijama koje se rade za satelitske tehnologije radio emisija za IMT,

*odlučuje*

1 da, osim frekvencijskih opsega naznačenih u *uzimajući u obzir a)* i odlukama 2, frekvencijski opsezi 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 i 2 483.5-2 500 MHz mogu biti korišćeni od administracija koje žele da implementiraju satelitsku komponentu IMT-a, predmet regulatornih odredbi koje se odnose na mobilnu satelitsku službu u tim frekvencijskim opsezima;

2 da opsezi 2 500-2 520 MHz i 2 670-2 690 MHz naznačeni za IMT u No. **5.384A** i namenjeni mobilnoj satelitskoj službi mogu biti korišćeni od administracija koje žele da implementiraju satelitsku komponentu IMT-a; međutim, zavisno o zahtevima korisnika, može se desiti na duže staze da administracije odluče da koriste te opsege za zemaljsku komponentu IMT-a (vidi Preambulu ITU Statuta);

3 da ovo označavanje frekvencijskih opsega za satelitsku komponentu IMT-a ne sprečava korišćenje ovih opsega od strane bilo koje primene u službama kojima je namenjen niti stvara prioritet u Pravilniku o radiokomunikacijama,

*poziva ITU-R*

1 da prouči pitanja deljenja i koordinacije u gorepomenutim opsezima u odnosu na korišćenje namena mobilne satelitske službe za satelitsku komponentu IMT-a i korišćenje tog spektra od ostalih službi kojima je namenjen, uključujući radiodeterminacionu satelitsku službu;

2 da podnesu izveštaj o rezultatima ovih studija budućoj konferenciji o radiokomunikacijama,

*poziva direktora Sektora za razvoj telekomunikacija*

da privuče pažnju Sektora za razvoj telekomunikacija na ovu Rezoluciju.

**ADD** PLEN/408/18 (B24/419/18)

### REZOLUCIJA 231 (WRC-07)

#### **Dodatne namene mobilnoj satelitskoj službi uz delimično fokusiranje na opsege između 4 GHz and 16 GHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je ITU proučila zahteve spektra za satelitsku komponentu IMT za period 2010-2020, i rezultati si sadržani u Izveštaju ITU-R M.2077;

b) da rezultati u Izveštaju ITU-R M.2077 pokazuju nedostatak dostupnog spektra za satelitsku komponentu od IMT u smeru Zemlja-svemir od između 19 i 90 MHz za godinu 2020;

c) da rezultati u Izveštaju ITU-R M.2077 pokazuju nedostatak dostupnog spektra za satelitsku komponentu od IMT u smeru svemir-Zemlja od između 144 i 257 MHz za godinu 2020;

d) da MSS sistemi koji nisu deo satelitske komponente od IMT mogu takođe zahtevati dodatni spektar,

*odlučuje da pozove ITU-R*

da kompletira, za WRC-11, studije o mogućim opsezima za nove namene mobilnoj satelitskoj službi u smeru Zemlja-svemir i svemir-Zemlja, sa delimičnim fokusiranjem na raspon 4 GHz do 16 GHz, uzimajući u obzir deljenje i kompatibilnost, bez postavljanja neopravdanih ograničenja postojećim službama u tom opsegu,

*poziva administracije*

da učestvuju u studijama dajući doprinos ITU-R.



**MOD** COM4/296/56 (B9/305/58) (R5/336/6)

**REZOLUCIJA 331 (Rev.WRC-07)**

**Prelaz na Svetski pomorski sistem za opasnost i bezbednost (GMDSS)**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*primećujući*

da se od svih brodova predmeta Međunarodne konvencije za bezbednost života na moru (SOLAS), 1974, prema dopuni, zahteva da budu opremljeni za Svetski pomorski sistem za opasnost i bezbednost (GMDSS),

*primećujući takođe*

- a) da je izvestan broj administracija poduzeo korake da uvede GMDSS i za klase plovila koje nisu predmet za SOLAS, 1974, prema dopuni;
- b) da povećan broj plovila koji nisu predmet za SOLAS, 1974, prema dopuni, iskorišćava tehnike i frekvencije GMDSS-a propisane u Poglavlju VII;
- c) da je ova Konferencija izmenila Poglavlje VII da omogući održavanje međusobne operativnosti između brodova opremljenih za GMDSS i brodova koji nisu još potpuno opremljeni za GMDSS;
- d) da bi mogla postojati potreba za održavanje postojećih službi za opasnost i bezbednost lociranih na obali za primanje govornih poziva opasnosti, vanredne situacije i bezbednosti na VHF kanalu 16 tako da bi plovila koja nisu predmet za SOLAS, 1974, uz dopune i koja još ne koriste tehnike i frekvencije GMDSS-a bila u stanju da privuku pažnju i dobiju pomoć od tih službi;
- e) da Međunarodna pomorska organizacija (IMO) razmišlja da SOLAS brodovi, na moru, budu obavezni da slušaju VHF kanal 16, i u bliskoj budućnosti, u nameri da se omogući:
  - obaveštenja na opasnost i komunikacijski kanal za ne-SOLAS brodove; i
  - komunikacija između komandnih mostova;
- f) da je IMO pozvao administracije da zahtevaju od svih plovila po moru pod nacionalnom zastavom, i podstakao sva plovila koja dobrovoljno drže VHF radio opremu da budu opremljeni sa opremom za prenos i prijem obaveštenja na opasnost pomoću DSC-a na VHF kanalu 70;
- g) da Pravilnik o radiokomunikacijama zahteva od GMDSS brodova da slučajno odgovarajuće DSC frekvencije za opasnost;
- h) da specijalne odredbe u postojećem Pravilniku o radiokomunikacijama označavaju VHF kanal 16 kao međunarodni kanal za opšte pozivanje za radiotelefoniju;
- i) da je nekoliko administracija uspostavilo sisteme Službe za praćenje plovila (VTS) i zahteva da njihova plovila slušaju lokalni VTS kanal;
- j) da brodovi za koje zahteva SOLAS da imaju radio stanicu budu opremljeni s DSC, i mnoga plovila koja su predmet nacionalnih zahteva za prevoz takođe su opremljena sa DSC, ali većina brodova koja ima radio stanicu na dobrovoljnoj osnovi nema još DSC opremu;
- k) slično tome, mnoge administracije su uspostavile službu opasnosti i bezbednosti baziranu na DSC monitoringu, ali većina stanica u pristaništu, pilotskih stanica i ostalih operativnih obalskih stanica nisu još opremljene sa DSC opremom;
- l) da Nos **52.190** do **52.192** i **52.232** do **52.234** dozvoljavaju frkvenciju 2 182 kHz i kanal 16 da se koristi za poziv i odgovor,

*prepoznajući*

- a) da, kako je gore napomenuto u *primećujući takođe a), b), f), j) i k)*, stanice u pomorskoj mobilnoj službi povećano iskorišćavaju frekvencije i tehnike GMDSS-a;
- b) da je ova Konferencija usvojila odredbe za opasnost, vanredne situacije i sigurnosne pozive putem radiotelefonijske na VHF kanalu 16, zahtevajući od brodova, gde je zgodno, da stalno slušaju VHF kanal 16;
- c) potrebu da se održavaju obalske službe za opasnost, i bezbednost za prijem govornih poziva za opasnost, vanredne situacije i bezbednost na VHF kanalu 16 za nekoliko godina nakon ove Konferencije tako da bi plovila koja nisu predmet SOLAS, 1974, prema dopuni, i još ne koriste tehnike i frekvencije GMDSS-a, bila u stanju da privuku pažnju i dobiju pomoć od tih službi do vremena kada će da učestvuju u GMDSS;
- d) potrebu gore pomenutu u *primećujući takođe d)* za održavanjem postojećih obalskih službi za opasnost, vanredne situacije i bezbednost na VHF kanalu 16,

*odlučuje*

- 1 da zadrži odredbe koje dozvoljavaju korišćenje VHF kanala 16 i frekvenciju 2 182 kHz za opšte govorne pozive;
- 2 poziva sve administracije da pomognu u poboljšanju sigurnosti na moru sa:
- podsticanjem svih plovila da finalizuju prelaz na GMDSS što pre je moguće;
  - podsticanjem, gde je podesno, uspostavljanje odgovarajućih obalskih postrojenja za GMDSS, ili na individualnoj osnovi ili sa drugim relevantnim stranama u području;
  - podsticanjem svih plovila koja nose pomorsku VHF opremu da se opreme sa DSC na VHF kanalu 70 što pre je moguće, uzimajući u obzir relevantne odluke IMO;
  - podsticanjem plovila da ograniče vlastitu upotrebu VHF kanala 16 i frekvencije 2 182 kHz za zvanje ako nije preka potreba, konstatujući odredbe iz No. **52.239**;
- 3 da obalske stanice koje formiraju deo obalskih aranžmana u području u kome se vrši prijem poziva za opasnost putem radiotelefonijske na VHF kanalu 16 treba da održavaju efikasno slušanje na VHF kanalu 16. Takvo slušanje treba da bude objavljeno na Listi Obalskih stanica i Stanica specijalnih službi;
- 4 da administracije mogu da oslobode svoje brodske stanice i obalske stanice od slušanja na VHF kanalu 16 u vezi govornih poziva za opasnost, vanredne situacije i bezbednost, u skladu sa relevantnim odlukama IMO i ITU na zahteve slušanja na kanalu 16, uzimajući u obzir GMDSS radio sistem u području od interesa;

kad rade tako, administracije bi trebale:

- da informišu IMO o svojim odlukama i pošalju u IMO detalje o području od interesa;
- informišu Generalnog sekretara o neophodnim detaljima za uključivanje u Listu obalskih stanica i Stanica specijalnih službi,

*poziva ITU-R*

da prati razvoj i promene u GMDSS-u, naročito:

- zahteve za posmatranje;
- obaveštenja o opasnosti;
- zahteve prevoza,

i da izvesti svetsku konferenciju o radiokomunikacijama kada naredna racionalizacija Poglavlja VII treba biti razmatrana,

*odlučuje takođe*

da Generalni sekretar treba da osigura da takvi aranžmani i detalji koji se tiču razmatranog područja budu napomenuti u odgovarajućim pomorskim publikacijama,

*nalaže Generalnom sekretaru*

da skrene pažnju na ovu Rezoluciju Međunarodnoj pomorskoj organizaciji, Međunarodnoj organizaciji za civilno vazduhoplovstvo, i Međunarodnom udruženju IALA.

**MOD** COM4/332/178 (B14/365/43) (R7/411/217)

### REZOLUCIJA 339 (Rev.WRC-07)

#### **Koordinacija NAVTEX službi**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

...

*nalaže se Generalnom sekretaru*

1 da pozove IMO da omogući da ITU dobija informacije na regularnoj osnovi o radnoj koordinaciji za NAVTEX službe na frekvencijama 490 kHz, 518 kHz i 4 209.5 kHz,

*nalaže Direktoruru Biroa za radiokomunikacije*

da objavi ovu informaciju u *Listi obalskih stanica i Stanica specijalnih službi* (Lista IV) (vidi No. 20.7).

**MOD** COM4/380/73 (B17/404/68)

### REZOLUCIJA 351 (Rev.WRC-07)

#### **Pregled frekvencijskih i kanalskih aranžmana u HF opsezima namenjenih pomorskoj mobilnoj službi sadržano u Dodatku 17 s pogledom na poboljšanje efikasnosti kroz upotrebu nove digitalne tehnologije od strane pomorske mobilne službe**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*primećujući*

a) da uvođenje nove digitalne tehnologije u pomorsku mobilnu službu (MMS) ne sme da naruši komunikacije u svrhe opasnosti i bezbednosti u HF opsezima uključujući one koje je postavila Međunarodna konvencija o bezbednosti života na moru (SOLAS), 1974, uz dopune;

b) da izmene napravljene u Dodatku 17 ne bi smele naškoditi budućem korišćenju tih frekvencija ili mogućnosti sistema ili novim primenama zahtevanim za korišćenje za MMS;

c) da potreba za korišćenjem novih digitalnih tehnologija u MMS-u ubrzano raste;

d) da će korišćenje novih digitalnih tehnologija na HF frekvencijama namenjenim za MMS napraviti moguće bolje odgovaranje na nadolazeće zahteve za novim servisima;

e) da su HF opsezi namenjeni za MMS za A1A Morzeovu telegrafiju i uskopojasno direktno pisanje (NBDP) sadržano u Dodatku 17 značajno neiskorišćeni u sadašnje vreme;

f) da postoje nove HF tehnologije za razmenu podataka sposobne da isporučuju pomorske bezbednosne informacije;

g) da Međunarodna pomorska organizacija (IMO) podržava frekvencije iz Dodatka **15**, koje se odnose na NBDP, da budu zadržane još u bliskoj budućnosti;

h) da ITU Sektor za radiokomunikacije vodi tekuće studije da poboljša efikasno korišćenje tih opsega,

*konstatujući*

a) da su različite digitalne tehnologije već razvijene i u upotrebi su u HF opsezima u nekoliko radiokomunikacionih službi;

b) da su novi pomorski HF protokoli za prenos podataka već razvijeni i u radu su koristeći Dodatak **17** frekvencije i druge frekvencije izvan Dodatka **17**,

*odlučuje*

da pozove [WRC-11] da razmotre potrebne izmene u Dodatku **17** da bi se uvelo korišćenje novih tehnologija za MMS, u saglasnosti sa *poziva ITU-R*,

*poziva ITU-R*

da finalizuje studije koje su u toku:

- da identifikuje svaku potrebnu izmenu u frekvencijskoj tabeli sadržanoj u Dodatku **17**;
- da identifikuje sve potrebne prelazne aranžmane za uvođenje novih digitalnih tehnologija i sve potrebne izmene u tom smislu u Dodatku **17**;
- da preporuči kako digitalne tehnologije mogu da se uvedu a istovremeno da se osigura saglasnost sa zahtevima za opasnost i bezbednost,

*podstiče države članice*

dok pridonose implementaciji ove Rezolucije, neka uzmu u obzir druge modifikacije Članova i Dodataka ako je potrebno

*nalaže se Generalnom sekretaru*

da skrene pažnju na ovu Rezoluciju Međunarodnoj pomorskoj organizaciji, Međunarodnoj organizaciji za civilno vazduhoplovstvo, i Međunarodnom udruženju IALA, Međunarodnom komitetu za pomorski radio (CIRM), Međunarodnoj elektrotehničkoj komisiji (IEC).

**ADD** COM4/332/179 (B14/365/47) (R7/411/223)

## REZOLUCIJA 354 (WRC-07)

### **Procedure u telefoniji za opasnost i bezbednost 2 182 kHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*konstatujući*

a) zahteva da svi brodovi predmet Međunarodne konvencije za bezbednost života na moru (SOLAS), 1974, prema dopuni, budu opremljeni za Svetski pomorski sistem za opasnost i bezbednost (GMDSS);

b) da neki brodovi koji nisu predmet SOLAS, 1974, prema dopuni, ne trebaju da koriste tehnike i frekvencije od GMDSS prepisane u Poglavlju **VII** i mogu želeći da nastave korišćenje procedura telefonije za komuniciranje u svrhe opasnosti i bezbednosti na 2 182 kHz do vremena kada će biti u stanju da učestvuju u GMDSS;

c) da neke administracije mogu da imaju potrebu da održavaju obalnu radiotelefoniku službu za opasnost i bezbednost na 2 182 kHz tako da plovila koja nisu predmet za SOLAS, 1974,

prema dopuni, i još ne koriste tehnike i frekvencije od GMDSS moći će da dobiju pomoć od tih službi do vremena kad budu mogla da učestvuju u GMDSS,

*uzimajući u obzir*

da jima potrebe za neke posebne smernice za korišćenje radiotelefonijske na 2 182 kHz za komunikacije u svrhe opasnosti i bezbednosti,

*odlučuje*

1 da brodovi, kad su u opasnosti ili angažovani u hitnim ili bezbednosnim komunikacijama na 2 182 kHz koriste procedure radiotelefonijske sadržane u Aneksu ove Rezolucije;

2 da obalske stanice, u nameri da održavaju komunikaciju sa ne-GMDSS brodovima koji su u opasnosti ili angažovani u hitnim ili bezbednosnim komunikacijama na 2 182 kHz koriste procedure radiotelefonijske sadržane u Aneksu ove Rezolucije.

### ANEKS NA REZOLUCIJU 354 (WRC-07)

## **Procedure radiotelefonijske za opasnost i bezbednost na 2 182 kHz\***

### DEO A1 – GENERALNO

§ 1 Frekvencije i tehnike specificirane u ovoj Rezoluciji mogu da se koriste u pomorskoj mobilnoj službi za stanice<sup>1</sup> za koje nacionalna i internacionalna regulativa ne zahteva da odgovaraju GMDSS opremi i za komunikacije tih stanica i vazduhoplova. Međutim, stanice pomorske mobilne službe, kad dodatno odgovaraju bilo kojoj opremi koju koriste stanice koje rade u saglasnosti sa odredbama specificiranim u Poglavlju VII, trebale bi, kad koriste tu opremu, uskladiti se sa odgovarajućim odredbama toga Poglavlja.

§ 2 1) Nijedna odredba ove Rezolucije ne sprečava korišćenje za mobilne stanice ili mobilne zemaljske stanice kad je opasnost svih sredstava na raspolaganju da se privuče pažnja, javi svoja pozicija i dobije pomoć.

2) Nijedna odredba ove Rezolucije ne sprečava korišćenje na vazduhoplovu ili brodovima angažovanim u operacijama pretrage i spašavanja, u posebnim okolnostima, svih sredstava na raspolaganju da se asistira mobilni stanicama ili mobilnim zemaljskim stanicama kad je opasnost.

3) Nijedna odredba ove Rezolucije ne sprečava korišćenje od strane kopnenih i obalskih stanica, u vanrednim okolnostima, svih sredstava na raspolaganju da se asistira mobilnim stanicama ili mobilnim zemaljskim stanicama kad je opasnost (vidi takođe No. 4.16).

§ 3 U slučajevima opasnosti, vanredne situacije i bezbednosti komunikacije radiotelefonijskom treba da se vrše polako, i jasno, svaka reč jasno izgovorena da se olakša reprodukcija.

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\* Komunikacije za opasnost i bezbednost uključuju pozive za opasnost, vanredne situacije i sigurnost.

<sup>1</sup> Ove situacije mogu da uključuju koordinacione centre za spašavanje. Izraz "Koordinacioni centar za spašavanje" kako je definisan u ICMSR (1979) odnosi se na ustanovu odgovornu za promociju i efikasnu organizaciju službi traženja i spasavanja i koordinaciju i vođenje traženja i spašavanja unutar datog regiona.

§ 4 Kratice i signali iz Preporuke ITU-R M.1172 i Fonetskog alfabeta i slikovnog koda iz Dodatka **14** trebalo bi koristiti kad je primenjivo<sup>2</sup>.

§ 5 Komunikacije u svrhe opasnosti, vanredne situacije i bezbednost mogu takođe da se rade korišćenjem DSC i satelitskih tehnika i/ili telegrafije direktnog pisanja, u skladu sa odredbama specificiranim u Poglavlju **VII** i odgovarajućim ITU-R Preporukama.

§ 6 Mobilne stanice<sup>3</sup> pomorske mobilne službe mogu da komuniciraju u svrhu bezbednosti sa stanicama vazduhoplovne mobilne službe. Takve komunikacije treba da se rade na autorizovanim frekvencijama, i pod specificiranim uslovima, u Sekciji I Dela A2 (vidi takođe § 2 1)).

§ 6A Mobilne stanice vazduhoplovne mobilne službe mogu da komuniciraju u svrhe opasnosti i bezbednosti sa stanicama pomorske mobilne službe u saglasnosti sa odredbama ove rezolucije.

§ 7 Svaki vazduhoplov za koga nacionalna ili međunarodna regulativa zahteva da komunicira u svrhe opasnosti, vanredne situacije i bezbednosti sa stanicama pomorske mobilne službe treba biti u stanju da predaje i prima klasu J3E emisija kod korišćenja noseće frekvencije 2 182 kHz ili noseće frekvencije 4 125 kHz.

## DEO A2 – FREKVENCIJE ZA OPASNOST I BEZBEDNOST

### Sekcija I – Dostupnost frekvencija

#### A – 2 182 kHz

§ 1 1) Noseća frekvencija 2 182 kHz je međunarodna frekvencija za opasnost za radiotelefoniju; može da je koriste stanice na brodu, vazduhoplovu i čamcima za spašavanje kad se traži pomoć od pomorskih službi. Koristi se za pozive u opasnosti, saobraćaj u opasnosti, za hitne signale i hitne poruke i za sigurnosne signale. Bezbednosne poruke trebalo bi da se emituju, kad je praktično, na radnoj frekvenciji, nakon prethodne najave na 2 182 kHz. Klasa emisije koja će da se koristi za radiotelefoniju na frekvenciji 2 182 kHz treba da je J3E. Saobraćaj u opasnosti na 2 182 kHz nakon prijema poziva u opasnosti korišćenjem DSC trebalo bi da vodi računa da neko brodovlje u blizini možda neće moći da promi taj saobraćaj.

2) Ako poruka za opasnost na nosećoj frekvenciji 2 182 kHz nije još potvrđena, poziv u opasnosti i poruka mogu da se emituju ponovo na nosećoj frekvenciji 4 125 kHz ili 6 215 kHz, prema mogućnosti.

3) Međutim, brodske stanice i vazduhoplov koji ne mogu da emituju ili na nosećoj frekvenciji 2 182 kHz ili na nosećim frekvencijama 4 125 kHz ili 6 215 kHz mogu koristiti bilo koju drugu dostupnu frekvenciju na kojoj bi neko mogao da ih čuje.

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<sup>2</sup> Korišćenje Standardnih morskih komunikacijskih fraza i, gde postoje jezične poteškoće, Međunarodnog koda signala, oboje publikovano od Međunarodne pomorske organizacije, takođe se preporučuje.

<sup>3</sup> Mobilne stanice koje komuniciraju sa stanicama aeronautičkih mobilnih (R) službi u opsezima dodeljenim aeronautičkim mobilnim (R) službama treba da budu u skladu sa odredbama regulativa koje se odnose na tu službu kao i odgovarajućim specijalnim sporazumima između administracija koje se bave regulativom aeronautičkih mobilnih (R) službi.

4) Brodske stanice koje koriste noseću frekvenciju 2 182 kHz za opasnost i slanje upozorenja za plovidbu mogu da emituju jedan zvučni alarmni signal<sup>4</sup> kratkog trajanja u svrhu privlačenja pažnje na poruku koja će da sledi.

*B – 4 125 kHz*

§ 2 1) Noseća frekvencija 4 125 kHz se koristi kao suplement nosećoj frekvenciji 2 182 kHz u svrhu opasnosti i bezbednosti i za poziv i odgovor. Tu frekvenciju takođe koristi radiotelefonija za saobraćaj u opasnosti i bezbednost.

2) Noseća frekvencija 4 125 kHz može biti korišćena za komunikaciju vazduhoplova sa stanicama pomorske mobilne službe za opasnost i bezbednost, uključujući pretragu i spašavanje.

*C – 6 215 kHz*

§ 3 Noseća frekvencija 6 215 kHz se koristi kao suplement nosećoj frekvenciji 2 182 kHz u svrhu opasnosti i bezbednosti i za poziv i odgovor. Tu frekvenciju takođe koristi radiotelefonija za saobraćaj u opasnosti i bezbednost.

## **Sekcija II – Zaštita frekvencija za opasnost i bezbednost**

*A – Generalno*

§ 4 Gore opisane testne emisije na bilo kojoj frekvenciji za opasnost i bezbednost treba da se drže na minimumu i, gde god je praktično, treba da se izvode sa veštačkim antenama ili sa smanjenom snagom.

§ 5 Pre emitovanja na bilo kojoj frekvenciji identifikovanoj za komunikacije u svrhe opasnosti i bezbednosti, stanica treba da sluša na dotičnoj frkvenciji da bude sigurna da nikakva poruka opasnosti nije poslata (vidi Preporuku ITU-R M.1171). To se ne odnosi na stanice u opasnosti.

*B – 2 182 kHz*

§ 6 1) Osim za emisije autorizovane na nosećoj frekvenciji 2 182 kHz i na frekvencijama 2 174.5 kHz, 2 177 kHz, 2 187.5 kHz i 2 189.5 kHz, svi prenosi na frekvencijama između 2 173.5 kHz i 2 190.5 kHz su zabranjeni (vidi takođe Dodatak 15).

2) Za olakšavanje prijema signala opasnosti, sve emisije na 2 182 kHz trebali bi biti držani na minimumu.

## **Sekcija III – Nadziranje na frekvencijama za opasnost**

*A – 2 182 kHz*

§ 7 1) Obalne stanice mogu da nadziru na nosećoj frekvenciji 2182 kHz ako to odredi njihova administracija. Takve dodele trebalo bi da budu naznačene na Listi obalskih stanica i stanica specijalnih službi.

2) Brodske stanice koje ne odgovaraju opremi kompatibilnoj sa GMDSS podstiču se da drže maksimalno izvodljivo nadziranje na nosećoj frekvenciji 2 182 kHz.

*B – 4 125 kHz, 6 215 kHz*

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<sup>4</sup> Alarmni signali mogu da sadrže zvučne signale sa frekvencijama od 1300 Hz, 2200 Hz ili obe. Različiti tipovi tonova mogu da se koriste da bi se signalizirali tipovi poruka koje slede kao i alarmni signal na kraju u dužini od 10 sekundi kako bi se identifikovala predaja obalskoj stanici.

§ 8 Obalske stanice mogu da održavaju dodatno nadziranje, ako je dozvoljeno, na nosećim frekvencijama 4 125 kHz i 6 215 kHz. Takve dodele trebale bi da budu naznačene u Listi obalskih stanica i stanica specijalnih službi.

## DEO A3 – KOMUNIKACIJE U SLUČAJU OPASNOSTI

### Sekcija I – Generalno

§ 1 Generalne odredbe za komunikacije u slučaju opasnosti nalaze se u Sekciji I Člana 32 (vidi Nos. 32.1, 32.3, i 32.4).

### Sekcija II – Signal za opasnost, poziv i poruka

§ 2 Radiotelefonijski signal za opasnost, poziv i poruka opisani su u Sekciji II Člana 32 (vidi Nos. 32.13Bbis, 32.9, 32.13B, 32.13C, i 32.13D).

### Sekcija III – Procedure

§ 3 Nakon emisije radiotelefonijom poruke za opasnost, od mobilne stanice može da se zatraži da pošalje odgovarajuće signale, koji slede pozivni znak ili drugu identifikaciju, da dozvoli stanicama za određivanje smera da odrede njenu poziciju. Taj zahtev može da bude ponovljen u čestim intervalima ako je potrebno.

§ 4 1) Poruka za opasnost, kojoj je prethodio poziv za opasnost, treba biti ponavljana u intervalima dok se ne primi odgovor.

2) Intervali trebaju da budu dovoljno dugi da daju vremena stanicama za odgovor, u njihovim pripremama, da startuju aparaturu za slanje.

§ 5 Ako mobilna stanica u opasnosti ne primi odgovor na poruku za opasnost koju je poslala na frekvenciji za opasnost, Poruka može biti ponovljena na bilo kojoj drugoj dostupnoj frekvenciji na kojoj bi mogla da privuče pažnju.

### Sekcija IV – Emitovanje poruke za opasnost za predaju, koji vrši stanica koja nije u opasnosti

§ 6 Radiotelefonijske procedure za emitovanje poruke za opasnost za predaju od stanice koja sama nije u opasnosti nalaze se u Sekciji II Člana 32 (vidi Nos. 32.16 to 32.19A i 32.19D do 32.19F).

### Sekcija V – Prijem i potvrda poruke za opasnost

§ 7 Procedure koje se odnose na prijem i potvrdu poruke za opasnost nalaze se u Sekciji II Člana 32 (vidi Nos. 32.23, 32.26, 32.28, 32.29, 32.30 i 32.35).

### Sekcija VI – Saobraćaj u opasnosti

§ 8 Radiotelefonijske procedure koje se odnose na saobraćaj u opasnosti nalaze se u Sekciji III Člana 32 (vidi Nos. 32.39 do 32.42, 32.45 do 32.47, 32.49 do 32.52 i 32.54 do 32.59).

§ 9 1) Svaka potvrda prijema poruke za opasnost mobilne stanice treba, po naređenju osobe odgovorne za brod, vazduhoplov ili drugo vozilo, da pošalje sledeće informacije u prikazanom poretku što pre je moguće:

- svoje ime;
- svoju poziciju;
- brzinu kojom ona napreduje, i približno vreme koje će joj trebati da dođe do mobilne stanice u opasnosti;



– dodatno, ako se pozicija broda u opasnosti pokaže sumnjiva, brodske stanice bi takođe trebalo da pošalju, kad je moguće, stvarno stanje broda u opasnosti.

2) Pre slanja poruke specificirane u § 9 1), stanica treba da osigura da neće da interferira sa emisijama drugih stanica koje su u boljoj poziciji da pruže brzu pomoć stanici u opasnosti.

## DEO A4 – KOMUNIKACIJE U SVRHE VANREDNE SITUACIJE I BEZBEDNOSTI

### Sekcija I – Komunikacije u svrhe vanredne situacije

§ 1 Radiotelefonijske procedure za komunikacije u svrhe vanredne situacije nalaze se u Sekciji I i II Člana 33 (vidi Nos. 33.1 do 33.7 i 33.8, 33.8b do 33.9a i 33.11 do 33.16).

### Sekcija II – Komunikacije u svrhe bezbednosti

§ 2 Radiotelefonijske procedure za komunikacije u svrhe bezbednosti nalaze se u Sekciji I i IV Člana 33 (vidi Nos. 33.31, 33.31C, 33.32, 33.34 do 33.35 i 33.38B).

**ADD** COM4/332/180 (B14/365/48) (R7/411/224)

## REZOLUCIJA 355 (WRC-07)

### Sadržaj, format i periode publikacija za službu vezanu za pomorstvo

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da Dodatak 16 specificira dokumente koji treba da se nalaze uz stanice na brodovima ili vazduhoplovima;

b) da Član 20 specificira naslove, sadržaj, pripreme, i dopune publikacija službe i on-lajn informacione sisteme;

c) da stanice u pomorskoj mobilnoj službi imaju rstući zahtev da poseduje sveže informacije u publikacijama i on-lajn informacionim sistemima,

*konstatujući takođe*

a) da su administracije izrazile potrebu za uspostavljanje funkcionalne serije publikacija za službu što bi poboljšalo bezbednost na brodovima;

b) da je ova Konferencija modifikovala relevantne odredbe, koje se tiču priprema i dopuna publikacija službi i on-lajn informacione sisteme u Članu 20;

c) da je ova Konferencija odlučila da ujedini izvesne Liste, ranije spomenute u Članu 20;

d) da je ova Konferencija takođe odlučila da modifikuje zahteve prevoza kao što je predviđeno u Dodatku 16;

e) da će biti prelazni period do 31.12.2010., za vreme kojeg će Biro za radiokomunikacije nastaviti da izdaje publikacije službe u njihovom pređašnjem formatu,

*prepoznajući*

a) da je ova Konferencija usvojila izmene s obzirom na naslove i sadržaj Liste IV kao i Liste V u publikacijama službi;

b) da administracije mogu da oslobode brodove obaveze nošenja dokumenata zahtevanih u Dodatku 16 (Rev.WRC-07),

*odlučuje da pozove administracije*

1 da redovno podnose izmene informacija za upisivanje u ITU-pomorske baze podataka u skladu sa odredbom **20.16**;

2 da pomognu u poboljšanju pomorske bezbednosti pridonoseći kontinuiranom radu s obzirom na sadržaj, format i periodičnost publikacija pomorske službe

*poziva ITU-R*

1 da povede studije sa aktivnim učešćem Biroa za komunikacije u pogledu razvoja funkcionalne serije Publikacija pomorskih službi (Liste IV i V), što će poboljšati bezbednost života na moru;

2 da kompletira te studije do 31.12.2010. (vidi konstatujući takođe *e*));

3 da povede studije u pogledu razvoja praktičnog i korisnički-ugodnog formata tekućeg Priručnika za korišćenje od strane pomorskih mobilnih i pomorskih mobilnih satelitskih službi;

4 da periodički ažurira tekst ovog Priručnika radi pokrivanja najnovijeg razvoja,

*nalaže Direktorbu Biroa za radiokomunikacije*

1 da publikuje publikacije pomorske službe u tekućem formatu u prelaznom periodu do 31.12.2010., i posle tog datuma u novom formatu na šest službenih jezika Unije u skladu sa *poziva ITU-R 2* gore;

2 da izvesti sledeću Svetsku konferenciju o radiokomunikacijama o budućoj racionalizaciji Liste IV i V i Priručnika, i da uključi rezultate studija o budućoj racionalizaciji tih dokumenata u izveštaju Direktora Biroa za radiokomunikacije,

*nalaže Generalnom sekretaru*

da stavi ovu Rezoluciju na uvid Međunarodnoj pomorskoj organizaciji, Međunarodnoj organizaciji za civilno vazduhoplovstvo i međunarodnom udruženju (IALA).

**ADD** COM4/380/57 (B17/404/73)

## REZOLUCIJA 356 (WRC-07)

### **ITU registracija informacije pomorske službe**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

*a*) da odredbe iz No. **20.16** Člana **20** zahtevaju od administracija da obaveste Biro za radiokomunikacije o informacijama o radu koje se nalaze u Listi obalskih stanica i Stanica specijalnih službi (Lista IV) i Listi brodskih stanica i Dodela identiteta pomorske mobilne službe (Lista V);

*b*) da je ova Konferencija modifikovala Član **19** da se obezbedi za dodelu identitet pomorske mobilne službe (MMSI) avionima za pretragu i pomoć, automatski identifikacioni sistem (AIS) pomagala za navigaciju, i čamci za spašavanje pridruženi matičnom brodu;

*c*) da odredbe iz No. **20.15**, međutim, daju Birou za radiokomunikacije ovlašćenja da menja sadržaj i formu ove informacije uz konsultaciju sa administracijama;

*d*) da je Međunarodna pomorska organizacija (IMO) već identifikovala, u Rezoluciji A.887(21) usvojenoj 25.11.1999., informacije koje treba da se uključe u bazu podataka za pretragu i spašavanje, uključujući:

- identifikacioni broj plovila (IMO broj ili nacionalni registarski broj);
  - Identitet pomorske mobilne službe (MMSI);
  - radio pozivni znak;
  - ime, adresa i telefonski broj i, ako je primjenjivo, broj faksa, osobe na kopnu za kontakt u slučaju vanredne situacije ;
  - alternativni 24-satni broj telefona za vanredne situacije;
  - kapacitet za lica na plovilu (putnici i posada),
- odlučuje da naloži Direktoru Biroa za radiokomunikacije*

da se održavaju on-lajn informacijski sistemi da dozvole spasilačkim koordinacionim centrima da imaju neposredan pristup ovoj informaciji 24 časa dnevno, 7-dana na nedeljnoj osnovi,

*poziva ITU-R*

da konsultuje administracije, IMO, ICAO, IALA, IHO da se identifikuju elementi za inkorporaciju u ITU on-lajn informacijske sisteme,

*poziva Generalnog sekretara*

da komunicira o ovoj Rezoluciji sa IMO, ICAO, IALA, i IHO.

**ADD** PLEN/408/6 (B24/419/7)

## REZOLUCIJA 357 (WRC-07)

### **Razmatranje regulatornih odredbi i namena spektra za korišćenje od strane poboljšanog pomorskog sigurnosnog sistema za brodove i luke**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da postoji rastuća potreba, na globalnoj osnovi, da se poboljša identifikacija brodova i tereta, praćenje, i nadgledanje kao i sigurnost i bezbednost brodova i pristaništa;
- b) da usvajanje Međunarodnog sigurnosnog koda za brodove i pristanišna postrojenja (ISPS) od strane Međunarodne pomorske organizacije (IMO), naročito Konvencije o sigurnosti života na moru (SOLAS), Poglavlje XI-2, o specijalnim merama za poboljšanje pomorske sigurnosti, zahteva sisteme koji zavisi o spektru širokog raspona;
- c) da uvođenje univerzalnog automatskog identifikacionog sistema na brodovima (AIS) potpomaže pomorsku sigurnost i nudi potencijalno poboljšanje sigurnosti za brodove i pristaništa i pomorsku bezbednost;
- d) da studije u okviru ITU-R pokazuju da dodatni AIS kanali u mobilnoj satelitskoj službi mogu biti potrebni da unaprede i prilagode globalne mogućnosti praćenja brodova;
- e) da napredni pomorski HF sistemi prenosa podataka mogu biti korišćeni za slanje sigurnosnih upozorenja i bezbednosnih informacija, i primanje sličnih informacija i informacija identifikacije i praćenja (LRIT) širokog raspona od brodova u područjima sveta koja nemaju satelitsku pokrivenost;

- f) da bi korišćenje postojećih namena pomorske mobilne, gde je praktično, za sigurnost brodova i pristaništa i unapređenje pomorske bezbednosti, bilo preporučljivo, posebno gde se zahteva međunarodna interoperabilnost;
- g) da dodatne studije u okviru ITU-R o spektralno efikasnim radio tehnologijama mogu da se zahtevaju da reše te višeznačne zahteve za spektrom;
- h) da potrebe za ITU Servisnim publikacijama i specifičnim revizijama sadržaja, formata i strukture tih publikacija, može biti zahtevano za podršku pomorske sigurnosti i bezbednosnih sistema,

*konstatujući*

- a) Rezoluciju **342 (Rev.WRC-2000)**: “Nove tehnologije za pružanje povećane efikasnosti u korišćenju opsega 156-174 MHz od stanica pomorske mobilne službe”;
- b) Rezoluciju **351 (Rev.WRC-07)**: “Pregled frekvencijskih i kanalskih aranžmana u HF opsegu namenjenom pomorskoj mobilnoj službi sadržano u Dodatku 17 u pogledu poboljšanja efikasnosti kroz korišćenje nove digitalne tehnologije od strane pomorske mobilne službe ”,

*prepoznajući*

- a) da postoji globalni zahtev za poboljšanje pomorske sigurnosti, bezbednosti brodova i pristaništa putem sistema ovisnim o spektru;
- b) da će postojeće i buduće tehnologije za Sistem sigurnosti i upozoravanja za brodove (SSAS), uveden kao rezultat ISPS Koda naznačeno u *uzimajući u obzir b*), zahtevati komunikacione veze širokog raspona i mreže između mobilnih stanica na brodovima i obali;
- c) da, zbog važnosti tih radio veza u osiguravanju bezbednog i sigurnog rada međunarodnog brodarstva i trgovine, one moraju biti otporne na interferenciju;
- d) da će biti potrebne studije da pruže bazu za razmatranje promena u regulativi, uključujući dodatne namene i preporuke, napravljene da prilagode zahteve za spektrom za sigurnost brodova i pristaništa, konzistentnim sa zaštitom postojećih službi;
- e) da su ITU i međunarodne organizacije za standarde inicirale odgovarajuće studije o spektralno efikasnoj tehnologiji,

*odlučuje*

- 1 da WRC-11 uzme u obzir izmene i dopune na odredbe Pravilnika o radiokomunikacijama neophodnim da omogući rad sisteme brodske i pristanišne sigurnosti i pomorske bezbednosti;
- 2 da WRC-11 uzme u obzir dodatne namene pomorske mobilne službe ispod 1 GHz za podršku zahtevima identifikovanim u *odlučuje 1*;
- 3 da WRC-11 uzme u obzir dodatne namene pomorske mobilne satelitske službe u frekvencijskim opsezima namenjenim pomorskoj mobilnoj službi između 156 i 162.025 MHz za podršku zahtevima identifikovanim u *odlučuje 1*,

*poziva ITU-R*

- 1 da povede, kao hitnu stvar, studije da se odrede zahtevi za spektrom i potencijalni frekvencijski opsezi podesni da podrže sisteme brodske i pristanišne sigurnosti i napredne sisteme pomorske bezbednosti;

2 da studije iz *poziva ITU-R 1* trebalo bi da uključe primenjivost spektralno efikasnih tehnologija, i studije o deljenju i kompatibilnosti sa službama koje već imaju namene u potencijalnom spektru za sisteme sigurnosti brodova i bezbednosti pristaništa,

*poziva*

sve članove Sektora za radiokomunikacije, Međunarodnu pomorsku organizaciju (IMO), Međunarodnu organizaciju za standardizaciju (ISO), Međunarodnu elektrotehničku komisiju (IEC), i međunarodno udruženje IALA da daju doprinos ovim studijama,

*nalaže Generalnom sekretaru*

da stavi ovu Rezoluciju na uvid IMO, ISO, IEC, IALA i ostalim zainteresovanim međunarodnim i regionalnim organizacijama.

**MOD** COM4/318/7 (B11/329/39) (R6/410/73)

### REZOLUCIJA 413 (Rev.WRC-07)

#### **Korišćenje opsega 108-117.975 MHz od strane vazduhoplovne mobilne (R) službe**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) za vazduhoplovnu radionavigacionu službu (ARNS);
- b) tekuće zahteve FM radiodifuznih sistema koji rade u frekvencijskom opsegu 87-108 MHz;
- c) da su digitalni radiodifuzni sistemi za zvuk sposobni da rade u frekvencijskom opsegu 87-108 MHz kako je opisano u Preporuci ITU-R BS.1114;
- d) potrebu vazduhoplovne zajednice da se omogući dodatni servis unapređenjem navigacionih sistema kroz Radiokomunikacionu vezu za prenos podataka ;
- e) potrebu radiodifuzne zajednice da omogući digitalne zemaljske radiodifuzne servise za zvuk;
- f) da je ova namena urađene na ovoj Konferenciji znajući da su studije u toku, s obzirom na tehničke karakteristike, kriterijume deljenja i mogućnosti deljenja;
- g) potrebu vazduhoplovne zajednice da omogući dodatne servise za radiokomunikacije, vezano za bezbednost i regularnost leta, u opsegu 112-117.975 MHz;
- h) da je ova Konferencija modifikovala namenu opsega 112-117.975 MHz za vazduhoplovne mobilne (R) službe (AM(R)S) da bi se učinio dostupan taj frekvencijski opseg za nove AM(R)S sisteme, i time omogućila dalji tehnički napredak, investicije i postavljanja;
- i) da frekvencijski opseg 117.975-137 MHz trenutno namenjen za AM(R)S dostiže zasićenje u nekim područjima u svetu;
- j) da ta nova namena ima nameru da podrži uvođenje primena i koncepata u vođenju vazdušnog saobraćaja koji su intenzivniji u pogledu količine podataka, i koji mogu podržati veze za prenos podataka kojima idu vazduhoplovni podaci kritični za bezbednost;
- k) da su potrebne dodatne informacije o novim tehnologijama koje će da se koriste, veličinu potrebnog spektra, karakteristike i mogućnosti/uslovi deljenja, i zbog toga studije se hitno zahtevaju o tome koji će AM(R)S sistemi da se koriste, veličinu potrebnog spektra, karakteristike i uslovi za deljenje sa ARNS sistemima,

*prepoznajući*

- a) da prednost treba da se da ARNS radu u frekventijskom opsegu 108-117.975 MHz;
- b) da, u skladu sa Aneksom 10 Konvencije Međunarodne organizacije za civilno vazduhoplovstvo (ICAO) o međunarodnom civilnom vazduhoplovstvu, svi vazduhoplovni sistemi moraju zadovoljavati standarde i preporučenu praksu (SARPs) zahteva;
- c) da u okviru ITU-R, kriterijum kompatibilnosti između FM radiodifuznih sistema koji rade u frekventijskom opsegu 87-108 MHz i ARNS koji rade u frekventijskom opsegu 108-117.975 MHz već postoje, kako je napomenuto u najnovijoj verziji Preporuke ITU-R SM.1009;
- d) da su sva pitanja kompatibilnosti između FM radiodifuznih sistema i ICAO standardnih sistema na zemlji za emitovanje radionavigacionih satelitskih signala za diferencijalnu korekciju takođe pomenuta,

*konstatujući*

- a) da vazduhoplovni sistemi konvergiraju ka radiokomunikacionoj vezi za prenos podataka da bi podržali vazduhoplovnu navigaciju i nadzorne funkcije, što treba da bude prilagođeno u postojeći radio spektar;
- b) da neke administracije planiraju da uvedu digitalni radiodifuzni sistem za zvuk u frekventijskom opsegu od oko 87-108 MHz;
- c) da nikakav kriterijum kompatibilnosti trenutno ne postoji između FM radiodifuznog sistema koji radi u frekventijskom opsegu 87-108 MHz i planiranih dodatnih vazduhoplovnih sistema u susednom opsegu 108-117.975 MHz koristeći avion za emitovanje;
- d) da nikakav kriterijum kompatibilnosti trenutno ne postoji između digitalnih radiodifuznog sistema za zvuk sposobnih da rade u frekventijskom opsegu od oko 87-108 MHz i vazduhoplovnih službi u opsegu 108-117.975 MHz,

*odlučuje*

- 1 da bilo koji sistemi vazduhoplovne mobilne (R) službe koji rade u opsegu 108-117.975 MHz ne smeju da uzrokuju štetne smetnje, niti da traže zaštitu zbog ARNS sistema koji rade u skladu s međunarodnim standardima za vazduhoplovstvo;
- 2 da bilo koji AM(R)S sistemi planirani da rade u frekventijskom opsegu 108-117.975 MHz moraju, kao minimum, zadovoljavati FM zahteve radiodifuznog imuniteta sadržane u Aneksu 10 od ICAO Konvencije o Međunarodnom civilnom vazduhoplovstvu za postojeće vazduhoplovne radionavigacione sisteme koji rade u tom frekventijskom opsegu;
- 3 da AM(R)S sistemi koji rade u opsegu 108-117.975 MHz ne smeju postavljati dodatna ograničenja radiodifuznoj službi niti uzrokovati štetne smetnje stanicama koje rade u opsezima namenjenim za radiodifuznu službu u frekventijskom opsegu 87-108 MHz i No. 5.43 se ne primenjuje na sisteme pomenute u *prepoznajući d*);
- 4 da frekvencije ispod 112 MHz ne mogu biti korišćene za AM(R)S sisteme izuzimajući ICAO sisteme naznačene u *prepoznajući d*);
- 5 da bilo koji AM(R)S koji radi u frekventijskom opsegu 108-117.975 MHz treba da zadovoljava SARPs zahteve objavljene u Aneksu 10 od ICAO Konvencije o Međunarodnom civilnom vazduhoplovstvu;
- 6 da bi WRC-11 trebao uzeti u obzir, na osnovu rezultata ITU-R studija spomenutih pod *poziva ITU-R*, svaku narednu regulatornu metu da olakša uvođenje novih AM(R)S sistema,

*poziva ITU-R*

- 1 da prouči sva pitanja u vezi sa kompatibilnošću između radiodifuznih i AM(R) službi koja mogu nastati kod uvođenja AM(R)S sistema u opsegu 112-117.975 MHz, i da razvije nove ili revidirane ITU-R Preporuke kako odgovara;
- 2 da prouči sva pitanja u vezi sa kompatibilnošću između radiodifuznih i AM(R) službi u opsegu 108-117.975 MHz koja mogu nastati kod uvođenja odgovarajućeg digitalnog radiodifuznog sistema zvuka, opisano u Preporuci ITU-R BS.1114, i da razvije nove ili revidirane ITU-R Preporuke kako odgovara;
- 3 da izvesti WRC-11 o rezultatima tih studija,  
*nalaže Generalnom sekretaru*

da skrene pažnju ICAO na ovu Rezoluciju.

**ADD** COM4/296/7 (B9/305/59) (R5/336/9)

**REZOLUCIJA 416 (WRC-07)**

**Korišćenje opsega 4 400-4 940 MHz i 5 925-6 700 MHz od jedne vazduhoplovne mobilne telemetrijske primene u mobilnoj službi**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da postoji potreba da se omogući globalni spektar mobilnoj službi za širokopojasne vazduhoplovne mobilne telemetrijske (AMT) sisteme;
- b) da se vode studije u ITU-R koje se tiču deljenja i kompatibilnosti AMT za testiranje leta sa ostalim službama u opsezima 4 400-4 940 MHz i 5 925-6 700 MHz;
- c) da na osnovu rezultata tih studija, u opsezima 4 400-4 940 MHz i 5 925-6 700 MHz, tehničke i operativne mere primenjene na AMT u svrhu testiranja leta olakšavaju deljenje sa ostalim službama i primenama u tim opsezima;
- d) da je efikasnost spektra poboljšana u situacijama gde nove primene mogu biti saglasno implementovane u jako okupiranim opsezima;
- e) da je široka rasprostranjenost zemaljskih stanica fiksne satelitske službe (FSS) u opsegu 5 925-6 425 MHz i u manjem obimu u opsegu 6 425-6 700 MHz;
- f) da je široka rasprostranjenost stanica fiksne službe u opsezima 4 400-4 940 MHz i 5 925-6 700 MHz;
- g) da na izvesnim lokacijama, dostupnost spektra biće limitirana zbog njegovog ekstenzivnog korišćenja od strane raznih službi, dok na drugim lokacijama, to ne mora biti slučaj;
- h) da postoje različite tehnike koje mogu poboljšati deljenje između ko-primarnih službi, kao što je frekvencijsko ili geografsko odvajanje;
- i) da je WRC-07 usvojio Nos. **5.4B01** i **5.4B02**,

*prepoznajući*

- a) da su opsezi 4 400-4 500 MHz i 4 800-4 940 MHz namenjeni fiksnim i mobilnim službama na primarnoj osnovi;
- b) da su opsezi 4 500-4 800 MHz namenjeni fiksnoj, fiksnoj satelitskoj (svemir-Zemlja), i mobilnim službama na ko-primarnoj osnovi;

- c) da su opsezi 4 800-4 990 MHz namenjeni radio astronomskoj službi na sekundarnoj osnovi širom sveta i da se No. **5.149** primenjuje;
- d) da su opsezi 4 825-4 835 MHz iz *prepoznajući c*) namenjeni na primarnoj osnovi radio astronomiji u Argentini, Australiji i Kanadi (vidi No. **5.443**);
- e) da se No. **5.442** primenjuje na AMT za operacije testiranje leta u opsegu 4 825-4 835 MHz;
- f) da je opseg 5 925-6 700 MHz namenjen fiksnoj, fiksnoj satelitskoj (Zemlja-svemir), i mobilnim službama na ko-primarnoj osnovi;
- g) da korišćenje opsega 4 500-4 800 MHz (svemir-Zemlja) od strane FSS treba da je u saglasnosti sa odredbama Dodatka **30B** (vidi No. **5.441**);
- h) da odredbe za koordinaciju zemaljskih i svemirskih službi postoje u pravilniku o radiokomunikacijama,

*odlučuje*

- 1 da u opsezima 4 400-4 940 MHz i 5 925-6 700 MHz, administracije koje autorizuju AMT u svrhu testiranja leta za Nos **5.4B01**, **5.442** i **5.4B02** treba da iskoriste sledeće kriterijume:
- emisije ograničene na prenos od stanica na letilicama, vidi No. **1.83**;
  - u tim opsezima, AMT u vazduhoplovnoj mobilnoj službi ne smatra se primenom bezbednosne službe kao za No. **1.59**;
  - najviša e.i.r.p. gustina telemetrijske predajne antene ne treba da prelazi  $-2.2 \text{ dB(W/MHz)}$ ;
  - emisije ograničene na označena područja testiranja leta, gde su područja za testiranje leta vazdušni prostori koje su administracije označile za testiranje leta;
  - u radu AMT vazduhoplovnih stanica planirano je u krugu 500 km teritorije jedne administracije kod koje je opseg 4 825-4 835 MHz namenjen radioastronomiji na primarnoj osnovi (vidi No. **5.443**), konsultacija sa tom administracijom da se odluči da li su koje specijalne mere potrebne da se spreči interferencija njihovim radioastronomskim posmatranjima;
  - u opsezima 4 400-4 940 MHz i 5 925-6 700 MHz, bilateralna koordinacija predajne AMT avionske stanice u odnosu na prijemne fiksne i mobilne stanice mora se izvršiti ako će AMT vazduhoplovna stanica raditi u krugu 450 km od prijemnih fiksnih i mobilnih stanica druge administracije. Sledeća procedura trebalo bi da se koristi da se ustanovi da li će prijemnik fiksne ili mobilne službe u krugu 450 km u području testiranja leta primati prihvatljiv nivo interferencije:
    - da se ustanovi da li osa glavnog snopa antene primajuće fiksne ili mobilne stanice, izvan udaljenosti od 450 km, prolazi unutar 12 km označenog područja koje koriste predajne vazduhoplovne stanice, gde je ta udaljenost merena ortogonalno od projekcije luka glavne ose na površinu Zemlje ka najbližoj granici projekcije područja testiranja leta na površinu Zemlje;
    - ako luk glavnog snopa ne preseca područje ispitivanja leta ili bilo koju tačku unutar 12 km odets, interferencija bi mogla da se prihvati. Inače, dalje diskusije za bilateralnu koordinaciju bi bile potrebne;



2 da administracije koje autorizuju AMT za Nos **5.4B01**, **5.442** i **5.4B02** u opsezima 4 400-4 940 MHz i 5 925-6 700 MHz zahtevaju upotrebu tehničkih i /ili operativnih mera za AMT gde je potrebno za olakšavanje deljenja sa drugim službama i primenama u tim opsezima.

**ADD** COM4/318/10 (B11/329/43) (R6/410/78)

## REZOLUCIJA 417 (WRC-07)

### **Korišćenje opsega 960-1 164 MHz od vazduhoplovne mobilne (R) službe**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je ova Konferencija namenila opseg 960 do 1 164 MHz vazduhoplovnoj mobilnoj (R) službi (AM(R)S) da bi učinila dostupnim taj frekvencijski opseg za nove AM(R)S sisteme, i na taj način omogućiti budući tehnički razvoj, investicije i razmeštaj;
- b) tekuću namenu frekvencijskog opsega 960-1 164 MHz vazduhoplovnoj radionavigacionoj službi (ARNS);
- c) korišćenje opsega 960-1 215 MHz od ARNS je rezervisano na svetskoj osnovi za operacije i razvoj pomoćnih vazduhoplovnih elektronskih uređaja za vazдушnu navigaciju i svako direktno povezano postrojenje na zemlji prema No. **5.328**;
- d) da nove tehnologije treba da se razviju da podrže komunikacije i vazдушnu navigaciju, uključujući primene za vazдушno i zemaljsko nadgledanje;
- e) da te nove namene imaju za cilj da podrže uvođenje primena i koncepata u vođenju vazdušnog saobraćaja koji je intenzivan u smislu prenosa podataka i koji bi mogle da podrže podatkovne veze koje nose vazduhoplovne podatke kritične za bezbednost;
- f) da u zemljama izlistanim u No. **5.312** frekvencijski opseg 960-1 164 MHz takođe koriste sistemi u ARNS za koje standardi i preporučena praksa (SARPs) nije bila razvijena niti publikovana od strane Međunarodna organizacija za civilno vazduhoplovstvo (ICAO);
- g) da uz to frekvencijski opseg 960-1 164 MHz se takođe koristi od ne-ICAO sistema koji rade u ARNS koji imaju karakteristike slične onima kao ICAO standardna oprema za merenje udaljenosti;
- h) da je ta namena urađena znajući da studije napreduju s obzirom na tehničke karakteristike, kriterijume deljenja i mogućnosti deljenja;
- i) da frekvencijski opseg 117.975-137 MHz trenutno namenjen za AM(R)S, dostiže zasićenje u nekim područjima u svetu, tako da taj opseg ne bi bio u stanju da prihvati dodatne medije - i prenos podataka na velike daljine;
- j) da su potrebne dodatne informacije o novim tehnologijama koje će da se koriste, osim AM(R)S sistema identifikovanih u *uzimajući u obzir c*), količina potrebnog spektra, i karakteristike i mogućnosti /uslovi deljenja. Zbog toga, hitno su potrebne studije na kojim AM(R)S sistemima će biti korišćenje, količina potrebnog spektra i karakteristike i uslovi deljenja sa ARNS sistemima,

*prepoznajući*

- a) da prednost mora biti data ARNS radu u frekvencijskom opsegu 960-1 164 MHz;
- b) da Aneks 10 Konvencije ICAO sadrži SARPs za vazduhoplovne radionavigacione i radiokomunikacione sisteme korišćene od međunarodnog civilnog vazduhoplovstva;
- c) da su sva pitanja kompatibilnosti između ICAO (UAT) i drugih sistema koji rade u istom frekvencijskom opsegu, isključujući sistem identifikovan u *uzimajući u obzir f*), adresirana;
- d) da u frekvencijskom opsegu 1 024-1 164 MHz uslovi deljenja su kompleksniji nego u opsegu 960-1 024 MHz,

*konstatujući*

da isključujući sistem identifikovan u *konstatujući c*), ne postoje trenutno kriterijumi kompatibilnosti između AM(R)S sistema predloženih za operacije u frekvencijskom opsegu 960-1 164 MHz i postojećih vazduhoplovnih sistema u opsegu,

*odlučuje*

- 1 da svaki AM(R)S sistem koji radi u frekvencijskom opsegu 960-1 164 MHz treba da zadovolji SARP's zahteve publikovane u Aneksu 10 od ICAO Konvencije o međunarodnom civilnom vazduhoplovstvu;
- 2 da svi AM(R)S sistemi koji rade u opsegu 960-1 164 MHz ne smeju da uzrokuju štetne smetnje, niti da traže zaštitu zbog toga, i ne smeju da postavljaju ograničenja na rad i planirani razvoj vazduhoplovnih radionavigacionih sistema u istom opsegu;
- 3 da studije kompatibilnosti između AM(R)S sistema koji rade u opsegu 960-1 164 MHz i ARNS sistema u *uzimajući u obzir f*) i *g*) treba da budu vođene da razviju uslove deljenja da omoguće da su uslovi iz *odlučuje 2* zadovoljeni, i da su ITU-R Preporuke razvijene kako treba;
- 4 da o rezultatu studija prema *odlučuje 3* treba da se izvesti WRC-11 i odluku treba da prihvati WRC-11 da preispita, ako treba, regulatorne provizije u *odlučuje 2* uzimajući u obzir zahteve bezbednosti od ARNS sistema identifikovanih u *uzimajući u obzir f*) i *g*) i potrebu da se na globalnom nivou olakša rad AM(R)S-a u skladu sa ICAO standardima;
- 5 da frekvencije u opsegu 960-1 164 MHz ne treba da koristi AM(R)S sistem, osim za AM(R)S sistem identifikovan u *prepoznajući c*), dok sva potencijalna pitanja kompatibilnosti sa ARNS i, ako je potrebno, radionavigacione satelitske službe (RNSS) u susednom opsegu bude rešena, takođe uzimajući u obzir *prepoznajući d*),

*poziva*

administracije i ICAO, u svrhu vođenja ITU-R studija spomenutih u *odlučuje 3* i *5*, da se obezbede za ITU-R tehničke i radne karakteristike sistema koji su uključeni,

*poziva ITU-R*

- 1 da povede studije u skladu sa *odlučuje 3* i *5* o radnim i tehničkim sredstvima da olakša deljenje između AM(R)S sistema koji rade u opsegu 960-1 164 MHz i ARNS sistema identifikovanim u *imajući u vidu f*) i *g*);
- 2 da povede studije u skladu sa *odlučuje 5* o radnim i tehničkim sredstvima da olakša deljenje između AM(R)S sistema koji rade u opsegu 960-1 164 MHz i RNSS koji rade u opsegu 1 164-1 215 MHz;
- 3 da izvesti o rezultatima studija WRC-11,

*nalaže Generalnom sekretaru*

da stavi ovu Rezoluciju na uvid ICAO.

**ADD** COM4/380/9 (B17/404/69)

**REZOLUCIJA 418 (WRC-07)**

**Korišćenje opsega 5 091-5 250 MHz od strane vazduhoplovne mobilne službe za primene u telemetriji**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da postoji potreba da se obezbedi globalni spektar mobilnoj službi za širokopojasne vazduhoplovne telemetrijske sisteme;
- b) da je rad avionskih stanica predmet nacionalnih i međunarodnih pravila i regulative;
- c) da je frekvencijski opseg 5 030-5 150 MHz namenjen vazduhoplovnoj radionavigacionoj službi na primarnoj osnovi;
- d) da je namena opsega 5 091-5 250 MHz fiksnoj satelitskoj službi (Zemlja-svemir) ograničena na spojne veze ne-geostacionarnih satelitskih sistema u mobilnoj satelitskoj službi;
- e) da je opseg 5 000-5 150 MHz takođe namenjen vazduhoplovnoj mobilnoj satelitskoj (R) službi na primarnoj osnovi, i predmet je sporazuma postignutom pod No. **9.21**;
- f) da je ova Konferencija namenila opseg 5 091-5 150 MHz vazduhoplovnoj mobilnoj službi na primarnoj osnovi prema No. **5.4B03**;
- g) da je opseg 5 150-5 250 MHz takođe namenjen mobilnoj, osim vazduhoplovne mobilne, službi na primarnoj osnovi;
- h) da je ova Konferencija dodatno namenila opseg 5 150-5 250 MHz vazduhoplovnoj mobilnoj službi na primarnoj osnovi, prema No. **5.4B04**;
- i) da se vazduhoplovna mobilna telemetrija (AMT) u vazduhoplovnoj mobilnoj službi ne smatra jednom primenom bezbednosne službe kako je definisano u No. **1.59**,

*konstatujući*

- a) da rezultati studija vođenih u skladu sa Rezolucijom **230 (Rev.WRC-03)** pokazuju fleksibilnost korišćenja opsega 5 091-5 250 MHz za vazduhoplovnu mobilnu službu na primarnoj bazi, ograničeno na emisije telemetrije za testiranje leta, pod izvesnim uslovima i aranžmanima;
- b) da bi identifikacija od ITU-R tehničkih i radnih zahteva za avionske stanice koje rade u opsegu 5 091-5 250 MHz trebala da spreči neprihvatljivu interferenciju drugim službama;
- c) da opseg 5 091-5 150 MHz treba da se koristi za rad međunarodnog standardnog mikrotalasnog sistema za sletanje (MLS) za precizno prilaženje i sletanje;
- d) da MLS može da se zaštiti kroz implementaciju jedne adekvatne odvajajuće udaljenosti između predajnika vazduhoplovne službe da podrži telemetrijske i MLS primaoce;
- e) da su ITU-R studije generisale metode, opisane u Izveštaju ITU-R M.2118, za osiguravanje kompatibilnosti i deljenja između vazduhoplovne mobilne službe i fiksne satelitske službe radeći u opsegu 5 091-5 250 MHz, što rezultuje u interferenciji od ne više od 1%  $\Delta T_{satellite}/T_{satellite}$  od AMT emisije avionske stanice ka prijemnicima svemirskih brodova fiksne satelitske službe;
- f) da je metod za olakšavanje deljenja između MLS i vazduhoplovne mobilne službe sadržan u Preporuci ITU-R M.1829;
- g) da Preporuka ITU-R M.1828 omogućava tehničke i radne zahteve za avionske stanice vazduhoplovne mobilne službe, ograničene na emisije za telemetriju i testiranje leta;
- h) da su ITU-R studije kompatibilnosti izvedene za AMT, ograničene na testiranje leta; takve primene služe za testiranje aviona za vreme nekomercijalnih letova u svrhu razvoja, procene i/ili sertifikovanja aviona u vazдушnom prostoru označenom od administracija za tu svrhu,

*prepoznajući*

- a) da prednost treba dati MLS u skladu sa No. **5.444** u frekvencijskom opsegu 5 030-

5 091 MHz;

b) da su studije izvedene unutar ITU-R u pogledu deljenja i kompatibilnosti AMT za testiranje leta sa ostalim službama u opsegu 5 091-5 250 MHz;

c) da Rezolucije [COM4/4] (WRC-07) i [COM4/8] (WRC-07) takođe omogućuju smernice za korišćenje opsega 5 091-5 150 MHz od vazduhoplovne mobilne službe,

*odlučuje*

1 da administracije koje su odabrale da implementiraju AMT treba da ograniče AMT primene na identifikovane u *konstatujući h*) u opsegu 5 091-5 250 MHz, i treba da koriste kriterijume postavljene unapred u Aneksu 1 ove Rezolucije;

2 da pfd ograničenja u §§ 3 i 4 Aneksa 1 ove Rezolucije koja štite zemaljske službe mogu biti prevaziđena na teritoriji svake zemlje čija administracija na to pristane,

*poziva ITU-R*

da nastavi proučavanje uslova i aranžmana propisanih u *konstatujući a*).

**ADD** COM4/380/10 (B17/404/70)

### ANEKS 1 NA REZOLUCIJU 418 (WRC-07)

1 Kod implementacije vazduhoplovne mobilne telemetrije (AMT), administracije treba da iskoriste sledeće kriterijume:

- limit emisija samo za one od avionskih stanica (vidi No. **1.83**);
- rad vazduhoplovnih telemetrijskih sistema u okviru opsega 5 091-5 150 MHz treba da bude koordiniran sa administracijama koje vode mikrotalasne sisteme za sletanje (MLS) i čija teritorija se nalazi unutar udaljenosti  $D$  od AMT područja leta, gde je  $D$  određeno sledećom jednačinom:

$$D = 43 + 10^{(127.55 - 20 \log(f) + E)/20}$$

Gde je:

$D$ : razdvajajuća udaljenost (km) nakon koje treba koordinacija

$f$ : minimalna frekvencija (MHz) koju koristi AMT sistem

$E$ : vršna ekvivalentna izotropna izračena gustina snage (dBW u 150 kHz) predajnika na avionu.

2 Za zaštitu fiksne satelitske službe (FSS), telemetrijska avionska stanica u opsegu 5 091-5 250 MHz treba da bude upravljana na takav način da za jedan predajnik avionske stanice snaga gustine fluksa je limitirana na  $-198.9 \text{ dB(W/(m}^2 \cdot \text{Hz))}$  u FSS satelitskoj orbiti za svemirski brod koristeći prijemne antene pokrivanja Zemlje. Takav pfd limit po avionskom predajniku izveden je pod pretpostavkom da je FSS satelitska orbita na 1 414 km visine i da total od 21 ko-frekvencijskih AMT predajnika rade konkurentno unutar vidnog polja FSS satelita. U slučaju manje od 21 AMT ko-frekvencijski predajnici koji rade istovremeno u vidnom polju satelita, predajna snaga treba biti prilagođena tako da ne prelazi združeni pfd na satelitu od  $-185.7 \text{ dB(W/(m}^2 \cdot \text{Hz))}$ , što odgovara  $\Delta T_{\text{satellite}}/T_{\text{satellite}}$  od 1%.

3 Za zaštitu mobilne službe u 5 150-5 250 MHz frekvencijskom opsegu, maksimalni pfd proizveden na površini Zemlje od emisija iz jedne avionske stanice jednog sistema vazduhoplovne mobilne službe, ograničeno na emisije telemetrije za testiranje leta, ne treba da pređe:  $-79.4 \text{ dB(W/(m}^2 \cdot 20 \text{ MHz))} - G_r(\theta)$ .

$G_r(\theta)$  predstavlja pojačanje prijemne antene mobilne službe prema elevacionom uglu  $\theta$  i definiše se na sledeći način:

**Bežični pristup sistemu elevacije antenskog snopa**

Elevacioni ugao, $\theta$ (stepeni)	Pojačanje $G_r(\theta)$ (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 Za zaštitu vazduhoplovne mobilne (R) službe (AM(R)S) u frekvencijskom opsegu 5 091-5 150 MHz, maksimalna pfd proizvedena na površini Zemlje, gde AM(R)S može biti postavljen u skladu sa No. **5.4B03**, od emisija od jedne avionske staniceajednog sistema vazduhoplovne mobilne službe, ograničeno na emisije telemetrije za testiranje leta, ne treba da pređe:  $-89.4 \text{ dB(W/(m}^2 \cdot 20 \text{ MHz))} - G_r(\theta)$ .

$G_r(\theta)$  predstavlja pojačanje prijemne antene mobilne službe prema elevacionom uglu  $\theta$  i definiše se na sledeći način:

$$G_r(\theta) = \max[G_1(\theta), G_2(\theta)]$$

$$G_1(\theta) = 6 - 12 \left( \frac{\theta}{27} \right)^2$$

$$G_2(\theta) = -6 + 10 \log \left[ \left( \max \left\{ \frac{|\theta|}{27}, 1 \right\} \right)^{-1.5} + 0.7 \right]$$

Gde je:

$G(\theta)$ : pojačanje u odnosu na izotropsku antenu (dBi)

$\theta$ : apsolutna vrednost elevacionog ugla u odnosu na ugao maksimalnog pojačanja (stunjevi).

**ADD** COM4/380/11 (B17/404/71)

### REZOLUCIJA 419 (WRC-07)

#### **Razmatranja korišćenja opsega 5 091-5 150 MHz od vazduhoplovne mobilne službe za izvesne vazduhoplovne primene**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) tekuću namenu opsega 5 091-5 150 MHz fiksnoj satelitskoj (FSS) (Zemlja-svemir), koja je ograničena na spojne veze ne-geostacionarnih satelitskih sistema u mobilnoj satelitskoj službi;

b) tekuće namene frekvencijskog opsega 5 000-5 150 MHz vazduhoplovnoj mobilnoj satelitskoj (R) službi, prema sporazumu postignutom pod No. **9.21**, i vazduhoplovnoj radionavigacionoj službi (ARNS);

c) da je ova Konferencija namenila opseg 5 091-5 150 MHz vazduhoplovnoj mobilnoj službi (AMS) na primarnoj osnovi, prema No. **5.4B03**,

*prepoznajući*

a) da je prednost data mikrotalasnom sistemu za sletanje (MLS) u skladu sa No. **5.444** u frekvencijskom opsegu 5 030-5 091 MHz;

b) Rezolucija **114 (Rev.WRC-03)** se primenjuje na uslove deljenja između FSS i ARNS u opsegu 5 091-5 150 MHz;

c) da Rezolucije **418 (WRC-07)** i **748 (WRC-07)** takođe daju smernice za korišćenje opsega 5 091-5 150 MHz od AMS,

*konstatujući*

- da Preporuka ITU-R M.1827 opisuje metode za osiguranje kompatibilnosti između AMS za vazduhoplovne sigurnosne primene i FSS koji radi u opsegu 5 091-5 150 MHz,

*odlučuje*

1 da korišćenje AMS za vazduhoplovne primene opisane gore u *konstatujući* bude ograničeno na stanice koje omogućuju poverljive radiokomunikacije namenjene sistemima koji se koriste za odgovor na prekid u radu aviona koji nije bio odobren od odgovarajućih autoriteta;

2 da AMS stanice za takve vazduhoplovne primene treba da budu dizajnirane da rade u skladu sa Preporukom ITU-R M.1827;

3 da administracije, kad rade dodele, treba da osiguraju da zahtevi u vezi vazduhoplovne mobilne (R) službe imaju prednost nad onima od AMS za primene opisane gore u *odlučuje* 1 i 2.

**ADD** COM4/380/12 (B17/404/72)

## REZOLUCIJA 420 (WRC-07)

### **Razmatranja frekvencijskog opsega između 5 000 i 5 030 MHz za vazduhoplovnu mobilnu (R) službu za površinske primene na aerodromima**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) tekuću namenu frkvencijskog opsega 5 000-5 010 MHz za vazduhoplovnu mobilnu satelitsku (R) službu (AMS(R)S), prema sporazumu postignutom pod No. **9.21**, vazduhoplovna radionavigaciona služba (ARNS) i radionavigaciona satelitska služba (RNSS) (Zemlja-svemir);

b) tekuću namenu frekvencijskog opsega 5 010-5 030 MHz za AMS(R)S, prema sporazumu postignutom pod No. **9.21**, ARNS i RNSS (svemir-Earth i svemir-svemir);

c) tekuću namenu frekvencijskog opsega 4 990-5 000 MHz radio astronomskoj službi;

d) da je ova Konferencija dodatno namenila opseg 5 091-5 150 MHz vazduhoplovnoj mobilnoj (R) službi (AM(R)S), za korišćenje od sistema koji rade u skladu sa međunarodnim vazduhoplovnim standardima, ograničenih na površinske primene na aerodromima;

e) da je Međunarodna organizacija za civilno vazduhoplovstvo (ICAO) u procesu identifikacije tehničkih i radnih karakteristika takvih AM(R)S sistema, i da početna procena pridruženih zahteva za spektar iznosi približno 60-100 MHz u nekim delovima opsega 5 000-5 150 MHz (Izveštaj ITU-R M.2120);

f) da opseg 5 091-5 150 MHz ne može da omogući dovoljne kapacitete spektra da zadovolji zahtev identifikovan u *imajući u vidu e*), i na taj način dodatni spektar može biti potreban;

- g) da su zahtevi zaštite za radio astronomsku službu dati u Preporuci ITU-R RA.769, *prepoznajući*
- a) da su RNSS namene u tim opsezima urađene na WRC-2000;
- b) da RNSS sada radi u smeru Zemlja-svemir u opsegu 5 000-5 010 MHz, i treba pristup svemir-Zemlja namenama u 5 010-5 030 MHz za službu i spojne veze na duži rok;
- c) da su RNSS i AM(R)S sistemi planirani u 5 GHz opsegu još u razvoju, i da tehničke karakteristike i operacioni parametri za te sisteme nisu potpuno uspostavljeni unutar ITU-R;
- d) da zaštita RNSS i radio astronomske službe mora prvo biti demonstrirana pre nego dodatne službe mogu da dobiju namene u opsezima između 5 000-5 030 MHz;
- e) da trenutno nema dogovorenih studija unutar ITU-R za AM(R)S da se osigura zaštita za RNSS i radio astronomsku službu,

*odlučuje*

- 1 da ITU-R istraži prioritarno, AM(R)S zahteve za spektrom za površinske primene u opsegu 5 GHz, da bi se ustanovilo da li mogu biti zadovoljeni u opsegu 5 091-5 150 MHz;
- 2 da ITU-R dalje istraži, ako je potrebno, izvodljivost namene za AM(R)S za površinske primene na aerodromima, prouči tehnička i radna pitanja u vezi zaštite za RNSS u opsezima između 5 000 i 5 030 MHz i za radioastronomsku službu u opsegu 4 990-5 000 MHz od AM(R)S, i razvije odgovarajuće Preporuke;
- 3 da WRC-11 uzme u obzir rezultate ovih studija i preduzme odgovarajuće mere,

*poziva*

- 1 administracije i ICAO da dostave tehničke i radne karakteristike za AM(R)S potrebne za proučavanje kompatibilnosti, i da aktivno učestvuju u studijama;
- 2 administracije da dostave tehničke i radne karakteristike i kriterijume zaštite za RNSS potrebne za proučavanje kompatibilnosti, i da aktivno učestvuju u studijama,

*nalaže Generalnom sekretaru*

da skrene pažnju na ovu Rezoluciju ICAO.

**ADD** PLEN/408/2 (B24/419/5)

**REZOLUCIJA 421 (WRC-07)**

**Razmatranje odgovarajućih regulatornih odredbi za rad sistema bespilotnih letilica**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da se očekuje da globalno korišćenje sistema bespilotnih letilica (UAS) značajno poraste u bliskoj budućnosti;
- b) da bespilotne letilice treba da rade besprekorno sa letilicama sa pilotom u zajedničkom vazдушnom prostoru i da postoji potreba da se obezbedi globalno harmonizovani spektar za tu svrhu;
- c) da za bezbedan let UAS treba pouzdane komunikacione veze i pridruženi spektar, naročito za udaljenog pilota da upravlja i kontroliše let i da se prenose komunikacije kontrole vazdušnog saobraćaja;



d) da za bezbedan let UAS neophodno treba napredne tehnike da otkrije i prati obližnji avion, teren i prepreke za navigaciju da se omogući da UAS izbegne te objekte na način ekvivalentan onom kako postiže letelica s posadom;

e) da su satelitske radiokomunikacije deo UAS operacija, naročito za prebacivanje emitovanja iza horizonta i održavanja sigurnosti leta;

f) da postoji potreba za zaštitom postojećih službi;

g) da neke primene UAS uključuju emisije opterećene velikim protokom podataka od letilice do udaljenih stanica,

*prepoznajući*

a) da će UAS raditi u istom okruženju kao letilice s posadom;

b) da će neki UAS raditi ispod ili iznad sadašnjeg konvencionalnog vazdušnog saobraćaja letilica s posadom, uključujući u specifična okruženja nedostupna letilicama s posadom, kao što su vulkani, uragani, zagađene ili ozračene zone;

c) da su potrebne studije da pruže osnovu za uzimanje u obzir regulatornih izmena, uključujući dodatne namene, da se prilagode zahtevi za spektar UAS konzistentno sa zaštitom sadašnjih službi;

d) da bilo koja nova namena ne bi smela da postavlja neopravdana ograničenja službama kojima su ti opsezi namenjeni;

e) da ova tačka dnevnog reda nije predviđena da se koristi za identifikaciju opsega za korišćenje UAS, već samo da predloži, ako je neophodno, nove namene ili modifikacije postojećih namena da se prilagode UAS,

*odlučuje*

da WRC-11 uzme u obzir, na osnovu rezultata ITU-R studija:

1 zahteve spektra i moguće regulatorne mere, uključujući dodatne namene, da podrži udaljene pilote u komandovanju i kontroli sistema bespilotnih letilica i prebacivanje komunikacija kontrole vazdušnog saobraćaja, kako je spomenuto u *uzimajući u obzir c*);

2 zahteve spektra i moguće regulatorne mere, uključujući dodatne namene, da se podrži siguran rad sistema bespilotnih letilica što nije pokriveno u *odlučuje 1*, kako je napomenuto u *uzimajući u obzir d*),

*poziva ITU-R*

1 da u vreme za WRC-11 povede neophodne studije koje vode do tehničkih, regulatornih i radnih preporuka Konferenciji, omogućujući toj Konferenciji da odluči o odgovarajućim namenama za rad UAS;

2 da bi studije napomenute u *poziva ITU-R 1* trebale da uključe i studije o deljenju i kompatibilnosti sa službama koje već imaju namene u tim opsezima;

3 da sačini izveštaj ili preporuku, prema potrebi, kako da se prilagode radiokomunikacijski zahtevi za UAS opterećenje,

*poziva takođe*

ICAO, IATA, administracije i druge organizacije zainteresovane da učestvuju u studijama naznačenim u *poziva ITU-R* gore,

*nalaže Generalnom sekretaru*

da skrene pažnju na ovu Rezoluciju ICAO.

**MOD** COM4/380/74 (B19/413/25)

## REZOLUCIJA 517 (Rev.WRC-07)

### **Uvođenje digitalno modulisanog emitovanja u opsezima visoke frekvencije 3 200 kHz i 26 100 kHz namenjenih za radiodifuznu službu**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da su digitalne tehnike uvedene u mnoge postojeće službe;
- b) da digitalne tehnike dozvoljavaju efektivnije korišćenje frekvencijskog spektra nego tehnike sa dva bočna opsega (DSB);
- c) da digitalne tehnike omogućuju da se poboljša kvalitet na prijemu;
- d) relevantne delove Dodatka **11** koji se tiču specifikacije digitalnog sistema u HF radiodifuznoj službi;
- e) da je ITU-R, u svojoj Preporuci ITU-R BS.1514, preporučio karakteristike sistema za digitalni radiodifuzni sistem zvuka u radiodifuznim opsezima ispod 30 MHz;
- f) da se očekuje od digitalnih modulacijskih tehnika da omoguće način da se postigne optimalni balans između kvaliteta zvuka, tehničke pouzdanosti veze i širine opsega;
- g) da digitalno modulisano emitovanje može, u opštem slučaju, omogućiti mnogo efikasnije pokrivanje nego amplitudno modulisano emitovanje, korišćenjem manje frekvencija istovremeno i s manjom snagom;
- h) da bi moglo biti ekonomski privlačno, koristeći sadašnju tehnologiju, da se konvertuju moderni konvencionalni DSB radiodifuzni sistemi na digitalni rad u skladu sa *uzimajući u obzir d*);
- i) da su neki DSB predajnici korišćeni u tehnikama digitalne modulacije bez modifikacije predajnika;
- j) da ITU-R uspostavlja nova proučavanja o razvoju radiodifuzije koja koristi digitalno modulisano emitovanje u opsezima namenjenim radiodifuznoj službi ispod 30 MHz;
- k) da bi mogao biti potreban dugi period za uvođenje digitalne radiodifuzije, uzimajući u obzir koliko košta zamena predajnika i prijemnika,

*odlučuje*

- 1 da treba da se podstiče rano uvođenje digitalno modulisanog emitovanja kako je preporučio ITU-R u HF opsezima između 3 200 kHz i 26 100 kHz namenjenih za radiodifuznu službu;
- 2 da digitalno modulisano emitovanje mora da bude u skladu sa karakteristikama specificiranim u odgovarajućim delovima Dodatka **11**;
- 3 da kad god neka administracija zameni neku DSB emisiju sa emisijom koja koristi tehniku digitalne modulacije, treba da osigura da nivo interferencije ne bude veći nego što je bio kod originalne DSB emisije, i treba da koristi RF zaštitne vrednosti specificirane u Rezoluciji **543 (WRC-03)** i Preporuci **517 (Rev.WRC-03)**;

4 da nastavak korišćenja DSB emitovanja može biti preispitan na nekoj budućoj svetskoj konferenciji o radiokomunikacijama na osnovu iskustava administracija sa uvođenjem digitalnih radiodifuznih HF službi,

*nalaže Direktor u Biroa za radiokomunikacije*

da sakupi i prosledi budućoj kompetentnoj svetskoj konferenciji o radiokomunikacijama pozivajući se na *odlučuje* 4 poslednju dostupnu kompletiranu statistiku o globalnoj distribuciji digitalnih HF radiodifuznih prijemnika i predajnika,

*poziva ITU-R*

da nastavi vlastita istraživanja o digitalnim tehnikama za HF radiodifuziju s pogledom na pomoć u razvoju ove tehnologije za buduće korišćenje,

*poziva administracije*

da podstiču uključivanje u svaku novu HF radiodifuziju predajnika koji su pušteni u rad posle 1.1.2004. sa mogućnostima da ponude digitalnu modulaciju,

*takođe poziva administracije*

1 da pomognu Direktor u Biroa za radiokomunikacije dostavljajući relevantne statističke podatke i da učestvuju u ITU-R studijama sa tematikom vezanom za razvoj i uvođenje digitalno modulisanog emitovanja u HF opsege između 3 200 kHz i 26 100 kHz namenjene za radiodifuznu službu;

2 da pruže obaveštenja proizvođačima predajnika i prijemnika o najnovijim rezultatima relevantnih ITU-R studija o spektralno efikasnim modulacionim tehnikama podesnim za korišćenje na HF, kao i informacije napomenute u *uzimajući u obzir d) i e)*, i podstiču dostupnost jeftinijih digitalnih prijemnika.

**MOD** COM6/340/1 (B14/365/45) (R7/411/220)

### REZOLUCIJA 525 (Rev.WRC-07)

#### **Uvođenje televizijskih sistema visoke rezolucije radiodifuzne satelitske službe u opsegu 21.4-22.0 GHz u Regionima 1 i 3**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je WARC-92 promenio namenu opsega 21.4-22.0 GHz u Regionima 1 i 3 u korist radiodifuzne satelitske službe (BSS) da bude uvedena posle 1.4.2007.;

b) da su do 1.4.2007. postojeće službe koje rade u opsegu 21.4-22.0 GHz u Regionima 1 i 3 u skladu sa Tabelom namene frekvencija bile određene da nastave rad bez štetne smetnje od drugih službi;

c) da nakon 1.4.2007. uvođenje televizijskih sistema visoke rezolucije (HDTV) u tom opsegu treba da bude regulisano na fleksibilan i podjednak za sve način do vremena kada će buduća kompetentna svetska konferencija o radiokomunikacijama usvojiti konačne odredbe u tu svrhu u skladu sa Rezolucijom **507 (Rev.WRC-03)**;

d) da su procedure zahtevane pod uslovima predviđenim gore u *uzimajući u obzir c)*,  
*uzimajući u obzir takođe*

a) da su tehnike za ublažavanje slabljenja zbog kiše za BSS već razvijene i date u Preporuci ITU-R BO.1659;

- b) da je u opsegu 21.4-22.0 GHz u Regionima 1 i 3, referentna snaga gustine fluksa za BSS razvijena i data u Preporuci ITU-R BO.1776;
- c) da je u opsegu 21.4-22.0 GHz u Regionima 1 i 3, razvijen kriterijum za deljenje unutar službe za geostacionarne BSS sisteme i dat u Preporuci ITU-R BO.1785;
- d) da su u opsegu 21.4-22.0 GHz u Regionima 1 i 3, razvijeni sistemski parametri za BSS između 17.3 GHz i 42.5 GHz i pridružene spojne veze i date u Izveštaju ITU-R BO.2071,

*konstatujući*

- a) da se Preporuka ITU-R BT.1201 bavi ekstremno visokim rezolucijama slike (EHRI);
- b) da Preporuka ITU-R BT.1769 sadrži vrednosti parametara za rastuću hijerarhiju digitalnih formata slike za velike ekrane za proizvodnju i razmenu međunarodnih programa;
- c) da, u budućim BSS sistemima u opsegu 21.4-22.0 GHz, HDTV primene mogu da uključe takve EHRI primene kakve su prikazane u Izveštaju ITU-R BT.2042,

*prepoznajući*

da bi mogle postojati neke satelitske službe koje su uvele u rad HDTV sisteme u ovom opsegu pre 1.4.2007. bez uticaja na funkcionisanje postojećih službi,

*odlučuje*

da usvoji privremene procedure sadržane u Aneksu na ovaj dokument,

*poziva sve administracije*

da se usaglase sa gornjim procedurama,

*nalaže Birou za radiokomunikacije*

da primeni gornje procedure.

## ANEKS NA REZOLUCIJU 525 (Rev.WRC-07)

### **Privremene procedure za uvođenje sistema radiodifuzne satelitske službe (HDTV) u opsegu 21.4-22.0 GHz u Regionima 1 i 3**

#### **Sekcija I – Opšte odredbe**

1 Sve službe osim radiodifuzne satelitske službe (BSS) u opsegu 21.4-22.0 GHz u Regionima 1 i 3, koje rade u skladu sa Tabelom namena frekvencija mogu da rade ako ne uzrokuju štetne smetnje BSS (HDTV) sistemima niti traže zaštitu od tih sistema. Treba da se razume da uvođenje u rad nekog BSS (HDTV) sistema u opsegu 21.4-22.0 GHz u Regionima 1 i 3 treba da bude regulisano jednom privremenom procedurom na fleksibilan i podjednak za sve način do datuma o kome će odlučiti WRC-11.

#### **Sekcija II – Privremene procedure koje se odnose na BSS (HDTV) sisteme**

2 U svrhu uvođenja i rada BSS (HDTV) sistema u opsegu 21.4-22.0 GHz u Regionima 1 i 3 pre nego sledeća konferencija donese odluke o konačnim procedurama, sve relevantne odredbe iz Članova 9 do 14 osim No. 9.11 treba da se primenjuju.

3 Administracije trebaju, do krajnjih mogućnosti, tražiti način da osiguraju da BSS (HDTV) sistemi u radu uvedeni u opsegu 21.4-22.0 GHz u Regionima 1 i 3 imaju karakteristike koje uzimaju u obzir studije ITU-R-a za pripremu WRC-11.

**MOD** COM5/307/32 (B11/329/41) (R6/410/75)

**REZOLUCIJA 547 (Rev.WRC-07)**

**Modifikacija kolona “Primedbe” u Tabelama iz Člana 9A Dodatka 30A i  
Člana 11 Dodatka 30  
Pravilnika o radiokomunikacijama**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je ova Konferencija modifikovala kolone “Primedbe” u Tabelama iz Člana 9A Dodatka **30A** i Člana 11 Dodatka **30** na osnovu rezultata studija Biroa za radiokomunikacije;
- b) da je ova Konferencija modifikovala Tabele, uključene u Član 9A Dodatka **30A** i Člana 11 Dodatka **30**, koje specificiraju dotaknute mreže ili one koje ih dotiču, zemaljske stanice ili snopove administracija, na osnovu rezultata studija Biroa za radiokomunikacije;
- c) da bi bilo dobro da se modifikuju Tabele pomenute u *uzimajući u obzir b)* da se odraze promene u statusu mreža fiksne satelitske službe i modifikacije karakteristika, sadržanih u ovim Tabelama,

*prepoznajući*

- a) da integritet Plana Regiona 2 i njegove prateće odredbe mora biti sačuvan;
- b) da kompatibilnost između radiodifuzne satelitske službe (BSS) u Regionima 1 i 3 i drugih službi u sva tri Regiona mora biti osigurana,

*odlučuje*

da, u svrhu smanjenja broja dotaknutih i onih koji dotiču administracija ili mreža, Biro će voditi zahtevane analize prateći sve promene u karakteristikama i svako izostavljanje namene sadržano u Tabelama 1A i 1B Člana 9A Dodatka **30A** i u Tabelama 2, 3 i 4 Člana 11 Dodatka **30**,

*nalaže Direktoruru Biroa za radiokomunikacije*

da izvesti WRC-11 i naredne svetske konferencije o radiokomunikacijama o rezultatima primene ove Rezolucije, u pogledu modifikacije kolona “Primedbe” u Tabelama Člana 9A Dodatka **30A** i Člana 11 Dodatka **30** kao i tabele, sadržane u istim Članovima, koje specificiraju dotaknute ili one koji ih dotiču mreže, zemaljske stanice ili snopove administracija.

**ADD** COM4/211/6 (B3/224/36) (R2/266/25)

**REZOLUCIJA 549 (WRC-07)**

**Korišćenje frekvencijskog opsega 620-790 MHz za postojeće dodele stanicama  
radiodifuzne satelitske službe**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je regionalna Konferencija o radiokomunikacijama (Ženeva, 2006) (RRC-06) usvojila je jedan Sporazum i pridružene Planove za digitalnu zemaljsku radiodifuziju za Region 1, osim Mongolije, i Islamske Republike Irana, u frekvencijskim opsezima 174-230 MHz i 470-862 MHz;
- b) da je velik broj najava podnesen Birou za radiokomunikacije za satelitske sisteme i mreže u opsegu 620-790 MHz pod No. **5.311** Plana radiokomunikacija (Izdanje 2004);

c) da mnoge administracije imaju veliku infrastrukturu za predaju i prijem analognih i digitalnih televizijskih signala između 620 MHz i 790 MHz;

d) da je potrebno da se zaštite zemaljske službe kao što je zemaljska televizijska radiodifuzija, fiksne, mobilne i vazduhoplovne radionavigacione službe u opsegu 620-790 MHz (vidi takođe Nos. **5.293**, **5.300**, **5.309** i **5.312**);

e) da kao rezultat prelaza sa analogne na digitalnu zemaljsku televizijsku radiodifuziju, neke zemlje planiraju da učine dostupnim delove tog opsega za primene u mobilnoj službi,

*prepoznajući*

a) da su u saglasnosti sa No. **5.311**, dve frekvencijske dodele BSS stanicama, "STATSIONAR-T" i "STATSIONAR-T2", u opsegu 620-790 MHz objavljene i dane na korišćenje i da njihov datum davanja na korišćenje je potvrđen pre 5.07.2003.;

b) da je ova Konferencija obrisala No. **5.311**, u svetlu zahteva za zaštitu zemaljskih televizijskih sistema i drugih zemaljskih sistema spomenutim u *uzimajući u obzir a) do e) gore*;

c) da, prema zapisima Biroa, nije bilo žalbi na bilo kakve štetne smetnje na te dve dodele, niti je tražena zaštita za njih od zemaljskih televizijskih sistema bilo koje administracije;

d) da, Rezolucijom 1 (RRC-06) o radiodifuznoj satelitskoj službi u opsegu 620-790 MHz, RRC-06 *odlučuje da pozove Svetsku konferenciju o radiokomunikacijama 2007* "da se preduzmu potrebne i neophodne mere da se efektivno zaštite radiodifuzni Planovi usvojeni od RRC-06 i njihove naredne evolucije od GSO-BSS i/ili ne-GSO BSS mreža sistema koji nisu pušteni korišćenje pre 5.07.2003.",

*prepoznajući takođe*

da postoji potreba da se autorizuju te dve frekvencijske dodele BSS stanicama da nastave svoje operacije u omogućavanju radiodifuzne satelitske službe u njenim nameranim područjima,

*odlučuje*

1 da frekvencijske dodele BSS stanicama, "STATSIONAR-T" i "STATSIONAR-T2", kako je opisano u *prepoznajući a)* i zapisano u MIFR sa povoljnim nalazom, treba dozvoliti nastavak rada u periodu važenja dotičnih dodela ako tako odluče obaveštene administracije;

2 da podnošenje frekvecijskih dodela koje se odnose na radiodifuznu satelitsku službu u opsegu 620-790 MHz, koje je primio Biro za radiokomunikacije pod Članovima **9** i/ili **11**, kao što može biti slučaj, drugačijih od onih iz *odlučuje 1*, treba da bude vraćeno administraciji koja ih je podnela,

*nalaže se Direktoru Biroa za radiokomunikacije*

da implementuje ovu Rezoluciju.

**ADD** COM4/380/77 (B19/413/28)

## REZOLUCIJA 550 (WRC-07)

### **Informacije koje se odnose na visokofrekvencijsku radiodifuznu službu**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je ova Konferencija pregledala slučaj za olakšavanje zagušenja u izvesnim HF opsezima namenjenim radiodifuznoj službi;

- b) da je ova Konferencija odlučila da održava sadašnju Tabelu namene frekvencija u HF opseзима, u pogledu brzog razvoja i korišćena opsega od svih službi;
- c) da, kao deo generalne tranzicije, odnosno udaljavanja od analognih emisionih sistema, digitalna modulacija se uvodi u HF radiodifuzni opseg;
- d) da zajedno sa drugim službama koje koriste HF opsege, radiodifuzna služba ima stalnu potrebu da preispituje efektivnost njenog korišćenja spektra,

*konstatujući*

da se Rezolucija **517 (Rev.WRC-07)** bavi uvođenjem digitalno modulisanih emisija u HF opsegu namenjenom radiodifuznoj službi,

*konstatujući takođe*

da je ITU-R Studijska grupa 6 pripremila široki izveštaj, imenom Izveštaj ITU-R BS.2105 "Informacije koje se odnose na HF radiodifuznu službu",

*odlučuje da pozove ITU-R*

da nastavi studije o HF radiodifuziji uzimajući u obzir:

- tehničke i radne faktore,
- digitalne emisije, uključujući kako će uvođenje tih emisija uticati na HF radiodifuzne zahteve i rad,

*poziva administracije i članove sektora*

da aktivno učestvuju u gorepomenutim studijama dajući doprinos za ITU-R.

**ADD** PLEN/408/9 (B24/419/10)

### REZOLUCIJA 551 (WRC-07)

## **Korišćenje opsega 21.4-22 GHz za radiodifuznu satelitsku službu i pridruženih opsega spojnih veza u Regionima 1 i 3**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je WARC-92 namenio opseg 21.4-22.0 GHz u Regionima 1 i 3 radiodifuznoj satelitskoj službi i namena je stupila na snagu 1.4.2007.;
- b) da posle 1.4.2007. uvođenje BSS (HDTV) sistema u tom opsegu trebalo bi da bude regulisano na fleksibilan i ravnopravan način do vremena kad buduća kompetentna svetska konferencija o radiokomunikacijama usvoji definitivne odredbe u tu svrhu u skladu sa Rezolucijom **507 (Rev.WRC-03)**;
- c) da je privremeno korišćenje tog opsega od radiodifuzne satelitske službe predmet odredbi Rezolucije **525 (Rev.WRC-07)**;
- d) da budući BSS sistemi u opsegu 21.4-22.0 GHz mogu da omoguće primene izuzetno visoke rezolucije slike (EHRI) kako je pokazano u Preporuci ITU-R BT.1201 i Izveštaju ITU-R BT.2042;
- e) da je, na osnovu svojih studija, ITU-R uspostavio osnovne radne parametre BSS sistema u tom opsegu, uključujući metode prevazilaženja slabljenja u zemljama sa mnogo kiše (Preporuka ITU-R BO.1659 i Izveštaj ITU-R BO.2071);

- f) da je u opsegu 21.4-22.0 GHz u Regionima 1 i 3, referentna snaga gustine fluksa za BSS razvijena i data u Preporuci ITU-R BO.1776;
- g) da su u opsegu 21.4-22.0 GHz u Regionima 1 i 3, kriterijumi deljenja među službama za GSO BSS sisteme razvijeni i dati u Preporuci ITU-R BO.1785;
- h) da planiranje *a priori* nije neophodno i trebalo bi ga izbegavati jer zamrzava pristup, prema tehnološkim pretpostavkama nastalih u vreme planiranja, i tako sprečava fleksibilno korišćenje koje uzima u obzir zahteve realnog sveta i tehnički razvoj;
- i) da su privremeni aranžmani za korišćenje opsega na principu prvi došao prvi poslužen ;
- j) da je potrebna naredna studija za upotrebu spektra u opsegu 21.4-22.0 GHz u Regionima 1 i 3,

*konstatujući*

da Rezolucija **525 (Rev.WRC-07)** identifikuje privremene procedure za uvođenje HDTV BSS sistema u opsegu 21.4-22 GHz u Regionima 1 i 3,

*odlučuje*

1 da ITU-R nastavi tehničke i regulatorne studije o harmonizaciji korišćenja spektra, uključujući metodologije za planiranje, koordinacijske procedure ili druge procedure, i BSS tehnologije, u pripremama za WRC-11, u opsegu 21.4-22 GHz i opsege za pridružene spojne veze u Regionima 1 i 3, vodeći računa o *uzimajući u obzir h) i i)*;

2 da WRC-11 pregleda rezultate studija i odluči o korišćenju opsega 21.4-22 GHz i pridruženih opsega za spojne veze u Regionima 1 i 3,

*poziva administracije*

da učestvuju u ITU-R studijama dajući doprinos.

**MOD** COM6/341/23 (B14/365/46) (R7/411/221)

### REZOLUCIJA 609 (Rev.WRC-07)

## **Zaštita sistema vazduhoplovne radionavigacione službe od ekvivalentne snage gustine fluksa koju proizvode mreže radionavigacione satelitske službe i sistemi u frekvencijskom opsegu 1 164-1 215 MHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- d) da je WRC-03 odredio da zaštita ARNS od štetnih smetnji može da se postigne ako vrednost ekvivalentne pfd (epfd) proizvedena od svih svemirskih stanica svih RNSS (svemir-Zemlja) sistema u 1 164-1 215 MHz opsegu ne prelazi nivo od  $-121.5 \text{ dB(W/m}^2\text{)}$  u svakom 1 MHz opsegu;
- i) da je WRC-03 odlučio da primeni odredbe o koordinaciji iz Nos. **9.12, 9.12A i 9.13** na RNSS sisteme i mreže za koje su kompletne informacije o koordinaciji i obaveštavanju, kako treba, primljene u Biro posle 1.1.2005.,

*odlučuje*

5 da bi se dozvolilo da više RNSS sistema rade u frkvencijskom opsegu 1 164-1 215 MHz, ni jednom pojedinačnom RNSS sistemu ne sme biti dozvoljeno da koristi celokupnu dopuštenu



interferenciju gore specificiranu u *odlučuje* 1 u svakom 1 MHz iz 1 164-1 215 MHz opsega (vidi Preporuke **608 (Rev.WRC-07)**);

8 da administracije koje učestvuju na konsultacionom sastanku treba da označe jednu administraciju koja će da obavesti Biro o svim skupnim odlukama o deljenju urađenim u gorepomenutoj primeni u *odlučuje* 2, bez obzira da li takve odluke rezultuju u bilo kakvoj modifikaciji publikovanih karakteristika njihovih sistema ili mreža respektivno (vidi Preporuku **608 (Rev.WRC-07)**);

9 administracije gde rade ili je u planu da rade ARNS sistemi u opsegu 1 164-1 215 MHz treba da učestvuju, ako odgovara, u diskusijama i odlučivanjima u vezi *odlučuje*;

10 da metodologija i referentni najgori slučaj za ARNS antenu sistema sadržan u Preporuci ITU-R M.1642-2 mora biti korišćen od administracija za izračunavanje skupnog epfd proizvedenog od svih svemirskih stanica u okviru svih RNSS sistema u opsegu 1 164-1 215 MHz,

*nalaže Birou za radiokomunikacije*

1 da sudeluje u konsultacionim sastancima spomenutim pod *odlučuje* 6 i da prati pažljivo rezultate epfd izračunavanja pomenutim u *odlučuje* 1;

2 da ustanovi da li je pfd nivo u *preporučuje* 1 iz Preporuke **608 (Rev.WRC-07)** premašen od bilo koje svemirske stanice i da izvesti o tome šta je ustanovio učesnike konsultacionog skupa;

3 da publikuje u Međunarodnom cirkularu informacija o frekvencijama (BR IFIC), informacije koje se odnose na *odlučuje* 8 i *nalaže Birou za radiokomunikacije* 2,

...

#### ANEKS NA REZOLUCIJU 609 (Rev.WRC-07)

#### **Kriterijumi za primenu Rezolucije 609 (Rev.WRC-07)**

...

**ADD** PLEN/408/10 (B24/419/11)

#### REZOLUCIJA 611 (WRC-07)

#### **Korišćenje dela VHF opsega za radiolokacionu službu**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je opseg ispod 300 MHz primarno namenjen zemaljskim službama;
- b) da radiolokaciona služba nema globalne primarne namene u opsegu 30-300 MHz;
- c) da je frekvencijski opseg 138-144 MHz namenjen radiolokacionoj službi na primarnoj osnovi u regionu 2, frekvencijski opseg 216-225 MHz je namenjen radiolokacionoj službi na sekundarnoj osnovi u Regionu 2, i frekvencijski opseg 223-230 MHz je takođe namenjen za radiolokacionu službu na sekundarnoj osnovi u regionu 3;
- d) tekuće regionalne namene radiolokacionoj službi se koriste na bazi deljenja sa drugim službama, naročito sa fiksnom i mobilnom službama;
- e) da zbog ekstenzivnog razvoja radiodifuzne službe u frekvencijskim opsezima 174-230 MHz i 470-862 MHz postoji rastuća potreba za prilagođenjem postojeće radiolokacione

službe koja radi u tim opsezima na drugačije frekvencijske opsege, istovremeno poboljšavajući tehnike smanjenja interferencije i uvođenja modernih tehnologija;

- f) da se javljaju potrebe za povećanom rezolucijom i rasponom za rad radara;
- g) da se propagacija VHF radiotalasa odvija dobro kroz jonosferu, omogućujući na taj način primene detektovanja različitih objekata u svemiru uključujući udaljeno detektovanje u svemiru i detekciju asteroida, kao i za definisanje pozicija prirodnih i veštačkih Zemaljskih satelita, putem radiolokacionih sistema sa Zemlje;
- h) da Preporuka ITU-R M.1372 identifikuje tehnike smanjenja interferencije koje poboljšavaju kompatibilnost između radarskih sistema;
- i) da za rad radiolokacije iza horizonta u VHF frekvencijski raspon tehnički nije izvodljiv;
- j) da su tekuće potrebe za radiolokacione sisteme za detekciju svemirskih objekata sa zemaljskih lokacija u delu opsega 30-300 MHz bazirane na sistemima širine opsega od 2 MHz, međutim namene sa većim frekvencijskim rasponom mogu omogućiti fleksibilnost i olakšati deljenje sa ostalim službama;
- k) da, za obezbeđivanje adekvatnog spektra za nove radarske sisteme, postoji potreba za namenom na primarnoj osnovi globalno dodatnog spektra u frekvencijskom rasponu 30-300 MHz,

*prepoznajući*

- a) da je važno da se obezbedi da se radarima za radiolokaciju može upravljati saglasno sa postojećim primarnim službama koje imaju namene u delovima VHF opsega;
- b) da je ITU-R inicirao studije kao odgovor na ITU-R Pitanje 237/8 o karakteristikama i kriterijumima zaštite za radare koji rade u radiolokacionoj službi u frekvencijskom opsegu 30-300 MHz,

*odlučuje*

- 1 da uzme u obzir na WRC-11 primarne namene radiolokacionoj službi u delovima opsega 30-300 MHz za implementaciju novih primena u radiolokacionoj službi, sa ne većim opsegom od 2 MHz, uzimajući u obzir rezultate ITU-R studija;
- 2 da uvođenje novih sistema u radiolokacionu službu treba izbegavati u frekvencijskim opsezima 156.4875-156.8375 MHz i 161.9625-162.0375 MHz, koji se koriste za primene kod nesreća i bezbednost u pomorskoj mobilnoj službi,

*poziva ITU-R*

- 1 da nastavi da proučava, kao hitnu stvar, tehničke karakteristike, kriterijume zaštite, i druge faktore, da osigura da radiolokacioni sistemi mogu da rade kompatibilno sa sistemima koji rade u skladu sa Tabelom u službi u opsegu iz frekvencijskog raspona 30-300 MHz;
- 2 da uključi rezultate gornjih studija u jednu ili više novih ili postojećih ITU-R Preporuka, po mogućnosti;
- 3 da kompletira te studije na vreme za WRC-11.

**ADD** PLEN/408/11 (B24/419/12)

## REZOLUCIJA 612 (WRC-07)

### **Korišćenje radiolokacione službe između 3 i 50 MHz za podršku okeanografske radarske operacije na visokim frekvencijama**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da postoji rastući interes, na globalnoj osnovi, za operacije visokofrekvencijskih okeanografskih radara za merenje uslova na površini mora uz obalu za podršku ekoloških, okeanografskih, meteoroloških, klimatoloških, pomorskih i za smanjivanje nesreće operacija;
- b) da su visokofrekvencijski okeanografski radari takođe poznati u delu sveta kao HF okeanski radari, HF radari za detektovanje visine talasa ili HF radari za talase na površini;
- c) da visokofrekvencijski okeanografski radari rade korišćenjem propagacije zemaljskih talasa;
- d) da tehnologija visokofrekvencijskih okeanografskih radara ima primene u globalnom pomorskom domenu obaveštavanja dozvoljavajući daljinsku detekciju površinskih plovila, što donosi dobrobit globalnoj sigurnosti i bezbednosti brodarstva i pristaništa;
- e) da rad visokofrekvencijskih okeanografskih radara pruža dobrobit društvu kroz ekološku zaštitu, pripravnost za katastrofe, javnu zdravstvenu zaštitu, poboljšane meteorološke operacije, povećanu priobalnu i pomorsku bezbednost i poboljšanje nacionalnih ekonomija;
- f) da visokofrekvencijski okeanografski radari rade na eksperimentalnoj osnovi širom sveta, omogućujući razumevanje spektralnih potreba i razmatranje deljenja spektra, kao i razumevanje dobrobiti koju ti sistemi pružaju;
- g) da između 3 i 50 MHz, ne postoje namene za radiolokaciju;
- h) da performanse i potrebe za podacima diktiraju regije spektra koje mogu da koriste sistemi visokofrekvencijskih okeanografskih radara za nadgledanja okeana,

*prepoznajući*

- a) da visokofrekvencijski okeanografski radari rade na eksperimentalnoj osnovi već više od 30 godina;
- b) da autori eksperimentalnih sistema implementiraju tehnike da naprave najefektivnije korišćenje spektra i smanje smetnje drugim radio službama;
- c) da je cilj Pitanja ITU-R 240/8 da prouči najpodesnije frekvencijske opsege za rad visokofrekvencijskih okeanografskih radara uzimajući u obzir oboje, potrebe radarskog sistema i bezbednost postojećih službi;
- d) da visokofrekvencijski okeanografski radari rade sa vršnim nivoima snage od otprilike 50 W,

*odlučuje*

- 1 da pozove ITU-R da identifikuje primene sistema visokofrekvencijskih okeanografskih radara između 3 i 50 MHz, uključujući potrebe širine opsega, potrebne delove tog opsega za te primene, i ostale karakteristike neophodne da vode studije deljenja;
- 2 da pozove ITU-R da povede analize deljenja između primena radiolokacione službe identifikovanih pod *odlučuje* 1 i postojećih službi u opsezima identifikovanih da budu podesni za rad visokofrekvencijskih okeanografskih radarskih sistema;
- 3 da, ako je potvrđena kompatibilnost pod *odlučuje* 2, da preporuči da WRC-11 razmotri namene radiolokacionoj službi u nekoliko podesnih opsega između 3 i 50 MHz, kako je određeno u ITU-R studijama, svaki opseg da ne prelazi 600 kHz, za rad okeanografskih radara,

*poziva administracije*

da daju doprinos studijama deljenja između radiolokacione službe i postojećih službi u delovima opsega 3 do 50 MHz identifikovanih kao podesne za rad visokofrekvencijskih okeanografskih radara,

*poziva ITU-R*

da kompletira neophodne studije, kao hitnu stvar, uzimajući u obzir sadašnje korišćenje namenjenog opsega, u pogledu na prezentovanje, u odgovarajuće vreme, tehničkih informacija koje će verovatno biti potrebne kao jedan od osnova za rad WRC-11,

*nalaže Generalnom sekretaru*

da stavi ovu rezoluciju na pažnju Međunarodnoj pomorskoj organizaciji (IMO), Svetskoj meteorološkoj Organizaciji (WMO) i ostalim zainteresovanim međunarodnim i regionalnim organizacijama.

**ADD** PLEN/408/13 (B24/419/14)

**REZOLUCIJA 613 (WRC-07)**

**Globalne primarne namene radiodeterminacionoj satelitskoj službi u frekvencijskom opsegu 2 483.5-2 500 MHz (svemir-Zemlja)**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a)* da određivanje položaja i vremena korišćenjem satelitskih sistema nudi velike društvene dobrobiti, na primer, omogućujući efikasnost u korišćenju transporta, bankarstvu i lokalnim uslugama;
- b)* da tačnost pozicije i vremena u smislu prenosa od predmeta iz svemira i jinosferskog kašnjenja može biti poboljšana korišćenjem više frekvencija;
- c)* da je opseg 2 483.5-2 500 MHz namenjen globalno fiksnoj, mobilnoj i mobilnoj satelitskoj (svemir-Zemlja) službama na primarnoj osnovi;
- d)* da je opseg 2 400-2 500 MHz takođe napravljen za industrijske, naučne i medicinske (ISM) primene. Radiokomunikacione službe koje rade u tom opsegu moraju da prihvate štetnu interferenciju koju mogu prouzrokovati ove primene. ISM oprema koja radi u tim opsezima predmet je odredbi iz No. **15.13**;
- e)* da je opseg 2 483.5-2 500 MHz takođe namenjen radiolokaciji na primarnoj osnovi u Regionima 2 i 3 i na sekundarnoj osnovi u Regionu 1;
- f)* da je opseg 2 483.5-2 500 MHz već namenjen radiodeterminacionoj satelitskoj službi na primarnoj osnovi u Regionu 2 i na sekundarnoj osnovi u Regionu 3, i to u dodatku No. **5.371** specificira sekundarnu namenu u Regionu 1 i No. **5.400** primarnu namenu u 22 zemlje Regiona 1 i 3;
- g)* da sistemi u radiodeterminacionoj satelitskoj službi (RDSS) već koriste opseg 2 483.5-2 500 MHz (svemir-Zemlja) u delovima Regiona 3 da omoguće određivanje pozicije i vremena;
- h)* da je u Evropi radionavigacioni satelitski sistem u razvoju i teži da koristi opseg 2 483.5-2 500 MHz kao odgovor na rastuću potrebu javnih krajnjih korisnika za primenama za određivanje pozicije i vremena,

*prepoznajući*

- a) da mobilni satelitski sistemi koji koriste opseg 2 483.5-2 500 MHz omogućuju telekomunikacione usluge u mnogim udaljenim područjima;
  - b) da su drugi opsezi dostupni za radiodeterminacionu i radionavigacionu satelitske službe,
- konstatujući*

da predložene namene nemaju svrhu da spreče razvoj drugih službi u istom frekvencijskom opsegu ali da se to uradi na regulisan način. ITU-R može trebati da razvije odgovarajuće kriterijume deljenja, uzimajući u obzir druge službe unutar opsega,

*odlučuje da pozove ITU-R*

da povede, i završi na vreme za WRC-11, odgovarajuće tehničke, radne i regulatorne studije koje bi dovele do tehničkih i proceduralnih odredbi za Konferenciju omogućujući joj da odluči da li je globalna primarna namena za radiodeterminacionu satelitsku službu u frekvencijskom opsegu 2 483.5-2 500 MHz (svemir-Zemlja) kompatibilna sa drugim službama u opsegu,

*poziva administracije*

da učestvuju u studijama dajući doprinos ITU-R.

**ADD** PLEN/408/16 (B24/419/16)

#### REZOLUCIJA 614 (WRC-07)

### **Korišćenje opsega 15.4-15.7 GHz od strane radiolokacione službe**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da vazduhoplovna radionavigaciona služba (ARNS) ima namenu na primarnoj osnovi u frekvencijskom rasponu 15.4-15.7 GHz;
- b) da je radionavigaciona služba bezbednosna služba korišćena stalno ili privremeno za očuvanje ljudskih života (RR 1.59);
- c) da u saglasnosti sa 4.10 Države članice treba da prepoznaju da bezbednosni aspekti radionavigacije i ostalih sigurnosnih službi zahtevaju posebne mere da se osigura nezavisnost od štetnih smetnji; zato je neophodno uzeti taj faktor u obzir kod dodela i korišćenja frekvencija;
- d) da mobilni aspekt vazduhoplovne radionavigacione službe može zahtevati da stanice te službe budu korišćene na nespificiranim tačkama;
- e) da fiksna satelitska služba ima namenu na primarnoj osnovi u frekvencijskom rasponu 15.43-15.63 GHz uzimajući u obzir ograničenja iz No. 5.511A, kao i opsege 15.4-15.43 i 15.63-15.7 GHz uzimajući u obzir ograničenja iz No. 5.11D;
- f) da ne postoje ICAO-standardni ARNS sistemi koji rade u tom opsegu i da oni ARNS sistemi koji koriste taj opseg jesu radari koji imaju slične tehničke i radne karakteristike kao radiolokacioni sistemi;
- g) da, za pružanje adekvatnog spektra za nove radarske sisteme, postoji potreba da se nameni na primarnoj osnovi globalni dodatni spektar u opsegu 15.4-15.7 GHz za radiolokacionu službu;
- h) da hitne potrebe za povećanom rezolucijom i rasponom tačnosti trebaju veću širinu opsega za emisije;

- i) da su radiolokacione službe koje koriste sistem emisija niskog radnog ciklusa, skanirajuće snopove i redukciju interferencije prikazale kompatibilan rad sa radionavigacionim radarima u nekoliko opsega (2 900-3 100 MHz, 9 000-9 200 MHz i 9 300-9 500 MHz) kroz mnogo godina;
- j) da radari u radiolokacionoj službi rade na primarnoj osnovi globalno u opsegu 15.7-17.3 GHz;
- k) da Preporuka ITU-R M.1372 identifikuje tehnike smanjenja interferencije što unapređuju kompatibilnost između radarskih sistema;
- l) da Izveštaj ITU-R M.2076 sadrži faktore daljeg slabljenja za radiolokacionu interferenciju radionavigacionim radarima u 9 GHz opsegu, od kojih se mnogi primenjuju u opsegu 15.4-15.7 GHz;
- m) da Preporuka ITU-R M.1730 daje informaciju o tehničkim karakteristikama i kriterijumima bezbednosti za radiolokacionu službu u opsegu 15.7-17.3 GHz,

*prepoznajući*

- a) da je važno omogućiti da radiolokacioni radari mogu da rade kompatibilno sa postojećim primarnim službama imajući namene u opsegu 15.4-15.7 GHz i sa radioastronomskom službom (RAS) u susednom opsegu 15.35-15.40 GHz;
- b) da bi mogla biti potrebna jedna globalna primarna namena da se pruži onima koji razvijaju radarske sisteme koji rade u radiolokacionoj službi, poverenju proizvođača i investitora da će njihovi sistemi imati regulatorsku sigurnost za globalni rad;
- c) da sigurnosni aspekti radionavigacione službe u RR **1.59** zahtevaju specijalne mere da osiguraju nezavisnost od štetne interferencije u skladu sa RR **4.10**,

*odlučuje*

da se uzme u obzir na WRC-11 jedna primarna namena radiolokacionoj službi u opsegu 15.4-15.7 GHz, vodeći računa o rezultatima ITU-R studija,

*poziva ITU-R*

- 1 da prouči, kao hitnu stvar, tehničke karakteristike, kriterijume zaštite, i ostale faktore da se osigura da radiolokacioni sistemi mogu raditi kompatibilno sa sistemima u vazduhoplovnoj navigacionoj službi i fiksnim satelitskim službama u opsegu 15.4-15.7 GHz, vodeći računa o bezbednosnoj prirodi vazduhoplovne radionavigacione službe;
- 2 da prouči, kao hitnu stvar, kompatibilnost između radiolokacione službe u opsegu 15.4-15.7 GHz i RAS u susednom opsegu 15.35-15.40 GHz;
- 3 da uključi rezultate gornjih studija u jednu ili više novih ili postojećih ITU-R Preporuka;
- 4 da kompletira ove studije na vreme za WRC-11.

**MOD** COM6/258/1 (B5/267/3) (R3/292/101)

**REZOLUCIJA 644 (Rev.WRC-07)**

**Radiokomunikacioni resursi za rano upozoravanje, ublažavanje katastrofa i humanitarnu pomoć**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da su administracije bile pozvane da preduzmu sve praktične korake da olakšaju brzo raspoređivanje i efektivno korišćenje telekomunikacionih resursa za rano upozoravanje, ublažavanje katastrofa i humanitarnu pomoć redukujući i, gde je moguće, uklanjanje regulatornih barijera i jačajući globalnu, regionalnu i međugraničnu kooperaciju između država;
- b) da potencijal modernih komunikacijskih tehnologija kao osnovno sredstvo za ublažavanje katastrofa i humanitarnu pomoć i da je vitalna uloga telekomunikacija i ICT za sigurnost i sigurnost radnika humanitarne pomoći na terenu;
- c) posebne potrebe zemalja u razvoju i posebne zahteve stanovnika koji žive u visokorizičnim područjima izloženih katastrofama, kao i onih koji žive u zabačenim krajevima;
- d) rad koji izvodi Sektor za standardizaciju telekomunikacija u standardizaciji zajedničkog protokola za upozoravanje (CAP), kroz odobrenje relevantne CAP Preporuke;
- e) da, pod Strategijskim planom Unije 2008-2011, "podsticanje efektivnog korišćenja telekomunikacija/ICT i modernih tehnologija za vreme kritičnih hitnih slučajeva, kao osnovni deo ranog upozoravanja na katastrofu, ublažavanje, upravljanje i strategije pomoći, u svetlu ubrzanih koraka promena u globalnoj okolini i od linija delovanja WSIS", smatra se jednim od tri glavna prioriteta za ITU u tom periodu;
- f) da je glavnina zemaljskih mreža u pogođenim krajevima oštećena za vreme nedavnih katastrofa,

*prepoznajući*

- a) Član 40 Statuta, o prioritetima telekomunikacija u smislu sigurnosti života;
- b) Član 46 Statuta, o pozivima i porukama u nesreći;
- c) No. 91 Tuniske agende za Informaciono društvo usvojeno na drugoj fazi Svetskog skupa o informacionom društvu i u delimičnoj odluci c): "Radeći ekspeditivno prema uspostavljanju praćenja na standardnoj osnovi i svetskom sistemu za rano upozoravanje povezanih sa nacionalnim i regionalnim mrežama i olakšavajući hitan odgovor na nesreću u celom svetu, naročito u regionima visokog rizika";
- d) Rezoluciju 34 (Rev.Doha, 2006) Svetske konferencije o razvoju telekomunikacija o ulozi telekomunikacija /ICT u ranom upozoravanju i ublažavanju nesreća i humanitarnoj pomoći, kao i ITU-D Pitanje 22/2 "Korišćenje ICT-a za upravljanje u nesreći, resursima i aktivnim i pasivnim sistemom u svemiru za otkrivanje što se primenjuju na nesreće i pomoći u vanrednoj situaciji";
- e) Rezoluciju 36 (Rev. Antalya, 2006) Konferencije opunomoćenika o telekomunikacijama /informacijama i komunikacijskim tehnologijama u službi humanitarne pomoći;
- f) Rezoluciju 136 (Antalya, 2006) Konferencije opunomoćenika o korišćenju telekomunikacionih /informacijskih i komunikacijskim tehnologijama za praćenje i upravljanje u nesreći i hitnim situacijama za rano upozoravanje, sprečavanje, ublažavanje i olakšavanje;
- g) Rezoluciju ITU-R 53 Skupštine za Radiokomunikacije (Ženeva, 2007), o korišćenju radiokomunikacija u odgovoru na katastrofu i olakšavanje;
- h) Rezoluciju ITU-R 55 Skupštine za Radiokomunikacije (Ženeva, 2007), o ITU-R studijama o predviđanju katastrofa, otkrivanju, ublažavanju i otklanjanju,

*konstatujući*

bliski odnos ove Rezolucije sa Rezolucijom **646 (WRC-03)** o javnoj zaštiti i otklanjanju katastrofa i Rezolucijom **[COM6/2] (WRC-07)** o smernicama za upravljanje spektrom za radiokomunikacije za vanredne situacije i pomoć u katastrofi, i potrebu za koordinacijom aktivnosti iz ovih Rezolucija da bi se sprečilo bilo kakvo moguće preklapanje,

*odlučuje*

1 da ITU Sektor za radiokomunikacije (ITU-R) nastavi da proučava, kao hitnu stvar, one aspekte radiokomunikacija /ICT koji su relevantni za rano upozoravanje, ublažavanje katastrofa i humanitarnu pomoć, kao što su decentralizovani vidovi telekomunikacija koji su odgovarajući i generalno dostupni, uključujući amaterska zemaljska i satelitska radio postrojenja, mobilni i prenosivi satelitski terminali, kao i korišćenje pasivnih senzornih sistema smeštenih u svemiru;

2 da urgira ITU-R Studijskim grupama, uzimajući u obzir opseg studija/aktivnosti u toku koje se nastavljaju na Rezoluciju ITU-R 55 Skupštine za Radiokomunikacije (Ženeva, 2007), da ubrza njihov rad, naročito u oblasti predviđanja katastrofa, otkrivanja, ublažavanja i otklanjanja,

*nalaže Direktoru Biroa za radiokomunikacije*

1 da podrže administracije njihovom poslu primene obe Rezolucije 36 (Rev. Antalya, 2006) i 136 (Antalya, 2006), kao i Konvencije iz Tamperea;

2 da saraduje, po potrebi, sa Radnom grupom Ujedinjenih nacija za hitne telekomunikacije (WGET);

3 da aktivno učestvuje, i pridonosi ITU Globalnom forumu za efektivnu upotrebu telekomunikacija/ICT za upravljanje kod nesreća: spašavanje života (Ženeva, 10-12 Decembar 2007);

4 da učestvuje, i pridonosi, Telekomunikacijama za ublažavanje i olakšavanje katastrofa – Panel partnerstva za koordinaciju (PCP-TDR);

5 da sinhronizuje aktivnosti između ove Rezolucije, Rezolucije **646 (WRC-03)** i Rezolucije **[COM6/2] (WRC-07)** da se spreči moguće preklapanje.

**ADD** COM6/258/2 (B5/267/5) (R3/292/106)

## REZOLUCIJA 647 (WRC-07)

### **Smernice za upravljanje spektrom za radiokomunikacije vanredne situacije i ublažavanje katastrofa<sup>1</sup>**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) Konvencija iz Tamperea o odredbama za telekomunikacione resurse za ublažavanje nesreća i operacija olakšavanja (Tampere, 1998)<sup>2</sup>, jedan međunarodni ugovor deponovan kod

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<sup>1</sup> Termin “radiokomunikacije za vanredne situacije i ublažavanje katastrofa“ odnosi se na radiokomunikacije koje koriste agencije i organizacije koje se bave ozbiljnim poremećajem funkcionisanja društva, što predstavlja značajnu široko rasprostranjenu pretnju ljudskim životima, zdravlju, siromaštvu ili okolini, bilo da je uzrokovano nesrećom, prirodnim fenomenima ili ljudskom aktivnošću, i da li se pojavilo iznenada ili kao rezultat kompleksnih, dugotrajnih procesa.

<sup>2</sup> Međutim, jedan broj zemalja nije ratifikovao Konvenciju iz Tamperea.



Generalnog sekretara Ujedinjenih nacija, poziva države članice, kad je moguće, i u saglasnosti sa njihovim nacionalnim zakonima, da razviju i implementiraju mere za olakšanje dostupnosti telekomunikacionih resursa za takve operacije;

- b) da neke administracije mogu imati različite radne potrebe i zahteve za spektrom za vanrednu situaciju i primene za ublažavanje nesreća, zavisno o okolnostima;
- c) da neposredna dostupnost ranije identifikovanih i ranije koordiniranih frekvencija i/ili fleksibilnih tehnologija spektra da omoguće gotovo momentalne odluke za korišćenje dostupnog spektra, jeste važno za uspešne telekomunikacije u vrlo ranoj fazi intervencije humanitarne pomoći za ublažavanje nesreća,

*prepoznajući*

- a) Rezolucija 36 (Rev. Antalya, 2006) Konferencije opunomoćenika o informaciono-komunikacionim tehnologijama (ICTs) u službi humanitarne pomoći;
- b) Rezolucija 136 (Antalya, 2006) Konferencije opunomoćenika o korišćenju informaciono-komunikacionih tehnologija za posmatranje i vođenje u vanredne situacije i katastrofe za rano upozoravanje, prevenciju, ublažavanje i olakšavanje;
- c) Rezolucija 34 (Rev.Doha, 2006) Svetske konferencije za razvoj telekomunikacija (WTDC) o ulozi telekomunikacija/ICT u ranom upozoravanju i smanjenju nesreća i humanitarnoj pomoći, kao i ITU-D Question 22/2 "Iskorišćavanje ICT za upravljanje kod nesreća, resursima, i aktivnim i pasivnim sistemima za očitavanje smeštenih u svemiru kako se primenjuju na vanredne situacije i olakšavanje nesreća";
- d) Rezolucija 48 (Doha, 2006) WTDC o jačanju kooperacije između regulatora telekomunikacija;
- e) Rezolucija **644 (Rev.WRC-07)** o Radiokomunikacionim resursima za rano upozoravanje, umanjivanje nesreće i operacije olakšavanja;
- f) Program 6 (Nerazvijene zemlje i male ostrvske zemlje u razvoju, i komunikacije za vanredne situacije), revidirana verzija onoga što je usvojeno na WTDC (Doha, 2006);
- g) Rezolucija **646 (WRC-03)** o javnoj bezbednosti i ublažavanju nesreće;
- h) Preporuka ITU-R M.1637, koja nudi smernice za olakšavanje globalne cirkulacije radiokomunikacione opreme u vanrednim situacijama i ublažavanju nesreće;
- i) Izveštaj ITU-R M.2033, koji sadrži informacije o nekim opsezima ili njihovim delovima koji su označeni za operacije ublažavanja nesreće,

*svesni*

progrsa napravljenog u regionalnim organizacijama širom sveta, i posebno u regionalnim organizacijama za telekomunikacije, o stvarima koje se odnose na planiranje komunikacija u vanrednim situacijama i odgovor,

*prepoznajući takođe*

- a) Rezoluciju ITU-R 55 Skupštine za radiokomunikacije (Geneva, 2007), koja poziva ITU-R Studijske grupe da uzmu u razmatranje obim studija/aktivnosti u toku, navedenih u Aneksu Rezolucije, i da razvije smernice koje se odnose na upravljanje radiokomunikacijama u predviđanju nesreća, otkrivanju, smanjivanju i olakšavanju, zajednički i kooperativno, u okviru ITU i sa organizacijama izvan Unije, da bi se izbegao efekat dupliciranja posla;
- b) Rezolucija ITU-R 53 Skupštine za radiokomunikacije (Geneva, 2007), koja nalaže Direktoriju Biroa za radiokomunikacije da pomogne državama članicama u njihovom pripremanju

aktivnosti za radiokomunikacije u vanrednim situacijama kao što je izlistavanje trenutno dostupnih frekvencija za korišćenje u vanrednim situacijama za uključivanje u bazu podataka koju održava Biro,

*konstatujući*

- a) da kad se desi nesreća, agencije za olakšavanje nesreće su obično prve na sceni koristeći svoje svakodnevne komunikacione sisteme, ali da u većini slučajeva druge agencije i organizacije mogu takođe biti uključene u operacijama olakšavanja nesreće;
- b) da postoji kritičan zahtev da se izvrši hitan odabir spektra, uključujući frekvencijsku koordinaciju, deljenje i ponovnu upotrebu spektra, unutar područja nesreće;
- c) da bi nacionalno planiranje spektra za vanredne situacije i ublažavanje nesreće, trebalo uzimati u obzir potrebu za kooperacijom i bilateralnom konsultacijama sa ostalim zainteresovanim administracijama što bi moglo biti olakšano harmonizacijom spektra i /ili spektralno fleksibilnom tehnologijom, kao i dogovorena uputstva za upravljanje spektrom koja se odnose na ublažavanje nesreće i planiranje vanredne situacije;
- d) da za vreme nesreće, radiokomunikaciona postrojenja mogu biti razrušena ili oštećena i nacionalna regulatorna tela mogu da ne budu u stanju da pruže potrebne servise za upravljanje spektrom za raspoređivanje radio sistema za operacije ublažavanja nesreće;
- e) da identifikacija dostupnosti frekvencija u okviru individualne administracije u smislu koja oprema da se koristi, ili korišćenje spektralno fleksibilne opreme koja dozvoljava rad u raznim scenarijima pristupa spektru, može olakšati interoperabilnost i/ili rad između mreža, uz obostranu kooperaciju i konsultaciju, naročito u nacionalnim, regionalnim i prekograničnim vanrednim situacijama i aktivnostima ublažavanja nesreće,

*konstatujući takođe*

- a) da treba priuštiti fleksibilnost agencijama za ublažavanje nesreće i organizacijama, u korišćenju sadašnjih i budućih radiokomunikacija, tako da se olakšaju njihove humanitarne operacije;
- b) da je u interesu administracija i agencija za ublažavanje nesreće i organizacija da imaju pristup ažuriranim informacijama o nacionalnim planovima za spektar za vanredne situacije i ublažavanje nesreće,

*odlučuje*

- 1 da podstiče administracije da uzmu u obzir globalni i/ili regionalni frekvencijski opseg /raspon za vanredne situacije i ublažavanje nesreće kad preduzimaju svoje nacionalno planiranje i da saopšte ti informaciju Birou;
- 2 da podstiče administracije da održavaju dostupne frekvencije za korišćenje u vrlo ranoj fazi intervencije humanitarne pomoći za ublažavanje nesreće,

*nalaže Direktor Bira za radiokomunikacije*

- 1 da se pomogne državama članicama u pripremnim aktivnostima za njihove komunikacije za vanredne situacije uspostavljajući bazu podataka trenutno raspoloživih frekvencija za korišćenje u vanrednim situacijama, koje nisu limitirane onima izlistanim u Rezoluciji **646 (WRC-03)**, i izdavanjem jednog odgovarajućeg spiska, uzimajući u obzir Rezoluciju ITU-R 53 Skupštine za radiokomunikacije (Geneva, 2007);
- 2 da se održava baza podataka i olakša on-lajn pristup tome za administracije, nacionalna regulatorna tela, agencijama za ublažavanje nesreće i organizacijama, posebno Koordinator

Ujedinjenih nacija za ublažavanje nesreće, u saglasnosti sa radnim procedurama razvijenim za situacije nesreće;

3 da se saraduje sa uredom Ujedinjenih nacija za koordinaciju humanitarnih poslova i drugim organizacijama, po potrebi, u razvoju i širenju standardnih radnih procedura i relevantne prakse upravljanja spektrom za korišćenje u situaciji nesreće;

4 da uzme u obzir sve relevantne aktivnosti druga dva ITU Sektora i Generalni sekretarijat;

5 da izvesti o progresu iz ove rezolucije narednu Svetsku konferenciju o radiokomunikacijama,

*poziva ITU-R*

da povede studije po potrebi, kao hitnu stvar, u podršci uspostavljanju odgovarajućih uputstava za upravljanje spektrom za primenu u vanrednim situacijama i operacijama ublažavanja nesreće,

*urgira administracijama*

1 da učestvuju u pripremnim aktivnostima za komunikacije u vanrednim situacijama, opisanim gore, i da dostave relevantne informacije Birou koje se tiču njihovih nacionalnih namena i prakse upravljanja spektrom za vanredne situacije i radiokomunikacije za ublažavanje nesreće, uzimajući u obzir rezoluciju ITU-R 53 Skupštine za radiokomunikacije (Geneva, 2007);

2 da pomogne u održavanju baze podataka ažurnom savetujući Biro na stalnoj osnovi o svakoj promeni gorezahtevanih informacija.

**ADD** PLEN/408/12 (B24/419/13)

## REZOLUCIJA 671 (WRC-07)

### **Prepoznavanje sistema u službi meteorološke pomoći u frekvencijskom rasponu ispod 20 kHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da sistemi detekcije munja koje koriste meteorološke organizacije jesu dugo postojeće, pasivne primene koje imaju stvarni značaj za bezbednost života, dajući upozorenja na ekstremne vremenske prilike celom nizu organizacija i korisnika uključujući hitne službe, vazduhoplovstvo, odbranu, komunalne usluge i javnost;

b) da iako udari munje emituju elektromagnetne talase u celom rasponu frekvencija, propagacione karakteristike ispod 20 kHz čine frekvencijski raspon od oko 9 kHz do 20 kHz najpodesniji za detekciju;

c) da za izbegavanje interferencije u nekim delovima sveta, centralna frekvencija sadašnje međunarodne mreže stanica za detekciju munja, koja je bila centrirana na 9.765625 kHz od 1939., nedavno je morala da se pomakne na 13.733 kHz;

d) da drugi sistemi za detekciju munja često koriste kombinaciju od UHF i LF frekvencija, ali to daje ograničenije pokrivanje nego sistemi koji rade na VLF frekvencijama;

e) da se očekuje da bi trebalo između 30 i 40 prijemnih stanica na VLF frekvencijama za globalno pokrivanje;

f) da ti sistemi koegzistiraju sa službama koje neć imaju namene u potencijalnom spektru za sisteme u meteorološkoj pomoćnoj službi u znatanom periodu vremena bez interferencije,

*prepoznajući*

- a) da je precizna lokacija munje važna za javnu sigurnost. Kao i opasnosti od samog udara munje, grmljavina može da rezultuje u intenzivnim padavinama sa pratećom poplavom, jakim zaleđivanjem, promenjivim vetrom, turbulencijom i udarima vetrova;
- b) da nedavni slučajevi interferencije povećavaju brigu da sistemi za detekciju munja možda neće biti u stanju da održe kvalitet usluge ili da pruže globalno pokrivanje osim ako se pruži priznanje tim sistemima u Pravilniku o radiokomunikacijama, i koordinacija sa drugim službama se napravi kako treba;
- c) da je pasivno korišćenje za sada slabo zaštićeno;
- d) da je poželjno da se namene frekvencije meteorološkoj pomoćnoj službi za sisteme detekcije munja budu u spektru koji se ne deli sa sistemima velike snage,

*konstatujući*

- a) da je 3 dB širina opsega postojećih sistema detekcije munja približno 2.5 kHz i zato jedna namena između 3 i 5 kHz širine opsega bila bi potrebna;
- b) da predložena namena nema svrhu da spreči razvoj drugih službi u istom frekvencijskom opsegu ali da se to postigne na regularan način. ITU-R bi možda trebao da razvije odgovarajuće kriterijume deljenja, uzimajući u obzir obe službe, unutar opsega i pored opsega,

*odlučuje*

- 1 da pozove ITU-R da povede, i završi na vreme za WRC-11, potrebne studije koje bi dovele do tehničkih i proceduralnih preporuka Konferenciji omogućujući joj da odluči o odgovarajućoj metodi za pružanje priznanja dugo postojećim sistemima, uključujući mogućnost da se uradi namena meteorološkoj pomoćnoj službi u frekvencijskom rasponu ispod 20 kHz;
- 2 da studije iz *odlučuje* 1, bez postavljanja ograničenja na postojeće službe koje rade u skladu sa Pravilnikom o radiokomunikacijama, treba da uključe studije deljenja i kompatibilnosti sa službama koje već imaju namene u potencijalnom spektru za sisteme meteorološke pomoćne službe uzimajući u obzir potrebe drugih službi,

*poziva administracije*

da učestvuju u studijama dajući doprinos ITU-R.

**ADD** PLEN/408/17 (B24/419/17)

**REZOLUCIJA 672 (WRC-07)**

**Ekstenzije namena meteorološkoj satelitskoj službi u opsegu 7 750-7 850 MHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je opseg 7 750-7 850 MHz namenjen fiksnoj, meteorološkoj satelitskoj službi (svemir-Zemlja) i mobilnim službama;
- b) da se taj opseg trenutno koristi od ne-geostacionarnih meteoroloških satelita polarne orbite emitujući tipično na način slanja mnogo sirovih podataka velikim stanicama na Zemlji;
- c) maksimalno vreme kontakta između satelitskih i odgovarajućih stanica na Zemlji dešava se na velikim visinama rezultujući optimalnom rasporedom takvih zemaljskih stanica na velikim visinama na severnoj i južnoj hemisferi;

d) da potrebe za širinom opsega za prenos podataka od senzora visoke rezolucije na novoj generaciji ne-geostacionarnih meteoroloških satelita planiranih da budu lansirani u vremenskom okviru 2017-2020 jesu veće od 100 MHz;

e) da bi proširenje sadašnje namene za 50 MHz bilo neophodno da se prilagodi potrebama budućeg prenosa podataka;

f) da je opseg 7 850-7 900 MHz namenjen potuno istim službama kao opseg 7 750-7 850 MHz i bio bi prvi kandidat za proširenje tekuće namene meteorološkoj satelitskoj službi;

g) da su ITU-R studije vođene pre WRC-97 ustanovile da deljenje između meteorološke satelitske službe i fiksne službe je moguće sa širokim marginama rezultujući u nameni opsega 7 750-7 850 MHz,

*prepoznajući*

1 da su podaci dobijeni pomoću tih meteoroloških satelita esencijalnih za globalnu prognozu vremena, klimatske promene i predviđanje opasnosti;

2 da postojeći sistemi treba da budu propisno zaštićeni,

*odlučuje*

1 da pozove ITU-R da povede analize deljenja između ne-geostacionarnih meteoroloških satelita koji rade u smeru svemir-Zemlja i fiksnih i mobilnih službi u opsegu 7 850-7 900 MHz u pogledu na proširenja tekuće namene u smeru svemir-Zemlja za ovaj opseg;

2 da preporuči da WRC-11 pregleda rezultate studija pod *odlučuje* 1;

3 da učini odgovarajuće izmene u Tabeli namena frekvencija u odnosu na *odlučuje* 1, na osnovu predloga administracija,

*poziva administracije*

da daju doprinos studijama deljenja između meteorološke satelitske službe i fiksne i mobilne službi u frekvencijskom rasponu 7 850-7 900 MHz,

*poziva ITU-R*

da kompletira neophodne studije, uzimajući u obzir sadašnje korišćenje namenjenih opsega, u pogledu prezentovanja rezultata na WRC-11.

**ADD** COM6/409/1 (B22/416/4)

## REZOLUCIJA 673 (WRC-07)

### **Korišćenje radiokomunikacija za primene posmatranja Zemlje**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da *in situ* i udaljene mogućnosti posmatranja Zemlje ovise o dostupnosti radio frekvencija kod velikog broja radio službi, dozvoljavajući širokom rasponu pasivnih i aktivnih primena na satelitskim platformama ili onim na zemlji;

b) da sakupljanje i razmena podataka posmatranja Zemlje jeste esencijalno za održavanje i poboljšanje tačnosti vremenskih prognoza što doprinosi zaštiti života, čuvanju imovine i održivog razvoja u svetu;

c) da su podaci posmatranja Zemlje takođe esencijalni za posmatranje i predviđanje klimatskih promena, za predviđanje, posmatranje i ublažavanje katastrofa, za povećanje razumevanja, modeliranja i verifikovanje svih aspekata klimatskih promena, i za pravljenje odgovarajuće politike;

d) da se posmatranje Zemlje takođe koristi za dobijanje relevantnih podataka koji se tiču prirodnih resursa, što je posebno značajno za dobrobit zemalja u razvoju;

e) da se posmatranje Zemlje izvodi za dobrobit celokupne međunarodne zajednice i celokupnog čovečanstva, deli se između mnogih zemalja i generalno je dostupno besplatno,

*prepoznajući*

a) da § 20 c) Akcionog plana Svetskog skupa o Informacijskom društvu (Ženeva, 2003), o e-okolini, poziva na uspostavljanje sistema za praćenje, koristeći informacijske i komunikacione tehnologije (ICT), za prognozu i posmatranje uticaja prirodnih i veštačkih katastrofa, posebno u zemljama u razvoju, najmanje razvijenim i malim ekonomijama;

b) Rezolucija 34 (Rev. Doha, 2006) Svetske konferencije za razvoj telekomunikacija, o ulozi telekomunikacija /ICT u ranom upozoravanju i ublažavanju nesreća i humanitarnoj pomoći;

c) ITU-D Pitanje 22/2 "Korišćenje ICT za upravljanje prilikom nesreća, resurse i aktivne i pasivne sisteme detekcije smeštene u svemiru kao što se primenjuju na situacije olakšavanja nesreća i vanredne situacije",

*konstatujući*

a) da se primene posmatranja Zemlje rade putem satelita za istraživanje Zemlje (aktivno i pasivno), meteorološkog satelita, meteorološke pomoći i radiolokacionih službi;

b) da su neki osnovni pasivni frekvencijski opsezi pokriveni sa No. **5.340**,

*konstatujući takođe*

a) da je važnost radiokomunikacionih primena posmatranja Zemlje naglašena od strane mnogih međunarodnih tela kao što je Grupa za posmatranje Zemlje (GEO), Svetska meteorološka organizacija (WMO) i Međuvladin panel o klimatskim promenama (IPCC) i da bi saradnja ITU-R sa tim telima mogla biti važna;

b) da delimično, GEO predvodi svetska nastojanja da se izgradi Globalni sistem sistema za posmatranje Zemlje (GEOSS) da omogući sveobuhvatno i koordinirano posmatranje Zemlje od hiljada instrumenata širom sveta, transformišući prikupljene podatke u vitalne informacije za društvo i čovečanstvo;

c) da GEOSS pruža širok raspon socijalnih benefita, uključujući upravljanje nesrećama i aspekte koji se odnose na ljudsko zdravlje, energiju, klimu, vodu, vreme, ekosisteme, agrikulturu i bioraznovrsnost;

d) da je preko 90 procenata prirodnih nesreća vezano za klimu ili vreme;

e) da neke esencijalne operacije pasivnog posmatranja Zemlje trenutno imaju smetnje koje rezultuju u pogrešnim podacima ili čak u kompletnom gubitku podataka;

f) da iako su meteorološki i posmatranja Zemlje sateliti trenutno vođeni od malog broja zemalja, podaci i/ili odgovarajuće analize koje rezultuju iz njihovog rada jesu distribuirani i korišćeni globalno, delimično od strane nacionalnih službi za vreme u razvijenim i zemljama u razvoju i od organizacija vezanih za klimatske promene,

*odlučuje da pozove ITU-R*

da povede studije o mogućim sredstvima da poboljša prepoznavanje esencijalne uloge i globalne važnosti primena radiokomunikacija u posmatranju Zemlje i znanje i razumevanje administracija u odnosu na korišćenje i dobrobit od tih primena,

*nalaže Direktoruru Biroa za radiokomunikacije*

da uključi rezultate tih studija u svoj Izveštaj za WRC-11 u svrhu razmatranja adekvatnih mera u odgovoru na *odlučuje da pozove ITU-R* gore, konstatujući da nijedna nova namena ni dodatna zaštita ne bi bila cilj takvih studija,

*poziva administracije*

da aktivno učestvuju u studijama dajući doprinos ITU-R.

**MOD** COM6/251/3 (B5/267/4) (R3/292/102)

### REZOLUCIJA 703 (Rev.WRC-07)

#### **Metod proračuna i kriterijumi interferencije preporučenih od ITU-R za deljenje frekvencijskih opsega između svemirskih radiokomunikacija i zemaljskih radiokomunikacija ili između svemirskih radiokomunikacionih službi**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da, u frekvencijskim opsezima koje dele sa jednakim pravom svemirske i zemaljske radiokomunikacione službe, potrebno je nametnuti izvesna tehnička ograničenja i procedure koordinacije na svaki servis gde je deljenje da se ograniči međusobna interferencija;
- b) da, u frekvencijskim opsezima koje dele svemirske stanice smeštene na geostacionarnim satelitima, neophodno je nametnuti procedure koordinacije u svrhu ograničavanja međusobne interferencije;
- c) da su metode proračuna i kriterijume interferencije u vezi procedura koordinacije iz *uzimajući u obzir a) i b)* bazirane na ITU-R Preporukama;
- d) da, priznavajući uspešno deljenje frekvencijskih opsega od strane svemirskih i zemaljskih radiokomunikacionih službi, i kontinualnog poboljšavanja u svemirskoj tehnologiji i onoj na Zemljinom segmentu, svaka Skupština za Radiokomunikacije je poboljšala neke tehničke kriterijume koje je preporučivala prethodna Skupština;
- e) da je ITU Skupština za Radiokomunikacije odobrila proceduru za odobravanje Preporuka između Skupština za Radiokomunikacije;
- f) da Stautu priznaje pravo državama članicama da prave specijalne aranžmane po telekomunikacijskim stvarima; međutim, takvi aranžmani ne smeju biti u suprotnosti sa Statutom, Konvencijom ili regulativom iz aneksa uz to, dokle god su moguće štetne smetnje radio službama drugih zemalja;
- g) da korišćenje ove rezolucije može smanjiti potrebu za prisajedinjenjem po naznaci ITU-R Preporuka,

*mišljenje je*

- a) da će buduće odluke ITU-R-a verovatno napraviti buduće izmene u metodama proračuna i kriterijumima interferencije;

b) da bi administracije trebale kad god je moguće da primenjuju ITU-R Preporuke o kriterijumima deljenja prilikom planiranja sistema za korišćenje u frekvencijskim opsezima koji se dele sa jednakim pravima između svemirskih i zemaljskih radiokomunikacionih službi, ili između svemirskih radiokomunikacionih službi,

*poziva administracije*

da daju doprinos Radiokomunikacionim studijskim grupama, pružajući informacije o praktičnim rezultatima i iskustvu o deljenju između zemaljskih i svemirskih radiokomunikacionih službi ili između svemirskih službi, što pomaže da se postigne napredak u procedurama koordinacije, metodama proračuna i pragova štetnih smetnji, i na taj način optimizuje dostupne orbitalne /spektralne resurse,

*odlučuje*

1 da Direktor Biroa za radiokomunikacije, u konsultaciji sa Predsednikom Studijske grupe, treba da godišnje pripremi listu koja identifikuje relevantne novoodobrene ITU-R Preporuke koje se odnose na deljenje između svemirskih i zemaljskih radiokomunikacionih službi, ili između svemirskih radiokomunikacionih službi;

2 da Direktor Biroa za radiokomunikacije treba, jednom godišnje, da publikuje tu listu elektronski za informaciju svim administracijama.

**MOD** COM4/380/76 (B19/413/27)

## REZOLUCIJA 729 (Rev.WRC-07)

### **Upotreba frekvencijski adaptivnih sistema u MF i HF opsezima\***

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da će efikasnost korišćenja spektra biti povećana korišćenjem frekvencijski adaptivnih sistema u MF i HF opsezima koje dele fiksne i mobilne službe;

b) da su probanja i postavljanja frekvencijski adaptivnih sistema bila u toku za vreme zadnjih 30 godina i pokazala efektivnost takvih sistema i poboljšala efikasnost spektra;

c) da je takva poboljšana efikasnost postignuta kroz:

- kraće vreme pozivanja i poboljšanje kvaliteta emitovanja putem selekcije najpodesnijeg kanala za dodelu;
- smanjene okupiranosti kanala, dozvoljavajući istim kanalima da ih koriste različite mreže, a smanjujući verovatnoću štetnih smetnji;
- minimizaciju snage predajnika potrebnu za svaku emisiju;
- kontinuiranu optimizaciju emisija zahvaljujući sofisticaciji sistema;
- jednostavan rad korišćenjem inteligentne periferijske opreme;
- manju potrebu za veštım radio operatorima;

d) da nakon WRC-95, Biro za radiokomunikacije ne preduzima više ispitivanja u pogledu verovatnoće štetnih smetnji uzrokovanih novim dodelama upisanim u Master International Frequency Register (MIFR) u neplaniranim opsezima ispod 28 MHz;

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\* Potrebno je skrenuti pažnju na ovu Rezoluciju ITU-D Studijskoj grupi 2.



- e) da je WRC-97 uveo sredstvo za notifikaciju dodela u bloku;
- f) da će frekvencijski adaptivni sistemi aktivno doprinositi izbegavanju interferencije jer, kad se drugi signal primeti u kanalu, frekvencijski adaptivni sistem će da se pomeri na drugu frekvenciju,

*odlučuje*

1 da, u ovlašćivanju rada frekvencijski adaptivnih sistema u fiksnim i mobilnim službama u MF i HF opsezima, administracije trebaju:

1.1 da ne daju dodele u onim opsezima:

- kojima se upravlja prema Dodatku 25 Plana (alotment) namene frekvencija za pomorsku mobilnu službu ili Dodatka 27 Plana (alotment) namene frekvencija za vazduhoplovnu mobilnu (R) službu;
- koji se dele na ko-primarnoj osnovi sa radiodifuznom službom, radiodeterminacionom službom ili amaterskim službama;
- namenjenim za radio astronomsku službu;

1.2 da izbegavaju korišćenja koja mogu doticati frekvencijske dodele uključujući sigurnosne službe, urađena u skladu Nos. 5.155, 5.155A i 5.155B;

1.3 da uzmu u obzir svaku fusnotu primenjivu na predložene opsege i implikacije u vezi sa kompatibilnošću;

2 da frekvencijski adaptivni sistemi treba da automatski ograniče jednovremeno korišćenje frekvencija na minimum potreban za zahteve komuniciranja;

3 da bi, u pogledu izbegavanja štetnih smetnji, frekvencijski adaptivni sistemi trebali da procene zauzetost kanala pre i za vreme prenosa;

4 da Biro bude obavešten o dodelama za frekvencijski adaptivne sisteme u skladu sa odredbama Člana 11 i Dodatka 4.

**MOD** PLEN/408/15 (B24/419/2)

**REZOLUCIJA 734 (Rev.WRC-07)**

**Studije za identifikaciju spektra za gejtvej linkove za stanice na platformama na velikim visinama u opsegu od 5 850 do 7 500 MHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da ITU ima svrhu između ostalog “da promoviše širenje dobrobiti od novih telekomunikacionih tehnologija na sve stanovnike sveta” (No. 6 Statuta);
- b) da sistemi bazirani na novim tehnologijama koje koriste stanice na platformama na velikim visinama (HAPS) mogu potencijalno da se koriste za razne primene kao što je obezbeđivanje visokog kapaciteta usluga u gradskim i ruralnim područjima;
- c) da treba napraviti odredbe u Pravilniku o radiokomunikacijama za postavljanje HAPS-a u specifične opsege, uključujući da kao bazne stanice opslužuju IMT-2000 mreže (Član 11);
- d) da je poželjno da postoje adekvatne odredbe za gejtvej linkove koji služe za rad HAPS-ova;

e) da ITU-R proučava deljenje spektra između HAPS-a kao fiksne službe sa ostalim fiksnim službama i sa fiksnim satelitskim službama u mnogo višim opsezima, kao i regulatorno razmatranje da se izbegne interferencija sa službama u susednim zemljama,

*prepoznajući*

a) da ITU-R proučava deljenje HAPS-a sa fiksnim službama u delu opsega od 6 GHz što rezultuje u Preporuci ITU-R F.1764, koja daje metodologiju za računanje interferencije koja bi mogla biti korišćena za studije deljenja između sistema fiksne službe i HAPS-a;

b) da bi u nekim područjima opsezi mogli biti zasićeni sa korišćenjima druge fiksne službe i bilo bi poželjno da postoji veća fleksibilnost u izboru spektra za getvej operacije u podršci HAPS-mrežama;

c) da je Svetski skup o Informacionom društvu podstakao razvoj i primenu tehnologija u nastajanju da olakša razvoj infrastrukture i mreža širom sveta, a posebno se fokusirao na nedovoljno opslužene regione i područja;

d) da se namene opsega 5 925–6 425 MHz za fiksnu satelitsku službu jako mnogo koriste za vezu Zemlja-svemir omogućujući telekomunikacione servise, i da je to posebno važno za razvoj infrastrukture u razvijenim zemljama, kroz postavljanje VSAT kapaciteta;

e) da više od 160 geostacionarnih satelita, trenutno u radu, koristi frekvencije u opsegu 5 850-6 725 MHz i takvo korišćenje će nastaviti da raste u budućnosti;

f) da se No. 5.441 u opsegu 6 725-7 025 MHz koristi za veze prema gore u FSS Planu Dodatka **30B** Pravilnika o radiokomunikacijama (vidi No. 5.441), i, dok je opseg 5 150-5 250 korišćen za vezu prema gore za negeostacionarne satelitske sisteme (vidi No. 5.447A);

g) da će emisije Zemlja-svemir u FSS opisani u “*priznajući*” d), e) i f) gore imati nivoe mnogo veće od onih u HAPS sistemima i zato imati potencijal koji uzrokuje interferenciju HAPS prijemnicima na zemlji ili na platformi;

h) da u pogledu na *prepoznavajući* g), HAPS korišćenje frekvencija od oko 6 GHz može biti ograničeno sadašnjim FSS predajnim Zemljinim stanicama dok zaštita HAPS prijemnika može ograničiti buduće raspoređivanje tih FSS zemaljskih stanica,

*odlučuje*

1 da pozove ITU-R da proširi studije o deljivosti, s pogledom da se identifikuju dva kanala od 80 MHz svaki za getvej veze HAPS-a u opsegu od 5 850 do 7 500 MHz, u opsezima već namenjenim fiksnoj službi, istovremeno osiguravajući zaštitu postojećih službi;

2 da preporuči WRC-11 da pregleda proširene studije, s pogledom da se donese odgovarajuća odluka za postavljanje HAPS getvej linkova da opslužuju relevantnu stratosferske operacije baznih stanica i podršku tim mrežama,

*podstiče administracije*

da aktivno pridonose studijama o deljenju u skladu sa ovom Rezolucijom.

**MOD** COM5/265/7 (B6/268/96) (R5/336/7)

**REZOLUCIJA 739 (Rev.WRC-07)**

### **Kompatibilnost između radio astronomske službe i aktivnih svemirskih službi u nekim susednim i bliskim frekvencijskim opsezima**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da su susedne ili bliske namene primarnih službi urađene za radioastronomsku službu, i za razne svemirske službe, kao što je fiksna satelitska služba (FSS), radionavigaciona satelitska služba (RNSS), mobilna satelitska služba (MSS) i radiodifuzna satelitska služba (BSS), u daljem tekstu kao “aktivne svemirske službe”;
- b) da su, u mnogim slučajevima, frekvencije korišćene za radio astronomsku službu (RAS) izabrane su za proučavanje prirodnih pojava proizvedeći radio emisije na frekvencijama određenim zakonima prirode, tako da pomicanje frekvencije da se izbegne ili ublaže problemi interferencije nije moguće;
- c) da Izveštaj ITU-R SM.2091 pruža metodologiju za vođenje, i okvir za dokumentovanje rezultata studija kompatibilnosti između aktivnih svemirskih službi i parova opsega radio astronomske službe;
- d) da Izveštaj ITU-R SM.2091 takođe omogućuje rezultate studija kompatibilnosti između radioastronomske službe i aktivne svemirske službe u nekim susednim i bliskim opsezima;
- e) da odgovarajuće konsultacije između administracija imaju potencijal da vode razvoj inovativnih rešenja i brzo postavljanje sistema;
- f) da, iz tehničkih ili operacionalnih razloga, više strogih nametnutih emisionih ograničenja nego opštih ograničenja u Dodatku 3 mogu biti zahtevani da zaštite RAS od aktivnih službi u specifičnim opsezima,

*konstatujući*

- a) da dodatno opterećenje od preduzimanja bilo kakvih tehničkih ispitivanja ne bi trebalo da se stavi Birou za radiokomunikacije;
- b) da konsultaciona procedura, sadržana u ovoj Rezoluciji, ne bi predstavljala dodatno opterećenje Birou;
- c) da Preporuka ITU-R M.1583 pruža metodologiju na osnovu ekvivalentne snage gustine fluksa (epfd) konceptu za izračunavanje interferencije koja rezultuje neželjenim emisijama od negeostacionarnih (ne-GSO) satelitskih sistema od MSS ili RNSS u radioastronomskim stanicama;
- d) da Preporuka ITU-R S.1586 pruža metodologiju baziranu na epfd konceptu za izračunavanje interferencije koja potiče od neželjenih emisija od ne-GSO sistema od FSS u radioastronomskim stanicama;
- e) da metodologija opisana u ovim Preporukama može takođe biti korišćena za studije slučaja ne-GSO sistema u BSS;
- f) da Preporuka ITU-R RA.1631 omogućuje antenskom snopu da se koristi za analize kompatibilnosti između ne-GSO sistema i RAS stanica, bazirano na epfd konceptu;
- g) da Preporuka ITU-R RA.1513 omogućuje prihvatljive nivoe gubitaka podataka radioastronomskim posmatranjima, tvrdeći posebno da procenat gubitaka podataka uzrokovana od bilo kog sistema treba da bude manji od 2%;
- h) da neki od rezultata dokumentovanih u Izveštaju ITU-R SM.2091 mogu biti korišćeni kao prag za iniciranje konsultacione procedure;
- i) da bi rezultati uspešne konsultacije između zainteresovanih administracija osigurali da su interesi obe, aktivne i radioastronomske službe uzeti u obzir;
- j) da mere poduzete od aktivnih svemirskih službi da zaštite radioastronomske stanice od interferencije mogu rezultovati u povećanom koštanju i/ili smanjenim mogućnostima tih službi;

k) da obrnuto, ne preduzimajući takve mere može rezultovati u dodatnim troškovima rada i smanjenom radnom efikasnošću za dotične radioastronomske stanice;

l) da implementacija dodatnih mera za ublažavanje interferencije na radioastronomskoj stanici može povećati troškove rada i smanjiti efektivnost posmatranja;

m) da obrnuto, ne implementiranje takvih mera može nametnuti aktivnim svemirskim službama dodatno troškovno opterećenje i smanjenje mogućnosti službe,

*prepoznajući*

a) da neželjene emisije koje proizvode stanice aktivnih svemirskih službi mogu uzrokovati neprihvatljivu interferenciju stanicama RAS-a;

b) da, iako neke neželjene emisije iz predajnika na svemirskim stanicama mogu biti kontrolisane kroz pažljivo dizajnirane metode i odgovarajuće testne procedure, druge neželjene emisije, kao što su uskopojasne ubačene emisije, generisane nekontrolisanim i/ili nepredvidivim fizičkim mehanizmima, jedino mogu biti detektovane nakon lansiranja svemirskog broda;

c) da postoji neizvesnost u procedurama pre lansiranja o nivoima neželjenih emisija;

d) da je potrebno osigurati podjednaku raspodelu opterećenja za postizanje kompatibilnosti između aktivnih svemirskih službi i RAS-a;

e) da za one slučajeve gde se sreću poteškoće u zadovoljavanju vrednosti iz Aneksa 1, konsultaciona procedura bi trebala da se koristi da se reše poteškoće,

*odlučuje*

1 da neka administracija preduzme sve razumne korake da osigura da bilo koja svemirska stanica ili satelitski sistem dizajniran i konstruisan da radi u opsezima iz Aneksa 1 zadovolji vrednosti date za bilo koju radio astronomsku stanicu koja radi u odgovarajućim opsezima identifikovanim u ovom Aneksu;

2 da u slučaju da je za vreme konstrukcije i pre lansiranja ustanovljeno da, nakon razmatranja svih razumnih sredstava, neželjene emisije iz svemirske stanice ili satelitskog sistema ne mogu zadovoljiti vrednosti date u Aneksu 1, administracija koja je najavila svemirsku stanicu ili satelitski sistem kontaktira, što pre je moguće, administraciju koja vodi radioastronomsku stanicu da potvrdi da *odlučuje* 1 će biti ispunjeno, i da zainteresovana administracija uđe u proces konsultacije u nameri da se postigne obostrano prihvatljivo rešenje;

3 da u slučaju, nakon lansiranja svemirske stanice administracija koja vodi radioastronomsku stanicu ustanovi da, zbog neočekivanih okolnosti, svemirska stanica ili satelitski sistem ne zadovoljava vrednosti za neželjene emisije date u Aneksu 1 na toj radioastronomskoj stanici, ona kontaktira administraciju koja je najavila svemirsku stanicu ili satelitski sistem tako da administracija koja je najavila svemirsku stanicu ili satelitski sistem potvrđuje da je *odlučuje* 1 zadovoljeno, i zainteresovane administracije ulaze u konsultacioni proces u nameri da se identifikuju sledeći koraci u pogledu postizanja obostrano prihvatljive solucije;

4 da radioastronomske stanice koje se uzimaju u obzir u primeni *odlučuje* 1, 2 i 3 jesu one koje rade u frekvencijskom opsegu identifikovanim u Aneksu 1 i koje su najavljene pre datuma prijema napredne publikovane informacije o svemirskoj stanici ili satelitskom sistemu na koji se Rezolucija odnosi;

5 da svemirske stanice ili satelitski sistemi koji se razmatraju u primeni *odlučuje* 1 do 4 gore jesu oni koji su dizajnirani da rade u frekvencijskim opsezima svemirske službe izlistane u tabelama Aneksa 1 za koje napredne publikovane informacije (API) su primljene u Birou nakon stupanja na snagu Finalnih akata odgovarajuće konferencije, kako je specificirano u tim tabelama;

6 da je cilj konsultacionog procesa u *odlukama* 1, 2 i 3 da se postigne obostrano prihvatljivo rešenje, koristeći kao smernice Izveštaj ITU-R SM.2091 i bilo koje druge ITU-R Preporuke koje zainteresovane strane smatraju relevantnim;

7 da Biro ne treba da radi ispitivanja i pronalaženja u odnosu na tu Rezoluciju pod Članovima 9 ili 11,

*poziva administracije*

1 da preduzmu sve potrebne i praktične korake, od faze dizajniranja pa napred, da se osigura da su neželjene emisije minimizirane od svemirskih stanica koje su planirane da rade u jednoj ili više namena za svemirske službe, da se izbegne prekoračenje praga neželjenih emisija identifikovanih u Aneksu 1 na bilo kojoj astronomskoj stanici;

2 da se preduzmu svi praktični koraci, od faze dizajniranja pa napred, da se minimizira osetljivost radioastronomskih stanica na interferenciju i da se uzme u obzir potreba da se implementiraju mere za ublažavanje interferencije.

ANEKS 1 NA REZOLUCIJU 739 (Rev.WRC-07)

**Nivoi praga neželjenih emisija**

Nivoi praga neželjene emisije koji se primenjuju na geostacionarne svemirske stanice dati su u Tabeli 1-1 u smislu gustine fluksa snage (pfd) u referentnom opsegu proizvedenom na radio astronomskoj stanici.

U tabeli 1-1 nivoi praga neželjene emisije dati u četvrtoj, šestoj i osmoj koloni (pridruženi referentnom opsegu sadržanom u susednim kolonama) trebali bi da budu zadovoljeni od strane svake geostacionarne svemirske stanice koja radi u opsezima indiciranim u drugoj koloni na radioastronomskoj stanici koja radi u opsegu spomenutom u trećoj koloni.

Nivoi praga neželjene emisije primenjivi na svemirske stanice ne-geostacionarnih sistema dati su u Tabeli 1-2 u smislu ekvivalentne gustine fluksa snage (epfd), proizvedenog na radio astronomskoj stanici u referentnom opsegu od svih svemirskih stanica u ne-geostacionarnom satelitskom sistemu koji je vidljiv dotičnoj radio astronomskoj stanici, nije prevaziđen za vreme datog procenta vremena, preko celog neba.

U Tabeli 1-2 epfd vrednost data u četvrtoj, šestoj i osmoj koloni (pridružena referentnom opsegu sadržanom u susednim kolonama) trebala bi da bude zadovoljena od strane svih svemirskih stanica ne-geostacionarnog satelitskog sistema koji radi u opsezima naznačenim u drugoj koloni na radio astronomskoj stanici koja radi u opsegu spomenutom u trećoj koloni. Vrednost epfd na datoj radioastronomskoj stanici treba da bude izračunata koristeći antenski snop i RAS maksimalno antensko pojačanje dato u Preporuci ITU-R RA.1631. Smernice za računanje epfd mogu biti u Preporukama ITU-R S.1586 i ITU-R M.1583. Upadni uglovi radioastronomskih stanica koji se uzimaju u obzir u epfd izračunavanju jesu oni veći od minimalnog upadnog ugla  $\theta_{min}$  radioteleskopa. U odsustvu takve informacije vrednost  $5^\circ$  treba da se uzme. Procenat vremena za vreme kojeg epfd nivo ne sme da bude prevaziđen pomenut je u Privedbi <sup>(1)</sup> Tabele 1-2.

Neki delovi Izveštaja ITU-R SM.2091 pokazuju nivo neželjenih emisija u radio astronomskim opsezima koji neki satelitski sistemi, prema dizajnu, ne prelaze.

TABELA 1-1

pfđ pragovi neželjenih emisija od bilo koje geostacionarne svemirske stanice na radio astronomskoj stanici

Svemirska služba	Opseg svemirske službe	Radio astronomski opseg	Jedan tanjir, posmatranja kontinuuma		Jedan tanjir, posmatranja spektralnih linija		VLBI		Uslov primene: API je primljen od Biroa nakon stupanja na snagu Finalnih akata od:
			pfđ <sup>(1)</sup>	Referentna širina opsega	pfđ <sup>(1)</sup>	Referentna širina opsega	pfđ <sup>(1)</sup>	Referentna širina opsega	
			(MHz)	(MHz)	(dB(W/m <sup>2</sup> ))	(MHz)	(dB(W/m <sup>2</sup> ))	(kHz)	
MSS (svemir-Zemlja)	387-390	322-328.6	-189	6.6	-204	10	-177	10	WRC-07
BSS MSS (svemir-Zemlja)	1 452-1 492 1 525-1 559	1 400-1 427	-180	27	-196	20	-166	20	WRC-03
MSS (svemir-Zemlja ) MSS (svemir-Zemlja )	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 (svemir-Zemlja )	1 559-1 610	1 610.6-1 613.8	NA	NA	-194	20	-166	20	WRC-07
BSS FSS (svemir-Zemlja )	2 655-2 670	2 690-2 700	-177	10	NA	NA	-161	20	WRC-03
FSS (svemir-Zemlja )	2 670-2 690	2 690-2 700 (u Regionima 1 i 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 za VLBI, i WRC-07 za druge tipove posmatranja

NA: Nije primenljivo, merenja ovog tipa nisu rađena u ovom opsegu.

<sup>(1)</sup> Integrisano preko referentne širine opsega sa vremenom integracije 2 000 s.

TABELA 1-2

epfd pragovi<sup>(1)</sup> za neželjene emisije od svih svemirskih stanica ne-GSO satelitskog sistema na radio astronomskoj stanici

Svemirska služba	Opseg svemirske službe	Radio astronomski opseg	Jedan tanjir, posmatranja kontinuuma		Jedan tanjir, posmatranja spektralnih linija		VLBI		Uslov primene: API je primljen od Biroa nakon stupanja na snagu Finalnih akata od:
			epfd <sup>(2)</sup>	Referentna širina opsega	epfd <sup>(2)</sup>	Referentna širina opsega	epfd <sup>(2)</sup>	Referentna širina opsega	
			(MHz)	(MHz)	(dB(W/m <sup>2</sup> ))	(MHz)	(dB(W/m <sup>2</sup> ))	(kHz)	
MSS (svemir-Zemlja )	137-138	150.05-153	-238	2.95	NA	NA	NA	NA	WRC-07
MSS (svemir-Zemlja )	387-390	322-328.6	-240	6.6	-255	10	-228	10	WRC-07
MSS (svemir-Zemlja )	400.15-401	406.1-410	-242	3.9	NA	NA	NA	NA	WRC-07
MSS (svemir-Zemlja )	1 525-1 559	1 400-1 427	-243	27	-259	20	-229	20	WRC-07
RNSS (svemir-Zemlja ) <sup>(3)</sup>	1 559-1 610	1 610.6-1 613.8	NA	NA	-258	20	-230	20	WRC-07
MSS (svemir-Zemlja )	1 525-1 559	1 610.6-1 613.8	NA	NA	-258	20	-230	20	WRC-07
MSS (svemir-Zemlja )	1 613.8-1 626.5	1 610.6-1 613.8	NA	NA	-258	20	-230	20	WRC-03

NA: Nije primenjivo, merenja ovog tipa nisu rađena u ovom opsegu .

<sup>(1)</sup> Ti epfd pragovi ne bi trebalo da budu pređeni za više od 2% vremena.

<sup>(2)</sup> Integrisano preko referentne širine opsega sa vremenom integracije 2000 s.

<sup>(3)</sup> Ova Rezolucija se ne primenjuje na tekuće i buduće dodele radionavigacionog satelitskog sistema GLONASS/GLONASS-M u opsegu 1 559-1 610 MHz, bez obzira na datum primanja odgovarajućih informacija za koordinaciju i najavu, prema potrebi. Zaštita radioastronomske službe u opsegu 1 610.6-1 613.8 MHz je osigurana i nastaviće da bude u skladu sa bilateralnim sporazumom između Ruske Federacije, administracije koja najavljuje GLONASS/GLONASS-M sistem, i IUCAF, i narednim bilateralnim sporazumima sa drugim administracijama.

**MOD** COM5/230/8 (B4/234/7) (R3/292/104)

**REZOLUCIJA 744 (Rev.WRC-07)**

**Deljenje između mobilne satelitske službe (Zemlja-svemir) i fiksnih i mobilnih službi u opsegu 1 668.4-1 675 MHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je WRC-03 uradio globalnu namenu za mobilnu satelitsku službu (MSS) (Zemlja-svemir) u opsegu 1 668-1 675 MHz i jednu globalnu namenu za MSS (svemir-Zemlja) u opsegu 1 518-1 525 MHz;
- b) da je opseg 1 668.4-1 675 MHz takođe namenjen fiksnim i mobilnim službama;
- c) da zbog uslova deljenja između MSS (svemir-Zemlja) i vazduhoplovne mobilne službe za telemetriju u opsegu 1 518-1 525 MHz (vidi No. **5.348B**), MSS operacije u SAD-u verovatno nisu izvodljive;
- d) da gornja ograničenja MSS-a u opsegu 1 518-1 525 MHz zbog toga ograničavaju moguće korišćenje opsega 1 668-1 675 MHz za MSS u SAD;
- e) da je opseg 1 670-1 675 MHz korišćen u Kanadi i SAD-u za fiksne i mobilne službe;
- f) da neke administracije rade sa prenosivim radio relejnim sistemom 1 668.4-1 675 MHz koji bi radili kao deo namena fiksnih ili mobilnih službi;
- g) da se deljenje između mobilne službe i mobilne satelitske službe (Zemlja-svemir) u opsegu 1 668.4-1 675 MHz proučava u Preporuci ITU-R M.1799,

*odlučuje*

- 2 da je korišćenje opsega 1 668.4-1 675 MHz od strane sistema u mobilnoj službi limitirano na prenosive radio relejne sisteme;
- 2 da administracije koje koriste prenosive radio relejne sisteme trebalo bi da uzmu u obzir Preporuku ITU-R M.1799, koja kaže da, za adekvatnu zaštitu MSS mreža, e.i.r.p. prenosivih radio relejnih stanica ne bi trebalo da pređe  $-27$  dB(W/4 kHz) u opsegu 1 668.4-1 675 MHz u smeru geostacionarne orbite;
- 3 da od 1.12015. administracije koje koriste takve sisteme u mobilnoj službi treba da ograniče e.i.r.p. gustinu spektra izračenu u smeru geostacionarne orbite ovih sistema na  $-27$  dB(W/4 kHz) u opsegu 1 668.4-1 675 MHz;
- 4 da, u opsegu 1 670-1 675 MHz, stanice u MSS ne treba da zahtevaju zaštitu od stanica u fiksnim i mobilnim službama koje rade u Kanadi i SAD;
- 5 da se *odluke* 1, 2 i 3 ne odnose na stanice u fiksnim i mobilnim službama koje rade u Kanadi i SAD.

**ADD** COM4/318/11 (B11/329/42)

**REZOLUCIJA 748 (WRC-07)**

**Kompatibilnost između vazduhoplovne mobilne (R) službe i fiksne satelitske službe (Zemlja-svemir) u opsegu 5 091-5 150 MHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),



*konstatujući*

- a) da je namena opsega 5 091-5 150 MHz fiksnoj satelitskoj službi (FSS) (Zemlja-svemir) ograničena na spojne veze ne-geostacionarnih satelitskih (ne-GSO) sistema u mobilnoj satelitskoj službi (MSS);
- b) da je frekvenzijski opseg 5 000-5 150 MHz trenutno namenjen vazduhoplovnoj mobilnoj satelitskoj (R) službi (AMS(R)S), prema sporazumu napravljenom pod No. **9.21**, i vazduhoplovnoj radionavigacionoj službi (ARNS);
- c) da je ova Konferencija namenila opseg 5 091-5 150 MHz vazduhoplovnoj mobilnoj službi (AMS) na primarnoj osnovi prema No. **5.4B03**;
- d) da je Međunarodna organizacija za civilno vazduhoplovstvo (ICAO) u procesu identifikacije tehničkih i radnih karakteristika novih sistema koji rade u AM(R)S u opsegu 5 091-5 150 MHz;
- e) da je kompatibilnost jednog AM(R)S sistema, koja se koristi za vazduhoplove na pisti, i FSS demonstrirana u opsegu 5 091-5 150 MHz;
- f) da ITU-R studije ispituju potencijalno deljenje između AMS primena i pokazuju da združena interferencija od vazduhoplovne bezbednosti, vazduhoplovne telemetrije i AM(R)S ne bi trebala da bude veća od  $3\% \Delta T_s/T_s$ ;
- g) da frekvenzijski opseg 117.975-137 MHz trenutno namenjen AM(R)S dostiže zasićenje u izvesnim područjima u svetu, i zbog toga taj opseg ne bi bio u stanju da podrži dodatne primene na pisti aerodroma;
- h) da su te nove namene namenjene da podrže uvođenje primena i koncepata u vođenju vazdušnog saobraćaja koji je intenzivan u smislu protoka podataka, i koje će podržati podatkovne veze koje nose podatke kritične za bezbednost vazduhoplova,

*prepoznajući*

- a) da u frekvenzijskom opsegu 5 030-5 091 MHz prednost treba da ima mikrotalasni kopneni sistem (MLS) u skladu sa No. **5.444**;
- b) da ICAO publikuje priznate međunarodne vazduhoplovne standarde za AM(R)S sisteme;
- c) da se Rezolucija **114 (Rev.WRC-03)** primenjuje na uslove deljenja između FSS i ARNS u opsegu 5 091-5 150 MHz,

*konstatujući*

- a) da broj FSS zahtevanih predajnih stanica može biti ograničen;
- b) da korišćenje opsega 5 091-5 150 MHz od strane AM(R)S treba da osigura zaštita tekućeg ili planiranog korišćenja tog opsega od FSS (Zemlja-svemir);
- c) da ITU-R studije opisuju metode za osiguranje kompatibilnost između AM(R)S i FSS operacija u opsegu 5 091-5 150 MHz, a kompatibilnost je prikazana za AM(R)S sistem naveden u *uzimajući u obzir e)*,

*odlučuje*

- 1 da bilo koji AM(R)S sistemi koji rade u opsegu 5 091-5 150 MHz ne smeju da uzrokuju štetne smetnje, niti zahtevati zaštitu zbog toga, sistemima koji rade u ARNS;
- 2 da bilo koji AM(R)S sistemi koji rade u frekvenzijskom opsegu 5 091-5 150 MHz treba da zadovolje SARPs zahteve publikovane u Aneksu 10 od ICAO Konvenciji o međunarodnom

civilnom vazduhoplovstvu i zahtevi Preporuke ITU-R M.1827 da se osigura kompatibilnost sa FSS sistemima koji rade u tom opsegu;

3 da, delimično da se zadovolje odredbe od No. **4.10**, koordinacijska udaljenost u odnosu na stanicu u FSS koja radi u opsegu 5 091-5 150 MHz treba da je bazirana na osiguranju da signal primljen na AM(R)S stanici od FSS predaje ne prelazi  $-143$  dB(W/MHz), gde zahtevani gubici osnovnog prenosa treba da budu određeni koristeći metode opisane u Preporukama ITU-R P.525-2 i ITU-R P.526-10,

*poziva*

1 administracije da dopune tehničke i operacione kriterijume neophodne za studije deljenja za AM(R)S, i da aktivno učestvuju u tim studijama;

2 ICAO i druge organizacije da aktivno učestvuju u tim studijama,

*nalaže Generalnom sekretaru*

da stavi ovu Rezoluciju na uvid ICAO.

**ADD** (R9/425/18)

## REZOLUCIJA 749 (WRC-07)

### **Studije o korišćenju opsega 790-862 MHz od mobilnih primena i drugih službi**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da su povoljne karakteristike propagacije opsega 470-806/862 MHz dobre da omoguće ekonomična rešenja za pokrivanje, uključujući velika područja sa malom gustom stanovništva;

b) da rad radiodifuznih stanica i baznih stanica u istom geografskom području može da kreira probleme inkompatibilnosti;

c) da se, prema Rezoluciji **646 (WRC-03)**, opsezi 764-776 MHz i 794-806 MHz sada koriste u nekim zemljama za Javnu bezbednost i olakšanje nesreća (PPDR); i opsezi 806-866 MHz (u Regionu 2) i 806-824 MHz i 851-869 MHz (u Regionu 3) su sada identifikovani za PPDR;

d) da su mnoge zajednice neki put manje pokrivene servisima nego urbani centri;

e) da pomoćne primene za radiodifuziju dele opseg 470-862 MHz sa radiodifuznom službom u sva tri Regiona, i očekuje se da nastave rad u tom opsegu;

f) da je potrebno da se adekvatno obezbedi, *inter alia*, zemaljska televizijska radiodifuzija i drugi sistemi u tom opsegu

*prepoznajući*

a) da je, u Članu **5** Pravilnika o radiokomunikacijama, opseg 790-862 MHz, ili deo tog opsega, namenjen, i koristi se na primarnoj osnovi, za službe koje nisu radiodifuzija;

b) da je frekvencijski opseg 470-806/862 MHz namenjen radiodifuznoj službi na primarnoj osnovi u sva tri Regiona i koristi ga pretežno ta služba, i da se sporazum GE06 primenjuje u svim zemljama Regiona 1 osim Mongolije i jedne zemlje u Regionu 3;

c) da se očekuje da će prelaz od analogne na digitalnu televiziju da rezultuje situacijom gde će opseg 790-862 MHz da se koristi za obe, analogne i digitalne zemaljske emisije; i da zahtev za spektrom za vreme prelaznog perioda može biti čak i veći nego pri samostalnoj upotrebi analognog radiodifuznog sistema;

- d) da trenutak prelaska na digitalno može rezultovati u prilikama za spektar za mnoge primene;
- e) da će vreme prelaska na digitalno verovatno da varira od zemlje do zemlje;
- f) da bi za korišćenje spektra za različite službe trebalo voditi računa o potrebi za studijama deljenja;
- g) da Pravilnik o radiokomunikacijama omogućuje da identifikacija datog opsega za IMT ne sprečava korišćenje toga opsega od bilo koje primene službi kojima je namenjen i ne postavlja prioritet u Pravilnik o radiokomunikacijama;
- h) da GE06 Sporazum sadrži odredbe za zemaljsku radiodifuznu službu i druge zemaljske službe, Plan za digitalnu TV, i Listu ostalih primarnih zemaljskih službi,

*konstatujući*

da Rezolucija ITU-R 57 omogućava principe za proces razvoja IMT-Naprednog i taj proces je planiran da startuje posle ove Konferencije,

*naglašavajući*

- a) da je korišćenje opsega 470-862 MHz od strane radiodifuznih i ostalih primarnih službi takođe pokriveno GE06 Sporazumom;
- b) da zahtevi različitih službi kojima je opseg namenjen, uključujući mobilnu i radiodifuznu službu, treba da se uzmu u obzir,

*odlučuje*

1 da pozove ITU-R da povede studije deljenja za Regione 1 i 3 u opsegu 790-862 MHz između mobilne službe i drugih službi da bi se zaštitile službe za koje je frekvencijski opseg sada namenjen;

2 da pozove ITU-R da izvesti o rezultatima studija iz *odlučuje* 1 na razmatranje WRC-11 da se preduzmu odgovarajuće mere,

*poziva administracije*

da učestvuju u studijama dajući doprinos ITU-R.

*poziva Direktora Biroa za razvoj telekomunikacija*

da skrene pažnju Sektoru za razvoj telekomunikacija na ovu rezoluciju.

**ADD** COM5/372/7 (B15/396/15)

## REZOLUCIJA 750 (WRC-07)

### **Kompatibilnost između satelitske službe istraživanja Zemlje (pasivno) i relevantne aktivne službe**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da su primarne namene urađene raznim svemirskim službama kao što je fiksna satelitska (Zemlja-svemir), služba operacija u svemiru ((Zemlja-svemir) i međusatelitska služba i/ili zemaljskim službama kao što je fiksna služba, mobilna služba i radiolokaciona služba, u daljem tekstu “aktivna služba”, u opsezima susednim ili bliskim onima namenjenim satelitskoj službi istraživanja Zemlje (EESS) (pasivno) prema No. **5.340**;

- b) da neželjene emisije aktivnih službi imaju potencijal da uzrokuju neočekivanu interferenciju senzora EESS (pasivno);
- c) da, zbog tehničkih ili radnih razloga, generalni limiti u Dodatku 3 mogu biti nedovoljni u zaštiti (pasivno) u specifičnim opsezima;
- d) da su, u mnogim slučajevima, frekvencije korišćene za senzore EESS (pasivno) izabrane za proučavanje prirodnih fenomena proizvodeći radio emisije na frekvencijama određenim zakonima prirode, i zbog toga pomeranje frekvencije da se izbegnu ili smanje interferencijski problemi nije moguće;
- e) da je opseg 1 400-1 427 MHz korišćen za merenje vlažnosti zemljišta, i takođe za merenje saliniteta i vegetacijske biomase na površini mora;
- f) da je dugoročna zaštita EESS u opsezima 23.6-24 GHz, 31.3-31.5 GHz, 50.2-50.4 GHz i 52.6-54.25 GHz vitalna za prognozu vremena i upravljanje kod katastrofa, i merenja na nekoliko frekvencija moraju biti rađena istovremeno da bi se izolovao i izvukao svaki posebni doprinos;
- g) da, u mnogo slučajeva, susedni ili bliski opsezi pasivnih službi se koriste i nastaviće da se koriste za različite primene aktivnih službi;
- h) da je potrebno da se osigura ravnomerna raspodela opterećenja za postizanje kompatibilnosti između aktivnih i pasivnih službi koje rade u susednim ili bliskim opsezima,

*konstatujući*

- a) da su studije kompatibilnosti između relevantnih aktivnih i pasivnih službi koje rade u susednim ili bliskim opsezima dokumentovane u Izveštaju ITU-R SM.2092;
- b) da Preporuka ITU-R RS.1029 daje kriterijume interferencije za satelitsko udaljeno pasivno očitavanje,

*konstatujući dalje*

da, u svrhu ove Rezolucije:

- komunikacija tačka-tačka se definiše kao radiokomunikacija preko veze, naprimer radio relejna veza, između dve stanice smeštene na specificiranim fiksnim tačkama;
- komunikacija tačka-tačka definiše se kao radiokomunikacija preko veza između jedne stanice smeštene na specificiranoj fiksnoj tački (zvanoj takođe “hub stanica”) i više stanica smeštenih na specificiranim fiksnim tačkama (zvanim takođe “stanice klijenti”),

*konstatujući*

da studije dokumentovane u Izveštaju ITU-R SM.2092 ne razmatraju komunikacione veze tačka-više tačaka u fiksnoj službi u opsezima 1 350-1 400 MHz i 1 427-1 452 MHz,

*odlučuje*

- 1 da neželjene emisije stanica stavljenih u upotrebu u opsezima i službama izlistanim u Tabeli 1-1 niže ne smeju da pređu odgovarajuće limite iz te tabele, prema specificiranim uslovima;
- 2 da urgira administracijama da preduzmu sve razumne korake da osiguraju da neželjene emisije stanica aktivnih službi u opsezima i službi izlistanih u Tabeli 1-2 niže ne prelaze preporučene maksimalne nivoe sadržane u toj tabeli, primećujući da EESS (pasivni) senzori omogućuju globalna merenja koja koriste svim zemljama, čak i ako tim sensorima ne upravljaju njihove zemlje;
- 3 da Biro za radiokomunikacije ne treba da radi ispitivanja ili nalaženja u pogledu saglasnosti sa ovom Rezolucijom pod Članom 9 ili 11.

TABELA 1-1

EESS (pasivno) Opseg	Aktivna služba Opseg	Aktivna služba	Limiti maksimalnog nivoa snage emisije stanica aktivne službe u specificiranoj širini opsega unutar EESS (pasivno) opsega <sup>1</sup>
23.6-24.0 GHz	22.55-23.55 GHz	Međusatelitska	-36 dBW u bilo kojem 200 MHz EESS (pasivno) opsega za ne-geostacionarne (ne-GSO) sisteme međusatelitske službe (ISS) za koje je kompletna napredna publikovana informacija primljena u Biro pre 1.1.2020., i -46 dBW u bilo kojem 200 MHz EESS (pasivno) opsegu za ne-GSO ISS sisteme za koje je kompletna napredna publikovana informacija primljena u Biro na i posle 1.1.2020.
31.3-31.5 GHz	31-31.3 GHz	Fiksna (isključujući HAPS)	Za stanice date na korišćenje posle 1.1.2012: -38 dBW u bilo kojem 100 MHz EESS (pasivno) opsegu. Ovaj limit se ne primenjuje na stanice koje su autorizovane pre 1.1.2012.
50.2-50.4 GHz	49.7-50.2 GHz	Fiksna satelitska (E-s) <sup>2</sup>	Za stanice date na korišćenje posle datuma stupanja na snagu Finalnog akta WRC-07: -10 dBW u 200 MHz EESS (pasivno) opsega za zemaljske stanice koje imaju antensko pojačanje jednako ili veće od 57 dBi -20 dBW u 200 MHz EESS (pasivno) opsega za zemaljske stanice koje imaju antensko pojačanje manje od 57 dBi
50.2-50.4 GHz	50.4-50.9 GHz	Fiksne satelitske (E-to-s) <sup>2</sup>	Za stanice date na korišćenje posle datuma stupanja na snagu Finalnog akta WRC-07: -10 dBW u 200 MHz EESS (pasivno) opsega za zemaljske stanice koje imaju antensko pojačanje jednako ili veće od 57 dBi -20 dBW u 200 MHz EESS (pasivno) opsega za zemaljske stanice koje imaju antensko pojačanje manje od 57 dBi
52.6-54.25 GHz	51.4-52.6 GHz	Fiksna	Za stanice date na korišćenje posle datuma stupanja na snagu Finalnog akta WRC-07: -33 dBW u 100 MHz EESS (pasivno) opsega

<sup>1</sup> Pod nivoom snage neželjene emisije ovde se smatra nivo meren na antenskom priključku.

<sup>2</sup> Ovi limiti primenjuju se u uslovima čistog neba. Za vreme fedinga, ti nivoi mogu biti prevaziđeni koristeći kontrolu snage za vezu prema gore.

TABELA 1-2

EESS (pasivno) Opseg	Aktivna služba Opseg	Aktivna služba	Preporučeni maksimalni nivo snage emisije stanica aktivne službe u specifičnoj širini opsega unutar EESS (pasivno) opsega <sup>1</sup>	
1 400-1 427 MHz	1 350-1 400 MHz	Radiolokaciona <sup>2</sup>	-29 dBW u 27 MHz EESS (pasivno) opsega	
		Fiksna	-45 dBW u 27 MHz EESS (pasivno) opsega za tačka-tačka	
		Mobilna	-60 dBW u 27 MHz EESS (pasivno) opsega za stanice mobilnih službi osim prenosivih radio relejnih stanica -45 dBW u 27 MHz EESS (pasivno) opsega za prenosive radio relejne stanice	
	1 427-1 429 MHz	Svemirske operacije (E-s)	-36 dBW u 27 MHz EESS (pasivno) opseg	
	1 427-1 429 MHz	Mobilna osim vazduhoplovne mobilne		-60 dBW u 27 MHz EESS (pasivno) opsega za stanice mobilne službe izuzev prenosive radio relejne stanice <sup>3</sup> -45 dBW u 27 MHz EESS (pasivno) opsega za prenosive radio relejne stanice
			Fiksna	-45 dBW u 27 MHz EESS (pasivno) opsega za tačka-tačka
	1 429-1 452 MHz	Mobilna		-60 dBW u 27 MHz EESS (pasivno) opsega za stanice mobilne službe izuzev prenosive radio relejne stanice <sup>3</sup> -45 dBW u 27 MHz EESS (pasivno) opsega za prenosive radio relejne stanice -28 dBW u 27 MHz EESS (pasivno) opsega za vazduhoplovne telemetrijske stanice <sup>4</sup>
			Fiksna	-45 dBW u 27 MHz EESS (pasivno) opsega za tačka-tačka
31.3-31.5 GHz	30.0-31.0 GHz	Fiksna satelitska (E-s) <sup>5</sup>	-9 dBW u 200 MHz EESS (pasivno) opsega za zemaljske stanice koje imaju antensko pojačanje veće ili jednako 56 dBi -20 dBW u 200 MHz EESS (pasivno) opsega za zemaljske stanice 56 dBi	

<sup>1</sup> Pod nivoom snage neželjene emisije ovde se smatra nivo meren na antenskom priključku.

<sup>2</sup> Pod srednja snaga ovde se smatra totalna snaga merena na antenskom priključku (ili na nekom ekvivalentu) u opsegu 1 400-1 427 MHz, uprosečena po periodu reda 5 sekundi.

<sup>3</sup> Stanice mobilne službe za bežične sisteme, uključujući one saglasne sa Preporukom ITU-R M.1457 ili IMT standardima, verovatno zadovoljavaju taj nivo snage neželjenih emisija.

<sup>4</sup> Opseg 1 429-1 435 MHz je takođe namenjen vazduhoplovnoj mobilnoj službi u osam administracija Regiona 1 na primarnoj bazi isključivo za svrhe vazduhoplovne telemetrije u okviru njihovih nacionalnih teritorija (RR No. 5.342).

<sup>5</sup> Preporučeni maksimalni nivoi primenjuju se u uslovima čistog neba. Za vreme fedinga, ti nivoi mogu biti prevaziđeni od strane zemaljskih stanica kad koriste kontrolu snage za vezu prema gore.

**ADD** COM5/373/4 (B15/396/16)

## REZOLUCIJA 751 (WRC-07)

### **Korišćenje frekvencijskog opsega 10.6-10.68 GHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je frekvencijski opseg 10.6-10.7 GHz namenjen satelitskoj službi istraživanja Zemlje (EESS) (pasivnoj) i službi istraživanja svemira (pasivnoj) na primarnoj osnovi;
- b) da je opseg 10.6-10.7 GHz od primarnog značaja za merenje kiše, snega, stanja mora, okeanskog vetra i vlažnosti zemljišta;
- c) da taj frekvencijski opseg koriste pasivni senzori za studije prirodnih fenomena proizvodeći radio emisije na frekvencijama fiksiranim po prirodi stvari, i zbog toga pomeranje frekvencije da se izbegne ili ublaži problem nije moguće;
- d) da svako ograničenje rada pasivnih senzora u opsegu 10.68-10.7 GHz koje pokriva No. **5.340** bi degradiralo osetljivost tih senzora;
- e) da je frekvencijski opseg 10.6-10.68 GHz takođe namenjen mobilnoj, osim vazduhoplovne mobilne, i fiksnoj službi na primarnoj osnovi;
- f) da iskustvo pokazuje da EESS (pasivni) senzori koji trenutno rade u opsegu 10.6-10.68 GHz susreću visoke nivoe interferencije od emisija aktivnih službi u nekim delovima sveta;
- g) da su studije pokazale da odgovarajući kriterijumi deljenja primenjivi na obe, pasivne i aktivne službe, bi redukovali tu interferenciju na nivo koji bi dozvolio pasivnim sensorima da uspešno rade, istovremeno dozvoljavajući nastavak rada aktivnih službi u istom opsegu,

*konstatujući*

da, u svrhu ove Rezolucije:

- komunikacija od tačka-tačka kao radiokomunikacija putem veze, na primer radiorelejne veze, između dve stanice lociranim na specificiranim fiksnim tačkama;
- komunikacija tačka-više tačaka definiše se kao radiokomunikacija putem veza između jedne stanice locirane na specificiranoj fiksnoj tački (takođe zvana “hab stanica”) i jednog broja stanica lociranih na specificiranim fiksnim tačkama (takođe zvane “klijent ili korisničke stanice”);
- automatska kontrola predajne snage (ATPC) je tehnika u kojoj izlazna snaga mikrotalasnog predajnika automatski varira da kompenzuje uslove prostiranja na nekom putu; kod normalnih uslova prostiranja, ATPC održava izlaznu snagu predajnika na niskom nivou; ATPC je karakterisana svojim opsegom, koji je definisan kao razlika između maksimalne i minimalne vrednosti predajne snage, i nema uticaja na dizajn odgovarajuće veze,

*odlučuje*

1 da urgira administracijama da preduzmu sve razumne korake da se usaglase sa kriterijumima deljenja u Tabelama 1 do 4 sadržanim u Aneksu 1 ove Rezolucije kod puštanja u rad stanica u satelitskoj službi istraživanja Zemlje (pasivno), fiksnoj službi i mobilnoj, izuzev vazduhoplovne mobilne, službi, konstatujući da EESS (pasivno) senzori omogućuju merenja širom sveta koja koriste svim zemljama, čak iako tim sensorima ne upravlja njihova zemlja;

2 da Biro za radiokomunikacije ne treba da radi bilo kakva ispitivanja ili iznalaženja u odnosu na saglasnost sa ovom Rezolucijom pod Članom 9 ili 11.

## ANEKS 1 NA REZOLUCIJU 751 (WRC-07)

### Kriterijumi deljenja u opsegu 10.6-10.68 GHz

TABELA 1

#### Satelitska služba istraživanja Zemlje (pasivno)

Parametar	Vrednost
Upadni ugao (definisano kao ugao na površini Zemlje između lokalnog vertikalnog i smera pasivnog senzora)	$\leq 60^\circ$
Prostorna rezolucija (definisana kao maksimalni presek pasivnog senzora $-3$ dB kontura na površini Zemlje)	$\leq 50$ km (Vidi Primedbu 1)
Efikasnost glavnog snopa (definisana kao energija glavne i komponenti unakrsno polarizovanih u okviru regije 2.5 puta $-3$ dB snopa, relativno ukupnoj energiji po svim uglovima)	$\geq 85\%$ (Vidi Primedbu 1)

PRIMEDBA 1 – Ovi parametri se jedino primenjuju na realni otvor EESS (pasivno) sistema.

TABELA 2

#### Stanice sistema od tačka-tačka u fiksnoj službi

Parametar	Vrednost
Maksimalni upadni ugao	$20^\circ$
Maksimalna predajna snaga na antenskom priključku	$-15$ dBW (Vidi Primedbe 2 i 3)

PRIMEDBA 2 – U slučaju sistema tačka-tačka koji koriste ATPC, maksimalna predajna snaga na antenskom priključku može biti povećana za vrednost koja odgovara ATPC opsegu, do maksimuma  $-3$  dBW.

PRIMEDBA 3 – U slučaju fiksne službe tačka-tačka korišćene za jednosmerne prenose radiodifuznih aplikacija, maksimalna snaga predajnika na antenskom priključku može biti povećana do  $-3$  dBW. Za takve aplikacije, urgira se administracijama da ograniče e.i.r.p. van glavne ose izvan  $20^\circ$  elevacije do nivoa  $-10$  dBW.



TABELA 3

**Stanice sistema tačka-više tačaka u fiksnoj službi**

Parametar	Vrednost
<b>Hab stanice</b> (Vidi Primedbu 4)	
Maksimalna snaga predajnika na antenskom priključku	-7 dBW
Maksimalna izvan ose e.i.r.p. iznad 20° od horizontalne ravni	-6 dBW
Maksimalna izvan ose e.i.r.p. iznad 45° od horizontalne ravni	-11 dBW
Maksimalna izvan ose e.i.r.p. at 90° od horizontalne ravni	-13 dBW
<b>Korisničke stanice</b> (Vidi Primedbu 4)	
Maksimalni ugao elevacije	20°
Maksimalna snaga predajnika na antenskom priključku	-8 dBW
Maksimalna izvan ose e.i.r.p. iznad 45° od horizontalne ravni	-18 dBW
	(Vidi Primedbu 5)

NOTE 4 –Administracije koje planiraju postavljanja tačka-više tačaka u opsegu 10.6-10.68 GHz, u paru sa drugim frekvencijskim opsegom, podstiču se da postave jedino povratne veze (na pr. emisije od korisničkih stanica) u opsegu 10.6-10.68 GHz.

NOTE 5 – U slučaju sistema od tačka-više tačaka koji koriste ATPC, maksimalna snaga predajnika na antenskom priključku može da se poveća za vrednost koja odgovara ATPC opsegu, do maksimalno -3 dBW.

TABELA 4

**Stanice u mobilnoj službi**

Parametar	Vrednost
Maksimalna snaga predajnika na antenskom priključku	-17 dBW (Vidi Primedbu 6)

PRIMEDBA 6 – U slučaju sistema mobilne službe koji se koriste za radiodifuzne primene, maksimalna snaga predajnika na antenskom priključku može biti povećana do -3 dBW. Za takve primene, urgira se administracijama da ograniče izvan ose e.i.r.p. iznad 20° elevacije na nivo -10 dBW.

**ADD** COM5/373/8 (B15/396/17)

**REZOLUCIJA 752 (WRC-07)**

**Korišćenje frekvencijskog opsega 36-37 GHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je frekvencijski opseg 36-37 GHz namenjen za Satelitsku službu istraživanja Zemlje (EESS) (pasivno) i službi za istraživanje svemira (pasivno) na primarnoj osnovi;
- b) da je opseg 36-37 GHz najinteresantniji za merenje kiše, snega, leda u okeanu isparavanja voda;
- c) da taj frekvencijski opseg koriste pasivni senzori za proučavanje prirodnih fenomena koji stvaraju radioemisije na frekvencijama određenim zakonima prirode, i zato pomicanje frekvencije da bi se izbegli i oslabili problemi interferencije nije moguće;
- d) da je frekvencijski opseg 36-37 GHz takođe namenjen fiksnoj i mobilnoj službi na primarnoj osnovi;
- e) da EESS (pasivno) koja radi u opsegu 36-37 GHz može biti pogođena interferencijom od emisija sistema aktivnih službi;
- f) da su studije pokazale da bi odgovarajući kriterijumi deljenja primenjivi na obe službe, pasivnu i aktivnu, redukovali interferenciju na nivo koji bi dozvolio pasivnim sensorima da rade uspešno u tom opsegu, istovremeno dozvoljavajući nastavak rada aktivnih službi u istom opsegu,

*konstatujući*

da, u svrhu ove Rezolucije:

- da je komunikacija tačka-tačka definisana kao radiokomunikacija omogućena vezom, na primer radio-relejnou vezom, između dve stanice smeštene na specificiranim fiksnim tačkama;
- da je komunikacija tačka-više tačaka definisana kao radiokomunikacija omogućena vezama između jedne stanice smeštene na specificiranoj fiksnoj tački (takođe zvana “hab stanica”) i nekoliko stanica smeštenih na specificiranim fiksnim tačkama (takođe zvane “klijent ili korisničke stanice”);
- automatska kontrola predajne snage (ATPC) jeste tehnika u kojoj izlazna snaga mikrotalasnog predajnika automatski varira da kompenzuje uslove na putu prostiranja; u normalnim uslovima prostiranja, ATPC održava snagu predajnika na niskom nivou; ATPC je karakterisana njenim opsegom, koji se definiše kao razlika između maksimalnih i minimalnih vrednosti predajne snage,

*odlučuje*

- 1 da u svrhu olakšavanja deljenja između aktivnih i pasivnih službi u opsegu 36-37 GHz, EESS (pasivno) stanice puštene u rad nakon datuma stupanja na snagu Finalnih akata WRC-07 treba da odgovaraju kriterijumima deljenja sadržanim u Tabeli 1 Aneksa 1 ove Rezolucije;
- 2 da u svrhu olakšavanja deljenja između aktivnih i pasivnih službi u opsegu 36-37 GHz, stanice sistema tačka-tačka u fiksnoj službi puštene u rad nakon 1.1.2012. treba da odgovaraju kriterijumima deljenja sadržanim u Tabeli 2 Aneksa 1 ove Rezolucije;
- 3 da u svrhu olakšavanja deljenja između aktivnih i pasivnih službi u opsegu 36-37 GHz, stanice sistema tačka-više tačaka u fiksnoj službi puštene u rad nakon datuma stupanja na snagu Finalnih akata WRC-07 treba da odgovaraju kriterijumima deljenja sadržanim u Tabeli 2 Aneksa 1 ove Rezolucije;
- 4 da u svrhu olakšavanja deljenja između aktivnih i pasivnih službi u opsegu 36-37 GHz, stanice u mobilnoj službi puštene u rad nakon datuma stupanja na snagu Finalnih akata WRC-07 treba da odgovaraju kriterijumima deljenja sadržanim u Tabeli 3 Aneksa 1 ove Rezolucije;
- 5 da Biro za radiokomunikacije ne treba da radi ispitivanja i traženja u vezi saglasnosti sa ovom Rezolucijom pod Članovima **9** ili **11**.

## ANEKS 1 REZOLUCIJE 752 (WRC-07)

### Kriterijumi deljenja u opsegu 36-37 GHz

TABELA 1

#### Satelitska služba istraživanja Zemlje (pasivno)

Parametar	Vrednost
Upadni ugao (definisan kao ugao na površini Zemlje između lokalne vertikale i smera pasivnog senzora)	$\leq 60^\circ$
Prostorna rezolucija (definisana kao maksimalni presek konture pasivnog senzora $-3$ dB na površini Zemlje)	$\leq 50$ km (Vidi Primedbu 1)
Efikasnost glavnog snopa (definisana kao energija glavnih i unakrsno polarizovanih komponentata unutar 2.5 puta $-3$ dB regione snopa, relativno na ukupnu energiju unutar svih uglova)	$\geq 92\%$ (Vidi Primedbu 1)

PRIMEDBA 1 – Ovi parametri se jedino primenjuju na realni otvor EESS (pasivno) sistema.

TABELA 2

#### Fiksna služba

Parametar	Vrednost
Maksimalni upadni ugao	$20^\circ$
<b>Sistemo tačka-tačka</b> Maksimalna predajna snaga na antenskom priključku	$-10$ dBW (Vidi Primedbu 2)
<b>Sistemi tačka-više tačaka</b> Maksimalna predajna snaga na antenskom priključku hab stanica Maksimalna predajna snaga na antenskom priključku klijent stanica	$-5$ dBW $-10$ dBW (Vidi Primedbu 2)

PRIMEDBA 2 – U slučaju sistema fiksne službe koji koriste ATPC, maksimalna predajna snaga na antenskom priključku može biti povećana za vrednost koja odgovara ATPC opsegu, do maksimalno  $-7$  dBW.

TABELA 3

#### Mobilna služba

Parametar	Vrednost
Maksimalna predajna snaga na antenskom priključku	$-10$ dBW (Vidi Primedbu 3)

PRIMEDBA 3 – Maksimalna predajna snaga na antenskom priključku može biti povećana do  $-3$  dBW za stanice koje se koriste z javnu bezbednost i upravljanje u nesrećama.

**ADD** PLEN/408/7 (B24/419/8)

## REZOLUCIJA 753 (WRC-07)

### **Korišćenje opsega 22.55-23.15 GHz od strane službe istraživanja svemira**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da postoji rastući interes u svetu za sveobuhvatno istraživanje svemira posebno u vezi Meseca;
- b) da će misije istraživanja Meseca, ispitujući teren, okolinu i potencijalna mesta za sletanje, biti robotizovane u doglednoj budućnosti, a s ljudskom posadom na duge staze;
- c) da je primarna namena za službu istraživanja svemira (svemir-Zemlja) u opsegu 25.5-27.0 GHz dodana u Tabelu namene frekvencija da podrži širok raspon misija istraživanja svemira;
- d) da će emisije službe istraživanja svemira (svemir-Zemlja) u opsegu 25.5-27.0 GHz biti korišćene da podrže misije službe istraživanja svemira u orbiti blizu Zemlje, uključujući misije u tranzitu na Mesec, ka Mesecu i u blizini Meseca;
- e) da će emisije službe istraživanja svemira (svemir-Zemlja) u opsegu 25.5-27.0 GHz biti korišćene za oboje, dobijanje naučnih podataka i glas/videokomunikacije sa Zemljom;
- f) da postoji potreba za opsegom za prateću vezu prema gore službe istraživanja svemira (Zemlja-svemir) za slanje podataka misiji, komandi i kontrolnih veza za misije istraživanja Meseca;
- g) da zbog potencijalno mnogo konkurentnih sistema za istraživanje i zahteva i zahtevima za velikom širinom opsega tih sistema, naročito onih za podršku misijama s posadom, predviđanja su da će trebati ukupna širina opsega za od najmanje nekoliko stotina MHz;
- h) da je opseg 22.55-23.15 GHz dovoljno daleko od opsega 25.5-27.0 GHz da omogući adekvatnu frekvencijsku separaciju;
- i) da je opseg 22.55-23.55 GHz korišćen za komunikacione satelitske sisteme za vezu sa korisničkim satelitima (veze za prosleđivanje) u postojećim primarnim namenama međusatelitske službe;
- j) da je opseg 22.55-23.15 GHz logičan prateći opseg da obezbedi neophodnu širinu opsega za vezu prema gore i korišćenjem istog opsega kao komunikacioni satelitski sistemi u *uzimajući u obzir i*) za radiokomunikacije u smeru Zemlja-svemir, omogućuje stepen redundanse i pokrivanje koje se može pokazati vitalno za buduće misije,

*prepoznajući*

- 1 da je opseg 22.55-23.55 GHz namenjen fiksnoj, međusatelitskoj i mobilnoj službama;
- 2 da međusatelitske veze za prosleđivanje u opsegu 22.55-23.55 GHz jesu uparene sa međusatelitskim povratnim vezama u opsegu 25.25-27.5 GHz;
- 3 da ne-GSO veze međusatelitske službe rade već nekoliko godina i očekuje se da će da nastave raditi u opsegu 23.183-23.377 GHz i da se te veze sve više koriste u vanrednim situacijama i prirodnih katastrofa;
- 4 da sistemi iz *prepoznajući* 1 treba da budu zaštićeni i njihovi budući zahtevi se uzimaju u obzir,

*odlučuje*

1 da pozove ITU-R da povede studije deljenja između sistema istraživačkih službi koji rade u smeru Zemlja-svemir i fiksne, međusatelitske i mobilne službe u opsegu 22.55-23.15 GHz, i da predloži odgovarajuće kriterijume deljenja za neku namenu službi istraživanja svemira u smeru Zemlja -svemir;

2 da pozove WRC-11 da pregleda rezultate studija pod *odlučuje* 1 i uzme u obzir uključivanje kriterijuma deljenja u okviru Pravilnika o radiokomunikacijama i odgovarajuće modifikacije u Tabeli namene frekvencija,

*poziva administracije*

da daju doprinos studijama deljenja između službe istraživanja svemira i fiksne, međusatelitske i mobilne službe u opsegu 22.55-23.15 GHz,

*poziva ITU-R*

da kompletira neophodne studije, kao hitnu stvar, uzimajući u obzir sadašnje korišćenje namenjenog opsega, u pogledu prezentovanja, u odgovarajuće vreme, tehničkih informacija koje će verovatno biti potrebne kao jedan od osnova za rad konferencije,

*nalaže Generalnom sekretaru*

da stavi ovu Rezoluciju na pažnju zainteresovanim međunarodnim i regionalnim organizacijama.

**ADD** PLEN/408/8 (B24/419/9)

#### REZOLUCIJA 754 (WRC-07)

### **Razmatranje modifikacije vazduhoplovne komponente namene mobilnoj službi u opsegu 37-38 GHz za zaštitu drugih primarnih službi u tom opsegu**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je opseg 37-38 GHz namenjen na primarnoj osnovi fiksnoj, mobilnoj i službi istraživanja svemira (svemir-Zemlja), i deo 37.5-38 GHz tog opsega je takođe namenjen na primarnoj osnovi fiksnoj satelitskoj službi (svemir-Zemlja);

b) da neka vazduhoplovna mobilna stanica može uzrokovati neprihvatljive smetnje prijemnicima u fiksnoj službi (uključujući primene velike gustine), kao i prijemnicima kopnene mobilne, pomorske mobilne i fiksne satelitske (svemir-Zemlja u okviru optičke vidljivosti);

c) da neka vazduhoplovna mobilna stanica može uzrokovati neprihvatljive smetnje prijemnicima u službi istraživanja svemira kad god je ona u optičkoj vidljivosti prijemnika, kako je navedeno u Preporuci ITU-R SA.1016;

d) da smetnje od emisija neke vazduhoplovne mobilne stanice prijemnicima zemaljske stanice službe za istraživanje svemira mogu znatno prevazići dozvoljene nivoe smetnji u dužem vremenskom periodu, dovodeći tako u opasnost svemirsku misiju,

*prepoznajući*

a) da Tabela namene frekvencija već isključuje rad vazduhoplovnih mobilnih stanica u opsezima 2.29-2.3 GHz, 8.4-8.5 GHz i 22.21-22.5 GHz koji su mobilnoj službi ko-namenjeni na primarnoj osnovi sa službom istraživanja svemira (svemir-Zemlja), i u opsegu 31.5-31.8 GHz gde je namena mobilne službe na skundarnoj osnovi;

b) da Tabela namene frekvencija takođe već isključuje rad vazduhoplovnih mobilnih stanica u mnogim opsezima koji su mobilnoj službi ko-namenjeni na primarnoj osnovi sa fiksnom službom, kao i u opsegu 11.7-12.5 GHz, ili sa fiksnom službom i fiksnom satelitskom službom (svemir-Zemlja), kao u opsegu 7 300-7 750 MHz;

c) da RR No. **5.547** pokazuje da je opseg 37-38 GHz dostupan za primene velike gustine u fiksnoj službi;

d) da je korišćenje opsega 37-38 GHz potrebno za podršku rastućih zahteva za količinom podataka kod planiranih naučnih misija i onih sa ljudskom posadom,

*konstatujući*

c) da se sistemi vazduhoplovne mobilne službe trenutno niti postavljaju niti planiraju u opsegu 37-38 GHz;

d) da su studije deljenja između službe istraživanja svemira (svemir-Zemlja) i vazduhoplovne mobilne službe već počele,

*odlučuje*

1 da pozove ITU-R da povede odgovarajuće studije uključujući vazduhoplovnu mobilnu službu i dotične primarne službe u opsegu 37-38 GHz da se odredi kompatibilnost vazduhoplovne mobilne službe sa tim drugim službama;

2 da pozove WRC-11 da pregleda rezultate studija pod *odlučuje* 1 i uzme u obzir uključenje svih potrebnih kriterijumuma kompatibilnosti unutar Pravilnika o radiokomunikacijama ili odgovarajućih modifikacija Tabele namene frekvencija,

*poziva ITU-R*

da kompletira neophodne studije, kao hitnu stvar, uzimajući u obzir sadašnje korišćenje namenjenog opsega, u pogledu prezentovanja, u odgovarajuće vreme, tehničkih informacija koje će verovatno biti potrebne kao jedan od osnova za rad konferencije,

*poziva administracije*

da daju doprinos studijama kompatibilnosti između vazduhoplovne mobilne službe i drugih službi u opsegu 37-38 GHz,

*nalaže Direktoruru BR*

da stavi ovu Rezoluciju na pažnju zainteresovanim međunarodnim i regionalnim organizacijama.

**ADD** COM6/338/3 (B12/346/17) (R6/410/80)

## REZOLUCIJA 804 (WRC-07)

### **Principi za postavljanje dnevnog reda za svetske konferencije o radiokomunikacijama**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da u saglasnosti sa No. 118 ITU Konvencije, opšti delokrug dnevnih redova za svetske konferencije o radiokomunikacijama (WRCs) trebalo bi da bude postavljen četiri do šest godina unapred;

- b) Član 13 ITU Statuta koji se odnosi na kompetenciju i vreme za WRC i Član 7 Konvencije koji se odnosi na dnevne redove za njih;
- c) da No. 92 Statuta i Nos. 488 i 489 Konvencije zahtevaju da konferencije budu fiskalno odgovorne;
- d) da u Rezoluciji 71 (Rev. Marrakesh, 2002), koja razmatra strategijski plan Unije, Konferencija opunomoćenika je konstatovala rastuću kompleksnost i veličinu dnevnih redova svetske konferencije o radiokomunikacijama;
- e) da Rezolucija 80 (Rev. Marrakesh, 2002) Konferencije opunomoćenika i Rezolucija 72 (Rev.WRC-07) prepoznaju pozitivan doprinos regionalnih i neformalnih grupa i potrebu za većom efikasnošću i fiskalnom razboritošću;
- f) relevantne Rezolucije pređašnjih WRCs,

*konstatujući*

- a) da broj pitanja adresiranih u dnevnim redovima za WRCs raste, i da neka pitanja ne bi mogla biti adekvatno rešena u vremenu određenom za Konferenciju, uključujući pripreme za konferenciju;
- b) da neke tačke dnevnog reda mogu imati veći uticaj na budućnost radiokomunikacija nego druge;
- c) da su ljudski i finansijski resursi ITU ograničeni;
- d) da postoji potreba da se ograniči dnevni red konferencija, vodeći računa o potrebama zemalja u razvoju, na način da glavna pitanja budu tretirana jednako i efikasno,

*odlučuje*

da bi principi u Aneksu 1 trebali biti korišćeni kod pravljenja budućih WRC dnevnih redova,

*odlučuje da pozove administracije*

- 1 da koriste šablon u Aneksu 2 u predlaganju tačaka dnevnog reda za WRCs;
- 2 da učestvuju u regionalnim aktivnostima za pripremu budućih WRC dnevnih redova.

#### ANEKS 1 NA REZOLUCIJU 804 (WRC-07)

### **Principi za postavljanje dnevnog reda za WRCs**

Dnevni red konferencije treba da uključi:

- 1) tačke koje je uključila ITU Konferencija opunomoćenika;
- 2) tačke o kojima je zahtevano od Direktora Biroa za radiokomunikacije da podnese izveštaj;
- 3) tačke koje se tiču instrukcija Bordu za Pravilnik o radiokomunikacijama i Birou za radiokomunikacije o njihovim aktivnostima, i revizije tih aktivnosti.

Generalno, konferencija može da uključi u dnevni red buduće konferencije neku tačku predloženu od grupe administracija ili jedne administracije, ako su svi sledeći uslovi zadovoljeni:

- 1) adresira pitanje svetskog ili regionalnog karaktera;
- 2) očekuje se da promene u Pravilniku o radiokomunikacijama, uključujući WRC Rezolucije i Preporuke, mogu biti neophodne;

- 3) očekuje se da zahtevane studije mogu biti kompletirane (na pr. da će odgovarajuće ITU-R Preporuke biti usvojene) pre te konferencije;
- 4) resursi pridruženi predmetu drže se unutar raspona koji je ostvarljiv za Države članice i Članice sektora, Biro za radiokomunikacije i ITU-R Studijske grupe, Skup za pripremu konferencije (CPM) i Specijalni komitet.

Koliko je moguće, tačke dnevnog reda proizašle iz prethodnih konferencija, normalno odbijene u Rezolucijama, i koje su uzimane u obzir na dve konferencije za redom, ne bi trebale biti uzete u obzir, ako nisu opravdane.

U pravljenju dnevnog reda konferencije, napori bi trebali da budu usmereni na:

- a) podsticanje regionalne i međuregionalne koordinacije u stvarima koje treba da se razmatraju na pripremnom procesu za WRC, u skladu sa Rezolucijom **72 (Rev.WRC-07)** i Rezolucijom 80 (Rev. Marrakesh, 2002) Konferencije opunomoćenika;
- b) uključivanje, koliko je moguće, tačaka dnevnog reda koje su pripremljene unutar regionalnih grupa, uzimajući u obzir jednaka prava individualnih administracija za podnošenje predloga za tačke dnevnog reda;
- c) osiguravanje da se predlozi podnose sa indikacijom prioriteta;
- d) uključivanje u predloge procene njihovih implikacija na finansije i ostale resurse (uz pomoć Biroa za radiokomunikacije) da se osigura da se kreću unutar dogovorenih budžetskih limita za ITU-R;
- e) osiguravanje da ciljevi i obim predloženih tačaka dnevnog reda budu kompletni i jednoznačni;
- f) uzimanje u obzir statusa ITU-R studija koje se odnose na potencijalne tačke dnevnog reda pre njihovog razmatranja kao moguće kandidate za buduće dnevne redove;
- g) razlikovanje između tačaka koje treba da rezultuju u izmenama Pravilnika o radiokomunikacijama i onih koje se bave samo sa neprektonom studija.

## ANEKS 2 NA REZOLUCIJU 804 (WRC-07)

### Šablona za podnošenje predloga za tačke dnevnog reda

**Subject:**

**Origin:**

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**Proposal:**

---

**Background/reason:**

---

**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:*

---

*ITU-R Study Groups concerned:*

---

*ITU resource implications, including financial implications (refer to CV126):*

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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)

## REZOLUCIJA 805 (WRC-07)

### Dnevni red za 2011 Svetsku konferenciju o radiokomunikacijama

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da u skladu sa No. 118 ITU Konvencije, generalni obim dnevnog reda za svetsku konferenciju o radiokomunikacijama trebao bi da bude ustanovljen četiri do šest godina unapred a finalni dnevni red trebao bi da ustanovi Savet dve godine pre Konferencije;
- b) Član 13 ITU Statuta koji se odnosi na kompettnost i planiranje svetske konferencije o radiokomunikacijama i Član 7 Konvencije koji se odnosi na njihove dnevne redove;
- c) relevantne rezolucije i preporuke pređašnjih svetskih administrativnih radio konferencija (WARCs) i svetskih konferencija o radiokomunikacijama (WRCs),

*prepoznajući*

- a) da je ova Konferencija identifikovala jedan broj urgentnih pitanja koja zahtevaju dalja ispitivanja od WRC-11;
- b) da u pripremi ovog dnevnog reda, mnoge tačke predložene od administracija nisu mogle biti uključene i morale su biti pomaknute za buduće konferencijske dnevne redove,

*odlučuje*

da preporuči Savetu da će svetska konferencija o radiokomunikacijama biti održana u 2011 u periodu od četiri nedelje, sa sledećim dnevnim redom:

1 na osnovu predloga od administracija, vodeći računa o rezultatima WRC-07 i Izveštaju Pripremnog skupa konferencije, i uz dužno poštovanje za zahteve postojećih i budućih službi u razmatranim opsezima, uzeti u obzir i preduzeti odgovarajuće mere u odnosu na sledeće tačke:

1.1 uzeti u obzir i preduzeti odgovarajuće mere u vezi zahteva administracija da se izbrišu fusnote njihove zemlje ili da se izbriše ime njihove zemlje iz fusnota, ako više ne treba, uzimajući u obzir Rezoluciju **26 (Rev.WRC-07)**;

1.2 uzeti u obzir ITU-R studije izvršene u skladu sa Rezolucijom **951 (Rev.WRC-07)**, da se preduzmu odgovarajuće mere s pogledom na poboljšanje međunarodnog regulatornog okvira;

1.3 uzeti u obzir zahteve za spektar i moguće regulatorne mere, uključujući namene, da bi se podržao siguran rad sistema bespilotnih letilica (UAS), na osnovu rezultata ITU-R studija, u skladu sa Rezolucijom **[COM6/8] (WRC-07)**;

1.4 uzeti u obzir, na osnovu rezultata ITU-R studija, sve naredne regulatorne mere da se olakša uvođenje sistema nove vazduhoplovne mobilne (R) službe (AM(R)S) u opsezima 112-117.975 MHz, 960-1 164 MHz i 5 000-5 030 MHz u skladu sa Rezolucijama **413 (Rev.WRC-07)**, **[COM4/5] (WRC-07)** i **[COM4/9] (WRC-07)**;

1.5 uzeti u obzir svetsku/regionalnu harmonizaciju spektra za sakupljanje elektronskih novosti (ENG), uzimajući u obzir rezultate ITU-R studija, u skladu sa Rezolucijom **[COM6/5] (WRC-07)**;

1.6 pregledati No. **5.565** Pravilnika o radiokomunikacijama da bi se ažuriralo korišćenje spektra od strane pasivnih službi između 275 GHz i 3 000 GHz, u skladu sa Rezolucijom **950 (Rev.WRC-07)**, i uzeti u obzir moguće procedure za optičke veze u slobodnom prostoru, vodeći računa o rezultatima ITU-R studija, u skladu sa Rezolucijom **[COM6/9] (WRC-07)**;

- 1.7 uzeti u obzir rezultate ITU-R studija u skladu sa Rezolucijom **222 (Rev.WRC-07)** da bi se osigurala dugoročna dostupnost spektra i pristup spektru neophodnom da se zadovolje zahtevi vazduhoplovne mobilne satelitske (R) službe, i da se preduzmu potrebne mere po tom predmetu, zadržavajući nepromenjene generičke namene mobilnoj satelitskoj službi u opsezima 1 525-1 559 MHz i 1 626.5-1 660.5 MHz;
- 1.8 uzeti u obzir napredak ITU-R studija koje razmatraju tehnička i regulatorna pitanja u odnosu na fiksnu službu u opsezima između 71 GHz i 238 GHz, uzimajući u obzir Rezolucije **731 (WRC-2000)** i **732 (WRC-2000)**;
- 1.9 revidirati frekvencijske i kanalske aranžmane Dodatka 17 Pravilnika o radiokomunikacijama, u skladu sa Rezolucijom **351 (Rev.WRC-07)**, da se implementiraju nove digitalne tehnologije za pomorsku mobilnu službu;
- 1.10 ispitati zahteve za frekvencijskim namenama u odnosu na operacije sistema bezbednosti za brodove i luke i odnosne regulatorne odredbe, u skladu sa Rezolucijom [**COM6/10 (WRC-07)**];
- 1.11 uzeti u obzir primarne namene službama istraživanja svemira (Zemlja-svemir) unutar opsega 22.55-23.15 GHz, vodeći računa o rezultatima ITU-R studija, u skladu sa Rezolucijom [**COM6/11 (WRC-07)**];
- 1.12 obezbediti primarne službe u opsegu 37-38 GHz od interferencije koja je rezultat rada vazduhoplovne mobilne službe, vodeći računa o rezultatima ITU-R studija, u skladu sa Rezolucijom [**COM6/12 (WRC-07)**];
- 1.13 uzeti u obzir rezultate ITU-R studija u skladu sa Rezolucijom [**COM6/13 (WRC-07)**] i odlučiti o upotrebi spektra u opsegu 21.4-22 GHz za radiodifuznu satelitsku službu i pridružene opsege za spojne veze u Regionima 1 i 3;
- 1.14 uzeti u obzir zahteve za nove primene u radiolokacionoj službi i pregledati namene ili regulatorne odredbe za implementaciju radiolokacione službe u području 30-300 MHz, u skladu sa Rezolucijom [**COM6/14 (WRC-07)**];
- 1.15 uzeti u obzir moguće namene u području 3-50 MHz radiolokacionoj službi za okeanografske radarske primene, vodeći računa o rezultatima ITU-R studija, u skladu sa Rezolucijom [**COM6/15 (WRC-07)**];
- 1.16 uzeti u obzir potrebe pasivnih sistema za detekciju munja u meteorološkoj pomoćnoj službi, uključujući mogućnost jedne namene u frekvencijskom području ispod 20 kHz, i preduzeti odgovarajuće mere, u skladu sa Rezolucijom [**COM6/16 (WRC-07)**];
- 1.17 uzeti u obzir rezultate studija deljenja između mobilne službe i drugih službi u opsegu 790-862 MHz u Regionima 1 i 3, u skladu sa Rezolucijom [**COM4/13 (WRC-07)**], da se osigura adekvatna zaštita službi kojima su ti frekvencijski opsezi namenjeni, i preduzmu potrebne mere;
- 1.18 uzeti u obzir proširivanje postojećih primarnih i sekundarnih namena za radiodeterminacionu satelitsku službu (svemir-Zemlja) u opsegu 2 483.5-2 500 MHz da se uradi globalna primarna namena, i da se odrede neophodne regulatorne odredbe na osnovu rezultata ITU-R studija, u skladu sa Rezolucijom [**COM6/17 (WRC-07)**];
- 1.19 uzeti u obzir regulatorne mere i njihovu relevantnost, da bi se omogućilo uvođenje softverski definisanih i kognitivnih radio sistema, na osnovu rezultata ITU-R studija, u skladu sa Rezolucijom [**COM6/18 (WRC-07)**];
- 1.20 uzeti u obzir rezultate ITU-R studija i identifikaciju spektra za gejtvej veze za stanice na platformama na velikim visinama (HAPS) u opsegu 5 850-7 075 MHz da bi se podržao rad u fiksnoj i mobilnoj službama, u skladu sa Rezolucijom **734 (Rev.WRC-07)**;

- 1.21 uzeti u obzir primarne namene radiolokacionoj službi u opsegu 15.4-15.7 GHz, vodeći računa o rezultatima ITU-R studija, u skladu sa Rezolucijom [COM6/19] (WRC-07);
- 1.22 ispitati efekat emisija od uređaja kratkog dometa na radiokomunikacione službe, u skladu sa Rezolucijom [COM6/4] (WRC-07);
- 1.23 uzeti u obzir namenu od otprilike 15 kHz u delovima opsega 415-526.5 kHz amaterskim službama na sekundarnoj osnovi, vodeći računa o potrebi zaštite postojećih službi;
- 1.24 uzeti u obzir postojeće namene meteorološkoj satelitskoj službi u opsegu 7 750-7 850 MHz u pogledu proširivanja te namene na opseg 7 850-7 900 MHz, limitirano na ne-geostacionarne meteorološke satelite u smeru svemir-Zemlja, u skladu sa Rezolucijom [COM6/20] (WRC-07);
- 1.25 uzeti u obzir moguće dodatne namene mobilnoj satelitskoj službi, u skladu sa Rezolucijom [COM6/21] (WRC-07);
- 2 ispitati revidirane ITU-R Preporuke prisajedinjene po naznaci u Pravilniku o radiokomunikacijama koje je saopštila Skupština za radiokomunikacije, u skladu sa Rezolucijom **28 (Rev.WRC-03)**, i odlučiti da li ili ne ažurirati odgovarajuće naznake u Pravilniku o radiokomunikacijama, u skladu sa principima sadržanim u Aneksu 1 Rezolucije **27 (Rev.WRC-07)**;
- 3 uzeti u obzir takve posledične izmene i dopune u Pravilniku o radiokomunikacijama kao što bi moglo da se zahteva u odlukama Konferencije;
- 4 u skladu sa Rezolucijom **95 (Rev.WRC-07)**, pregledati rezolucije i preporuke pređašnjih konferencija u pogledu njihovih mogućih revizija, zamena ili ukinuća;
- 5 pregledati, i preduzeti potrebne mere, Izveštaj Skupštine za radiokomunikacije podnesen u skladu sa Nos. 135 i 136 Konvencije;
- 6 identifikovati one tačke koje zahtevaju hitnu akciju Studijske grupe za radiokomunikacije u pripremanju sledeće svetske konferencije o radiokomunikacijama;
- 7 uzeti u obzir moguće promene u odgovoru na Rezoluciju 86 (Rev. Marrakesh, 2002) Konferencije opunomoćenika: "Napredne publikacije, koordinacija, obaveštavanje i zapisivanje procedura za frekvencijske namene koje se odnose na satelitske mreže", u skladu sa Rezolucijom **86 (Rev.WRC-07)**;
- 8 u skladu sa Članom 7 Konvencije:
- 8.1 uzeti u obzir i odobriti Izveštaj Direktora Biroa za radiokomunikacije:
- 8.1.1 o aktivnostima Sektora za radiokomunikacije za vreme od WRC-07;
- 8.1.2 o bilo kojim teškoćama i nekonzistentnosti otkrivenim u primeni Pravilnika o radiokomunikacijama; i
- 8.1.3 o akcijama u odgovoru na Rezoluciju **80 (Rev.WRC-07)**;
- 8.2 preporučiti Savetu tačke za uključjenje u dnevni red za sledeći WRC, i dati svoje poglede na preliminarni dnevni red za narednu konferenciju i moguće tačke dnevnog reda za buduće konferencije, vodeći računa o Rezoluciji [COM6/22] (WRC-07),
- odlučuje takođe*
- da aktivira Pripremi skup konferencije i Specijalni komitet za regulatornu /proceduralnu materiju,
- poziva Savet*
- da finalizuje dnevni red i dogovori sazivanje WRC-11, i da inicira što pre je moguće neophodne konsultacije sa državama članicama,

*nalaže Direktoru Biroa za radiokomunikacije*

da uradi neophodne aranžmane da sazove sastanak Skupa za pripremu konferencije i da pripremi izveštaj za WRC-11,

*nalaže Generalnom sekretaru*

da saopšti ovu Rezoluciju zainteresovanim međunarodnim i regionalnim organizacijama.

**ADD** PLEN/408/19 (B24/419/19)

## REZOLUCIJA 806 (WRC-07)

### **Preliminarni dnevni red za 2015 Svetsku konferenciju o radiokomunikacijama**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da u saglasnosti sa No. 118 ITU Konvencije, generalni obim dnevnog reda za WRC-15 trebalo bi da bude postavljen četiri do šest godina unapred;
- b) Član 13 ITU Statuta koji se odnosi na kompetenciju i vreme Svetske konferencije o radiokomunikacijama i Član 7 Konvencije koji se odnosi na njihov dnevni red;
- c) relevantne rezolucije i preporuke pređašnjih svetskih administrativnih radio konferencija (WARCs) i svetskih konferencija o radiokomunikacijama (WRCs),

*odlučuje da prikaže*

da bi sledeće tačke trebale da budu uključene u preliminarni dnevni red za WRC-15:

- 1 da preduzme potrebne mere u odnosu na one goruće probleme koje su posebno zahtevane od WRC-11;
- 2 na osnovu predloga administracija i izveštaja Skupa za pripremu konferencije, i uzimanja u obzir rezultata WRC-11, da razmotri i preduzme potrebne mere u odnosu na sledeće tačke:
  - 2.1 da uzme u obzir potrebe za spektrom i moguće dodatne namene spektra u radiodeterminacionoj službi da podrži rad vazdušnih sistema bez posade (UAS) u nepodeljenom vazдушnom prostoru;
  - 2.2 da pregleda korišćenje opsega 5 091-5 150 MHz od strane fiksne satelitske službe (Zemlja-svemir) (ograničeno na spojne veze ne-GSO mobilne satelitske službe) u skladu sa Rezolucijom **114 (Rev.WRC-03)**;
- 3 da ispita revidirane ITU-R Preporuke prisajedinjene po naznaci u Pravilnik o radiokomunikacijama saopšteno od Skupštine o radiokomunikacijama, u skladu sa Rezolucijom **28 (Rev.WRC-03)**, i da odluči da li ili ne ažurirati odgovarajuće reference u Pravilniku o radiokomunikacijama, u skladu sa principima sadržanim u Aneksu 1 Rezolucije **27 (Rev.WRC-07)**;
- 4 da uzme u obzir takve posledične izmene i dopune u Pravilniku o radiokomunikacijama ako bude potrebno po odlukama Konferencije;
- 5 u skladu sa Rezolucijom **95 (Rev.WRC-07)**, da pregleda rezolucije i preporuke pređašnjih konferencija u pogledu njihove moguće revizije, zamene ili ukinuća;
- 6 da pregleda, i preduzme potrebne mere, Izveštaj Skupštine o radiokomunikacijama podnesen u skladu sa Nos. 135 i 136 Konvencije;

7 da identifikuje one tačke koje zahtevaju hitnu akciju radiokomunikacionih studijskih grupa;

8 da uzme u obzir moguće izmene u odgovoru na Rezoluciju 86 (Rev. Marrakesh, 2002) Konferencije opunomoćenika: “Napredne publikacije, koordinacija, obaveštenja i beleženje procedura za frekvencijske dodele koje se tiču satelitskih mreža”, u skladu sa rezolucijom **86 (Rev.WRC-07)**;

9 u saglasnosti sa Članom 7 Konvencije:

9.1 da uzme u obzir i odobri Izveštaj Direktora Biroa za radiokomunikacije o aktivnostima Sektora za radiokomunikacije nakon WRC-11;

9.2 da preporuči Savetu tačke za uključenje u dnevni red za sledeći WRC,

*poziva Savet*

da uzme u obzir poglede date u Rezoluciji,

*nalaže Direktoru Biroa za radiokomunikacije*

da napravi neophodne aranžmane da saziva sednice Skupa za pripremu konferencije i da pripremi izveštaj za WRC-15,

*nalaže generalnom sekretaru*

da preda ovu Rezoluciju zainteresovanim međunarodnim i regionalnim organizacijama.

**MOD** COM5/287/9 (B8/293/15) (R5/336/8)

#### REZOLUCIJA 901 (Rev.WRC-07)

### **Određivanje separacije orbitalnih lukova za koju bi trebalo da se zahteva koordinacija između dve satelitske mreže koje rade u svemirskoj službi a nisu predmet Plana**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*Poziva ITU-R*

...

2 da preporuči, prema potrebi, orbitalnu separaciju zahtevanu da se pokrene koordinacija među službama i unutar službi o satelitskim službama u frekvencijskim opsezima iznad 3.4 GHz za geostacionarne-satelitske (GSO) mreže koje nisu predmet Plana i nisu već pokrivene konceptom koordinacije lukova specificiranim u No. **9.7** (GSO/GSO) Tabele 5-1 (Dodatak **5**), pod tačkama 1) do 8) kolone frekvencijskog opsega, i predmet su Sekcije II Člana **9**,

...

**ADD** COM4/392/16 (B19/413/29)

#### REZOLUCIJA 903 (Rev. WRC-07)

### **Prelazne mere za neke sisteme radiodifuzne satelitske/fiksne satelitske službe u opsegu 2 500-2 690 MHz**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je ova Konferencija revidirala limite snage gustine fluksa od svemirskih stanica u Članu **21**, Tabela **21-4** za opseg 2 500-2 690 MHz;

- b) da je korišćenje opsega 2 500-2 690 MHz u Regionu 2 i 2 500-2 535 MHz i 2 655-2 690 MHz u Regionu 3 od fiksne satelitske službe (FSS) ograničeno na nacionalne i regionalne sisteme, prema sporazumu postignutom pod No. **9.21** (vidi No. **5.415** i No. **5.2.1**);
- c) da je u opsegu 2 520-2 670 MHz, radiodifuzna satelitska služba (BSS) ograničena na nacionalne i regionalne satelitske sisteme, prema sporazumu postignutom pod No. **9.21** (vidi No. **5.416** i No. **5.2.1**);
- d) da je u No. **5.384A**, opseg 2 500-2 690 MHz identifikovan kao jedan od opsega za korišćenje administracijama koje žele da implementiraju Međunarodne mobilne telekomunikacije (IMT) u skladu sa Rezolucijom **223 (Rev.WRC-07)**;
- e) da je, zbog specifičnog nacionalnog i regionalnog statusa namene primenjenog na gorespomenute svemirske službe, i identifikacija za korišćenje administracijama koje žele da implementiraju IMT, povoljno da se primeni revidirani Član **21**, Tabela **21-4** limiti u opsegu 2 500-2 690 MHz što ranije;
- f) da su izvesni svemirski sistemi u naprednoj fazi razvoja i treba da se uzmu u obzir;
- g) da je tačka dnevnog reda 1.9 ove Konferencije spomenula zahtev da se ne postavljaju neopravdana ograničenja na službe za koje je opseg namenjen,

*odlučuje*

1 da u opsegu 2 500-2 690 MHz svemirske stanice satelitskih mreža izlistanih u Aneksu 1 ove Rezolucije ne bi trebalo da prelaze sledeće pfd vrednosti:

$-152 \text{ dB(W/m}^2\text{)}$	za	$\delta < 5^\circ$
$-152 + 0.75 (\delta - 5) \text{ dB(W/m}^2\text{)}$	za	$5^\circ \leq \delta \leq 25^\circ$
$-137 \text{ dB(W/m}^2\text{)}$	za	$\delta > 25^\circ$

u bilo kom 4 kHz opsegu, gde je  $\delta$  upadni ugao nad horizontalnom ravni. Limiti u Tabeli **21-4** se ne primenjuju;

2 da, za sisteme osim onih adresiranih u *odlučuje* 1, Nos **5.418**, **5.417A** i Rezolucije **539**, Biro treba da ispita svaku koordinaciju i informaciju obaveštenja u odnosu na odredbe Nos **9.35** i **11.31** (redom) za frekvencijske dodele u FSS ili BSS primljene u Biro posle 14.11.2007. koristeći pfd limite za opseg 2 500-2 690 MHz u Tabeli **21-4** Člana **21**, kako je revidirano na Konferenciji,

*nalaže Birou*

da implementuje *odlučuje* 1 i *odlučuje* 2.

ANEKS 1 NA REZOLUCIJU 903 (WRC-07)

Obaveštavajuće administracije	Ime svemirske stanice	Orbitalna pozicija	Zahtev za koordinaciju Specijalna Sekcija	Datum prijema Informacije Napredne Publikacije
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	07.08.85

			CR/C/1311 M1	
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)

**REZOLUCIJA 904 (WRC-07)**

**Prelazne mere za koordinaciju između mobilne satelitske službe (Zemlja-svemir) i službe istraživanja svemira (pasivno) u opsegu 1 668-1 668.4 MHz za specifični slučaj**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je WRC-03 uradio globalnu namenu mobilnoj satelitskoj službi (MSS) (Zemlja-svemir) u opsegu 1 668-1 675 MHz i globalnu namenu za MSS (svemir-Zemlja) u opsegu 1 518-1 525 MHz;
- b) da je opseg 1 660.5-1 668.4 MHz namenjen službi istraživanja svemira (pasivno);
- c) da su u opsegu 1 668-1 668.4 MHz, mobilne Zemaljske stanice i stanice službe istraživanja svemira (pasivno) predmet koordinacije pod No. **9.11A**;
- d) da je relevantni uslov za prag koordinacije dat u Dodatku **5**;
- e) da pre WRC-07, Dodatak **4** nije sadržavao relevantnu informaciju za zahtev koordinacije za pasivne službe;
- f) da je pre WRC-07, Dodatak **4** sadržavao sve potrebne podatke za zahtev za koordinaciju za MSS sisteme, i koordinacijske informacije su bile dostavljene posle WRC-03 za neke MSS sisteme;
- g) da postoji jedan satelitski sistem (SPECTR-R) u službi istraživanja svemira (pasivno) u opsegu 1 668-1 668.4 MHz za koji je relevantna napredna publikovana informacija saopštena Birou pre WRC-07, i da je neophodno omogućiti neke tranzicione mere za tretman te informacije od strane Biroa,

*konstatujući*

- a) da Izveštaj ITU-R M.2124 sadrži procenu deljenja između mobilne satelitske službe i stanice službe istraživanja svemira (pasivno) u opsegu 1 668-1 668.4 MHz;
- b) da je satelitski sistem SPECTR-R pridružen RADIOASTRON projektu, koji je jedan međunarodni projekat za svemirsku vrlo dugu osnovnu liniju interferometarskog sistema,

*odlučuje*

da, u opsegu 1 668-1 668.4 MHz, sistemi mobilne satelitske službe koji prevazilaze relevantan uslov praga koordinacije treba da budu koordinirani sa SPECTR-R sistemom koji radi u službi istraživanja svemira (pasivno), za koji je Biro primio naprednu publikovanu informaciju na



7.12.2005.<sup>1</sup>, omogućujući da Biro primi kompletnu koordinacijsku informaciju unutar vremenskog ograničenja spomenutog u No. **9.5D**.

**ADD** COM5/308/22 (B10/326/20) (R6/410/79)

## REZOLUCIJA 905 (WRC-07)

### **Datum stupanja na snagu nekih odredbi Plana za radiokomunikacije koje se odnose na ne plaćanje taksi za pokrivanje troškova**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da je savet 2005 modifikovao Odluku 482 za primenu pokrivanja troškova satelitskih mreža za sva podnošenja formulara za satelitske mreže za obaveštenja za upisivanje frekvencijskih namena u MIFR (Član **11**, Član 5 Dodatka **30/30A** i Člana 8 Dodatka **30B**) primljeno u Biro za radiokomunikacije na ili nakon 1. januara 2006. ako se referišu na napredne publikacije ili modifikacije Planova ili Lista (Deo A) svemirske službe ili zahteva za implementaciju Plana fiksne satelitske službe, po potrebi, primljeno na ili nakon 19. oktobra 2002.;
- b) da je savet 2005. takođe modifikovao Odluku 482 o primeni pokrivanja troškova satelitskih mreža za sve zahteve za implementaciju Plana fiksne satelitske službe (Sekcije IA i III Člana 6 Dodatka **30B**) primljeno u Biro za radiokomunikacije na i nakon 1. januara 2006.;
- c) da je ova Konferencija usvojila neke odluke u Članu **11**, Dodatka **30**, **30A** i **30B** koje se odnose na posledice ne plaćanja taksi za pokrivanje troškova za obaveštenja za satelitske mreže i implementaciju Plana fiksne satelitske službe (Sekcije IA i III Člana 6 Dodatka **30B**) kako je usvojeno na Savetu u Odluci 482 (prema modifikaciji),

*prepoznajući*

da Rezolucija 88 (Rev. Marrakesh, 2002) Konferencije opunomoćenika prepoznaje da su odluke usvojene na WRC-2000 uspostavile vezu između prava koja su stekle države članice u primenjivanju relevantnih procedura Pravilnika o radiokomunikacijama posle 7. novembra 1998. i plaćanja takse za pokrivanje troškova za podnošenja formulara za satelitske mreže,

*konstatujući*

da su fakture izdavane za takse pokrivanja troškova za obaveštenja od 1. januara 2006, kako je navedeno u *imajući u vidu a) i b)*,

*odlučuje*

- 1 da datum stupanja na snagu fusnota A.11.6 naslova Člana **11**, fusnote 17A naslova Člana 5 u Dodatku **30**, fusnote 21A naslova Člana 5 u Dodatku **30A**, fusnote 1 naslova Člana 6 u dodatku **30B** i fusnote 3A naslova Člana 8 u dodatku **30B** treba da bude 17. novembra 2007;
- 2 da popunjavanje formulara za satelitske mreže za pokrivanje troškova obaveštenja za satelitske mreže u saglasnosti sa Odlukom 482 (modifikovanom 2005.) kao što je sumrizovano u *uzimajući u obzir a) i b)* i za koje je kompletna informacija primljena u Biro za radiokomunikacije pre 17. novembra 2007. i odgovarajuće fakture su izdate pre tog datuma ali plaćanje još nije izvršeno, treba da se ponište ako uplata nije primljena do 17. maja 2008.;
- 3 da popunjavanje formulara za satelitske mreže za pokrivanje troškova obaveštenja za satelitske mreže u saglasnosti sa Odlukom 482 (modifikovanom 2005) kao što je sumrizovano u

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<sup>1</sup> API/A/3957 zavedeno 24. januara 2006. godine.

*uzimajući u obzir a) i b) i za koje je kompletna informacija primljena u Biro za radiokomunikacije pre 17. novembra 2007. ali odgovarajuće fakture nisu izdate pre 17. novembra 2007., treba da budu poništene ako plaćanje nije izvršeno pre do datuma isteka specificiranog u fakturi,*

*nalaže Direktor Bira za radiokomunikacije*

1 da pošalje, obaveštavajućim administracijama odgovornim za satelitske mreže na koje se primenjuje *odlučuje 2* ili *3*, podsetnik koji razmatra krajnje rokove plaćanja u Odluci Saveta 482 (modifikovanom 2005) i posledice ne plaćanja prema *odlučuje 2* ili *3* ne kasnije od dva meseca pre 17. maja 2008. u slučaju *odlučuje 2*, krajnjeg roka plaćanja faktura u slučaju *odlučuje 3*, osim ako je uplata već primljena;

2 da preduzme potrebnu akciju, po potrebi, uvažavajući posledične promene u Dodatku **30B**.

**ADD** COM6/207/1 (B2/213/4) (R1/221/10)

### REZOLUCIJA 906 (WRC-07)

#### **Podnošenje obaveštenja za zemaljske službe Birou za radiokomunikacije**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je elektronski format za podnošenje obaveštenja u vezi zemaljskih službi pod Članom **11** i Planovi u aneksima na Regionalne sporazume, korišćen u od Biroa za radiokomunikacije od Septembra 1994;

b) da su "BR Raspored visokofrekventne radiodifuzije" (HFBC Raspored) i "BR Međunarodni cirkular frekvencijskih informacija" (BR IFIC) jedine regulatorne publikacije koje su rezultovale primenom Poglavlja **III** i pridruženih Regionalnih sporazuma, i da je HFBC Raspored publikovan svaki mesec, osim u Junu, u CD-ROM formatu od Januara 1999, dok je BR IFIC publikovan svake dve nedelje u CD-ROM formatu od 11.1.2000. i, potom, za zemaljske službe, u DVD-ROM formatu od Septembra 2005;

c) da je od 8.12.1998. podnošenje HFBC zahteva pod Članom **12** bilo samo u elektronskom formatu;

d) da su od 3.6.2001. za zemaljske službe, sve forme za obaveštenja (AP4/II i AP4/III), radio astronomska obaveštenja (AP4/IV) i napredne publikovane informacije (AP4/V i AP4/VI) i informacije s dužnom pažnjom (Rezolucija **49 (Rev.WRC-03)**) za satelitske mreže i zemaljske stanice, podnesene Birou za radiokomunikacije shodno Članovima **9** i **11** podnošene samo u elektronskom formatu;

e) da su od 7.12.2004., podnošenja zahteva za digitalnu radiodifuziju da bi se koristilo za vežbanje planiranja i razvoj nacrtu plana za drugu sednicu Regionalne konferencije za radiokomunikacije za planiranje digitalne zemaljske radiodifuzije u delovima regiona 1 i 3, u frekvencijskim opsezima 174-230 MHz i 470-862 MHz (RRC-06), bila jedino moguće u elektronskom formatu;

f) da je RRC-06 odlučio da sva podnošenja u primenama Članova 4 i 5 GE06 Regionalnog sporazuma treba da budu jedino u elektronskom formatu;

g) da bi priprema obaveštenja za zemaljske službe u elektronskom formatu dozvolila administracijama da vrednuju podatke pre podnošenja koristeći softverske alate Biroa za radiokomunikacije;

h) da bi podnošenje obaveštenja za zemaljske službe u elektronskom formatu oslobodilo Biro za radiokomunikacije potrebe da prepisuje podatke, izbegavajući mogućnost grešaka i smanjilo težinu procesiranja podataka što se zahteva od Biroa za radiokomunikacije;

i) da uvođenje podnošenja obaveštenja za zemaljske službe jedino u elektronskom formatu može da zahteva odgovarajuću obuku za softverske alate Biroa za radiokomunikacije, naročito u zemljama u razvoju;

j) da za neke administracije, podnošenja obaveštenja za zemaljske službe jedino u elektronskom formatu može da zahteva prilagođavanje njihovih nacionalnih procedura i razvoj odgovarajuće elektronske opreme;

k) da bi informacije u elektronskom formatu mogle biti korišćene da ispune zahteve administracijskih baza podataka i olakšaju razmenu informacija između administracija sa Biroom za radiokomunikacije,

*uzimajući u obzir takođe*

a) da bi korišćenje elektronskog formata za podnošenje obaveštenja za zemaljske službe Birou za radiokomunikacije redukovalo cenu;

b) da bi revizija Dodatka 4, na ovoj Konferenciji, olakšala tranziciju administracijama i Birou za radiokomunikacije ka korišćenju elektronskog formata za podnošenje obaveštenja za zemaljske službe;

c) da je Biro za radiokomunikacije već razvio jedan elektronski format za podnošenje svih tipova obaveštenja za zemaljske službe;

d) da je velika većina obaveštenja za zemaljske službe primljena u Biro za radiokomunikacije već podnesena jedino u elektronskom formatu,

*odlučuje*

1 da od 1.1.2009., podnošenje obaveštenja za zemaljske službe Birou za radiokomunikacije treba da bude jedino u elektronskom formatu;

2 da se podstiču administracije da prestanu da koriste papirnata obaveštenja što pre je moguće i da informišu Biro za radiokomunikacije o tome;

3 da se podstiču administracije da koriste, što pre je moguće, elektronski format i elektronsku opremu za izmenu podataka za koordinaciju između administracija,

*nalaže Direktoru Biroa za radiokomunikacije*

1 da se preradi i kompletira specifikaciju elektronskog formata za korišćenje za podnošenje obaveštenja za zemaljske službe, kako može da bude zahtevano nakon revizije Dodatka 4 na ovoj Konferenciji;

2 da pruži asistenciju, kao što se zahteva, svakoj administraciji, posebno u tranziciji da koristi elektronski format za podnošenje obaveštenja za zemaljske službe;

3 da se uključi u seminare o radiokomunikacijama odgovarajuća obuka za korišćenje elektronskog formata za podnošenje obaveštenja za zemaljske službe,

*nalaže Generalnom sekretaru*

da se razmotri pružanje besplatnog odgovarajućeg softvera i/ili hardvera za svaku nerazvijenu zemlju koja to zatraži.

**MOD** PLEN/408/3 (B24/419/3)

## REZOLUCIJA 950 (Rev.WRC-07)

### Razmatranje korišćenja frekvencija između 275 i 3 000 GHz

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da, u Tabeli namene frekvencijskih opsega, frekvencijski opsezi iznad 275 GHz još su nenamenjeni;
- b) da, bez obzira na *uzimajući u obzir a)*, No. **5.565** daje odredbe za korišćenje frekvencijskog opsega 275-1 000 GHz za eksperimentisanje i razvoj raznih pasivnih servisa i svih drugih servisa i prepoznaje potrebu za vođenjem daljih istraživanja;
- c) da No. **5.565** takođe daje odredbe za zaštitu pasivnih službi do, ako bude, tog vremena kad Tabela namene frekvencijskih opsega može biti proširena;
- d) da, pored spektralnih linija identifikovanim u No. **5.565**, istraživačke aktivnosti u opsezima iznad 275 GHz mogu prepustiti druge spektralne linije od interesa, kao one izlistane u Preporuci ITU-R RA.314;
- e) da unutar različitih Studijskih grupa za radiokomunikacije, studije o sistemima između 275 i 3 000 GHz, uključujući karakteristike sistema odgovarajućih primena, treba da se razmatra;
- f) da sadašnje korišćenje opsega između 275 i 3 000 GHz uglavnom se odnosi na pasivne službe, međutim, sa prihvaćenim tehnološkim razvojem, opsezi mogu postati sve važniji za odgovarajuće primene u aktivnoj službi;
- g) da studije deljenja u ITU-R između pasivnih službi i svih ostalih službi koje rade na frekvencijama između 275 i 3 000 GHz nisu kompletirane;
- h) da dosadašnji izostanak korišćenja opsega 275-3 000 GHz od strane raznih aktivnih službi pokazuje opšte mišljenje da frekvencijske namene iznad 275 GHz mogu biti prevremene,

*prepoznajući*

- a) da propagacione karakteristike na frekvencijama iznad 275 GHz, kao što je atmosferska apsorpcija i rasejanje, ima značajan uticaj na performanse aktivnih i pasivnih sistema i zahtevaju da se prouče;
- b) da je potrebno da se dalje istraže potencijalna korišćenja opsega između 275 i 3 000 GHz od odgovarajućih primena,

*konstatujući*

a) da značajne infrastrukturne investicije treba da budu urađene u međunarodnoj saradnji za korišćenje opsega između 275 i 3 000 GHz, na primer, ALMA, postrojenje u izgradnji koje će omogućiti nove uvide u strukturu univerzuma;

b) da Cirkularno pismo Biroa za radiokomunikacije CR/137 identifikuje dodatnu informaciju za Biro da zabeleži karakteristike aktivnih i pasivnih senzora za satelitsku službu istraživanja Zemlje i satelita za istraživanje svemira, u frekvencijskim opsezima ispod 275 GHz,

*konstatujući takođe*

a) da bi proces i format sličan onom datom u *konstatujući b)* mogao biti korišćen da zabeleži sisteme koji rade u opsegu od 275 do 3 000 GHz;

b) da će beleženje aktivnih i pasivnih sistema koji rade u opsegu od 275 do 3 000 GHz omogućiti informacije do datuma kad, ako bude, odlučeno da su promene na Pravilniku o radiokomunikacijama potrebne,

*odlučuje*

1 da se pregleda No. **5.565** Pravilnika o radiokomunikacijama, izuzimajući frkvencijske namene, da bi se ažuriralo korišćenje spektra između 275 GHz i 3 000 GHz od strane pasivnih službi na WRC-11, uzimajući u obzir rezultate ITU-R studija;

2 da administracije mogu da podnesu, za uključenje u MIFR, detalje o sistemima koji rade između 275 i 3 000 GHz i koje Biro za radiokomunikacije može da zabeleži pod Nos. **8.4, 11.8 i 11.12,**

*poziva ITU-R*

da povede potrebne studije za vreme priprema za WRC-11 u pogledu modifikacije No. **5.565,** uključujući savet za primene pogodne za opseg 275-3 000 GHz,

*nalaže Direktoruru Biroa za radiokomunikacije*

da prihvati podneske iz *odlučuje* 2, i da ih zabeleži u MIFR.

**MOD** COM6/301/2 (B10/326/19) (R6/410/76)

## REZOLUCIJA 951 (Rev.WRC-07)

### **Unapređivanje međunarodnog regulatornog okvira za spektar**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je radio spektar ograničen resurs a da je konstantan porast i evolucija u zahtevima i raznovrsnosti postojećih i budućih primena za radiokomunikacije;

b) da je sadašnja tehnološka okolina za neke primene suštinski drugačija od one koja je preovladavala kad su sadašnji principi i definicije namena uspostavljeni;

c) da su prošli WRC-ovi bili u stanju da odgovore na razvoj spomenut pod *uzimajući u obzir a) i b)* u nekim slučajevima;

d) da je veliki interes za racionalnom, efikasnom i ekonomičnom upotrebom spektra;

e) da bi namene radiokomunikacionim službama trebale težiti da postignu najbolji rezultat u smislu spektralne efikasnosti;

f) da se pojavljuju aplikacije u kojima su kombinovani elementi različitih radiokomunikacionih službi (kako je definisano u Pravilniku o radiokomunikacijama);

g) da postoji konvergencija radio tehnologija, pošto ista radiotehnologija može biti korišćena u sistemima koji rade u različitim radiokomunikacionim službama ili sa različitim statusom namene (primarne ili sekundarne), što bi moglo imati uticaja na scenario namena;

h) da su slične brzine prenosa i kvalitet atributa servisa dostupne sa različitim radiokomunikacionim sistemima koji rade u različitim radiokomunikacionim službama;

i) da korišćenje modernih osnovnih komunikacijskih arhitektura i protokola, kao onih korišćenih u radio sistemima za prenos paketa, omogućava tekućim odredbama za različite primene iste platforme da rade u istim frekvencijskim opsezima;

j) da evoluirajuće i nove radiokomunikacione tehnologije mogu da pruže mogućnosti deljenja i mogu da vode ka frekvencijski agilnijoj i interferencijski otpornijoj opremi i zbog toga fleksibilnijem korišćenju spektra;

k) da te evoluirajuće i nove tehnologije ne moraju zahtevati segmentaciju opsega unutar tradicionalnog okvira namene spektra;

l) da bi regulatorne procedure trebale biti kontinuirano procenjivane da bi udovoljile zahtevima administracija,

*prepoznajući*

a) da bi prava administracija da postavljaju, upravljaju i obezbeđuju službe trebala biti vodeći princip;

b) da su studije, kao odgovor na Rezoluciju **951 (WRC-03)**, pokazale da svaka promena koja ima nameru da poboljša fleksibilnost administracija u prilagođavanju konvergentnih službi treba da se bazira na kombinaciji definicija službi, namena i procedura,

*konstatujući*

a) da je jedna od svrha Pravilnika o radiokomunikacijama efektivno upravljanje i korišćenje spektra;

b) da Svetska Konferencija o radiokomunikacijama treba normalno da se saziva svake tri do četiri godine da omogući dopunu Pravilnika o radiokomunikacijama;

c) da su studije inicirane pod Rezolucijom **951 (WRC-03)** pokazale potrebu za proširenjem proučavanja,

*odlučuje*

2 da pod hitno, uzimajući u obzir Aneксе 1 i 2, ITU-R treba da nastavi studije, da bi se razvili koncepti i procedure za unapređenje Pravilnika o radiokomunikacijama da bi se zadovoljile potrebe tekućih, dolazećih i budućih primena u radiokomunikacijama, vodeći računa o postojećim službama i korišćenjima;

2 da studije pomenute u *odlučuje* 1 treba da budu ograničene na generalna pitanja namena i procedura u odnosu na generalna rešenja za upravljanje spektrom, kao ona koja su već razvijena u Dodatku 1, uz proces opisan u Aneksu 2;

3 da pozove WRC-11 da uzme u obzir rezultate tih studija, uključujući deljenje i njihov uticaj na namene u razmatranim frekvencijskim opsezima, i da preduzme potrebne akcije u skladu sa Aneksom 2,

*poziva ITU-R*

da povede potrebne studije za vreme razmatranja WRC-11 i u skladu sa ovom Rezolucijom,

*poziva administracije*

da aktivno učestvuju u studijama sa priložima za ITU-R.

## ANEKS 1 NA REZOLUCIJU 951 (Rev.WRC-07)

### **Opcije za poboljšanje međunarodnog regulatornog okvira za spektar\***

Sledeće četiri opcije identifikovane su do sada za razvoj koncepta i procedura za unapređenje Pravilnika o radiokomunikacijama; kombinacija tih opcija kao i druge opcije mogu takođe da se koriste.

Opcija 1 zadržava dosadašnju praksu kakva jeste.

Opcija 2 pregledava i eventualno revidira tekuće definicije službi ili dodaje novu službu na listu definicija službe, koja bi obuhvatila nekoliko postojećih.

Opcija 3 je uvođenje nove odredbe u Pravilniku o radiokomunikacijam omogućujući supstituciju<sup>1</sup> između dodala specifičnih službi.

Opcija 4 je uvod u kompozitne službe u Tabeli namene frekvencijskih opsega.

PRIMEDBA – Za Opcije 2, 3 i 4, poboljšane forme za prijavu uz postojeće iz Dodatka 4, i/ili relevantna podešavanja u tom Dodatku, trebalo bi da se razmotre.

#### **1 Opcija 1: Zadržavanje dosadašnje prakse**

Kod ove opcije smatra se da postoji dovoljna fleksibilnost unutar sadašnjeg Pravilnika o radiokomunikacijama i WRC procesa da zadovolji sve tekuće i verovatne buduće zahteve unutar vremenskog okvira tipično postavljenog za WRC-ove.

Kod ove opcije nacionalna regulativa može biti dovoljna da omogući relevantna rešenja u okolini koja se menja.

Iako nove primene mogu da se uvedu u kraćem vremenskom okviru, to bi moglo biti bez zaštite od štetnih smetnji, što ne može biti praktično za veliku većinu nadolazećih bežičnih primena, uključujući IMT, naučne, javno bezbednosne, radiolokacione, radionavigacione, radiodifuzne i fiksne/mobilne/radiodifuzne satelitske sisteme.

Tekuće definicije službe u Članu 1 Pravilnika o radiokomunikacijama pokazuju da u principu omogućuju da Pravilnik o radiokomunikacijama prihvata dinamično najnoviji tehnološki razvoj kao IMT, HAPS, RLAN, digitalnu TV, javnu bezbednost i olakšanje nesreća (PPDR) i interese naučne zajednice.

Primećeno je, da uprkos različitim definicijama za fiksne i mobilne (izuzev vazduhoplovnu i pomorsku) službe, u većini frekvencijskih opsega koji su namenjeni jednoj od dve službe, namenjeni su takođe i onoj drugoj. To pokazuje da je konvergencija već postignuta u ITU Tabeli Namene frekvencijskih opsega, osim u nekim frekvencijskim opsezima, gde namene za obe službe mogu da se razmotre od opsega do opsega za buduće WRC-ove, prema zahtevima.

#### **2 Opcija 2: Pregledavanje i moguća revizija nekih definicija službi**

Kod ovog pristupa, tekuće definicije službi u Članu 1 Pravilnika o radiokomunikacijama bile bi pregledane da se osigura da one adekvatno i čisto pokrivaju aktuelno korišćenje, istovremeno omogućujući fleksibilnost za nadolazeće tehnologije. Nakon intenzivnih konsultacija sa ITU-R Studijskim Grupama, taj pregled može da obuhvati fiksne i mobilne (izuzev vazduhoplovnu i

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\* Dalje informacije mogu da se nađu u Dokumentu 24 za WRC-07.

<sup>1</sup> Ovaj izraz treba da bude pojašnjen i definisan kako treba.

pomorsku službu) službe i eventualno druge službe, ako se smatra potrebno<sup>2</sup>. To može da dovede do revizije sadašnjih definicija za te službe i njihovo modifikovanje prema potrebi.

Moguće promene u definicijama službe trebale bi da budu adresirane s tačke gledišta njihovih regulatornih implikacija u dodelama i korišćenju frekvencija, posebno u ITU koordinaciji, obaveštavanju i procesima zapisivanja, uticaju na dodele urađene pod sadašnjim definicijama, i uticaju na druge službe.

### **3 Opcija 3: Uvođenje nove odredbe u Pravilnik o radiokomunikacijama omogućujući supstituciju između dodela specifičnih službi**

Kod ovog pristupa, nova odredba bi se uvela u Pravilnik o radiokomunikacijama da se omogući supstitucija između dodela specifičnih službi. Na primer, u kontekstu fiksne i mobilne (izuzev vazduhoplovne i pomorske) službe, supstitucija bi mogla da se primeni na isti način na koji se primenjuje kod Nos. **5.485** ili **5.492** u kontekstu fiksne satelitske i radiodifuzne satelitske službe.

Koristeći primer fiksnih i mobilnih službi, to bi moglo da se reflektuje na tekuću konvergenciju između službi, adresirajući sadašnje višeznačnosti između definicija tih službi, olakšavajući pravovremeno sprovođenje novih primena, dajući adekvatnu regulatornu zaštitu za takve primene, i štiteći prava drugih administracija naspram nastale interferencije.

Nova odredba koja omogućuje supstituciju mogla bi biti adresirana s tačke gledišta njenog uticaja na namenu i korišćenje frekvencija, naročito prilikom ITU koordinacije, obaveštavanja i procesa zapisivanja, uticaja na dodele urađene pod tekućim definicijama, i uticaja na druge službe.

### **4 Opcija 4: Uvođenje kompozitnih službi u Tabelu namene frekvencijskih opsega**

Kod ovog pristupa, koji bi mogao da reflektuje konvergenciju između nekih radiokomunikacionih službi u specifičnom frekvencijskom opsegu, Tabela namene frekvencijskih opsega (Član 5 Pravilnika) mogla bi da bude izmenjena zamenjujući tekuće odvojene namene nekim radiokomunikacionim službama sa združenom namenom za te službe (na pr. specifičan frekvencijski opseg namenjen “fiksnoj službi” i “kopnenoj mobilnoj službi” mogao bi da bude promenjen u kompozitnu namenu za “fiksnu i kopnenu mobilnu službu”). Gornji pristup mogao bi jedino biti primenjiv ako sve razmatrane službe na koje se odnosi namena za kompozitni servis imaju jednak regulatorni status.

Taj pristup omogućio bi administracijama veću fleksibilnost. U gornjem primeru, administracije bi se mogle odlučiti za samu fiksnu službu, za samu kopnenu mobilnu službu, za posebne aplikacije za obe službe na nezavisan način, ili za kompozitnu aplikaciju koja bi uključila obe službe. Ova opcija ne bi zahtevala nikakvu reviziju tekućih definicija dotičnih radiokomunikacionih službi (na pr. niti za fiksnu niti za kopnenu mobilnu službu).

Da se omogući obaveštavanje i zapisivanje frekvencijskih dodela u tako kompozitnoj službi, nova klasa stanice mogla bi da se uvede pod imenom “Stanica u fiksnoj i kopnenoj mobilnoj službi” (sa posebnim simbolom od onih koji se koriste za fiksnu i kopnenu mobilnu službu), sa potrebnom formom obavesti, ili drugih adekvatnih mehanizama obaveštavanja.

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<sup>2</sup> ITU-R studije su pokazale da je tekuća definicija fiksne satelitske službe u stanju da se prilagodi noim tehnologijama i primenama u fiksnoj satelitskoj službi.



## ANEKS 2 NA REZOLUCIJU 951 (Rev.WRC-07)

### Smernice za implementaciju ove Rezolucije

#### Ove smernice sadrže tri koraka:

- 1 Korak 1: Proceniti različite opcije uključujući one u Aneksu 1 u smislu njihove korisnosti u vezi sa poboljšanjem solucija za upravljanja spektrom da se zadovolje ciljevi ove Rezolucije.
- 2 Korak 2: Razviti koncepte i procedure bazirane na opcijama procenjenim u Koraku 1 uključujući studije deljenja na bazi od opsega do opsega.
- 3 Korak 3: Pripremiti, na osnovu Koraka 2, tehničke i regulatorne solucije za razmatranje i odgovarajuću akciju za WRC-11.

**ADD** COM6/339/2 (B12/346/18) (R6/410/81)

### REZOLUCIJA 953 (WRC-07)

#### Zaštita radiokomunikacionih službi od emisija radio uređaja kratkog dometa

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da su radio uređaji kratkog dometa (SRDs) radio predajnici ili prijemnici, ili oboje, i stoga se ne smatraju industrijskim, naučnim i medicinskim (ISM) primenama pod No. **1.15**;
- b) da SRDs, uključujući uređaje koji koriste tehnologije ultra širokog opsega (UWB), radio frekvencijske identifikacione uređaje (RFIDs), i ostale slične uređaje, koji generišu i koriste radio frekvencije lokalno;
- c) da SRDs ne mogu tražiti zaštitu od smetnji uzrokovanih radio službama i stoga su razvijeni prioritetno u ISM frekvencijskim opsezima;
- d) da se povećava količina SRDs šireći se preko različitih frekvencija kroz spektar, kao uređaji koji koriste UWB tehnologije ili RFIDs, itd.;
- e) da u nekim slučajevima značajna energija može biti izračena od RFIDs;
- f) da neke radio službe, naročito one koje koriste male snage polja, mogu osetiti štetne smetnje od SRDs, posebno RFIDs, rizik koji je neprihvatljiv, posebno u slučaju radionavigacije i ostalih bezbednosnih službi,

*prepoznajući*

- a) rad koji je obavio ITU-R rezultirajući u relevantnim ITU-R Preporukama (vidi ITU-R SM.1538, ITU-R SM.1754, ITU-R SM.1755, ITU-R SM.1756, ITU-R SM.1757);
- b) rad koji je obavio ITU-T na RFID;
- c) da SRDs, posebno RFIDs, drže obećanje za čitav niz novih primena koje mogu pružiti dobrobit korisnicima;
- d) da su karakteristike RFIDs, uključujući snagu predajnika, standardizovane u okviru ISO,

*prepoznajući takođe*

Rezoluciju ITU-R 54 Skupštine za radiokomunikacije (Geneva, 2007), koja odlučuje da bi ITU-R trebao proučiti mogućnosti SRDs istovremeno osiguravajući zaštitu radiokomunikacionim službama,

*odlučuje*

da, u svrhu da radiokomunikacione službe budu adekvatno zaštićene, zahtevaju se buduće studije o emisijama od SRDs, unutar i izvan frekvencijskih opsega označenih u Pravilniku o radiokomunikacijama za ISM primene,

*poziva ITU-R*

da prouči emisije od SRDs, naročito RFIDs, unutar i izvan frekvencijskih opsega naznačenih u Pravilniku o radiokomunikacijama za ISM primene da se osigura adekvatna zaštita radiokomunikacionih službi,

*poziva administracije*

da učestvuju u studijama dajući doprinos ITU-R,

*nalaže Direktoruru Biroa za radiokomunikacije*

1 da stavi ovu Rezoluciju na pažnju ITU-T, ISO i Međunarodnoj elektrotehničkoj komisiji;

2 da preda rezultate ovih studija WRC-11 na razmatranje i delovanje.

**ADD** COM6/340/2 (B14/365/50) (R7/411/226)

### REZOLUCIJA 954 (WRC-07)

## **Harmonizacija spektra za korišćenje od strane zemaljskih elektronskih sistema za sakupljanje novosti**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da je korišćenje zemaljske prenosive radio opreme od pomoćnih službi radiodifuzije, zajednički nazvane elektronsko sakupljanje novosti (ENG), koje rade u opsezima namenjenim radiodifuziji, fiksnim i mobilnim službama postalo važan element u sveobuhvatnom pokrivanju širokog raspona međunarodnih značajnih događaja, uključujući prirodne katastrofe;

b) da je WRC-03 inicirao studije koje se tiču korišćenja spektra i radnih karakteristika prenosivih i nomadskih veza za rad zemaljskih ENG sistema na globalnoj osnovi, u skladu sa Preporukom **723 (WRC-03)**;

c) da je modularizacija i minijaturizacija zemaljskih ENG sistema povećala prenosivost tih sistema i tako povećala trend ka prekograničnom radu ENG uređaja;

d) da su tehničke karakteristike za televiziju osim radiodifuzne, ENG i sistema koje proizvode elektronsko polje u fiksnim i mobilnim službama za korišćenje u studijama deljenja postavljene u ITU-R Preporukama,

*konstatujući*

a) da studije koje je preduzeo ITU-R pokazuju da bi nacionalno upravljanje spektrom moglo da ima koristi od globalnog planiranja harmonizovanog opsega za ENG sisteme;

b) da su studije koje se odnose na ENG u ITU-R bazirane na podacima o tekućim i prihvaćenim ENG zahtevima spektra sakupljenim od mnogih administracija iz svih regiona;

c) da neki od frekvencijskih opsega koje sada koristi ENG imaju brojne tehničke i radne atribute koji ih čine podесnim za kontinuirano dugoročno korišćenje za ENG;

d) da niži frekvencijski opsezi spektra imaju tendenciju da pruže bolje propagacione karakteristike na putevima s preprekama, povećavajući na taj način pouzdanost ENG veza koje rade u tim opsezima,

*prepoznajući*

a) da radiodifuzni emiteri sada imaju napredne digitalne tehnologije koje otvaraju nove mogućnosti za rad obe, fiksne i mobilne ENG, i da taj razvoj ima implikacije koje se odnose na spektar

b) da dinamička priroda korišćenja ENG je pokrenuta planiranim, neplaniranim i nepredvidivim događajima kao što su najnovije vesti, vanredne situacije i katastrofe;

c) da se sakupljanje novosti i elektronska produkcija tipično odvija u okolini gde nekoliko televizijskih radiodifuznih emitera /organizacija/mreža pokušava da pokrije isti događaj, kreirajući zahtev za više ENG veza i povećan zahtev za pristup spektru u podesnim frekvencijskim opsezima;

d) da je pristup globalno harmonizovanom spektru jako poželjan da olakša brzo i manje ograničeno raspoređivanje i rad ENG sistema od jedne zemlje do druge,

*odlučuje*

1 da bi na osnovu studija preduzetim u ITU-R, WRC-11 trebao adresirati izvodljivost sakupljanja zadovoljavajućeg stepena svetske /regionalne harmonizacije spektra za ENG korišćenje u smislu frekvencijskih opsega i podešavajućih raspona;

2 da bi trebalo da se odredi metod za moguću harmonizaciju frekvencijskih opsega i podešavajućih raspona za ENG korišćenje,

*poziva ITU-R*

1 da izvede studije o ENG s obzirom na moguća rešenja za globalnu/regionalnu harmonizaciju u frekvencijskim opsezima i podešavajućim rasponima, uzimajući u obzir:

- dostupne tehnologije za maksimalno efikasno i fleksibilno korišćenje frekvencije;
- karakteristike sistema i iskustva u radu koja olakšavaju implementaciju tih rešenja;

2 da uključi u studije, na koje se gore referiše, pitanja deljenja i kompatibilnosti sa službama kojima su već namenjeni frekvencijski opsezi i podešavajući rasponi koji imaju potencijal za upotrebu za ENG;

3 da predloži radne mere da olakša rad ENG opreme konzistentne sa globalnom cirkulacijom radiokomunikacione opreme, vodeći računa o Preporuci ITU-R M.1637;

4 da izvesti o rezultatima tih studija Svetsku konferenciju o radiokomunikacijama 2011,

*poziva administracije*

da učestvuju u studijima dajući doprinos ITU-R.

**ADD** PLEN/408/4 (B24/419/6)

## REZOLUCIJA 955 (WRC-07)

### **Razmatranje procedura za optičke linkove u slobodnom prostoru**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da se frekvencije iznad 3 000 GHz već koriste za razne optičke primene od telekomunikacionih veza do satelitskog daljinskog detektovanja;

- b) da optičke linkove trenutno razmatra nekoliko ITU-R Studijske Grupe;
- c) da Preporuke ITU-R P.1621, P.1622, S.1590, RA.1630; SA.1742, SA.1805, i RS.1744 sadrži informacije koje se odnose na optičke linkove u slobodnom prostoru i daljinsko detektovanje;
- d) da je ITU-R u procesu pravljenja izveštaja s obzirom na mogućnost i relevantnost uključenja u Pravilnik o radiokomunikacijama frekvencijskih opsega iznad 3 000 GHz kao i primene u fiksnoj službi koristeći takve frekvencijske opsege,

*prepoznajući*

a) da Rezolucija 118 (Marrakesh, 2002) Konferencije opunomoćenika nalaže Direktor BR da izvesti svetsku konferenciju o radiokomunikacijama o napretku ITU-R studija koje razmatraju korišćenje frekvencija iznad 3 000 GHz;

b) da je ITU-R identifikovao tehničke aspekte s obzirom na korišćenje optičkih telekomunikacija u slobodnom prostoru kao tačku koja zahteva hitno proučavanje od ITU-R Studijskih grupa,

*odlučuje*

da uzme u obzir moguće procedure za optičke linkove u slobodnom prostoru, vodeći računa o rezultatima ITU-R studija koje pokrivaju u najmanju ruku aspekt deljenja sa ostalim službama, jasnu definiciju granica opsega i mere za uzeti u obzir ako se namene različitim službama u Pravilniku o radiokomunikacijama iznad 3 000 GHz pokažu izvodljive,

*poziva ITU-R*

da povede neophodne studije u vreme za razmatranje od WRC-11.

**ADD** PLEN/408/14 (B24/419/15)

### REZOLUCIJA 956 (WRC-07)

#### **Regulatorne mere i njihova relevantnost da omoguće uvođenje softverski definisanih radio i kognitivnih radio sistema**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da kognitivni radio i samokonfigurirajuće mreže treba da pruže dodatnu fleksibilnost i povećanu efikasnost celokupnom korišćenju spektra;
- b) da ITU-R već proučava takve napredne radio tehnologije, njihovu funkcionalnost, glavne tehničke karakteristike, zahteve, performanse i korisnost (Pitanje ITU-R 241/8);
- c) da studije pokazuju da je softverski definisani radio koji koristi kognitivne kontrolne mehanizme način postizanja bolje iskorišćenosti spektra, dinamičkog upravljanja spektrom, i fleksibilno korišćenje spektra (Izveštaj ITU-R M.2064);
- d) da se značajno istraživanje i razvoj odvija o kognitivnim radio sistemima i odgovarajućim mrežnim konfiguracijama kao što su samokonfigurirajuće mreže;
- e) da kognitivni radio sistemi mogu pokrivati brojne tehnike radio pristupa (RATs);
- f) da kognitivni radio sistemi uključuju samokonfigurirajuće mreže različitih mrežnih topologija koje su u stanju da podese svoje korišćenje spektra na osnovu lokalno raspoloživog spektra;
- g) da bez ikakve informacije o položaju i karakteristikama drugih RATs unutar pokrivanog frekvencijskog raspona dohvatljivog mobilnom terminalu, bilo bi neophodno skanirati celokupan

podešavajući raspon da bi se ustanovilo lokalno korišćenje spektra, što bi rezultovalo velikim trošenjem snage i vremena;

- h) da bez dodatnih sredstava, ne bi bilo moguće otkriti upotrebu samo za prijem;
- i) da neke studije pokazuju korisnost imajući načina da se pomogne u određivanju lokalnog korišćenja spektra, kao što je žični i bežični pristup bazi podataka ili drugim mrežama;
- j) da neke studije ukazuju na moguću potrebu za globalno harmonizovanim kognitivnim pilotskim kanalom za podršku, sa opsegom manjim od 50 kHz, dok druge studije ukazuju da bi dostupnost bazi podataka mogla podržati pristup i povezivanje, i tako bi se podržalo korišćenje tih sistema,

*odlučuje da pozove ITU-R*

- 1 da prouči da li ima potrebe za regulatornim merama koje se odnose na primenu tehnologija kognitivnog radio sistema;
- 2 da prouče da li ima potrebe za regulatornim merama koje se odnose na primenu softverski definisanog radija,

*odlučuje takođe*

da WRC-11 uzme u obzir rezultate ovih studija i preduzme odgovarajuće mere.

# **PREPORUKE**

**ADD** COM4/380/78 (B19/413/30)

**PREPORUKA 206 (WRC-07)**

**Razmatranje mogućeg korišćenja integrisane mobilne satelitske službe i sistema zemaljske komponente u nekim frekvencijskim opsezima identifikovanim za satelitsku komponentu Međunarodnih mobilnih telekomunikacija**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da sistemi mobilne satelitske službe (MSS) mogu da pruže usluge na širokom području;
- b) da MSS sistemi imaju ograničen kapacitet za pružanje pouzdanih radiokomunikacionih usluga u urbanim područjima na račun prirodnih ili veštačkih prepreka i zemaljska komponenta integrisanog MSS sistema može ublažiti oblasti blokade, kao i dozvoliti pokrivanje zatvorenog prostora;
- c) da MSS sistemi mogu poboljšati pokrivanje ruralnih oblasti, postajući tako element koji može premostiti digitalnu poddelu u smislu geografije;
- d) da su MSS sistemi podesni za javnu zaštitu i komunikacije olakšanja mesreće, kako je navedeno u Rezoluciji **646 (WRC-03)**;
- e) da su opsezi 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 i 2 483.5-2 500 MHz između onih identifikovanih u Rezoluciji **225 (Rev.WRC-07)** za administracije koje žele da implementiraju satelitsku komponentu Međunarodnih mobilnih telekomunikacija (IMT);
- f) da su opsezi spomenuti u *uzimajući u obzir e)* namenjeni na primarnoj osnovi mobilnim satelitskim službama i drugim službama i da nisu svi namenjeni mobilnoj službi;
- g) da su opsezi 1 980-2 010 MHz i 2 170-2 200 MHz identifikovani za korišćenje od strane satelitske komponente IMT-2000 u skladu sa Rezolucijom **212 (Rev.WRC-07)**;
- h) da unutar svojih teritorija u nekim delovima opsega identifikovanim u *uzimajući u obzir e)* i *g)* i u delovima opsega 2 010-2 025 MHz u nekim zemljama u Regionu 2, neke administracije su autorizovale ili planiraju da autorizuju operatore MSS sistema da uspostave integrisanu zemaljsku komponentu svojim MSS sistemima ("Integrisani sistem") i pod izvesnim uslovima određeno na nacionalnoj osnovi kao:
  - i) zemaljska komponenta je komplementarna, i radi kao integralni deo MSS sistema i, zajedno sa satelitskom komponentom, pruža jednu integralnu servisnu ponudu;
  - ii) zemaljska komponenta je kontrolisana od strane satelitskog sistema upravljanja resursima i mrežama;
  - iii) zemaljska komponenta koristi iste označene delove frekvencijskog opsega kao pridruženi radni MSS sistem;
- i) da je ITU-R izveo studije o deljenju frekvencija i odlučio da koegzistencija između nezavisnih sistema u MSS i sistema u mobilnim službama u istom spektru bez štetne interferencije nije izvodljiva u istoj ili susednim geografskim područjima,

*prepoznajući*

- a) da ITU-R nije izveo studije o deljenju, tehničkim ili regulatornim pitanjima u odnosu na integrisani MSS i sisteme zemaljske komponente, ali da neke administracije su izvele te studije;

b) da je radionavigaciona satelitska služba u opsegu 1 559-1 610 MHz i radio astronomska služba u opsezima 1 610.6-1 613.8 MHz i 1 660-1 670 MHz treba da budu zaštićena od štetnih smetnji;

c) da MSS treba da bude zaštićen od štetnih smetnji koje mogu biti uzrokovane od uvođenja zmaljske komponente Integriranih sistema;

d) da je Nos. **5.353A** i **5.357A** primenjiv na MSS sisteme u različitim delovima opsega 1 525-1 559 MHz i 1 626.5-1 660.5 MHz u odnosu na potrebe za spektrom i polarizacijom komunikacija za Globalni pomorski sistem za nesreće i bezbednost i vazduhoplovnu mobilnu satelitsku (R) službu,

*konstatujući*

a) da mogućnosti kombinovanog širokoprostornog i urbanog pokrivanja od strane Integriranog sistema može doprineti da se zadovolje posebne potrebe zemalja u razvoju tako kako je napomenuto u Rezoluciji **212 (Rev.WRC-07)**;

b) da su neke administracije koje planiraju da implementiraju ili upravo implementiraju Integrirane sisteme unutar svojih nacionalnih teritorija uvele ograničenja, kod pravila i autorizacionih mera, na e.i.r.p. gustinu koju zemljaska komponenta takvih sistema može proizvesti u opsezima namenjenim radionavigacionoj satelitskoj službi;

c) da postoji ograničen broj frekvencijskih opsega namenjenih MSS, da su ti opsezi već zakrčeni, i da uvođenje integriranih zemaljskih komponenti mogu u nekim slučajevima učiniti pristup spektru za druge MSS sisteme vrlo otežan;

d) da administracije koje implementiraju Integrirane Sisteme mogu pružiti, u bilateralnim konsultacijama administracija, informacije o sistemskim karakteristikama zemaljske komponente,

*preporučuje*

da pozove ITU-R da povede studije, po mogućnosti, vodeći računa o postojećim sistemima i onim predloženima da se koriste uskoro i o gornjim *uzimajući u obzir, priznajući i konstatujući*,

*poziva administracije*

da učestvuju ako je neophodno u ITU-R studijama *uzimajući u obzir prepoznajući a).*

**ADD** COM4/426/1 (B19/413/30)

## PREPORUKE 207 (WRC-07)

### **Budući IMT sistemi**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

a) da se budući razvoj IMT proučava od strane ITU-R u skladu sa Preporukom ITU-R M.1645 i buduće Preporuke se razvijaju za IMT-Napredni;

b) da je budući razvoj IMT predviđen da adresira potrebu za većim brzinama prenosa podatak od onih koje pružaju trenutno raspoloživi IMT sistemi;

c) potrebu da se definišu zahtevi pridruženi poboljšanjima u toku za buduće IMT sisteme,  
*konstatujući*

a) da su relevantne ITU-R studije u toku za IMT-Napredni, naročito odgovori na Pitanje ITU-R 229-1/8;



- b) potrebu da se uzmu u razmatranje zahtevi primena drugih službi,  
*preporučuje*

da se pozove ITU-R da prouči po potrebi tehnička, radna, i pitanja u vezi spektra, da se zadovolje ciljevi budućih IMT sistema.

**MOD** COM6/341/24 (B14/365/51) (R7/411/227)

### PREPORUKA 608 (Rev.WRC-07)

#### **Uputstva za konsultacione skupove utvrđena u rezoluciji 609 (Rev.WRC-07)**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da u skladu sa pravilnikom o radiokomunikacijama (RR), opseg 960-1 215 MHz je namenjen na primarnoj osnovi vazduhoplovnoj radionavigacionoj službi (ARNS) u svim ITU Regionima;
- b) da je WRC-2000 uvela ko-primarnu namenu za radionavigacionu satelitsku službu (RNSS) u frekvencijskom opsegu 1 164-1 215 MHz (pod uslovima specificiranim u No. **5.328A**), sa privremenim ograničenjem agregatne snage gustine fluksa (pfd) proizveden od strane svih svemirskih stanica unutar svih radionavigacionih satelitskih sistema na Zemljinoj površini od  $-115 \text{ dB(W/m}^2\text{)}$  u bilo kom 1 MHz opsegu za sve upadne uglove;
- c) da je WRC-03 revidirao to privremeno ograničenje i odlučio da nivo od  $-121.5 \text{ dB(W/m}^2\text{)}$  u bilo kom 1 MHz za agregatni ekvivalent pfd (epfd) primenjen na sve svemirske stanice unutar svih RNSS sistema, uzimajući u obzir referentne najgore karakteristike ARNS antenskog sistema opisane u aneksu 2 Preporuke ITU-R M.1642-2, adekvatan da osigura zaštitu za ARNS u opsegu 1 164-1 215 MHz;
- d) da je WRC-03 odlučio da će za dostizanje ciljeva u *odlučuje* 1 i 2 Rezolucije **609 (Rev.WRC-07)**, administracijama koje vode ili planiraju da vode RNSS sisteme biti potreban kooperativni pristanak na konsultacionim skupovima da se dostigne nivo zaštite za ARNS sisteme, i treba da se uspostave mehanizmi da se osigura da se svim potencijalnim RNSS sistem operatorima daje puni uvid u proces, ali samo realni sistemi se uzimaju u obzir u kalkulacijama agregatne epfd,  
*preporučuje*

1 da u implementaciji *odlučuje* 5 Rezolucije **609 (Rev.WRC-07)**, u frekvencijskom opsegu 1 164-1 215 MHz, maksimalna pfd proizvedena na površini Zemlje od emisija iz svemirskih stanica u RNSS, za sve upadne uglove, ne bi smela da pređe  $-129 \text{ dB(W/m}^2\text{)}$  u bilo kom 1 MHz opsegu pod propagacionim uslovima u slobodnom prostoru;

2 da RNSS karakteristike izlistane u Aneksu 1, korišćena kod primene metodologije sadržane u Preporuci ITU-R M.1642-2, kao i izračunati agregatni epfd u  $\text{dB(W/m}^2\text{)}$  za svaki 1 MHz u rasponu 1 164-1 215 MHz, trebalo bi da bude dostupan u elektronskom formatu konsultacionim skupovima.

### ANEKS 1 NA PREPORUKU 608 (Rev.WRC-07)

#### **Lista karakteristika RNSS sistema i format rezultata proračuna agregatnog epfd koji treba da se da Birou za radiokomunikacije za publikovanje informacija**

**ADD** COM4/318/4 (B11/329/44) (R6/410/83)

**PREPORUKA 724 (WRC-07)**

**Korišćenje od strane civilnog vazduhoplovstva frekvencijskih namena na primarnoj osnovi za fiksnu satelitsku službu**

Svetska Konferencija o radiokomunikacijama (Ženeva, 2007),

*uzimajući u obzir*

- a) da ruralne i udaljene oblasti često još imaju nedostatak zemaljske komunikacione infrastrukture koja zadovoljava rastuće potrebe modernog civilnog vazduhoplovstva;
- b) da bi cena pružanja i održavanja takve infrastrukture mogla biti velika, naročito u udaljenim regionima;
- c) da satelitski komunikacioni sistemi koji rade u fiksnoj satelitskoj službi (FSS) možda jesu jedini medij koji zadovoljava zahteve Međunarodne civilne vazduhoplovne organizacije (ICAO) za sistemima komunikacije, navigacije, nadgledanja i upravljanja vazдушnim saobraćajem (CNS/ATM), gde neka adekvatna zemaljska infrastruktura nije dostupna;
- d) da korišćenje VSAT sistema, koji rade u FSS i koji se postavljaju na širokoj osnovi u vazduhoplovnim komunikacijama, ima potencijal da značajno unapredi komunikacije između centara kontrole leta kao i udaljenih vazduhoplovnih stanica;
- e) da bi uspostavljanje i korišćenje satelitskih komunikacionih sistema za civilno vazduhoplovstvo takođe donelo dobrobit zemljama u razvoju i zemljama sa udaljenim i ruralnim područjima omogućujući korišćenje VSAT sistema za ne-vazduhoplovne komunikacije;
- f) da u slučajevima identifikovanim u *uzimajući u obzir e)* neophodno je privući pažnju na važnost vazduhoplovnih komunikacija nasuprot ne-vazduhoplovnim komunikacijama,

*konstatujući*

- a) da FSS nije bezbednosna služba;
- b) da Rezolucija **20 (Rev.WRC-03)** *odlučuje da naloži Generalnom sekretaru* “da podstakne ICAO da nastavi svoju pomoć zemljama u razvoju koje se trude da poboljšaju svoje vazduhoplovne telekomunikacije ...”,

*preporučuje*

- 1 da administracije, posebno u zemljama u razvoju i u zemljama sa udaljenim i ruralnim područjima, prepoznaju važnost VSAT rada za modernizaciju civilnih vazduhoplovnih telekomunikacionih sistema i podstiče implementaciju VSAT sistema koji bi mogli podržati oboje vazduhoplovne i druge komunikacione potrebe;
- 2 da se podstiču administracije u zemljama u razvoju, do krajnjih mogućih granica i kad je potrebno, da se ubrza proces autorizacije da se omoguće vazduhoplovne komunikacije koristeći VSAT tehnologiju;
- 3 da bi trebalo uraditi aranžmane za uvođenje hitne restauracije službe ili alternativnog rutinga u slučaju prekida VSAT veze pridružene vazduhoplovnim komunikacijama;
- 4 da bi administracije koje implementiraju VSAT sisteme u skladu sa *preporučuje* 1 do 3 trebale učiniti to u satelitskim mrežama koje rade u frekvencijskim opsezima sa primarnom namenom satelitskim službama;

5 da se pozove ICAO, napominjući Rezoluciju **20 (Rev.WRC-03)**, da nastave pomoć zemljama u razvoju da poboljšaju svoje vazduhoplovne telekomunikacije, uključujući interoperabilnost VSAT mreža, i pruže smernice zemljama u razvoju kako bi one najbolje mogle da koriste VSAT tehnologiju za tu svrhu,

*zahteva se od generalnog sekretara*

da stavi ovu Rezoluciju na pažnju ICAO.

### **Član 3.**

Ovaj zakon stupa na snagu osmog dana od dana objavljivanja u „Službenom glasniku RS - Međunarodni ugovori“.