

Prague, 26 June 2018  
Ref.: ČTÚ-19 380/2018-619

On the basis of public consultation under Section 130 of the Act No. 127/2005 Coll., on electronic communications and on amendment to certain related acts (the Electronic Communications Act), as amended (hereinafter only “the Act”) under Section 10 of the Act No. 500/2004 Coll., the Administrative Procedure Code, as amended, and on the basis of the decision of the Council of the Czech Telecommunications Office (hereinafter “the Office”) under Section 107(9)(b)(2) of the Act and in order to implement Section 16(2) of the Act, the Office, as the appropriate state administration body under Section 108(1)(b) of the Act, hereby issues this Measure of General Nature

**Part No. PV-P/6/06.2018-6 of the Radio Spectrum Utilisation Plan  
for the frequency band 1900–2200 MHz.**

Article 1  
**Introductory provision**

This part of the Radio Spectrum Utilisation Plan sets down the technical characteristics and conditions of use of radio spectrum in the frequency band from 1900 MHz to 2200 MHz by radiocommunication services. This part of the Radio Spectrum Utilisation Plan is a follow-up to the Common part of the Radio Spectrum Utilisation Plan<sup>1)</sup>.

Part 1  
**General information on the frequency plan**

Article 2  
**Frequency bands**

Band (MHz)	Current conditions		Future harmonisation <sup>2)</sup>	
	Allocation	Utilisation	Allocation	Utilisation
1900–1980	FIXED MOBILE	UMTS (1900-1920 MHz) IMT	FIXED MOBILE	IMT In the sub-band 1900-1920 MHz, an alternative use is considered
1980–2010	Fixed Mobile MOBILE-SATELLITE (Earth-to-space)	Mobile-satellite applications CGC IMT	Fixed MOBILE MOBILE-SATELLITE (Earth-to-space)	Mobile-satellite applications CGC IMT

<sup>1)</sup> Common part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35, as amended.

<sup>2)</sup> ERC Report 25: European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz, rev. 2017.

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2010–2025	FIXED MOBILE	IMT PMSE	FIXED MOBILE	IMT PMSE
2025–2110	SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION- SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE SPACE RESEARCH (Earth-to space) (space-to-space)	MD SAP/SAB	SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION- SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE SPACE RESEARCH (Earth-to-space) (space-to-space)	Space scientific applications SAP/SAB MD
2110–2120	FIXED MOBILE SPACE RESEARCH (deep space) (Earth-to-space)	IMT	FIXED MOBILE SPACE RESEARCH (deep space) (Earth-to-space)	IMT
2120–2170	FIXED MOBILE	IMT	Fixed MOBILE	IMT
2170–2200	Fixed Mobile MOBILE-SATELLITE (space-to-Earth)	Mobile-satellite applications CGC IMT	FIXED MOBILE MOBILE-SATELLITE (space-to-Earth)	Mobile-satellite applications CGC IMT

### Article 3

#### Frequency band characteristics

In accordance with the CEPT Decision<sup>3)</sup>, the frequencies from range 1920 MHz up to 2170 MHz belong to the basic bands designated for the IMT systems which are part of the system of worldwide mobile IMT communications<sup>4)</sup>, according to the ITU-R Recommendation<sup>5)</sup>. The footnote of the Radio Regulations<sup>6)</sup> extends the identification of the sub-band for IMT up to the frequency 2200 MHz. The terrestrial IMT networks are introduced in the sub-band 2110–2170 MHz. The bands 1980–2010 MHz and 2170–2200 MHz are designated for development of the satellite component in accordance with the CEPT Decision<sup>7)</sup> and Commission Decision<sup>8)</sup>. In these bands, the number of the rights is therefore limited which means that only holders of radio frequency assignments may use them. The bands 2010–2025 MHz and 2025–2110 MHz represent the undivided sub-band for utilisation by PMSE applications.

<sup>3)</sup> Decision CEPT ECC/DEC/(06)01 of 24 March 2006 amended on 2 November 2012, on the harmonised utilisation of the bands 1920-1980 MHz and 2110-2170 MHz for mobile/fixed communications networks (MFCN) including terrestrial IMT systems.

<sup>4)</sup> Abbreviation IMT in accordance with ITU-R 56-2 Resolution stands for the mobile communications systems – International Mobile Telecommunications and it covers the group of systems of IMT-2000, IMT-Advanced and IMT-2020.

<sup>5)</sup> Recommendation ITU-R M.1036-5 – Frequency arrangements for implementation of the terrestrial component of International Mobile Telecommunications (IMT) in the bands identified for IMT in the Radio Regulations.

<sup>6)</sup> The footnote 5.388 of the Radio Regulations.

<sup>7)</sup> Decision CEPT ECC/DEC/(06)09 on the designation of the bands 1980–2010 MHz and 2170–2200 MHz for use by systems in the Mobile-Satellite Service including those supplemented by a Complementary Ground Component (CGC).

<sup>8)</sup> Commission Decision 2007/98/EC of 14 February 2007 on the harmonised use of radio spectrum in the 2 GHz frequency bands for the implementation of systems providing mobile satellite services.

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## Article 4 International obligations

Provisions of the Radio Regulations<sup>9)</sup> (hereinafter only "RR") and provisions of the HCM<sup>10)</sup> Agreement apply to operation and coordination.

## Part 2 Mobile service

### Article 5 Current conditions in the mobile service

(1) The sub-band 1900–1920 MHz can be used on the basis of short-term authorisation for the use of radio frequencies only or on the basis of individual authorisation for the use of radio frequencies for experimental purposes.

(2) In accordance with the Commission Decision 2012/688/EU<sup>11)</sup>, the sub-bands 1920–1980 / 2110–2170 MHz are designated for the use by IMT systems with the Frequency Division Duplex - FDD<sup>12)</sup> operation and following conditions apply:

- a) duplex spacing is 190 MHz;
- b) in duplex sub-band, three paired blocks are designated, namely 1920.3–1940.1 / 2110.3–2130.1 MHz, 1940.1–1959.9 / 2130.1–2149.9 MHz and 1959.9–1979.7 / 2149.9–2169.7 MHz;
- c) the paired blocks described in letter b) may be used for the operation of nationwide network providing publicly available electronic communications service by the holder of the relevant block assignment;
- d) the sub-band 1920.1–1920.3 MHz is guard band and shall not be utilised;
- e) the sub-band 1920.3–1979.7 MHz is designated for transmission of users' terminals on the basis of the General Authorisation<sup>13)</sup>;
- f) the sub-band 1979.7–1980 MHz is guard band and shall not be utilised;
- g) the sub-band 2110–2110.3 MHz is guard band and shall not be utilised;
- h) the sub-band 2110.3–2169.7 MHz is designated for transmission of base stations;
- i) the sub-band 2169.7–2170 MHz is guard band and shall not be utilised;
- j) the maximum base station BEM out-of-block EIRP limits are set out in the tables 1 and 2 of the Annex B of the Decision<sup>11)</sup>;
- k) the minimum transferable (frequency) unit is right to use of one duplex pair of blocks consisting of 2x5 MHz.

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<sup>9)</sup> Radio Regulations, International Telecommunication Union, Geneva, 2016.

<sup>10)</sup> HCM Agreement – Agreement between the Administrations of Austria, Belgium, the Czech Republic, Germany, France, Hungary, the Netherlands, Croatia, Italy, Liechtenstein, Lithuania, Luxembourg, Poland, Romania, the Slovak Republic, Slovenia and Switzerland on the co-ordination of frequencies between 29.7 MHz and 43.5 GHz for the fixed service and the land mobile service.

<sup>11)</sup> Commission Implementing Decision 2012/688/EU of 5 November 2012 on the harmonisation of the frequency bands 1920-1980 MHz and 2110-2170 MHz for terrestrial systems capable of providing electronic communications services in the Union.

<sup>12)</sup> Abbreviation FDD stands for Frequency Division Duplex.

<sup>13)</sup> General Authorisation No. VO-R/1/05.2017-2 for the operation the users' terminals of the radio networks of the electronic communications.

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(3) The sub-bands 1920–1980 / 2110–2170 MHz may be used for operation of systems providing mobile communications services on board aircraft (MCA services) in accordance with Decision<sup>14)</sup> and following conditions apply:

- a) as regards aircraft registered in the Czech Republic, the operation of stations installed on board is possible on the basis of individual authorisation and conditions of operation of the MCA services shall be in accordance with the annex of the Decision<sup>14)</sup>;
- b) if technical conditions of the Decision<sup>14)</sup> are met for aircraft registered in other states, no additional authorisations within the meaning of corresponding Recommendation<sup>15)</sup> are required for operation of MCA services above the Czech Republic territory;
- c) use of terminals is possible on the basis of the General Authorisation<sup>13)</sup>.

(4) The use of sub-band 1980–2010 MHz by stations of the mobile service is described in Article 9.

(5) The use of sub-band 2010–2025 MHz by PMSE applications is described in Article 7.

(6) The band 2025–2070 MHz has no civil use in the mobile service.

(7) The use of the 2170–2200 MHz band by the mobile service stations is described in Article 9(2).

(8) The holder of assignment is obliged to carry out mutual coordination with other holders of assignments. The Office provides necessary data on the basis of request. On the basis of successful coordination, the holder of assignment is authorised to decide about the use of individual frequencies of its assignment.

#### Article 6

#### **Information on future development in the mobile service**

Proposals on the possible alternative use of unpaired 1900–1920 MHz band presents CEPT Report<sup>16)</sup>. Currently the Office does not expect changes in conditions of the use of the band.

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<sup>14)</sup> Commission Implementing Decision 2013/654/EU of 12 November 2013 amending Decision 2008/294/EC to include additional access technologies and frequency bands for mobile communications services on board aircraft (MCA services).

<sup>15)</sup> Recommendation of the European Commission 2008/295/EC of 7 April 2008 on authorisation of mobile communication services on board aircraft (MCA services) in the European Community.

<sup>16)</sup> CEPT Report 52 – Report from CEPT to the European Commission in response to the Mandate “To undertake studies on the harmonised technical conditions for the 1900–1920 MHz and 2010–2025 MHz frequency bands (“Unpaired terrestrial 2 GHz bands”) in the EU”.

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Part 3  
**Fixed service**

Article 7  
**Current conditions in the fixed service**

(1) The band 2010–2025 MHz is in accordance with the Commission Decision<sup>17)</sup> designated for portable or mobile stations for wireless audio-visual links and cordless cameras used for program making and special events (PMSE) and following conditions apply:

- a) max. e.i.r.p. for cordless cameras is -7 dBW;
- b) max. e.i.r.p. for audio-visual link of portable stations is +16 dBW;
- c) max. e.i.r.p. for audio-visual link of mobile stations is +10 dBW.

(2) The band 2025–2110 MHz is shared with the non-civil utilisation<sup>18)</sup>.

(3) The band 2025–2110 MHz is designated in the framework of the fixed service for the use by links of electronic news gathering / outside broadcasting ENG/OB<sup>19)</sup>, alternatively by other auxiliary services in the radio and the television broadcasting SAP/SAB<sup>20)</sup>, in the sub-band 2025–2070 MHz on the basis of coordination with Ministry of Defence of the Czech Republic.

(4) The fixed service has no civil utilisation in the Czech Republic, except the sub-band described in paragraph 2.

Article 8  
**Information on future development in the fixed service**

Changes in the civil use of the bands allocated to the fixed service are not expected at national or international level.

Part 4  
**Mobile-satellite service**

Article 9  
**Current conditions in the mobile-satellite service**

(1) The bands 1980–2010 MHz (Earth-to-space) and 2170–2200 MHz (space-to-Earth) are allocated to the mobile-satellite service on a primary basis. According to the CEPT Decision<sup>7)</sup>, the bands are designated for utilisation by systems in the mobile-satellite service as well as for systems with the complementary ground stations. In accordance with the footnote of RR<sup>21)</sup>, the bands may be used by satellite IMT component and in accordance with the footnote of the RR<sup>22)</sup>, the utilisation is subject to coordination pursuant to the provision of RR<sup>23)</sup> and Resolution of ITU-R<sup>24)</sup>.

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<sup>17)</sup> Commission Implementing Decision 2016/339/EU of 8 March 2016 on the harmonisation of the 2010–2025 MHz frequency band for portable or mobile wireless video links and cordless cameras used for programme making and special events.

<sup>18)</sup> Note ECA36 of ERC Report 25.

<sup>19)</sup> Abbreviation ENG/OB stands for Electronic News Gathering / Outside Broadcasting from areas outside of radio and television studios.

<sup>20)</sup> Abbreviation SAP/SAB stands for Service Ancillary for Program/ Service Ancillary for Broadcasting.

<sup>21)</sup> Footnote 5.351A of RR.

<sup>22)</sup> Footnote 5.389A of RR.

<sup>23)</sup> Provision No. 9.11A of RR.

<sup>24)</sup> Resolution No. 716 ITU-R (rev. WRC-2012).

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(2) The bands 1980–2010 MHz (Earth-to-space) and 2170–2200 MHz (space-to-Earth) are in accordance with Commission Decision designated for the systems providing the mobile-satellite services, i.e. the systems enable to provide the radiocommunication services between a mobile earth station and one or more satellite stations, or between mobile earth stations by means of one or more satellite stations, or between a mobile earth station and one or more complementary ground stations<sup>25)</sup> at fixed location and following conditions apply:

- a) the bands are designated for operation of networks providing the publicly available electronic communications services;
- b) only holders of assignments may use the bands. Two paired blocks: 1980–1995 / 2170–2200 MHz and 1995–2010 / 2185–2200 MHz are designated for holders of assignment in accordance with Commission Decision<sup>26)</sup>. The holder of assignment carries out the coordination on national and international levels;
- c) on the basis of individual authorisation, the holders of assignments are authorised to use frequencies from the block assignment for operation of the complementary ground stations which shall be an integral part of the mobile-satellite system and shall be controlled by the satellite resources and network management system. They shall use the same direction of transmission and the same portion of frequency bands as associated satellite stations and shall not increase the spectrum requirements for its associated mobile-satellite system. The complementary ground stations (CGC) are considered to be stations in the mobile service and shall not cause harmful interference to the stations operated in adjacent bands. In accordance with harmonised standard, the Office stipulates the technical conditions for operation of CGC;
- d) the sub-band 1980–2010 MHz is designated for transmission of the mobile terminals (of the mobile earth stations). The use of frequencies by user terminals is possible on the basis of General Authorisation<sup>13)</sup>.

#### Article 10

##### **Information on future development in the mobile-satellite service**

(1) European harmonised development of the systems in the mobile-satellite service with the complementary ground stations (CGC) is expected.

(2) One of items on the agenda of World Radiocommunication Conference WRC-19 is development of studies and proposals of provisions for ensuring co-existence and compatibility between terrestrial IMT component (in the mobile service) and satellite IMT component (in the mobile service and the mobile satellite service) in the bands 1980–2010 MHz and 2170–2200 MHz<sup>27)</sup>.

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<sup>25)</sup> In accordance with provision 1.69 of RR, the land station is the mobile station which is not designated for use during motion.

<sup>26)</sup> Commission Decision 2009/449/EC of 13 May 2009 on the selection of operators of pan-European systems providing mobile satellite services (MSS).

<sup>27)</sup> The development of studies in the framework of WRC-19 Agenda Item 9.1.1 is specified by Resolution 212 (rev. WRC-15).

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Part 5

**Space operation service, space research service and Earth exploration-satellite service**

Article 11

**Current conditions in the space operation, space research and Earth exploration-satellite services**

The band 2025–2110 MHz is allocated to the services on a primary basis. The band 2110–2120 MHz is also allocated to the space research service. These services are not utilised in the Czech Republic.

Article 12

**Information on future development in the space operation, space research and Earth exploration-satellite services**

Changes in the utilisation of the band by these radiocommunication services are not expected at international or national level.

Part 6

**Final provisions**

Article 13

**Repealing provisions**

The Measure of General Nature part No. PV-P/6/03.2017-1 of 14 March 2017 of the Radio Spectrum Utilisation Plan for the frequency band 1900–2200 MHz shall be repealed.

Article 14

**Effect**

This part of the Radio Spectrum Utilisation Plan shall come into effect on 16 July 2018.

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## Explanatory memorandum

To implement Section 16(2) of the Act, the Office issues the Measure of General Nature Part No. PV-P/6/06.2018-6 of the Radio Spectrum Utilisation Plan (hereinafter “the part of the plan”), laying down the technical parameters and conditions of the use of radio spectrum in the frequency band from 1900 MHz to 2200 MHz by radiocommunication services. The part of the plan is based on the principles embedded in the Act and in European legislation, especially in Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services within the meaning Directive 2009/140/EC<sup>28)</sup> and in Decision No. 676/2002/EC of the European Parliament and of the Council on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) as well as on principles determined in the Common Part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35, as amended. The purpose of issuing this part of the plan is to ensure the transparency of conditions for radio spectrum use and the ability to anticipate the future decisions of the Office.

This Measure of General Nature replaces the part of the Radio Spectrum Utilisation Plan No. PV-P/6/03.2017-1 for the frequency band 1900-2200 MHz. The reason of issuing of the new measure is a withdrawal of information about use of the frequency bloc 1910.1–1915.1 MHz by assignment holder which in the past operated countrywide network intended for publicly available services of electronic communications. The number of rights is limited.

Article 2 consists of information from Frequency Bands Allocations Plan (National Table of Frequency Allocations) and current utilisation by applications. Simultaneously there is harmonisation intention i.e. allocation to radiocommunication services and utilisation by applications according to ERC Report 25 - European Table of Frequency Allocations and Applications. The main applications are presented from utilisation point of view and other details are in parts dedicated to particular radiocommunication services.

Article 3 with characterization of the frequency bands described in this part of plan refers to prevailing importance of current use of the band for terrestrial IMT communications. Portion of the band is designated for IMT satellite systems. Europe-wide implementation of CGC earth stations is expected. The article was extended to determine the entire band 1900–2200 MHz for IMT communications with reference to the footnote 5.388 of the Radio Regulations.

Article 4 contains international obligations, specified by the Radio Regulations of the International Telecommunication Union, and the HCM Agreement.

The most important utilisation of the band is in the mobile service the operation of countrywide terrestrial mobile networks for providing of publicly available service of electronic communications which are described in Part 2. The described bands can be used by holders of radio frequency assignments. The rights for use of frequencies are transferable in accordance with Section 23 of the Act. Implementation of the Decision 2012/688/EU introduced Block Edge Mask concept in the paired bands 1920–1980 / 2110–2170 MHz enabling utilisation by the IMT systems, incl. UMTS and LTE/E-UTRA. To facilitate introducing of minimum appropriate quality of service and taking into account the technical parameters of IMT systems (especially channel bandwidth), the minimum transferable frequency unit consisting of 2 x 5 MHz is determined. In consideration of the fact that unpaired band 1900–1920 MHz is no longer used on the basis of individual authorisations for use of the radio

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<sup>28)</sup> Directive 2009/140/EC of the European Parliament and of the Council amending Directive 2002/21/EC on a common regulatory framework for electronic communications networks and services, Directive 2012/19/EC on access to, and interconnection of, electronic communications networks and associated facilities and Directive 2002/20/EC on the authorisation of electronic communications networks and services.



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frequencies and not even used in the sub-band 1910.1–1915.1 MHz by existing assignment holder, it is refrained from the limitation of number of rights for use of the radio frequencies in the entire sub-band 1900–1920 MHz including the frequency bloc 1910.1–1915.1 MHz. Given that the unified harmonised conditions of use of the unpaired 1900–1920 MHz band are not adopted at European level, the individual authorisation for use of the radio frequencies are not issued in the described band according to Section 18 of the Act and the use is possible only on the basis of a short-term authorisation for use of the radio frequencies or based on an individual authorisation for use of the frequencies for experimental purposes, provided no other facts prevent that.

With respect to the fact that PMSE applications from point of view of conditions of frequency utilisation are considered as the applications with restricted mobility, the Article 5(5) includes the reference to the conditions of use of the band 2010–2025 MHz by PMSE applications in the fixed service.

Based on the completion of CEPT study on the alternative use of the unpaired bands 1900–1920 MHz and 2010–2025 MHz<sup>16)</sup>, information about an assumption of alternative utilization was omitted in Article 6 on future development.

Part 3 consists of information on fixed radiocommunication service. In accordance with Commission Decision<sup>17)</sup> on harmonisation of the frequency band 2010–2025 MHz for audio-visual transmissions there are new technical conditions for PMSE stations in Article 7(1) set down. Together with the adjacent band 2025–2110 MHz designated for reportage links for PMSE is in this way reserved the undivided sub-band of 100 MHz (2010–2110 MHz) observing sharing with non-civil use in the sub-band 2025–2070 MHz.

Part 4 concerns the mobile satellite service. The bands 1980–2010 MHz and 2170–2200 MHz were designated for systems providing the mobile satellite services in accordance with the European Commission Decision<sup>8)</sup>. European Commission decided on selection of the operators<sup>26)</sup> of the pan-European systems. In the Czech Republic, the authorisation of operators will enable operation of Complementary Ground Component (CGC) at fixed locations with aim to improve accessibility of the mobile satellite system everywhere existing satellite stations connection cannot be ensured with the required quality. The use of the frequencies by complementary ground stations is possible on the basis of the individual authorisation for the use of radio frequencies. Into Article 10 with information on future development in the mobile-satellite service there was added information about initiation of the analysis on compatibility between terrestrial and satellite IMT components taking place in the framework of the preparation for WRC-19 conference.

Part 5 summarises information on assignments of the bands to space services and the Earth exploration satellite service.

Article 13 contains the repealing provision and legal effect of this part of the plan is set down in Article 14 in accordance with Section 124 of the Act.

On the basis of Section 130 of the Act and in accordance with the Czech Telecommunication Office's Rules for Conducting Consultations at the Discussion Site, the Office published a Draft Measure of General Nature Part No. PV-P/6/XX.2018-Y of the Radio Spectrum Utilisation Plan together with a call for comments at the Discussion Site on 11 May 2018. During public consultation, the Office received one comment about the list of applications in Article 2; with regard to the fact that the comment did not modify character of the Measure

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of General Nature, the original text was preserved. The settlement table published at the Discussion Site presents wording of the comment and viewpoint of the Office to the settlement.

On behalf of the Council of the Czech  
Telecommunication Office  
Jaromír Novák  
Chairman of the Council  
of the Czech Telecommunication Office

<signed>