

Prague, 23 June 2015
Ref.: 21 152/2015-605

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 “the Act”) and under Section 10 of the Act No. 500/2004 Coll., Administrative Regulations, as amended, 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/12/06.2015-3 of the Radio Spectrum Utilisation Plan
for the frequency band 1700–1900 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 1700 MHz to 1900 MHz by radiocommunication services. This part of the Radio Spectrum Utilisation Plan is follow-up to the Common part of the Radio Spectrum Utilisation Plan¹⁾.

Part 1
General information on the frequency band

Article 2
Frequency bands

Band (MHz)	Current conditions		Future harmonisation ²⁾	
	Allocation	Utilisation	Allocation	Utilisation
1700–1710	FIXED METEOROLOGICAL- SATELLITE (space- to-Earth) MOBILE except aeronautical mobile ^{3) 4)}	Fixed links MD Meteorological applications	FIXED METEOROLOGICAL- SATELLITE (space- to-Earth) MOBILE except aeronautical mobile ^{3) 4)}	Fixed links MD Meteorological applications

¹⁾ Common part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35 published in the Telecommunication Bulletin 14/2005.
²⁾ ERC Report 25: The European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz, rev. 2014.
³⁾ Footnote 5.341 of the Radio Regulations.

This is an unofficial translation. The legally binding text is the original Czech version.

1710–1770	FIXED MOBILE 3) 5) 6) 7)	GSM, IMT Radio astronomy	FIXED MOBILE 3) 5) 6) 7)	GSM, IMT Radio astronomy
1770–1900	FIXED MOBILE 6) 8) 9)	GSM, IMT DECT SRD, PMSE Fixed links	FIXED MOBILE 6) 8) 9)	GSM, IMT DECT SRD, PMSE Fixed links

Article 3

Frequency band characteristics

The band is mainly used by radio networks providing services of electronic communications in the mobile service. Except the GSM¹⁰⁾ technology, also such technologies whose operation is compatible with the GSM systems may be used for operation of above mentioned systems. Parts of the band are also used by applications in the fixed, meteorological-satellite and radio astronomy services.

Article 4

International obligations

Provisions of the Radio Regulations¹¹⁾ (hereinafter only “RR”), harmonisation documents of the European Union¹²⁾, ¹³⁾, ¹⁴⁾, HCM Agreement¹⁵⁾ and provisions of bilateral and multilateral coordination agreements on the use of frequencies at common state borders which were concluded with appropriate administrations of neighbouring countries.

⁴⁾ According to footnote 5.289 of the Radio Regulations the band 1690–1710 MHz may be used by the Earth exploration service subject to not cause harmful interference to stations of services to which the band is allocated.

⁵⁾ Footnote 5.385 of the Radio Regulations.

⁶⁾ Footnote 5.384A of the Radio Regulations.

⁷⁾ Footnote 5.149 of the Radio Regulations.

⁸⁾ Footnote 5.388 of the Radio Regulations.

⁹⁾ Footnote 5.388A of the Radio Regulations.

¹⁰⁾ Abbreviation GSM stands for Global System for Mobile Communications.

¹¹⁾ Radio Regulations, International Telecommunication Union, Geneva, 2012.

¹²⁾ Commission Implementing Decision 2011/251/EU of 18 April 2011 amending Decision 2009/766/EC on the harmonisation of the 900 MHz and 1800 MHz frequency bands for terrestrial systems capable of providing pan-European electronic communications services in the Community.

¹³⁾ Commission Implementing Decision 2013/654/EU of 12 November 2013 amending Decision 2008/294/EC on to include additional access technologies and frequency bands for mobile communication services on aircraft (MCA services).

¹⁴⁾ Commission Recommendation 2008/295/EC of 7 April 2008 on authorisation of mobile communication services on aircraft (MCA services) in the European Community.

¹⁵⁾ 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 39.5 GHz for the fixed service and the land mobile service.

Part 2
Mobile service

Article 5
Current conditions in the mobile service

(1) According to the harmonisation documents European Union¹²⁾ and CEPT¹⁶⁾, the sub-bands 1710–1785/1805–1880 MHz are designated for operation of countrywide networks providing publicly accessible electronic communications services using GSM technologies or such technologies whose operation is compatible with operation of GSM systems and complies with the conditions of documents mentioned above (hereinafter only “compatible technologies”¹⁷⁾). The number of the rights in the sub-bands is limited and following conditions apply:

- a) the sub-band 1710–1785 MHz is designated for transmission of the terminals to the base stations, the sub-band 1805–1880 MHz for transmission of the base stations to the terminals. Duplex separation is 95 MHz;
- b) the basic channel separation is 200 kHz and centre frequencies of channels are given by formulas

$$f_n \text{ [MHz]} = 1710.2 + 0.2(n - 512) \text{ in the lower half of the band, and}$$

$$f_n' \text{ [MHz]} = f_n + 95, \text{ in the upper half of the band,}$$

where $n = 512$ up to 885 ;

- c) the assigned channels can be merged into blocks of integer multiples of 200 kHz channel size for purposes of the implementation of compatible technologies operation;
- d) in the case of the absence of bilateral or multilateral agreements between operators of neighbouring networks, the holders of assignments who implement the compatible technologies are obliged to create the guard sub-band of 200 kHz¹⁸⁾, ¹⁹⁾, ²⁰⁾, ²¹⁾ between the block edge of compatible technology and the edge of the nearest GSM channel;
- e) the holders of spectrum rights are authorised to plan their frequencies for the particular base stations by themselves;
- f) the use of frequencies by user terminals is possible on the basis of General Authorisation²²⁾;
- g) the holder of spectrum right is obliged itself to coordinate the use of assigned frequencies with other spectrum holders. Data, needed for this coordination, will be provided by the Office on the basis of application. Assignment holder solves in

¹⁶⁾ Decision CEPT/ERC/DEC/(95)03 of 1 December 1995 on the frequency bands to be designated for the introduction of DCS 1800.

¹⁷⁾ Technologies belonging to group of mobile communication systems marked by abbreviation IMT and IMT-A, abbreviated from International Mobile Telecommunications.

¹⁸⁾ Annex of Commission Implementing Decision 2011/251/EU of 18 April 2011 amending Commission Decision 2009/766/EC of 16 October 2009 on harmonisation of the 900 MHz and 1800 MHz frequency bands for terrestrial systems capable of providing pan-European electronic communication services in the Community.

¹⁹⁾ ECC Report 82 – Compatibility study for UMTS operating within the GSM 900 and GSM 1800 frequency bands, Roskilde, May 2006.

²⁰⁾ ECC Report 96 – Compatibility between UMTS 900/1800 and systems operating in adjacent bands, Krakow, March 2007.

²¹⁾ CEPT Report 40 – Report from CEPT to the European Commission in response to task 2 of the mandate to CEPT on the 900/1800 MHz bands “Compatibility study for LTE and WiMAX operating within the bands 880–915/925–960 MHz and 1710–1785/1805–1880 MHz (900/1800 MHz bands).”

²²⁾ General Authorisation No. VO-R/1/04.2014-2 for the operation the users’ terminals of the radio networks of the electronic communications, as amended.

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cooperation with other assignments holders also cases of mutual interference between networks operated in the sub-bands 1710–1785/1805–1880 MHz;

- h) the Office carries out international coordination²³⁾ and national coordination with operators beyond networks in the sub-bands 1710–1785/1805–1880 MHz according to valid international and national agreements on the basis of application of assignment holder. The Office can authorise the spectrum holder to carry out the coordination;
- i) the number of rights for the use of radio frequencies is given by number of duplex channels pursuant to letter b), i.e. 374 duplex channels.

(2) The sub-bands 1710–1785/1805–1880 MHz can be also used for operation of mobile communication services on board of the aircraft (MCA services) in accordance with European Commission Decision¹³⁾ and following conditions apply:

- a) no harmful interference shall be caused to any radiocommunication service and at the same time no protection of this equipment against harmful interference from radiocommunication services side shall be claimed;
- b) the conditions for operation of MCA services are defined by Annex of Decision¹³⁾;
- c) in aircraft registered in the Czech Republic, the operation of equipment installed on boards the aircraft is possible on the basis of the individual authorisation;
- d) the use of terminals is possible on the basis of General Authorisation²²⁾;
- e) if the aircraft registered in other states fulfil the technical conditions of Decision¹³⁾, no additional authorisations in accordance with Recommendation¹⁴⁾ are required for operation of MCA services above territory of the Czech Republic.

(3) The sub-band 1785–1805 MHz can be used in accordance with Commission Decision²⁴⁾ and CEPT Recommendation²⁵⁾ by wireless audio equipment. Factual conditions for the use of radio frequencies, including technical parameters are set down by General Authorisation²⁶⁾.

(4) The sub-band 1880–1900 MHz is used according to the Council Directive²⁷⁾ and CEPT Decision²⁸⁾ by stations of DECT²⁹⁾ system and following conditions apply:

- a) the stations enable voice and data transmission and are used as cordless telephones, gap fillers for cellular systems of telephone branch exchanges, portable pay terminals furthermore for telemetry, remote control, cordless connection of office devices and the like;
- b) the stations use the time division duplex TDD³⁰⁾ regime;
- c) the operation of stations, except of transmitting radio equipment used for development of the public communication networks, is possible on the basis of the General Authorisation³¹⁾.

²³⁾ Recommendation CEPT/ECC/REC/(08)02 – Frequency planning and frequency coordination for the GSM 900 (including E-GSM)/UMTS 900, GSM 1800/UMTS 1800 land mobile systems.

²⁴⁾ Commission Implementing Decision 2014/641/EU on harmonised technical conditions of radio spectrum use by wireless audio programme making and special events (PMSE) equipment in the Union.

²⁵⁾ Recommendation CEPT/ERC/REC 70-03 – Relating to the use of Short Range Devices (SRD).

²⁶⁾ General Authorisation No. VO-R/10/05.2014-3 for the use of radio frequencies and operation of short range devices, as amended.

²⁷⁾ Council Directive 91/287/EEC of 3 June 1991 on frequency band to be designated for coordinated introduction of digital European cordless telecommunications (DECT) into the Community.

²⁸⁾ Decision CEPT/ERC/DEC/(94)03 – ERC Decision of 24 October 1994 on the frequency band to be designated for the coordinated introduction of the Digital European Cordless Telecommunications System.

²⁹⁾ Abbreviation DECT stands for Digital European Cordless Telecommunications System.

³⁰⁾ Abbreviation TDD stands for Time Division Multiplex.

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Article 6

Information on future development in the mobile service

(1) The conditions for introduction of higher generations of networks than GSM are established by implementation of harmonisation document¹²⁾ in the sub-bands 1710–1785/1805–1880 MHz.

(2) In accordance with RR footnote⁹⁾ it will be possible to use the band 1885–1980 MHz by the base stations of IMT¹⁷⁾ on high altitude platforms³²⁾.

Part 3

Fixed service

Article 7

Current conditions in the fixed service

(1) The sub-band 1700–1703 MHz is designated for simplex fixed point-to-point links and following conditions apply:

- a) channel separation is 200 kHz;
- b) centre frequencies of channels are given by formula

$$f_n \text{ [MHz]} = 1700.1 + 0.2n,$$

where $n = 0$ up to 14.

(2) The sub-band 1703–1710 MHz is used for non-civil purposes.

(3) The sub-band 1710–1880 MHz is not used by the fixed service. Fixed applications of the GSM system (for example fixed user terminals) can be operated within the framework of the mobile service only and under the conditions mentioned in the Article 5.

(4) The sub-band 1880–1900 MHz can be used by the point-to-multipoint fixed links and point-to-point links using the DECT technology. All frequencies are considered as shared ones whereas mutual influence between stations of DECT system operated in the fixed or mobile services is not considered as harmful interference.

Article 8

Information on future development in the fixed service

Future harmonisation of utilisation in Europe will be decisive for future use of the fixed service band. ERC Report²⁾ assumes change of the allocation of the fixed service in the bands 1800–1805 MHz and 1880–1900 MHz to a secondary one.

Part 4

Meteorological-satellite service

Article 9

³¹⁾ General Authorisation No. VO-R/8/08.2005-23 for the use of radio frequencies and for the operation of DECT-standard cordless telecommunications devices, as amended.

³²⁾ According to RR provision 1.66A, it is a case of stations located on an object at an altitude 20 to 50 km and at a specified, nominal, fixed point relative to the Earth.

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Current conditions in the meteorological-satellite service

The band 1700–1710 MHz (space-to-Earth) is allocated to the meteorological-satellite service for data reception from meteorological satellites.

Article 10

Information on future development in the meteorological-satellite service

Changes of utilisation of the band by the service are not assumed on international or national level.

Part 5

Radioastronomy service

Article 11

Current conditions in the radio astronomy service

(1) The radio astronomy service is passive radiocommunication service based on reception of radio waves of cosmic origin. Due to low level of received signals, the operation of this service depends on protection against interference from other radiocommunication services.

(2) In accordance with the RR footnotes^{5), 7)}, the radio astronomy service uses the sub-band 1718.8–1722.2 MHz for observation of spectral lines and other users of the sub-band are obliged to take all practicable steps to prevent interference of radio astronomy from their transmitting radio equipment.

Article 12

Information on future development in the radio astronomy service

Changes in the utilisation of the band on national or international level are not expected.

Part 6

Final provisions

Article 13

Repealing provision

The Part of the Radio Spectrum Utilisation Plan No. PV-P/12/04.2011-4 for the frequency band 1700–1900 MHz is cancelled.

Article 14

Effect

This part of the Radio Spectrum Utilisation Plan is effective from 15 July 2015.

Explanatory memorandum

To implement Section 16(2) of the Act, the Office issues the Measure of General Nature Part No. PV-P/12/XX.2015-YY of the Radio Spectrum Utilisation Plan (hereinafter “the part of the plan”), laying down the technical characteristics and conditions of the use of radio spectrum in the frequency band from 1700 MHz to 1900 MHz by radiocommunication services. This 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 of the Directive 2009/140/EC³³) 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 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 amends the part No. PV-P/12/04.2011-4 of the Radio Spectrum Utilisation Plan for the frequency band 1700–1900 MHz. The reason of new issue of the part of radio spectrum utilisation plan is implementation of two European harmonisation documents: Commission Decision¹³) addressing mobile communication services on board of aircraft which extends utilisation of the 1800 MHz band with possibility of providing data broadband services, and Commission Decision²⁴) which extends bands for wireless audio transmission including PMSE equipment used for providing of news programmes and making special events.

Article 2 contains information from the Plan Frequency Bands Allocations (National Table of Frequency Allocations) with current utilisation by applications together with the harmonisation intention, i.e. the allocation to radiocommunication services and utilisation by applications according to ERC Report 25 (European Table of Frequency Allocations and Frequency Utilisations). In the summary of utilisations, main applications are presented. Further details are in parts with specifications of particular radiocommunication services. In the fixed service in the band 1770–1900 MHz, gradual termination of utilisation of the band is assumed by fixed links due to fulfilment of the original purpose.

Article 3 presents characteristic of radio spectrum utilisation described by this part of the plan. In the band 1710–1785/1805–1880 MHz, IMT technologies are implemented provided there is compatibility with operation of GSM systems.

Article 4 informs about international commitments related to the given band 1700 MHz to 1900 MHz. The coordination agreements concluded with radio spectrum administrations of neighbouring countries shall take into account technological development of the use of the band 1710–1785/1805–1880 MHz.

Part 2 informs about conditions of utilisation of frequencies in the mobile service by networks providing publicly available electronic communications services, including communication services on board aircraft indicated with the abbreviation “MCA”, furthermore on wireless audio equipment and DECT stations. The frequency arrangement presented in paragraph 1 corresponds with the specification of GSM systems. In order to allow rearrangement of the band 1710–1785/1805–1880 MHz and implementation of technologies using larger bandwidth of the radio channel than in GSM technology, the possibility to merge assigned channels is established provided that conditions of the mutual coexistence of radio

³³) Directive 2009/140/EC of the European Parliament and of the Council amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, Directive 2002/19/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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networks are fulfilled. On the basis of Commission Decision¹³⁾, the range of technologies used in the frame of MCA communication was extended by LTE technology which also enable broadband access to the electronic communications services on board of aircraft. The obligation of the individual authorisation of stations installed on board of aircraft registered in the Czech Republic results from provision of article 2, paragraph 3 and 4 of the former Decision 294/2008/EU. Newly, the whole of sub-band 1785–1805 MHz can be used, in accordance with Commission Decision²⁴⁾ by wireless audio equipment for providing of news programmes and making special events (PMSE equipment).

Part 3 relates to the conditions of spectrum utilisation by the fixed service. In view of the priority of band utilisation by the mobile service, the sub-bands 1700–1703 MHz and 1880–1900 MHz are designated for fixed links.

Parts 4 and 5 describe utilisation of the frequencies by the meteorological and radio astronomy radiocommunication services.

In Article 13, the former issue of the part of Radio Spectrum Utilisation Plan for the band 1700–1900 MHz is cancelled. Effect of this part of Radio Spectrum Utilisation Plan is set down in Article 14.

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 the draft of Measure of General Nature part No. PV-P/12/XX.2015-YY of the Radio Spectrum Utilisation Plan together with a call for comments on the discussion site on 11. May 2015. During the public consultation, the Office did not receive any comments.

On behalf of the Council of the Czech
Telecommunication Office

Jaromír Novák
Chairman of the Council
of the Czech Telecommunication Office

<signed>