Prague, 5 March 2019 Ref.: ČTÚ-65/2019-619

On the basis of results 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 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 competent state administration body under Section 108(1)(b) of the Act hereby issues this Measure of General Nature

Part No. PV-P/10/03.2019-3 of the Radio Spectrum Utilisation Plan for the frequency band 470-960 MHz.

Article 1 Introductory provision

This part of the Radio Spectrum Utilisation Plan sets down technical characteristics and conditions of use of radio spectrum in the frequency band from 470 MHz to 960 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 Plan¹).

Part 1 General information on the frequency band

Article 2 Frequency bands

Dond (MII-)	Current of	onditions	Future harmonisation ²)		
Band (MHz)	Allocation	Utilisation	Allocation	Utilisation	
470–694	BROADCASTING Land mobile	Television transmission SAB/SAP Wireless audio transmission	BROADCASTING Land mobile	Digital transmission and other broad- casting service applications SAB/SAP Wireless audio transmission	

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

²) ERC Report 25: European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz, rev. 2018.

³⁾ According to footnote 5.306 of the Radio Regulations, the band 608–614 MHz is also allocated to the radio astronomy service on a secondary basis.

⁴) According to footnote 5.149 of the Radio Regulations, users of the band 608–614 MHz shall take all practicable steps to protect the radio astronomy service.

⁵⁾ According to footnote 5.291A of the Radio Regulations, the band 470–494 MHz is also allocated to the radiolocation service on a secondary basis, the use is limited to the operation of radar sensors of wind direction and velocity.

694–790	MOBILE except aeronautical mobile BROADCASTING	Mobile electronic communications services IMT Television transmission Wireless audio transmission (in part of the band and with time limitation)	MOBILE except aeronautical mobile BROADCASTING	Mobile electronic communications services IMT Wireless audio transmission (in part of the band and with time limitation)
790–862	MOBILE except aeronautical mobile	Mobile electronic communications services IMT Wireless audio transmission (in part of the band)	MOBILE except aeronautical mobile	Mobile electronic communications services IMT Wireless audio transmission (in part of the band)
862–890	MOBILE except aeronautical mobile	GSM-R Mobile electronic communications services GSM/IMT SRD	MOBILE except aeronautical mobile	GSM-R Mobile electronic communications services GSM/IMT SRD
890–942	MOBILE except aeronautical mobile	GSM-R Mobile electronic communications services GSM/IMT	MOBILE except aeronautical mobile 8)	GSM-R Mobile electronic communications services GSM/IMT
942–960	MOBILE except aeronautical mobile 8)	Mobile electronic communications services GSM/IMT	MOBILE except aeronautical mobile 8)	Mobile electronic communications services GSM/IMT

Article 3 Frequency band characteristics

(1) The 470-862 MHz band, known as the UHF band, is characterised by convenient conditions of radio waves propagation. Originally it was used mainly for television broadcasting. Following the utilisation of other distribution platforms (especially cable television networks, satellite transmission, IPTV), following the transition from analogue to digital television broadcasting and following the content consumption changes by users the amount of spectrum designated for terrestrial television broadcasting in the UHF band is being gradually reduced. The economic parameters are decisive for the choice of how to use the UHF band. For this reason, the bands 790-862 MHz at first and 694–790 MHz afterwards (hereinafter "the 700 MHz band") were designated for the mobile service (mobile networks) in

⁶⁾ Footnote 5.312A of the Radio Regulations: In Region 1, the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service is subject to the provisions of Resolution 760 (WRC-15). See also Resolution 224 (rev. WRC-15).

⁷) Footnote 5.316B of the Radio Regulations.

Footnote 5.317A of the Radio Regulations.

Europe whereby the harmonisation process with other ITU-R⁹) regions was completed. In EU countries, the conditions for the use of the band are set forth in Decision (EU) 2017/899¹⁰) of the European Parliament and of the Council. The changes in 700 MHz band result in subsequent further reorganization of the use of frequencies.

- (2) So far, the sub-bands from 790–862 MHz and 880-960 MHz bands are the main bands for the operation of public nationwide networks providing electronic services, used by mobile networks. Within these networks, the convergence of electronic communications services principle applies, and they are considered as applications of the mobile, fixed and broadcasting services.
- (3) Pursuant to an EU Decision ¹⁰) the Member States are obliged to enable the use of the 700 MHz band by mobile access networks by 30 June 2020.

Article 4 International obligations

Provisions of the Radio Regulations¹¹) (hereinafter "RR"), European Commission (hereinafter "Commission") harmonisation documents, provisions of the HCM Agreement¹²), the Geneva Agreement, 2006¹³) and other international agreements apply to the utilisation and coordination of radio frequencies.

Part 2 Devices operated outside the radiocommunication services

Article 5

Current conditions for devices operated outside the radiocommunication services

- (1) The band 470-786 MHz can be used according to the CEPT Recommendation¹⁴) by wireless audio transmission devices including wireless microphones. In the 786-862 MHz band, the use of frequencies by such devices is time- and power-limited in accordance with the General Authorisation¹⁵), which lays down detailed conditions of radio spectrum use by short range devices (SRD), including technical parameters.
- (2) The sub-bands 863–870 MHz and 915–921 MHz may be used in accordance with Commission Decisions¹⁶), ¹⁷) and CEPT Recommendation¹⁴) by short range devices. The General Authorisation¹⁵) sets down specific conditions of the use of radio frequencies including technical parameters.

⁹) International Telecommunication Union. Abbreviation ITU-R stands for Radiocommunication sector ITU.

Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017 on the use of the 470-790 MHz frequency band in the Union published in EU OJ on 25 May 2017.

¹¹) Radio Regulations, International Telecommunication Union, Geneva, 2016.

¹²⁾ HCM Agreement – Agreement between the Administrations of Austria, Belgium, the Czech Republic, Germany, France, Hungary, the Netherlands, Croatia, Italy, Liechtenstein, Lithuania, Luxembourg, Montenegro, 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.

¹³⁾ Regional Agreement relating to the planning of the digital terrestrial broadcasting service in Region 1 (parts of Region 1 situated to the west of meridian 170° E and to the north of parallel 40° S, except the territory of Mongolia) and in the Islamic Republic of Iran, in the frequency bands 174–230 MHz and 470–862 MHz (Geneva, 2006).

¹⁴) Recommendation CEPT/ERC/REC 70-03 – Relating to the use of Short Range Devices (SRD).

¹⁵⁾ General Authorisation No. VO-R/10/01.2019-1 for the use of radio frequencies and for the operation of transmitting radio Short Range Devices as amended.

¹⁶⁾ Commission Implementing Decision (EU) 2017/1483 of 8 August 2017 amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices.

¹⁷⁾ Commission Implementing Decision (EU) 2018/1538 of 11 October 2018 on the harmonisation of radio spectrum for use by short-range devices within the 874-876 and 915-921 MHz frequency bands.

Article 6

Information on future development for devices operated outside the radiocommunication services

- (1) The revision of the Recommendation¹⁴) extended frequencies for the use by short range devices to the sub-band 862–863 MHz. The extension of bands for the mentioned purpose is proposed in the framework of the currently discussed revision of the Commission Decision¹⁶).
- (2) In the framework of CEPT ECC groups, the possibilities for implementation of conditions for operation of short-range devices incorporated into IoT, namely in the sub-band 915–919.4 MHz, alternatively also in the sub-band 863–870 MHz, are under study.

Part 3 Mobile service

Article 7 Current conditions in the mobile service

- (1) The land mobile service¹⁸) has allocation in the bands 470–790 MHz on a secondary basis. On the basis of RR the mobile, except aeronautical mobile, service has allocation in the band 694–790 MHz on a primary basis and the band utilisation in this service is subject to a binding EU Decision ¹⁰). The mobile, except aeronautical mobile, service has allocation in the 790–960 MHz bands on a primary basis.
- (2) The band 694–790 MHz is in accordance with the EU Decision ¹⁰) and the National Radio Spectrum Management Strategy¹⁹) designated for terrestrial systems capable to provide wireless broadband services of electronic communications from 30 June 2020. The number of rights is limited in the paired sub-bands 703–733 / 758–788 MHz and the following conditions apply:
 - a) in accordance with the Commission Implementing Decision²⁰), the sub-bands 703–733 / 758–788 MHz are designated for different use than for transmitting networks of the broadcasting service with high power;
 - b) the conditions for utilisation of radio frequencies are determined by the Annex of Commission Decision²⁰) which sets down technical parameters called the spectrum block edge masks which include limit values of emissions in-block and out-of-block and conditions for observation of these parameters;
 - c) the paired sub-bands 703–733 / 758–788 MHz are designated for frequency division multiplex FDD operation²¹) and duplex separation of 55 MHz. The sub-band 703–733 MHz is designated for terminal transmission and the sub-band 758–788 MHz is designated for base station transmission;
 - d) in the sub-bands there are defined six duplex pairs with 5 MHz blocks, while block edge frequencies are given by formulas:

 f_n [MHz] = 703 + 5n, in the lower duplex sub-band,

¹⁸) The radiocommunication service defined by provision No. 1.26 of RR.

¹⁹⁾ The Radio Spectrum Management Strategy of 2015 amended by the Situation report to Government on fulfilment of the Radio Spectrum Management Strategy of 16 May 2018

the Radio Spectrum Management Strategy of 16 May 2018.

Commission Implementing Decision (EU) 2016/687 of 28 April 2016 on the harmonisation of the 694–790 MHz frequency band for terrestrial systems capable of providing wireless broadband electronic communications services and for flexible national use in the Union.

²¹) Abbreviation FDD stands for Frequency Division Duplex.

$$f_n'$$
 [MHz] = f_n + 55, in the upper duplex sub-band,
where n = 0 up to 6;

- e) the Office will decide on the utilisation of the non-paired frequency sub-bands except the sub-bands described in letter a), pursuant to European harmonisation;
- f) the frequency sub-bands under letters c) and d) may be used by holders of radio frequencies block allocations;
- g) the maximum number of rights for use of radio frequencies in the sub-band described under letter c) corresponds to the number of six paired duplex blocks. These rights are geographically defined as nationwide for the Czech Republic;
- h) the minimum transferable unit is right for use of a single duplex pair of frequency blocks pursuant to letter d);
- i) the sub-band 694–698 MHz is the guard band;
- j) the use of frequencies by users' terminals is possible on the basis of the General Authorisation²³);
- k) the Office sets down other conditions.
- (3) The band 790–862 MHz is designated in accordance with Commission Decision²²) for the operation of electronic communications networks. In the sub-bands 791–821 / 832–862 MHz, the number of rights for use of radio frequencies is limited and the following conditions apply:
 - a) the sub-band 790–791 MHz is the guard band,

832 MHz pursuant to European harmonisation;

- b) the conditions for utilisation of radio frequencies are determined by the Annex to the Commission Decision²²) which sets down technical parameters called the spectral block edge masks including limit values for in-block and out-of-block emissions as well as conditions for fulfilment of these parameters;
- c) paired sub-bands 791–821 / 832–862 MHz are designated for (frequency division duplex) FDD operation and duplex separation of 41 MHz. The sub-band 791–821 MHz is designated for base station transmission, the sub-band 832–862 MHz for terminal transmission;
- d) in the sub-bands, six duplex pairs with 5 MHz blocks are defined, while block edge frequencies are given by formulas:

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f_n [MHz] = 791 + 5n, in the lower duplex sub-band, f_n [MHz] = f_n + 41, in the upper duplex sub-band, where n = 0 up to 6;
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e) the Office will decide on the utilisation of the non-paired frequency sub-band 821-

- f) the frequency sub-bands under letters c) and d) may be used by holders of radio frequencies block allocations;
- g) the maximum number of rights for utilisation of radio frequencies in the sub-band described under letter c) is given by the number of six paired duplex blocks pursuant to letter d). These rights are geographically defined as nationwide in the Czech Republic;

22) Commission Decision 2010/267/EU of 6 May 2010 on harmonised technical conditions of use in the 790–862 MHz frequency band for terrestrial systems capable of providing electronic communications services in the European Union.

- h) the minimum transferable unit is the right for use of single duplex pair of frequency blocks pursuant to letter d);
- i) the use of frequencies by user's terminals is possible on the basis of the General Authorisation²³);
- j) by implementation of networks within framework of the mobile radiocommunication service, the international obligations described in Article 9, paragraph 2, are not affected:
- k) block allocation holder is obliged to respect the agreements concluded by the Office with administrations of neighbouring countries;
- the analogous conditions as listed in Article 7, paragraph 7, letter i), apply to the holder of block allocation of frequencies from the band described under letter d). Both international as well as national coordination with operators of transmitting radio equipment beyond the sub-bands described under letter d) are carried out by the Office upon request of block allocation holder or the Office may authorise the block allocation holder to carry out the coordination.
- (4) The sub-band 862–863 MHz cannot be used. The Office will decide on its possible utilisation in accordance with the European harmonisation.
- (5) The sub-bands 870–876 / 915–921 MHz are not used in the framework of radiocommunication services.
- (6) The sub-bands 876–880 / 921–925 MHz are designated for railway transport communication GSM-R systems in accordance with CEPT Decision²⁴) and CEPT Recommendation²⁵) and the following conditions apply:
 - a) duplex separation is 45 MHz, the sub-band 876–880 MHz is designated for terminals transmission, the sub-band 921–925 MHz for base stations transmission;
 - b) maximum e.r.p. of base stations is 350 W;
 - c) the sub-bands 876.1–879.9 / 921.1–924.9 MHz are designated for operation with channel spacing of 200 kHz and centre frequencies of channels are given by formulas:

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f_n \, [MHz] = 890 + 0.2(n-1024), \, in \, the \, lower \, duplex \, sub-band, f_n' \, [MHz] = f_n + 45, \, in \, the \, upper \, duplex \, sub-band,
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where n = 955 up to 973;

- d) the sub-bands 879.9–880.0 / 924.9–925.0 MHz are guard bands;
- e) the carrier radio frequencies 876.0125 MHz, 876.025 MHz, 876.0375 MHz, 876.05 MHz and 876.0625 MHz are designated for the operation in direct mode (DMO) with channel spacing of 12.5 kHz;
- f) operator of the GSM-R network shall only be the legal entity, which is mandated according to special legal regulation²⁶) to manage the railway infrastructure owned by the state and which was granted the individual block allocation for the radio frequencies utilisation;

²³⁾ General Authorisation No. VO-R/1/12.2018-8 for the operation of users' terminals of the radio networks of the electronic communications.

²⁴) Decision CEPT/ECC/DEC/(02)05 of 5 July 2002 on the designation and availability of frequency bands for railway purposes in the 876–880 MHz and 921–925 MHz bands, amended 8 March 2013.

²⁵) Recommendation CEPT/ERC T/R 25-09 – Designation of frequencies in the 900 MHz band for railway purposes.

Act No. 77/2002 Coll., on the Joint-stock company České dráhy, on the State organisation Správa železniční dopravní cesty, and on change of Act No. 266/1994 Col., on railways, as amended, and on Act. No. 77/1997, Coll., on the state enterprise, as amended.

- g) the GSM-R network can be employed only for purposes of ensuring railway serviceability, its operation and railway transport operation²⁷);
- h) the use of frequencies by user terminals is possible on the basis of the General Authorisation²³);
- i) the holder of individual block allocation for the use of radio frequencies for GSM-R networks is obliged to observe the provision of paragraph 7, letter i), on mutual coordination with other operators of base stations similarly as the holder of radio frequencies block allocation.
- (7) The sub-bands 880–915 / 925–960 MHz are in accordance with adopted European Union harmonisation documents²⁸), ²⁹) designated for the operation of communication systems providing electronic communications services using technologies of GSM standard or technologies, the operation of which is compatible³⁰) with the operation of GSM systems and complies with the conditions of above mentioned documents (hereinafter "compatible technologies")³¹). The number of rights for the use of radio frequencies is limited. The subbands are utilised by holders of block allocations and may be used for operation of countrywide networks providing publicly accessible electronic communications service and the following conditions apply:
 - a) duplex separation is 45 MHz, the sub-band 880–915 MHz is designated for terminals transmission, the sub-band 925–960 MHz for base station transmission;
 - b) for GSM technology, the channel spacing is 200 kHz and channel arrangement is specified in letter c). For other technologies the channel spacing is in multiples of 200 kHz, whereas frequencies of block edges are placed on integer multiples of 100 kHz, starting with frequency 880 MHz or, 925 MHz respectively;
 - c) centre frequencies of channels f_n, f_n' are given by formulas:

 f_n' [MHz] = $f_n + 45$, in the upper duplex sub-band,

whereas f_n is frequency in the lower duplex sub-band, defined in the sub-band 880.1–889.9 MHz by the formula:

$$f_n [MHz] = 890 + 0.2(n - 1024)$$
, where $n = 975$ up to 1023,

and in the adjacent sub-band 889.9–914,9 MHz defined by the formula:

$$f_n$$
 [MHz] = 890 + 0.2n, where n = 0 up to 124;

- d) the maximum number of rights for the use of radio frequencies is given by the number of duplex channels pursuant to letter c);
- e) if bilateral or multilateral agreements between operators of neighbouring networks do not exist, the holders of block allocations who implement the compatible technologies, are obliged to create a guard sub-band of 200 kHz between the block edge of

(EU) 2018/637 of 20 April 2018 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 as regards relevant technical conditions for the Internet of Things.

Directive 2009/114/EC of the European Parliament and of the Council of 16 September 2009 amending Council Directive 87/372/EEC on the frequency bands to be reserved for the coordinated introduction of public pan-European cellular digital land-based mobile communications in the Community.

30) Report CEPT No. 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).

31) Technology belongs to mobile communications systems family marked by abbreviation IMT in sense of Resolution ITU-R 56-2, including IMT-2020 (5G) and NB-IoT.

²⁷) Act No. 266/1994 Col., on railways, as amended.

compatible technology and the edge of the nearest GSM or GSM-R channel³⁰), ³²), ³³), ³⁴), ³⁵);

- f) maximum e.r.p. of the GSM base station is 350 W;
- g) the holder of block allocation is authorised to designate himself the individual radio frequencies for particular base stations taking into account, according to the CEPT Recommendation³⁶), the agreements concluded by the Office with the administrations of the neighbouring countries and mutual agreements with holders of block allocations of the neighbouring countries, about which the Office was informed and approved them:
- h) the use of frequencies by users' terminals is possible on the basis of the General Authorisation²³);
- i) the holder of block allocation is obliged to coordinate himself the use of assigned radio frequencies with other block allocation holders, whose networks use radio frequencies adjacent to assigned frequencies, or use also other radio frequencies where the coordination is necessary. The Office will provide data for such coordination on request of the block allocation holder. The holder shall also resolve cases of mutual interference between networks, in cooperation with other block allocation holders;
- j) the holder of individual authorisation for use of frequencies, who intends to change the transmitting parameters of a base station or plans to establish a base station, is obliged to adopt operational and technical measures ensuring compatibility with distance measuring systems (DME)³⁷) operated within the aeronautical radio navigation service in the band above 960 MHz. The Office will provide the details about the locations of the aeronautical radio navigation service equipment on request of the holder of individual authorisation;
- k) the international coordination³⁸) and national coordination with operators of other transmitting radio equipment outside of the GSM networks and compatible technologies are carried out by the Office on request of block allocation holder or the Office can authorise block allocation holder to carry out the coordination.
- (8) The bands 470–790 MHz can be used in the secondary mobile service by auxiliary applications for the broadcasting service³⁹) in accordance with RR footnote⁴⁰).

³²⁾ Report CEPT No. 41 – Report from CEPT to the European Commission in response to Task 2 of the Mandate to CEPT on the 900/1800 MHz bands "Compatibility between LTE and WiMAX operating within the bands 880–915 / 925–960 MHz and 1710–1785 / 1805–1880 MHz (900/1800 MHz bands) and systems operating in adjacent bands".

³³⁾ ECC Report No. 96 – Compatibility between UMTS 900/1800 and systems operating in adjacent bands, Krakow, March 2007.

³⁴⁾ ECC Report No. 82 – Compatibility study for UMTS operating within the GSM 900 and GSM 1800 frequency bands, Roskilde, May 2006.

³⁵⁾ Annex of the 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.

European electronic communications services in the Community.

36) Recommendation CEPT/ECC/REC/(05)08 of 1 February 2006 – Frequency planning and cross-border coordination between GSME Land Mobile Systems (GSM 900, GSM 1800 and GSM-R), amended 3 February 2017.

³⁷) Abbreviation DME stands for Distance Measurement Equipment.

³⁸⁾ Recommendation 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.

³⁹) Reportage links and other applications, abbreviated ENG/OB, alternatively SAP/SAB.

¹⁰) Footnote 5.296 of the Radio Regulations.

Article 8 Information on future developments in the mobile service

- (1) In the sub-bands 874.4–876 MHz and 919.4–921 MHz, the feasibility studies for implementation of conditions for Future Rail Mobile Communication System⁴¹) are carried out.
- (2) The block allocations of radio frequencies for operation of networks intended for publicly available services of electronic communications in the band 694–790 MHz will be granted in the Czech Republic.
- (3) The use of frequencies by wireless audio transmission devices including wireless microphones in the sub-bands 703–733 / 758–788 MHz will be terminated after the block allocations of radio frequencies according to paragraph 7(2) are granted.

Part 4 Broadcasting service

Article 9 **Current conditions in the broadcasting service**

- (1) The band 470–790 MHz is allocated to the broadcasting service on a primary basis and used by digital terrestrial TV and sound broadcasting.
- (2) International obligations related to the band utilisation result from membership in the European Union and from membership in the ITU**Chyba! Záložka není definována.**). Other utilisation of the band is governed the Geneva Agreement, 2006¹³) (hereinafter only "Agreement") and agreements of the relevant national administrations, which detail the conditions of the use of frequencies in specific cases.
- (3) The 470–790 MHz band is divided into 40 radio channels with channel spacing of 8 MHz, marked by numbers 21 to 60, where particular channels are defined by frequencies f_{min} and f_{max} and the following conditions apply:

$$f_{min} = 470 + 8(n - 21),$$

 $f_{max} = 470 + 8(n - 20),$
where n = 21, 22 up to 60,

where, the channels 49 up to 60 can be used until 30 June 2020⁴²) at the latest.

(4) For nationwide broadcasting, four block allocations of radio frequencies (hereinafter only "the block allocations") for networks determined for the provision of publicly available electronic communications services have been designated. The block allocations for these broadcasting networks include allotments of radio channels according to the Agreement, where one broadcasting network is designated for the dissemination of public service multiplex⁴³). Block allocation holder is authorised within the allotment to use the radio channel by one or more transmitting equipment, provided that the intensity of the electromagnetic field at the borders of the allotment shall not exceed the specified level in accordance with the Agreement or a level that has been coordinated individually.

⁴¹) FRMCS – Future Rail Mobile Communications System. In 2008 organization CEPT was mandated by European Commission to study needs and conditions for these systems with proviso that final conclusions will be completed at the end of 2020.

⁴²) Article 5 of Decision (EU) 2017/899 of the European Parliament and of the Council.

⁴³) Section 3 of the Law No. 483/1991 Coll., on the Czech Television, as amended.

- (5) Other radio channels necessary to ensure the required coverage of area or population using networks described in paragraph 4, which cannot be satisfied with particular existing allotments, are granted by the Office on the basis of reasoned request for award of individual authorisation to use radio frequencies and based on the successful coordination.
- (6) The use of radio frequencies allocated by the Agreement and the use of further radio channels, which are usable after successful international coordination, i.e. for transmitting in the DVB-T system outside of networks operated according to paragraph 4 and 5, is possible only during limited time period and on the basis of individual authorisation for the use of radio frequencies the following conditions apply:
- a) the individual authorisation is granted for the provision of publicly available electronic communications service for dissemination of terrestrial digital television broadcasting in accordance with technical conditions of the agreement;
- b) the validity period of the individual authorisation is limited by:
 - 1. 30 June 2019 for radio frequencies introduced in Annex No. 3 to this part of the plan, or:
 - 2. 5 January 2020 for radio frequencies in the band 470–790 MHz, subject to the conditions listed in Annex 4 to this part of plan.
- (7) The new block allocations of radio frequencies which include allotments according to the Agreement or allotments which were coordinated in the framework of international negotiations in the band 470–694 MHz, determined for regional or nationwide DVB-T transmission, will not be granted, with respect to provisions of article 3(3) and article 7(1) which address 700 MHz band and with respect to ensuring the rights resulting from block allocations according to paragraph 4, until completion of the transition of transmitting networks using block allocations pursuant to the paragraph 4, i.e. on the date 1 February 2021⁴⁴) ⁴⁵).
- (8) For transmission using more advanced technologies than DVB-T, the Office designated nationwide radio channels No. 22, 24, 26, 27, 28 and 31. These radio channels will be used on primary basis for nationwide transitional DVB-T2 networks and they can be used on the basis of individual authorisation for the use of radio frequencies which will be granted by the Office in accordance with results of the international coordination and under conditions specified in Government Order⁴⁵). Based on the result of international coordination, the Office can assign to the holders of block allocation of radio frequencies also other radio channels in order to ensure, time limited parallel DVB-T2 transmission in transitional broadcasting networks.
- (9) The allotments for DVB-T and DVB-T2 transmission for individual geographic areas are stated in Annex 1 to this part of plan. The geographic specification of the allotments is stated in Annex 2 to this part of plan.

Article 10 Information on future developments in the broadcasting service

In geographic areas with unused parts of radio spectrum in the broadcasting service⁴⁶), the future use by advanced intelligent communication systems is considered⁴⁷).

45) Governmental decree No. 199/2018 Coll., of 29 August 2018, on Technical plan for transition of terrestrial digital television broadcasting from DVB-T standard to DVB-T2 standard, (governmental decree on Technical plan for transition to DVB-T2 standard).

⁴⁴) In accordance with the Law No. 252/2017 Coll.

⁴⁶) The sub-bands are also called "white spaces", "white spots" and "interleaved spectrum".

⁴⁷⁾ It covers for example the implementation of cognitive technology. The preparation of conditions on spectrum sharing by applications which use the access to spectrum on the basis of the geolocation databases is underway on the level ITU, CEPT, EC and other organisations.

Part 5 Radiolocation service

Article 11 Current conditions in the radiolocation service

The band 470–494 MHz is also allocated to the radiolocation service according to RR footnote⁴⁸) on a secondary basis but for the operation of radar wind profilers only.

Article 12 Information on future development in the radiolocation service

Future use of the band 494–942 MHz by the radiolocation service is not expected.

Part 6 Radio astronomy service

Article 13 **Current conditions in the radio astronomy service**

- (1) The radio astronomy service is passive radiocommunication service based on the reception of radio waves of space origin. According to RR footnote⁴), users of the band 608–614 MHz shall take all practicable measures to protect radio astronomy service.
- (2) The radio astronomy service has no utilisation in the 608–614 MHz band in the Czech Republic, without prejudice to the protection of the radio astronomy service in neighbouring countries.

Article 14 Information on future developments in the radio astronomy service

Changes in future use of the band 608–614 MHz by the radio astronomy service are not expected.

Part 7 Final provisions

Article 15 **Transitional provisions**

(1) During the period from the effective date of this Measure of General Nature until the end date of the transition period of terrestrial digital television broadcasting from the DVB-T terrestrial digital broadcasting standard to the DVB-T2 standard, the Office will not carry out any new coordination of radio frequencies for the purposes of ensuring terrestrial nationwide television broadcasting in the DVB-T standard, nor grant individual authorisations for the use of radio frequencies according to Article 9(6), letter b), item 2. This is without prejudice to the possibility of changing an already assigned frequency or its technical parameters in compliance with Section 19(1), letter e) of the Act.

⁴⁸) Footnote No. 5.291A of RR.

(2) The validity period of individual authorisations for use of radio frequencies according to Article 9(6), letter b), item 2 issued before the day this Measure of General Nature took effect can be extended by the procedure according to Section 19(3) of the Act, at most until the expiration of the period stated in Article 9(6), letter b), item 2. The extension of validity period is possible also in case that the conditions mentioned in these individual authorisations for the use of radio frequencies imply the impossibility to extend their validity.

Article 16 Repealing provision

The Measure of General Nature the Part of the Radio Spectrum Utilisation Plan No. PV-P/10/09.2017-7 for the frequency band 470–960 MHz of 13 September 2017 is repealed.

Article 17 Effect

This part of the Radio Spectrum Utilisation Plan shall come into effect on 1 April 2019.

Explanatory Memorandum

To implement Section 16(2) of the Act, the Office issues the Measure of General Nature Part No. PV-P/10/03.2019-3 of the Radio Spectrum Utilisation Plan (hereinafter "this part of the plan"), laying down the technical parameters and conditions of the use of radio spectrum in the range of radio frequencies from 470 MHz to 960 MHz by radiocommunication services. This part of the plan is based on the principles enshrined 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 as amended by Directive 2009/140/EC⁴⁹) and 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 the use of radio spectrum and the predictability of the decision-making of the Office.

The reason for new issue is in particular the modification of conditions in the mobile service in the bands 880–915 / 925–960 MHz. This enables a refarming of the band, in order to achieve the optimal arrangement of the band users with respect to the technology used. Important modifications were carried out in the broadcasting service, where the technical plan for the transition of television broadcasting to DVB-T2 is taken into consideration and the frequency sets for television broadcasting are arranged in accordance with the results of international negotiations. Further factual modifications include among others the changes in compliance with the current publication of the National Table of Frequency Allocations⁵⁰), the extension of sub-bands for SRD devices and repealing interim provisions which were carried out and will not apply anymore.

Article 1 describes the subject-matter and refers to the common Part of the Radio Spectrum Utilisation Plan.

In Article 2 on the frequency band arrangements, information has been updated pursuant to the current issue of the National Table of Frequency Allocations. In the band 694–790 MHz, a time limitation of the band utilization is indicated for wireless audio transmission devices including wireless microphones with respect to the future operation of countrywide mobile networks.

Article 3 presents the characteristics of the radio spectrum utilisation described by this part of the plan. A common feature of the bands in question across all services is the development of broadband applications in the mobile service. With regard to gradual designation of frequencies for mobile networks in UHF bands, the concept of utilisation of frequencies is designed to balance particular aspects of radio spectrum efficiency⁵¹). Significant changes in the utilisation of the UHF band result from common European intention to release 700 MHz band for utilisation by mobile networks providing high-speed electronic communications services and from a binding document¹⁰) which defines procedures for Member States to follow when implementing changes in the band utilization. These objectives are also reflected in national policies¹⁹). ⁴⁵).

Article 4 contains international obligations related to the band in question, 470-960 MHz. The addition of international agreements to the list reflects the fact that in UHF bands the coordination of spectrum utilisation is ensured by numerous bilateral or multilateral agreements with administrations of neighbouring countries.

⁴⁹⁾ 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.

⁵⁰⁾ Decree No. 423/2017 Coll., of 11 November 2017, amending Decree No. 105/2010 Coll., of 19 April 2010, on Plan of the Frequency Band Allocations (National Table of Frequency Allocations).

⁵¹) The basic criteria of efficiency are technical, functional, social and economic aspects; see also Radio Spectrum Management Strategy, 2015, chapter 6.3.2.

Part 2 on conditions for devices operated outside the radiocommunication services generally lays down the conditions for short range devices (SRD). These devices do not have characteristics of stations falling under the definition of radiocommunication service described in provision 1.61 of RR. The conditions for their operation are set in the General Authorisation¹⁵). On the basis of recently issued or updated harmonisation documents¹⁴), ¹⁶), ¹⁷), the sub-bands which are usable by these devices were extended. Article 6 on the future developments of these devices indicates the assumption of further extension of the range of frequencies for SRD on the basis of upcoming European harmonisation.

In Part 3, Article 7 presents the use of the bands by applications of the mobile service. In all its paragraphs 2 (g), 3 (g) and 7 (d), the terminology is adapted in view of the fact that the number of rights which can be granted is limited by the smallest sub-band which can be granted. Paragraph 2 (j), contains an added reference to the revised General Authorisation²³) by which the operation of terminals in 700 MHz band will be authorised. The modification of paragraph 5 takes into account the extension of the spectrum which can be used for SRD in the sub-bands 870-876 / 915-921 MHz (i.e. utilisation - outside of the radiocommunication service). In Article 6 on GSM-R conditions, a guard band is newly defined in letter d) and consequently the edge frequencies are modified so that the conditions are in compliance with the arrangement of the upper adjacent band for public mobile networks. A similar modification is made in paragraph 7 which sets down the conditions for public mobile networks. In paragraph 7, the channel arrangement is also added for 3G, 4G and 5G including derived NB-IoT technology in which the channel spacing for blocks is in multiples of 100 kHz. These modifications are carried out in order to allow refarming of the band, including optimisation in arrangement of the blocks in terms of the used technologies. The current holders of radio frequency block allocations are not affected by these modifications.

Article 8 on future developments in the mobile service was amended on the basis of current development with a part of former assumptions being moved to the normative text in Article 7. Information about ongoing analyses on shared use of the bands 874,4–876 / 919,4–921 MHz with communications in railway transport is added. With regard to the future utilisation of the 700 MHz band by public mobile networks, information about limitation for the use of the band by wireless audio devices including wireless microphones has remained.

Article 9 consists of information about the use of the 470-790 MHz band by the broadcasting service which in the band consist mainly of television broadcasting. Paragraph 3 specifies a time limit for the utilisation of television channels 49 up to 60 which stretch into the 700 MHz band where block allocations for the use of the radio frequencies will be granted to operators of mobile networks pursuant to Decision¹⁰). In paragraph 6, conditions are established for the utilisation of frequencies by particular transmitters of regional or local television broadcasting which are not part of countrywide or transitional television broadcasting networks and for which individual authorisations were issued with validity period until 30 June 2019. With regard to effective utilisation of radio frequencies and in connection with achieved progress in the coordination of radio frequencies for parallel DVB-T and DVB-T2 broadcasting and a time schedule resulting from Decision¹⁰) on enabling the use of the band 694-790 MHz for mobile networks by 30 June 2020, the Office in Article 9(6) sets down the conditions under which some of the radio frequencies can be used even after 30 June 2019. while ensuring the transition to the new standard of television broadcasting and the changes in the utilisation of the 700 MHz band and while respecting the principles of effective utilisation of radio spectrum. For this purpose, it is allowed to use only such frequencies which are not necessary for the migration of television broadcasting to the DVB-T2 standard and for the provision of frequencies for the final countrywide television networks. With the aim to minimize impacts on the TV audience at the turn of the year the Office set down the date of 5 January 2020 as the latest deadline for utilisation of these frequencies regarding the deadline of January 2020 for the start of transition of the countrywide transmitting networks to the DVB-T2 standard, pursuant to Government Order No. 199/2018 Coll. Due to the fact that provision of frequencies for the transition to DVB-T2 is a priority, a maximum validity period of issued

authorisations is laid down. The Office has taken into account the primary need to ensure necessary frequencies for successful transition from DVB-T to DVB-T2 in connection with future release of the 700 MHz band from terrestrial digital television broadcasting in the Czech Republic in favour of mobile access networks. The Office also took into consideration the Strategy of terrestrial digital television broadcasting development adopted by the Czech Government by Resolution No. 648 of 20 July 2016. Holders of individual authorisations may apply for prolongation of the validity period according to Section 19 of Act within the time limit prescribed in Article 9(6), letter b), item 2. In connection with results of international coordination negotiations, which took place in order to release the 700 MHz band and re-plan the remaining radio frequencies, the Office also modified Annex 1, so that it corresponds to the current allocation of radio frequencies for the Czech Republic. Annex 3 was modified likewise, and a new Annex 4 was added, containing the limiting conditions applicable for use of some radio channels after 30 June 2019. The Office will assess other possibilities of frequencies utilisation for non-countrywide, namely local broadcasting on the basis of knowledge of detailed implementation conditions for the transition at the latest until the end of September 2019.

Article 10 on future development in the broadcasting service summarises the main expected changes in the use of the UHF band. In regard of the adoption of national documents on the rearrangement of the UHF band (particularly the technical plan of transition) and fulfilment of past assumptions, irrelevant information has been deleted.

Part 5 provides information about the radiolocation service which has allocation in the lower part of the UHF band on a secondary basis.

Part 6 informs on the allocation of the bands to the radio astronomy service, which can according to RR claim protection from interference by other services even though it does not use the frequencies actively. The obligation to protect the radio astronomy service in neighbouring countries which stems from RR is emphasized.

In transitional provisions of Article 15, provisions relating to already accomplished processes were omitted. The provisions intended for governing the gradual shutdown of local and regional DVB-T broadcasting are kept in force i.e. until the transition of terrestrial digital television broadcasting from the DVB-T standard to the DVB-T2 standard is finished, the Office will neither carry out the coordination of radio frequencies nor will it grant any new individual authorisations for DVB-T broadcasting for other than the already used radio frequencies. The possibility to apply for extension of validity period of individual authorisations for operators of local and regional broadcasting remains; however, that the extension of the validity of a given individual authorisation for use of the radio frequencies is limited to the time period indicated in Article 9(6) letter (b), item 2. This provision sets down the process for the holders of the relevant individual authorisations when applying for the extension of their validity period in accordance with Section 19(3) of the Act. Annex 3 contains a list of frequencies which cannot be used after 30 June 2019 and Annex 4 contains a list of frequencies for which the operation is possible after 30 June 2019 but with limited radiated power.

Article 16 repeals the previous issue of the Part of radio spectrum utilisation plan for the 470–960 MHz band and in Article 17, the Office sets down the effectiveness of published Measure of General Nature in accordance with Section 124 of the Act.

On the basis of Section 130 of the Act and in accordance with the Rules of the Czech Telecommunication Office for conducting consultations at the discussion site, the Office published a draft Measure of General Nature Part No. PV-P/10/XX.2019-Y of the Radio Spectrum Utilisation Plan together with a call for comments on the discussion site on 10 January 2019. During the public consultation the Office received comments from five entities. The proposals I regarding the generalization of the purpose of SRD were adopted; however, the opinion on the use of transmitting devices for transfer of images was amended. The proposals on an across-the-board extension of the period of operation of regional television broadcasting were not adopted with reference to the need to take into account the actual situation in terms of the state of transition to DVB-T2. A proposal to add an explicit

possibility for changes of technical parameters of television transmitters has been adopted by amending the transitional provisions. One comment concerning the conditions for the allocation of frequencies for television broadcasting was considered to be purely formal and it was resolved by editing the text structure. The proposals for modifying the text of the provisions related to countrywide mobile networks were not adopted in the wording, however the explanation of purpose and context of the relevant provisions has been given in the table of settlement.

The table of settlement published on the Discussion Site presents the full text of all comments and positions and the manner of their settlement by the Office, including reasoning.

On behalf of the Council
of the Czech Telecommunication Office
 Jaromír Novák
 Chairman of the Council
of the Czech Telecommunication Office
 <signed>

Annex 1

Allotments for digital terrestrial TV broadcasting for particular geographic areas, assigned to the Czech Republic by the Geneva Agreement, 2006 (Annex 1, Part 1) and subsequently coordinated for DVB-T2 broadcasting (the radio channels are in bold type).

Radio channel	Name	Radio channel	Name
	Krai Praha	a Středočesk	κý krai
23	STC-05N, STC-05S, PHA	47	PHA-01
37	PHA-04	51*	STC-03N, STC-03S
41*	STC-01N, STC-01S	53*	STC-02N, STC-02S
42	PHA-02	54*	PHA-05
44	STC-04N, STC-04S	57*	PHA-06
46	PHA-03	59*	STC-06N, STC-06S
32	PHA, STC-N, STC-S	48	PHA, STC-N, STC-S
40	PHA, STC-N, STC-S	26	PHA, STC-N, STC-S
	19	V 171 '	
22		očeský kraj	ICE 01
22	JCE-06	39 49*	JCE-01 JCE-05
25 32	JCE-04 JCE-03	50*	JCE-05 JCE-02
3 <u>z</u> 27			
21	JCE	30	JCE
	Plzeňský	kraj/část Su	šice
24	PLZ bez části Sušice	48	PLZ-02
31	PLZ-01	52*	PLZ-05
34	PLZ-03	26	PLZ
43	PLZ bez části Sušice	42	část Sušice
32	část Sušice		
	Karlo	ovarský kraj	
26	KVA-04	38	KVA-01
35*	KVA-02	45	KVA-06
36*	KVA-05	60*	KVA-03
24	KVA	48	KVA
31	KVA	10	TCVA
		tecký kraj	I
21	UST-05	55*	UST-03
33	UST-01	58*	UST-04
50*	UST-02	31	UST
38	UST	41	UST
48	UST		
	l ihe	erecký kraj	
26	LIB-04	43	LIB-02
28	LIB-06	52*	LIB-05
31	LIB-01	60*	LIB-03
41	LIB	48	LIB

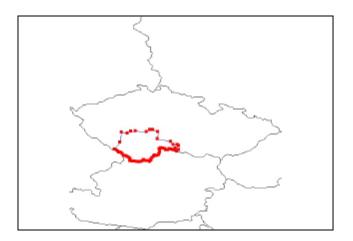
004		véhradecký kra									
22*	KHR-06	45	KHR-04								
38*	KHR-01	60*	KHR-03								
40*	KHR-02	26	KHR								
28	KHR	31	KHR								
41	KHR	48	KHR								
	Pardubický kraj										
21	PAR-05	32*	PAR-03								
24	PAR-04	34	PAR-02								
27*	PAR-06	39*	PAR-01								
26	PAR	28	PAR								
48	PAR	20	1711								
70	LAK										
		Vysočina									
28	VYS-01	35	VYS-04								
30*	VYS-03	42	VYS-02								
33*	VYS-05	57*	VYS-06								
26	VYS	29	VYS								
32	VYS										
		•									
	Jiho	moravský kraj									
26	JMO-03	46	JMO-02								
29	JMO-01	47*	JMO-05								
40	JMO-04	59*	JMO-06								
33	JMO	43	JMO								
		omoucký kraj									
31	OLO-05	50*	OLO-02								
36	OLO-01	51*	OLO-06								
44	OLO-03	53*	OLO-04								
26	OLO	28	OLO								
48	OLO										
	Mora	vskoslezský kr	oi.								
27*	MOS-06	45	ај MOS-04								
28	MOS-00 MOS-02	48	MOS-03								
37	MOS-02	54*	MOS-05								
26	MOS	31	MOS								
20											
		Zlínský kraj									
22	ZLI-01	42	ZLI-02								
25	ZLI-03	45*	ZLI-04B								
33	ZLI-05	49*	ZLI-06								
41*	ZLI-04A	26	ZLI								
48	ZLI										

^{*} radio channels can be used up to 30 June 2020 only

Annex 2 Geographic specification of the allotments assigned to the Czech Republic by the Geneva Agreement, 2006

a) Name JCE-01, JCE-02, JCE-03, JCE-04, JCE-05, JCE-06 Coordinates of the border points defining the allotment:

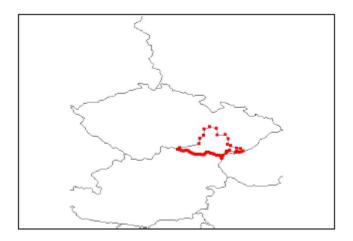
0001	ulliales of t	ne border p	Joints dellin	ing the and	uncii.			
c1	493000	493300	493400	493149	493610	493600	493200	491800
c2	0135700	0140400	0141300	0143348	0144016	0144600	0145600	0145500
c1	491317	490729	490755	490529	490015	485727	485444	485629
c2	0152022	0152522	0153311	0153545	0152937	0153609	0153248	0152934
c1	485716	485855	485916	485713	485640	485921	490010	490108
c2	0152535	0152210	0151805	0151523	0151118	0150936	0150540	0150133
c1	485905	485621	485332	485043	484754	484636	484715	484444
c2	0145852	0145906	0145910	0145830	0145729	0145350	0144949	0144748
c1	484239	484005	483723	483501	483638	483657	483826	483628
c2	0144510	0144304	0144254	0144048	0143715	0143306	0142924	0142626
c1	483436	483411	483458	483543	483549	483657	483940	484208
c2	0142305	0141858	0141456	0141043	0140628	0140230	0140300	0140055
c1	484334	484521	484620	484931	485143	485250	485451	485707
c2	0135709	0135400	0135005	0134727	0134503	0134114	0133828	0133559
c1	485835	491146	493100					
c2	0133222	0134236	0134600					



d) Name JMO-01, JMO-02, JMO-03, JMO-04, JMO-05, JMO-06 Coordinates of the border points defining the allotment:

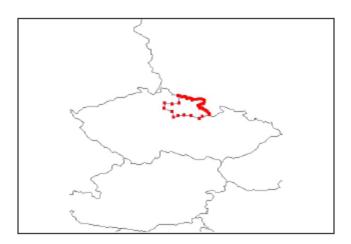
				9				
c1	490443	490153	485714	485634	485119	484931	484845	485037
c2	0170754	0171450	0172600	0173308	0173841	0173521	0173107	0172657
c1	484851	485233	485023	485022	484713	484320	484015	483819
c2	0172336	0171219	0170858	0170645	0170535	0170006	0165828	0165830
c1	483700	483940	484221	484309	484320	484446	484643	484717
c2	0165642	0165539	0165456	0165053	0164642	0164307	0164010	0163555
c1	484846	484846	484630	484411	484409	484436	484506	484505
c2	0163215	0162808	0162537	0162311	0161853	0161435	0161013	0160553
c1	484619	484757	484952	485152	485241	485134	485220	485356
c2	0160205	0155838	0155537	0155233	0154813	0154425	0154026	0153656
c1	485444	485727	490505	491600	492137	493400	493740	493500
c2	0153248	0153609	0161320	0161500	0162233	0162300	0163353	0164700

c1	492211	492300	491500			
c2	0164859	0170400	0171000			



e) Name KHR-01, KHR-02, KHR-03, KHR-04, KHR-05, KHR-06 Coordinates of the border points defining the allotment:

c1	500917	500604	500234	500800	500900	500800	500500	501500
c2	0163450	0162101	0161446	0160000	0154600	0153400	0152500	0152300
c1	502148	503120	502944	503118	504624	504537	504411	504432
c2	0150728	0150829	0152304	0153554	0153405	0153812	0154201	0154632
c1	504300	504023	504104	504017	503737	503854	503851	503947
c2	0155007	0155151	0155601	0160018	0160124	0160523	0160948	0161354
c1	503937	503832	503626	503344	503104	503015	502837	502644
c2	0161812	0162220	0162512	0162453	0162336	0161924	0161549	0161233
c1	502433	502202	502232	501958	501853	501636	501411	501157
c2	0161507	0161657	0162105	0162246	0162639	0162905	0163113	0163354



f) Name KVA-01, KVA-02, KVA-03, KVA-04, KVA-05, KVA-06 Coordinates of the border points defining the allotment:

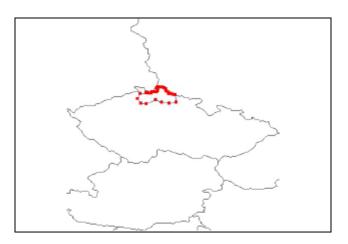
c1 c2 с1 c2 с1

c2	0122305	0122543	0122911	0123107	0123524	0123946	0124349	0124736
c1	502624	502452						
c2	0125149	0125517						



g) Name LIB-01, LIB-02, LIB-03, LIB-04, LIB-05, LIB-06 Coordinates of the border points defining the allotment:

				9				
c1	503118	502944	503120	503628	502913	503000	503900	504900
c2	0153554	0152304	0150829	0145647	0143902	0142800	0142200	0142700
c1	505000	505046	504919	504914	505159	505216	505137	505359
c2	0143800	0144016	0144356	0144815	0144942	0145403	0145813	0150021
c1	505650	505905	510123	510034	510107	505927	505745	505458
c2	0150106	0145838	0150109	0150525	0150952	0151322	0151650	0151621
c1	505223	505046	504803	504840	504710	504624		
c2	0151748	0152120	0152201	0152615	0152951	0153405		

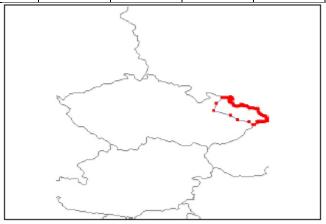


h) Name MOS-01, MOS-02, MOS-03, MOS-04, MOS-05, MOS-06

Coordinates of the border points defining the allotment:

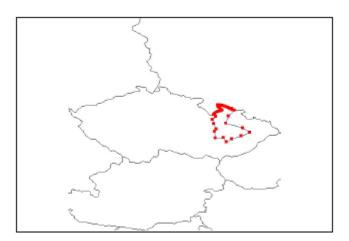
000.	annated on t	<u> </u>	Jonne Gom	ing the and				
c1	492931	493229	494200	495100	500459	501619	501618	501614
c2	0181617	0175445	0174200	0170900	0171352	0172525	0172953	0173415
c1	501604	501756	501537	501259	501109	501019	500735	500629
c2	0173827	0174140	0174402	0174542	0174223	0173818	0173846	0174247
c1	500421	500142	495934	495841	500011	500026	500309	500217
c2	0174535	0174708	0175001	0175413	0175746	0180208	0180134	0180539
c1	495943	495930	495751	495532	495619	495555	495428	495512
c2	0180706	0181130	0181505	0181727	0182134	0182547	0182931	0183338
c1	495226	494933	494701	494425	494220	494045	494028	493744

c2	0183432	0183428	0183617	0183759	0184050	0184421	0184836	0184913
c1	493500	493223	493109	493029	492921	493025	492949	493044
c2	0185025	0185144	0185029	0184717	0184440	0184051	0183624	0183538
c1	492921	492757	492339	492343				
c2	0183156	0183239	0182655	0182412				



i) Name OLO-01, OLO-02, OLO-03, OLO-04, OLO-05, OLO-06 Coordinates of the border points defining the allotment:

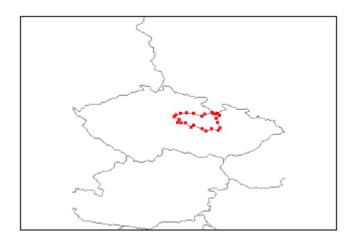
c1	492600	492100	491500	492300	492211	493500	493900	495000
c2	0173800	0172000	0171000	0170400	0164859	0164700	0165000	0164500
c1	495800	500400	500743	500946	501152	501315	501417	501621
c2	0164300	0164900	0164456	0164750	0165031	0165422	0165823	0170116
c1	501830	502042	502314	502554	502546	502508	502417	502255
c2	0165832	0165602	0165408	0165306	0165719	0170136	0170538	0170928
c1	502115	501936	501928	501644	501619	500459	495100	494200
c2	0171249	0171616	0172043	0172107	0172525	0171352	0170900	0174200
c1	493229							
c2	0175445							



j) Name PAR-01, PAR-02, PAR-03, PAR-04, PAR-05, PAR-06 Coordinates of the border points defining the allotment:

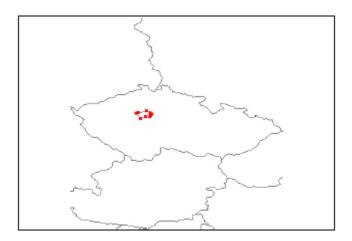
	The second secon								
c1	500400	495800	495000	493900	493500	493740	493400	493800	
c2	0164900	0164300	0164500	0165000	0164700	0163353	0162300	0161600	
c1	494400	494114	494921	494903	495000	495600	500100	500500	
c2	0160000	0155457	0154415	0153509	0152900	0153200	0152200	0152500	
c1	500800	500900	500800	500234	500604	500917	500704	500605	
c2	0153400	0154600	0160000	0161446	0162101	0163450	0163724	0164128	

c1	500743				
c2	0164456				



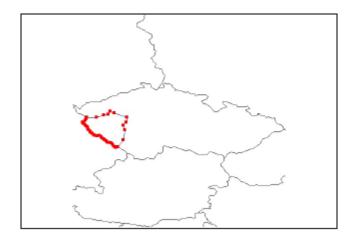
k) Name PHA-01, PHA-02, PHA-03, PHA-04, PHA-05, PHA-06 Coordinates of the border points defining the allotment:

c1	501123	500725	500500	500100	495934	495929	495612	500600
c2	0143234	0143923	0144300	0144035	0143841	0143056	0142121	0141300
c1	500752							
c2	0141632							



I) Name PLZ-01, PLZ-02, PLZ-03, PLZ-04, PLZ-05 Coordinates of the border points defining the allotment:

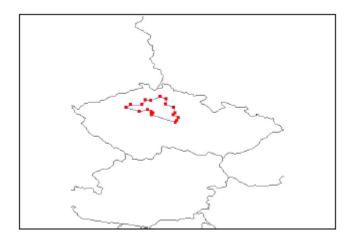
c1	500357	495600	494600	494035	493100	491146	485835	485652
c2	0132513	0135000	0134800	0134252	0134600	0134236	0133222	0132910
c1	485840	490104	490340	490539	490651	490727	491002	491151
c2	0132602	0132358	0132229	0131934	0131550	0131146	0131023	0130705
c1	491419	491556	491828	492022	491946	492016	492230	492443
c2	0130506	0130144	0125953	0125644	0125231	0124813	0124542	0124310
c1	492612	492900	493123	493358	493643	493857	494115	494314
c2	0123940	0123845	0123626	0123439	0123349	0123122	0122856	0122557
c1	494551	494724	494958	495236	495519	495528	495945	500100
c2	0122444	0122813	0122958	0123129	0123222	0125055	0130446	0131400
c1	500700							
c2	0131700							



m) Name STC-01N, STC-02N, STC-03N, STC-04N, STC-05N, STC-06N

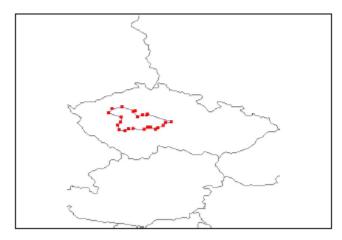
Coordinates of the border points defining the allotment:

	continuated on the points domining the discussions									
c1	501500	502100	502100	503000	502913	503628	503120	502148		
c2	0135200	0140000	0142200	0142800	0143902	0145647	0150829	0150728		
c1	501500	500500	500100	495600	495000	494700	500100	500500		
c2	0152300	0152500	0152200	0153200	0152900	0152600	0144035	0144300		
c1	500725	501123	500752							
c2	0143923	0143234	0141632							



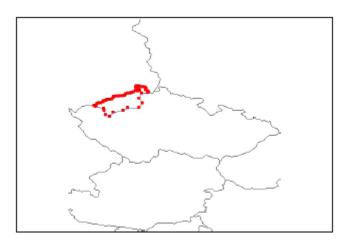
n) Name STC-01S, STC-02S, STC-03S, STC-04S, STC-05S, STC-06S Coordinates of the border points defining the allotment:

000.	your amount of the border points domining the amount of the										
c1	494700	494500	493900	493500	493200	493600	493610	493149			
c2	0152600	0151500	0151100	0150000	0145600	0144600	0144016	0143348			
c1	493400	493300	493000	493100	494035	494600	495600	500357			
c2	0141300	0140400	0135700	0134600	0134252	0134800	0135000	0132513			
c1	501200	501500	500752	500600	495612	495929	495934	500100			
c2	0133200	0135200	0141632	0141300	0142121	0143056	0143841	0144035			



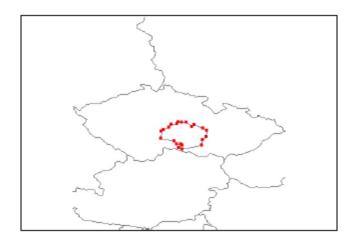
o) Name UST-01, UST-02, UST-03, UST-04, UST-05 Coordinates of the border points defining the allotment:

	The state of the s									
c1	505000	504900	503900	503000	502100	502100	501500	501200		
c2	0143800	0142700	0142200	0142800	0142200	0140000	0135200	0133200		
c1	500357	500700	501500	501928	502349	502452	502523	502759		
c2	0132513	0131700	0131500	0131358	0125804	0125517	0125940	0130101		
c1	502952	503009	503126	503405	503434	503643	503634	503715		
c2	0130413	0130841	0131232	0131347	0131809	0132047	0132512	0132930		
c1	503939	504219	504243	504311	504359	504327	504444	504713		
c2	0133156	0133258	0133723	0134140	0134552	0135006	0135401	0135612		
c1	504850	504833	504956	505108	505312	505305	505341	505611		
c2	0135954	0140416	0140805	0141209	0141459	0141923	0142337	0142153		
c1	505837	505948	510222	510232	510114	510111	510012	505729		
c2	0141939	0141539	0141717	0142139	0142544	0143012	0143415	0143536		
c1	505450	505303	505046							
c2	0143437	0143757	0144016							



p) Name VYS-01, VYS-02, VYS-03, VYS-04, VYS-05, VYS-06 Coordinates of the border points defining the allotment:

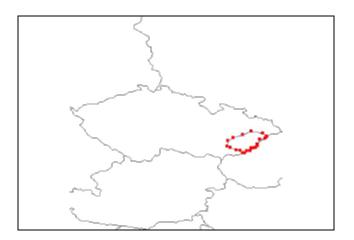
	To the state of th										
c1	492137	491600	490505	485727	490015	490529	490755	490729			
c2	0162233	0161500	0161320	0153609	0152937	0153545	0153311	0152522			
c1	491317	491800	493200	493500	493900	494500	494700	495000			
c2	0152022	0145500	0145600	0150000	0151100	0151500	0152600	0152900			
c1	494903	494921	494114	494400	493800	493400					
c2	0153509	0154415	0155457	0160000	0161600	0162300					



q) Name ZLI-01, ZLI-02, ZLI-03, ZLI-05, ZLI-06

Coordinates of the border points defining the allotment:

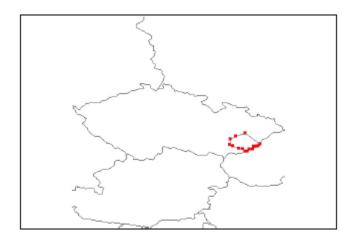
c1	492343	492202	491927	491714	490806	490522	490200	490121
c2	0182412	0182448	0182151	0181057	0180617	0180649	0180331	0175926
c1	490053	485538	485526	485138	485119	485634	485714	490153
c2	0175459	0175307	0174650	0174215	0173841	0173308	0172600	0171450
c1	490443	491500	492100	492600	493229	492931		
c2	0170754	0171000	0172000	0173800	0175445	0181617		



r) Name ZLI-04A

Coordinates of the border points defining the allotment:

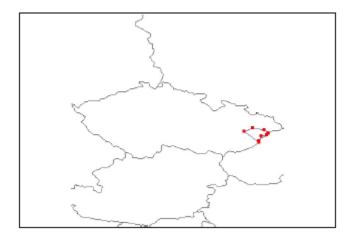
c1	490522	490200	490121	490053	485538	485526	485138	485119
c2	0180649	0180331	0175926	0175459	0175307	0174650	0174215	0173841
c1	485634	485714	490153	490443	491500	492100	492600	
c2	0173308	0172600	0171450	0170754	0171000	0172000	0173800	



s) Name ZLI-04B

Coordinates of the border points defining the allotment:

c1	492343	492202	491927	491714	490806	490522	492600	493229
c2	0182412	0182448	0182151	0181057	0180617	0180649	0173800	0175445
c1	492931							
c2	0181617							



In conformity with the Geneva Agreement 2006, coordinates are presented IDWM system⁵²).

052 2	492600	493229						
c2	018241 2	018244 8	018215 1	018105 7	018061 7	018064 9	017380 0	017544 5
c1	492931							
c2	018161							

⁵²) Abbreviation IDWM denotes ITU Digitized World Map.

Annex 3

Overview of issued individual authorisations for transmitters which cannot be further operated after 30 June 2019								
Name of transmitter	Radio channel	Individual authorisation number						
U. HRADISTE ROVINA	41	199204/PT						
PLZEN SYLVAN	37	218249/PT						
HODONIN KAPANSKO	45	214297/PT						

Annex 4

Overview of issued individual authorisations for transmitters which can be operated with limited ERP after 30 June 2019								
Name of transmitter	Radio channel/maximal ERP	Individual authorisation number						
JIHLAVA JENIKOV	47/ 40 dBW	248291/PT						
PRAHA LADVI	37/ 40 dBW	199201/PT						
PRAHA NOVODVORSKA	37/ 37 dBW	199202/PT						