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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 on the basis of the decision of the Council of the Czech Telecommunications Office (hereinafter „the Office”) under Section 107(8)(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/15/02.2009-4
of the Radio Spectrum Utilisation Plan
for the frequency band 380–470 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 380 MHz to 470 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

Band (MHz)	Current conditions		Future harmonisation ²⁾	
	Allocation	Utilisation	Allocation	Utilisation
380–385	MOBILE	MD IRS	MOBILE	MD IRS
385–387	FIXED MOBILE	MD	MOBILE	MD

¹⁾ Common part of the Radio Spectrum Utilisation Plan Nr. PV/10.2005-35 published in the Telecommunication Journal 14/2005 .

²⁾ ERC Report 25: European Table of Frequency Allocations and Utilisations in the frequency range 9 kHz to 3000 GHz, rev. Baku, 2008.

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

387–390	FIXED MOBILE Mobile-satellite (space-to Earth)	MD	MOBILE	MD
390–395	MOBILE	MD IRS	MOBILE	MD IRS
395–399.9	FIXED MOBILE	MD	MOBILE	MD
399.9–400.05	LAND MOBILE-SATELLITE (Earth-to-space) RADIONAVIGATION-SATELLITE	Applications of mobile-satellite service	MOBILE-SATELLITE (Earth-to-space) RADIONAVIGATION-SATELLITE	Applications of mobile-satellite service
400.05– 400.15	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE	Frequency standard 400.1 MHz	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE	Frequency standard 400.1 MHz
400.15–401	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Space operation (space-to-Earth) Land mobile	MD Applications of mobile-satellite service Meteorological probes	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) SPACE OPERATION (space-to-Earth)	Applications of mobile-satellite service Meteorological probes
401–402	METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile	MD Meteorological probes Meteorological aids	METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space)	MD Meteorological probes Meteorological satellites Meteorological aids

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402–403	METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile	MD Meteorological probes SRD (medical implants)	METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space)	Meteorological probes Meteorological satellites SRD (medical implants)
403–406	METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile	MD Meteorological probes SRD (medical implants) PMR	METEOROLOGICAL AIDS	MD Meteorological probes SRD (medical implants)
406–406.1	MOBILE-SATELLITE (Earth-to-space)	Distress frequency COSPAS-SARSAT 406.05 MHz	MOBILE-SATELLITE (Earth-to-space)	Distress frequency COSPAS-SARSAT 406.05 MHz
406.1–410	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY	Mobile networks	LAND MOBILE RADIOASTRONOMY	Radio astronomy Mobile networks
410–420	FIXED MOBILE except aeronautical mobile Space research (space-to-space)	Mobile networks Fixed links	MOBILE except aeronautical mobile ³⁾	Mobile networks Fixed links
420–430	FIXED MOBILE except aeronautical mobile Radiolocation	Mobile networks Fixed links	MOBILE except aeronautical mobile Radiolocation ³⁾	Mobile networks Fixed links
430–432	AMATEUR RADIOLOCATION Land mobile ⁴⁾	SRD for remote control of machines Amateur applications	AMATEUR RADIOLOCATION ⁵⁾	SRD for remote control of machines Amateur applications

³⁾ In accordance with footnote EU7 of ERC Report No. 25 the band may be used in sparsely populated areas for low capacity fixed links. These links shall be coordinated with the mobile service and require full protection.

⁴⁾ Additional allocation: The Czech Republic was one of countries listed in footnote 5.277 of the Radio Regulations by which the band 430–440 MHz has been also allocated to the fixed service on primary basis. World Radiocommunication Conference WRC-07 deleted name of the Czech Republic from this footnote.

⁵⁾ Footnote EU12 of ERC Report No. 25 requests administrations to harmonise as much as possible the use of the band with Table of frequency allocations of the Radio Regulations and with ERC Report No. 25.

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432–433.05	AMATEUR RADIOLOCATION Earth exploration- satellite (active) Land mobile	SRD Amateur applications ISM	AMATEUR RADIOLOCATION Earth exploration- satellite (active) 5)	Amateur applications
433.05– 434.79			AMATEUR RADIOLOCATION Land mobile Earth exploration- satellite (active) 5)	ISM SRD Amateur applications
434.79–438	4) 6)		AMATEUR RADIOLOCATION Earth exploration- satellite (active) 5) 6)	Amateur applications
438–440	AMATEUR RADIOLOCATION Land mobile 4)	Amateur applications	AMATEUR RADIOLOCATION 5)	Amateur applications
440–450	FIXED MOBILE except aeronautical mobile Radiolocation 7)	MD Mobile networks PMR 446 Links to research satellites	MOBILE except aeronautical mobile Radiolocation 7)	MD Mobile networks Paging PMR 446 Links to research satellites
450–470	MOBILE 7)	Mobile networks Links to research satellites	MOBILE 7)	Mobile networks Paging Links to research satellites

Article 3 Frequency band characteristics

(1) Described bands are intensively used by mobile service.

(2) Sub-bands 380–385 MHz and 390–395 MHz are in Europe the harmonised bands designated for safety and rescue purposes.

(3) Exclusive mobile service channels are occupied by fixed links transferred to this band in connection with releasing of other bands.

(4) The Office and operators of transmitting radio equipment are obliged to take all practicable measures to protect distress frequency 406.05 MHz.

⁶⁾ In accordance with footnote 5.282 of the Radio Regulations the band 435–438 MHz may be used by amateur-satellite service.

⁷⁾ The band 449.75–450.25 MHz may be used by the space operation and space research service (Earth-to-space) in accordance with provision No. 9.21 of the Radio Regulations.

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(5) Sub-band 433.05–434.79 MHz may be used for industrial, scientific and medical purposes ISM⁸⁾. ISM means the use of radio frequencies for other purposes than is transmission of information, e.g. for technological warming, lighting, boiling, scientific experiments and so on. Harmful interference which may be caused by operation of these applications shall be reduced to minimum.

Article 4 International obligations

Provisions of the Radio Regulations⁹⁾ (hereinafter only “RR”) and provisions of HCM Agreement¹⁰⁾ apply to operation and coordination.

Part 2 Mobile service

Article 5 Current conditions in the mobile service

(1) In accordance with RR provisions¹¹⁾ is in framework of the mobile service described also utilisation in land mobile service and in mobile except aeronautical mobile service.

(2) In accordance with CEPT Decision¹²⁾ the bands 380–385 MHz and 390–395 MHz are designated exclusively for countrywide communication network IRS¹³⁾ operated by Ministry of Interior with TETRAPOL technology for safety and rescue purposes, whereas apply, that:

a) sub-bands 380–380.15 / 390–390.15 MHz are on basis of agreement among European countries considered as common, i.e. no international coordination is required;

b) duplex separation is 10 MHz, mobile terminals transmit in the band 380–385 MHz and base stations in the band 390–395 MHz;

c) channel separation is 12,5 kHz and centre frequencies of channels are given by formulas

$$f_n \text{ [MHz]} = (380 - 0.00625 + 0.0125n) - 0.00625 \text{ and}$$

$$f_n' \text{ [MHz]} = (390 - 0.00625 + 0.0125n) - 0.00625,$$

where n is 1 up to 400;

⁸⁾ Abbreviation ISM stands for Industrial, Scientific and Medical applications.

⁹⁾ Radio Regulations of the International Telecommunication Union, Geneva, 2004.

¹⁰⁾ 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, Vilnius, 2005.

¹¹⁾ Provisions Nos. 1.24, 1.26 and 1.32 of RR.

¹²⁾ Decision CEPT/ECC/DEC/(08)05 of 27 June 2008 on the harmonisation of frequency bands for the implementation of digital Public Protection and Disaster Relief (PPDR) radio applications in the bands within the 380–470 MHz range.

¹³⁾ Abbreviation IRS stands for Integrated Rescue System.

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d) operation in direct mode DMO¹⁴⁾ is complementary regime of terminal for direct communication in areas not covered by network signal or in disaster sites and centre frequencies of channels for DMO communication are given pursuant to above mentioned formulas for $n = 1$ up to 12, compared to CEPT Decision¹⁵⁾ they are however shifted for -6.25 kHz;

e) operation in air-ground-air regime AGA¹⁶⁾ is mode of communication with low flying objects and centre frequencies of channels for AGA communication are given pursuant to above mentioned formulas for $n = 385$ up to 400, compared to CEPT Decision¹⁷⁾ they are however shifted for -6.25 kHz;

f) operation of TETRAPOL system terminals is possible on basis of General Authorisation¹⁸⁾.

(3) In accordance with CEPT Decision¹⁹⁾ and CEPT Recommendation²⁰⁾ the band 402–405 MHz may be used by short range stations SRD²¹⁾ for medical implants, i.e. medical instruments with very low power designated for implantation. Operation is possible on basis of General Authorisation²²⁾.

(4) The band 406.1–410 MHz is used by simplex mobile networks and fixed links which are planned as mobile service and are fully compatible with applications in the mobile service, whereas apply, that:

a) maximum e.r.p. is 10 W;

b) channel separation is 25 kHz;

c) centre frequencies of radio channels are given by formula:

$$f_n [\text{MHz}] = (406.1 - 0.0125 + 0.025n) + 0.0125,$$

where n is 1 up to 155;

d) in accordance with RR footnote²³⁾ shall users of the band take all practicable measures to protect the radio astronomy service.

(5) Sub-bands 410–413 / 420–423 MHz are designated for operation of public countrywide mobile network of electronic communications using wideband digital technology, whereas apply, that:

¹⁴⁾ Abbreviation DMO stands for Direct Mode Operation (regime of direct communication between terminals).

¹⁵⁾ Decision CEPT/ERC/DEC/(01)19 of 12 March 2001 on harmonised frequency bands to be designated for the Direct Mode Operation (DMO) of the Digital Land Mobile Systems for the Emergency Services.

¹⁶⁾ Abbreviation AGA stands for Air-Ground-Air (communication between onboard terminals of aircrafts and helicopters and terminals on the ground).

¹⁷⁾ Decision CEPT/ECC/DEC/(06)05 of 7 July 2006 on harmonised frequency bands to be designated for the Air-Ground-Air operation (AGA) of the Digital Land Mobile Systems for the Emergency Services.

¹⁸⁾ General Authorisation No. VO-R/5/07.2005-18 for the operation of user terminals in the TETRA- and TETRAPOL-standards radio network.

¹⁹⁾ Decision CEPT/ERC/DEC/(01)17 of 12 March 2001 on harmonised frequencies, technical characteristics and exemption from individual licensing of Short Range Devices used for Ultra Low Power Active Medical Implants operating in the frequency band 402–405 MHz.

²⁰⁾ Recommendation CEPT/ERC/REC 70-03 relating to the use of Short Range Devices (SRD).

²¹⁾ Abbreviation SRD stands for Short Range Device.

²²⁾ General Authorisation No. VO-R/10/03.2007-4 for use of radio frequencies and for operation of short range devices.

²³⁾ Footnote 5.149 of RR.

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a) sub-band 410–410.5 / 420–420.5 MHz is designated for use by assignment holder and number of rights for use of radio frequencies is limited to one;

b) in sub-band 412.75–413 / 422.75–423 MHz are operated existing fixed links and operator of radio network is obliged to carry out coordination with these links;

c) sub-bands 410–410.2 / 420–420.2 MHz are the guard bands which shall not be used by wideband systems;

d) sub-bands 412.8–413 / 422.8–423 MHz are the guard bands which shall not be used by wideband systems. If mutual agreement of operators of wideband systems using adjacent sub-bands is reached, mentioned sub-bands can be reduced or leaved out;

e) in sub-band 420.2–421.875 MHz the operator of radio network in case of launching into operation of base stations or of its parameters change is obliged to prevent causing of harmful interference to operation of duplex networks operated in sub-band 419–419.8 MHz;

f) only wideband technology which is listed in CEPT Decision²⁴⁾ or which uses similar spectral mask may be used, i.e. it uses radio spectrum from the emission point of view in the same way and does not affect neighbouring bands more then technologies mentioned in Decision. Impact to neighbouring bands is always verified by trial operation of base station;

g) width of radio channel is greater then 200 kHz;

h) maximum e.r.p. of base stations is 200 W;

i) duplex separation is 10 MHz, sub-band 410–413 MHz is designated for transmission of terminals, sub-band 420–423 MHz for transmission of base stations;

j) operator of radio network is authorized, subject to observing above mentioned conditions, to plan particular frequencies for individual base stations by oneself;

k) operation of terminals of wideband digital technologies on frequencies assigned to base stations operator by individual authorization is possible on basis of General Authorisation²⁵⁾;

l) wideband digital technologies can be operated in above mentioned sub-band under condition, that wideband digital technologies will not cause harmful interference to radiocommunication services, technologies and applications, which are in the band or in neighbouring bands at moment of launching the wideband digital technology into operation, already operated and are operated in accordance with national and international regulations and in accordance with provisions on electromagnetic compatibility, and shall not claim protection from them. Operator of wideband digital technology has obligation to eliminate interference at own expense and perhaps even to cease operation of interfering transmitting radio equipment. Operator of wideband digital technology however can claim protection from technologies and applications which were launched into operation or changed parameters later.

²⁴⁾ Decision CEPT/ECC/DEC/(04)06 of 19 March 2004 on the availability of frequency bands for the introduction of Wide Band Digital Land Mobile PMR/PAMR in the 400 MHz and 800/900 MHz bands.

²⁵⁾ General Authorisation No. VO-R/20/08.2005-32 for the operation of broadband digital transmitting equipment in the 400MHz and 800/900 MHz bands.

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(6) In sub-bands 413–415 MHz and 423–425 MHz are operated duplex mobile networks, whereas apply, that:

a) channel separation is 25 kHz;

b) centre frequencies of particular radio channels are given by formulas

$$f_n \text{ [MHz]} = (410 - 0.0125 + 0.025n) - 0.0125 \text{ and}$$

$$f_n' \text{ [MHz]} = (420 - 0.0125 + 0.025n) - 0.0125$$

where n is within range 121 up to 200;

c) duplex separation is 10 MHz, sub-band 413–415 MHz is designated for transmission of terminals, sub-band 423–425 MHz is designated for transmission of base stations;

d) maximum e.r.p. is 10 W;

e) operation of user terminals of TETRA system radio networks is possible on basis of General Authorisation¹⁸);

f) in sub-bands 413–414.25 / 423–424.25 MHz may be introduced only such networks, whose operation is in accordance with intention to implement the mobile networks of access to publicly accessible services of electronic communications using wideband digital technologies, described in Article 6, paragraphs 1 and 2. Implementation is locally applicable under condition to not causing interference to existing networks. New networks which hamper development of these networks are no more authorized. Changes of technical parameters of assigned frequencies of existing networks are not in contradiction with above mentioned provision.

g) in sub-bands 413.5–415 MHz and 423.5–425 MHz the operation of mobile networks shall be coordinated with the fixed service, the Office carries out the coordination.

(7) In sub-bands 415–419.8 MHz and 425–429.8 MHz are operated duplex mobile networks, whereas apply, that:

a) duplex separation is 10 MHz, sub-band 415–419.8 is designated for transmission of mobile stations, sub-band 423–429.8 MHz is designated for transmission of base stations;

b) channel separation is 25 kHz;

c) centre frequencies of particular radio channels are given by formulas

$$f_n \text{ [MHz]} = (410 - 0.0125 + 0.025n) - 0.0125 \text{ and}$$

$$f_n' \text{ [MHz]} = (420 - 0.0125 + 0.025n) - 0.0125$$

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where n is within range 201 up to 392;

d) operation is in accordance with Decision²⁶);

e) maximum e.r.p. is 10 W;

f) operation of user stations TETRA is possible on basis of General Authorisation¹⁸);

g) in sub-band 425–429.8 MHz are not authorised new simplex links and networks, in existing ones are not carried out changes resulting in their broadening. Existing simplex links and networks may be operated until expiration of their individual authorisations, however until 31 December 2020 at latest, but their transfer to sub-band 406.1–410 MHz is preferred.

(8) Sub-band 429.8–430 MHz is used by simplex networks and links.

(9) Sub-band 419.8–420 MHz is guard band and shall not be used.

(10) Sub-band 430–430.45 MHz may be used by stations for remote control of cranes, forest machines, industrial weighing machines, railroad spurs and other machinery. Operation is possible on basis of General Authorisation²²).

(11) Sub-band 433.05–434.79 MHz may be used for short range non-specific stations (SRD). Operation is possible on basis of General Authorisation²²).

(12) Sub-band 442–442.4 MHz is designated for simplex mobile networks, whereas apply, that:

a) maximum e.r.p. is 10 W;

b) channel separation is 25 kHz;

c) centre frequencies of particular radio channels are given by formula

$$f_n \text{ [MHz]} = (442 - 0.0125 + 0.025n) + 0.0125$$

where n is within range 1 up to 15.

(13) Sub-band 442.4–443.6 MHz is designated for simplex mobile wideband networks, whereas apply, that:

a) maximum e.r.p. is 10 W;

b) channel separation is 200 kHz;

c) minimum occupied band width is 100 kHz and maximum 150 kHz;

c) centre frequencies of radio channels are 442.5 MHz (channel No. 1), 442.7 MHz (channel No. 2), 442.9 MHz (channel No. 3), 443.1 MHz (channel No. 4), 443.3 MHz (channel No. 5) and 443.5 MHz (channel No. 6);

d) channels Nos. 1, 2 and 3 are designated for operation of applications transferred within framework of radio spectrum harmonisation from other bands;

²⁶) Decision CEPT/ECC/DEC/(06)06 of 7 July 2006 on the availability of frequency bands for the introduction of Narrow Band Digital Land Mobile PMR/PAMR in the 80 MHz, 160 MHz and 400 MHz bands.

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e) channel No. 5 shall not be used by civil applications until 31 December 2010;

f) channels Nos. 4, 5 and 6 are designated for ensuring of public countrywide networks of electronic communications using digital technologies operated by holders of radio frequency assignments, the Office will set down the number of rights for use of radio frequencies;

g) Impact to neighbouring bands is always verified by trial operation of each base station.

(14) Sub-band 443.6–446 MHz is designated for simplex mobile networks, whereas apply, that:

a) maximum e.r.p. is 10 W;

b) channel separation is 25 kHz;

c) centre frequencies of particular radio channels are given by formula

$$f_n \text{ [MHz]} = (442 - 0.0125 + 0.025n) + 0.0125$$

where n is within range 65 up to 159.

(15) In accordance with CEPT Decision²⁷⁾ the sub-band 446–446.2 MHz is designated for PMR 446²⁸⁾ equipment. Stations enable voice communication on short distance and their operation is possible on basis of General Authorisation²⁹⁾. In accordance with CEPT Decision³⁰⁾ the sub-band 446.1–446.2 MHz is designated for equipment of digital PMR 446 system.

(16) Sub-band 446.2–447 MHz is designated for simplex mobile networks, whereas apply, that:

a) maximum e.r.p. is 10 W;

b) channel separation is 25 kHz;

c) centre frequencies of particular radio channels are given by formula

$$f_n \text{ [MHz]} = (442 - 0.0125 + 0.025n) + 0.0125$$

where n is within range 168 up to 199;

d) sub-band 446.2–446.4 MHz is designated for usage on a short-term basis.

(17) With exemption of below mentioned frequencies the sub-band 448–450 MHz is designated for simplex mobile networks PMR/PAMR³¹⁾, whereas apply, that

²⁷⁾ Decision CEPT/ERC/DEC//98)25 of 23 November 1998 on the harmonised frequency band to be designated for PMR 446.

²⁸⁾ Abbreviation PMR stands for Private Mobile Radio (private or firm mobile radio networks and links).

²⁹⁾ General authorisation No. VO-R/3/07.2007-13 for the use of radio frequencies and the operation of PMR 446 equipment.

³⁰⁾ Decision CEPT/ECC/DEC/(05)12 of 28 October 2005 on harmonised frequencies, technical characteristics, exemption from individual licensing and free carriage and use of digital PMR 446 applications operating in the frequency band 446.1–446.2 MHz.

³¹⁾ Abbreviation PAMR stands for Public Access Mobile Radio (PMR networks with access point to public networks).

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- a) maximum e.r.p. is 10 W;
- b) channel separation is 20 kHz;
- c) centre frequency of the lowermost channel is 448.01 MHz.

(18) On frequencies 448.07 MHz and 448.17 MHz may be operated data transmitting radio equipment for transmission of non-voice signals. Operation is possible on basis of General Authorisation³²).

(19) On common frequencies 448.49 MHz, 448.57 MHz, 448.61 MHz, 449.77 MHz and 449.81 MHz may be operated low-powered portable transmitting radio equipment. Operation is possible on basis of General Authorisation³²).

(20) Sub-band 450–451.3 / 460–461.3 MHz is used by simplex mobile networks PMR/PAMR, whereas apply, that:

- a) maximum e.r.p. is 10 W;
- b) channel separation is 20 kHz;
- c) centre frequency of the lowermost channel is 450.01 / 460.01 MHz;

d) duplex separation is 10 MHz, sub-band 450–451.3 MHz is designated for transmission of mobile stations, sub-band 460–461.3 MHz is designated for transmission of base stations.

(21) Sub-bands 451.3–455.74 / 461.3–465.74 MHz are designated for operation of countrywide mobile network of electronic communications using wideband digital technology of assignment holder of radio frequencies enabling use of frequencies in this sub-band, whereas apply, that:

a) in these sub-bands is assignment holder authorised to operate also narrowband analogue technology NMT. Operation of mobile user terminals is possible on basis of General Authorisation³³);

b) sub-bands 451.3–451.5 / 461.3–461.5 MHz and 455.54–455.74 / 465.54–465.74 MHz are guard bands and shall not be used by wideband technology.

c) it is possible to operate wideband digital technologies which are listed in CEPT Decision²⁴) or ones which utilise similar spectral mask, i.e. they use radio spectrum from the emission point of view in the same way and does not affect neighbouring bands more than technologies mentioned in the Decision. Impact to neighbouring bands is always verified by trial operation of base station;

d) channel spacing is greater than 200 kHz;

e) duplex separation is 10 MHz, sub-band 451.3–455.74 MHz is designated for transmission of terminals, sub-band 461.3–465.74 MHz for transmission of base stations;

³²) General Authorisation No. VO-R/16/08.2005-28 for the use of radio frequencies and for the operation of equipment jointly operated on predetermined frequencies in the 27 MHz to 450 MHz bands.

³³) General Authorisation No. VO-R/13/08.2005-25 for the operation of user terminals in the NMT 450 networks.

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f) assignment holder is authorized in framework of the assignment to plan by oneself the particular frequencies for individual base stations, however in sub-band 461.3–461.875 MHz is assignment holder obliged, when launching base stations into operation or when their parameters are changed, to coordinate base stations with base stations using sub-band 459.425–460 MHz for reception;

g) maximum e.r.p. of base station is 200 W;

h) operation of wideband digital technologies terminals is possible on basis of General Authorisation²⁵);

i) wideband digital technologies may be operated in above mentioned sub-band under condition, that will not cause harmful interference to radiocommunication services, technologies and applications which are in the band or in adjacent bands at moment of launching of wideband digital technology into operation already operated and are operating in accordance with national and international regulations and in accordance with provisions on electromagnetic compatibility, and shall not claim protection from them. Operator of wideband digital technology has obligation to remove interference at his own costs and perhaps even cease operation of interfering transmitting radio equipment. Operator of wideband digital technology may however claim protection from technologies and applications which were launched into operation or changed parameters later.

(22) In sub-bands 455.74–457.38 / 465.74–467.38 MHz are operated duplex mobile networks, whereas apply, that:

a) maximum e.r.p. is 10 W;

b) basic channel separation is 20 kHz;

c) centre frequency of the lowermost channel is 455.75 / 465.75 MHz;

d) duplex separation is 10 MHz, sub-band 455.74–457.38 MHz is designated for transmission of terminals, sub-band 465.74–467.38 MHz for transmission of base stations;

e) operation of terminals is possible on basis of General Authorisation³⁴).

(23) In accordance with CEPT Recommendation³⁵) the sub-bands 457.38–458.48 / 467.38–468.48 MHz may be used for PMR/PAMR mobile networks operated for railway transport purposes. Network operator can be only legal person which administer the state property consisting of the railway according to special legal act³⁶) and which is awarded by the individual authorisation for radio frequencies utilisation, whereas apply, that:

a) maximum e.r.p. is 6 W;

b) channel separation is 25 kHz. Centre of first channel is 457.6 MHz / 467.6 MHz, centre of the last channel is 458.45 MHz / 468.45 MHz;

³⁴) General Authorisation No. VO-R/6/07.2005-19 for the operation of the terminals of the land mobile service networks in the 450 MHz band.

³⁵) Recommendation CEPT T/R 22-01 on frequencies likely to be allocated to international railways.

³⁶) Act No. 77/2002 Coll., on the Joint-stock company České dráhy and the State organisation Správa železniční dopravní cesty, as amended.

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c) duplex separation is 10 MHz, sub-band 457.38–458.48 MHz is designated for transmission of user terminals and sub-band 467.38–468.48 MHz for transmission of base stations;

d) operation is possible on basis of General Authorisation³⁷).

(24) Sub-bands 458.48–460 / 468.48–470 MHz are designated for mobile PMR/PAMR networks, whereas apply, that:

a) maximum e.r.p is 10 W;

b) basic channel separation is 20 kHz;

c) centre frequency of lowermost channel is 458.49 / 468.49 MHz;

d) duplex separation is 10 MHz, sub-band 458.48–460 MHz is designated for transmission of user terminals and sub-band 468.48–470 MHz for transmission of base stations.

(25) At planning of networks the Office stems from following parameters:

a) tolerable interfering intensity of electromagnetic field 20 dB μ V/m;

b) minimum useful intensity of electromagnetic field 28 dB μ V/m;

c) planning maximum effective antenna height 35 m;

d) repeating distance of frequency raster 75 km;

e) maximum operational range 15 km;

f) base station antenna planning height is 10 m above terrain;

g) planning height of mobile station antenna and of remote control terminal and of signalization above terrain is 3 m;

h) if not stated otherwise, maximum e.r.p. is 10 W;

i) occupied width of band is maximum 11 kHz, or 14 kHz or 16 kHz for channel separation 12.5 kHz, or 20 kHz or 25 kHz;

j) in case of retranslation the higher frequency pertains to retranslation station;

k) in case of retranslation the holder of individual authorisation is obliged by suitable technical means to prevent the origin of harmful interference which could happen by extraordinary circumstances in electromagnetic waves propagation.

l) in case of national coordination the provisions of HCM Agreement proportionately apply;

m) in networks designated for remote control and signalization are as terminals of remote control and signalization considered such terminal non-mobile transmitting radio

³⁷⁾ General Authorisation No. VO-R/11/07.2005-21 for the operation of the equipment of the non-public radio network of the land mobile service in the 150 MHz and 450 MHz bands for use in rail transport.

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equipment which transmitting with duty cycle less than 1 % and at the same time duration of their one transmission shall not exceed 1 s and whose maximum e.r.p. shall not exceed 10 W.

Article 6

Information on future development in mobile service

(1) Development of mobile networks of electronic communications using digital technologies in compliance with market demand and harmonisation processes in European countries, particularly of wideband access networks to publicly available electronic communication networks, is assumed. From that the changes, primarily in use of bands 410–430 MHz and 442–447 MHz, follow.

(2) Sub-bands 413–414.25 / 423–424.25 MHz will be designated for implementation of wideband digital systems for providing of publicly available electronic communication services under following conditions:

a) duplex separation is 10 MHz, sub-band 413–414.25 MHz is designated for transmission of terminals, sub-band 423–424.25 MHz for transmission of base stations;

b) width of radio channel is greater than 200 kHz for technologies listed in CEPT Decision²⁴) or which use the same spectral mask, i.e. they use radio spectrum from the emission point of view in the same way and does not affect neighbouring bands more than technologies mentioned in the Decision. Impact to neighbouring bands is always verified by trial operation of base station;

c) on both inner edges of assigned frequency sub-bands used by wideband technology are established guard bands of 250 kHz width, which shall not be used. Width of guard band can be reduced, eventually entirely leaved out after mutual agreement of wideband systems operators, provided that operation of narrowband systems operated in adjacent sub-band, is not touched;

d) assigned band width is multiple of 25 kHz; centre of assigned radio channel is identical with centre set down for narrowband systems;

e) maximum e.r.p. of base stations is 200 W;

f) in case of frequency coordination between wideband and narrowband systems the Office follows from minimum separation distance of 75 km between base stations, of 60 km between base station and edge of served area of mobile stations and of 45 km between edges of served areas of mobile stations, whereas if separation distance with regard to propagation conditions will not be found out sufficient, the Office may set down a technical measures to prevent origin of interference;

g) operation of wideband technology is possible in case, that will not cause harmful interference to radiocommunication services, technologies and applications, which are in the band or in adjacent bands at moment of launching of wideband digital technology into operation, already operated and are operated in accordance with national or international regulations and in accordance with provisions on electromagnetic compatibility, and shall not might claim protection from them. Operator of wideband digital technology has obligation to remove interference on his own costs and eventually even cease operation of interfering transmitting radio equipment. Operator of wideband digital technology may however claim protection from technologies and applications which were launched into operation or changed parameters later.

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

h) operation of terminals is possible on basis of General Authorisation²⁵).

(3) In sub-band 446.2–446.4 MHz is in accordance with European harmonisation and market demand considered the reservation of the band for development of more closely non-specified applications of PMR/PAMR type on principle of General Authorisation for operation of apparatus and for use of radio frequencies.

Part 3 **Fixed service**

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

(1) In accordance with harmonisation intention on utilisation of the band the operation of the fixed service is no more developed, changes of existing and implementation of new links may be carried out only in cases listed below with use of planning parameters of mobile network according to Article 5, paragraph 24.

(2) In sub-bands 412.75–413.5 / 422.75–423.5 MHz are on reserved channels operated links of countrywide data networks co-ordinated with the use in the mobile service. Basic channel separation is 25 kHz, supplementary 12.5 kHz, duplex separation 10 MHz. Changes of technical parameters may be carried out only in range which not constrain development of the mobile service applications pursuant to Article 5, paragraph 6, letter f.

(3) In sub-band 413–413.5 / 423–423.5 MHz new fixed links are no more licensed, in the existing ones may be carried out only changes which not constrain development of mobile service applications according to Article 6, paragraph 6, letter f.

(4) In case of need to place a simplex fixed link the band 406.1–410 MHz is preferred subject of observance of planning conditions applicable for mobile service.

(5) The sub-bands 413.5–415 / 423.5–425 MHz are used in accordance with footnote of ERC Report³) by low-capacity fixed links point-point. Channel separation is 50 kHz, duplex separation is 10 MHz. National and international co-ordination of these fixed links carries out the Office.

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

Development of the fixed service in the band 380–470 MHz is not assumed.

Part 4 **Mobile-satellite service**

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

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

(1) The band 387–390 MHz may be in accordance with RR footnote³⁸⁾ used in mobile-satellite service (space-to-Earth) by systems with non-geostationary satellites. This use is subject to coordination in accordance with RR provision³⁹⁾. Operation is regulated by RR footnote⁴⁰⁾ in order to protect the radio astronomy service.

(2) The bands in range 380–399.9 MHz may be in accordance with RR footnote⁴¹⁾ used by mobile-satellite service under condition of reaching coordination with touched administrations pursuant to RR provision⁴²⁾ and under condition, that stations of this service will not cause harmful interference to stations of other services.

(3) In making assignments of frequencies to mobile-satellite service space stations in sub-bands 387–390 MHz and 400.15–401 MHz the Office is in accordance with RR footnote⁴³⁾ authorised to set down measures to protect the radio astronomy service in the band 406.1–410 MHz.

(4) The use of the bands 399.9–400.05 MHz, 400.15–401 MHz, 454–456 MHz and 459–460 MHz by the mobile-satellite service is in accordance with RR footnote⁴⁴⁾ limited to non-geostationary satellite systems and in accordance with RR footnotes^{45), 46), 47)} is subject of coordination according to RR provision³⁹⁾. At the same time is the mobile-satellite service (Earth-to-space) in the band 399.9–400.05 MHz in accordance with RR footnote⁴⁸⁾ limited until 1 January 2015 to land mobile-satellite service (Earth-to-space). Operation in the band 400.15–401 MHz is in order to protect radio astronomy service regulated by RR footnote⁴⁰⁾. The mobile-satellite service shall not constrain development and operation of the satellite radionavigation service in this band.

(5) In the band 406–406.1 MHz is in accordance with RR footnote⁴⁹⁾ prohibited any transmission which may cause harmful interference of distress frequency 406.05 MHz. Use of the band 406–406.1 MHz by the mobile-satellite service is in accordance with RR footnote⁵⁰⁾ limited to satellite distress radio beacons indicating position EPIRB⁵¹⁾ in worldwide network COSPAS-SARSAT. This network is component of Global Maritime Distress and Safety System GMDSS.

Article 10

Information on future development in the mobile-satellite service

No changes in utilisation of the band by this radiocommunication service on international and national level are expected.

Part 5

Standard frequency and time signal-satellite service

³⁸⁾ Footnote 5.255 of RR.

³⁹⁾ Provision No. 9.11A of RR.

⁴⁰⁾ Footnote 5.208B of RR.

⁴¹⁾ Footnote 5.254 of RR.

⁴²⁾ Provision No. 9.21 of RR.

⁴³⁾ Footnote 5.208A of RR.

⁴⁴⁾ Footnote 5.209 of RR.

⁴⁵⁾ Footnote 5.220 of RR.

⁴⁶⁾ Footnote 5.264 of RR.

⁴⁷⁾ Footnote 5.286A of RR.

⁴⁸⁾ Footnote 5.224A of RR.

⁴⁹⁾ Footnote 5.267 of RR.

⁵⁰⁾ Footnote 5.266 of RR.

⁵¹⁾ Abbreviation EPIRB stands for Emergency Position-Indicating Radio Beacon.

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

Article 11

Current conditions in standard frequency and time signal-satellite service

The band 400.05–400.15 MHz is worldwide allocation for this service. In accordance with RR footnote⁵²⁾ is transmission limited to vicinity of ± 25 kHz of standard frequency 400.1 MHz.

Article 12

Information on future development in standard frequency and time signal-satellite service

No changes in utilisation of the band by this radiocommunication service on international and national level are expected.

Part 6

Space research service

Article 13

Current conditions in the space research service

(1) To the space research service is allocated the band 400.15–401 MHz for space-to-Earth direction on a primary basis and the band 410–420 MHz for space-to-space direction on a secondary basis.

(2) In accordance with RR footnote⁵³⁾ the space research service (space-to-space) shall not in the frequency band 410–420 MHz claim protection from stations in fixed and mobile services nor constrain their use and development. The use of this band by the space research service is limited to connection within 5 km from spacecraft on the orbit.

(3) By the space research service (Earth-to-space) can be in accordance with RR footnote⁵⁴⁾ used sub-band 449.75–450.25 MHz subject of obtaining agreement under procedure set down in RR provision⁴²⁾. Sub-band is in the Czech Republic used for links to research satellites.

Article 14

Information on future development in the space research service

No changes in utilisation of the band by this radiocommunication service on international and national level are currently negotiated over.

Part 7

Space operation service

Article 15

Current conditions in the space operation service

(1) To the space operation service is allocated the band 400.15–401 MHz for space-to-Earth direction on a secondary basis and the band 401–402 MHz for space-to-Earth direction on a primary basis.

⁵²⁾ Footnote 5.261 of RR.

⁵³⁾ Footnote 5.268 of RR.

⁵⁴⁾ Footnote 5.286 of RR.

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(2) By the space operation service (Earth-to-space) can be in accordance with RR footnote⁵⁴) used sub-band 449.75–450.25 MHz subject of obtaining agreement under procedure set down in RR provision⁴²).

Article 16

Information on future development in the space operation service

No changes in utilisation of the band by this radiocommunication service on international and national level are currently negotiated over.

Part 8

Radio astronomy service

Article 17

Current conditions in the radio astronomy service

The radio astronomy service is passive radiocommunication service based on reception of radio waves of cosmic origin. With regard to low levels of received signals the operation of the service depends on protection from interference from other radiocommunication services. In accordance with RR footnote⁵⁵) shall users of the band 406.1–410 MHz take all practicable measures to protect the radio astronomy service. The band is important for radio astronomy observations of pulsars.

Article 18

Information on future development in the radio astronomy service

No changes in utilisation of the band by this radiocommunication service on international and national level are currently negotiated over.

Part 9

Earth exploration-satellite service

Article 19

Current conditions in the Earth exploration-satellite service

To the Earth exploration-satellite service is in category of a primary service for Earth-to-space direction, i.e. for transmissions directed to satellites, the band 401–403 MHz and in category of secondary service for operation of active sensors the bands in range of 432–438 MHz. In accordance with RR footnote⁵⁶) may this service use in space-to-Earth direction also sub-band 460–470 MHz, but for other purposes than for the meteorological-satellite service subject to not causing harmful interference to stations of other services.

Article 20

Information on future development in the Earth exploration-satellite service

No changes in utilisation of the band by this radiocommunication service on international and national level are currently negotiated over.

⁵⁵) Footnote 5.149 of RR.

⁵⁶) Footnote 5.289 of RR.

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

Part 10
Meteorological aids service and meteorological-satellite service

Article 21

Current conditions in meteorological aids service and meteorological-satellite service

(1) To the services is allocated the band 400.15–406 MHz which is important for meteorological observations.

(2) In the band operate transmitters of balloon probes for weather monitoring which are launched four times per day at scheduled times from more than 800 stations worldwide and reach height up to 35 km. At strong wind the probe can be blown away as far as 300 km from place of launching. In the Czech Republic are for civil purposes used frequencies 401.1 MHz and 403.5 MHz with power of 1 W.

(3) In sub-band 401.6–402.2 MHz (Earth-to-space) are through satellites transmitted data from automatic meteorological observation stations. With regard to possible mutual interference is transmission carried out in time beyond launching of balloon probes.

Article 22

Information on future development in meteorological aids service and meteorological-satellite service

No changes in utilisation of the band by these radiocommunication services on international and national level are currently negotiated over.

Part 11
Amateur service and amateur-satellite service

Article 23

Current conditions in amateur service and amateur-satellite service

(1) The band 430–440 MHz is allocated to amateur service on a primary basis.

(2) The amateur-satellite service can in accordance with RR footnote⁵⁷⁾ use sub-band 435–438 MHz on condition, that will not cause harmful interference to other services. At the same time it shall not claim protection from interference from other services. In accordance with RR provision⁵⁸⁾ all harmful interference caused by transmission of space station of amateur-satellite service shall be immediately eliminated.

(3) Operation of amateur and amateur-satellite service is governed by special legal measure⁵⁹⁾.

Article 24

Information on future development in amateur service and amateur-satellite service

No changes in utilisation of the band by these radiocommunication services on international and national level are currently negotiated over.

⁵⁷⁾ Footnote 5.282 of RR.

⁵⁸⁾ Provision No. 25.11 of RR.

⁵⁹⁾ Decree No. 156/2005 Coll., on technical and operational conditions of the amateur radiocommunication service.

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

Part 12
Radionavigation-satellite service

Article 25
Current conditions in the radionavigation-satellite service

The band 399.9–400.05 MHz is allocated to the radionavigation-satellite service on a primary basis. In the Czech Republic this allocation is not used.

Article 26
Information on future development in the radionavigation-satellite service

In accordance with RR footnote⁶⁰) the allocation of the band 399.9–400.05 MHz to the radionavigation service is valid until 1 January 2015.

Part 13
Radiolocation service

Article 27
Current conditions in the radiolocation service

(1) To the radiolocation service are allocated bands 420–430 MHz and 440–450 MHz on a secondary basis, the band 430–440 MHz on a primary basis.

(2) In civil use may be operated synthetic aperture radars for mapping of Earth surface and of underground waters (up to depth of 20 m). Radars can be located onboard of aircraft.

Article 28
Information on future development in the radiolocation service

No changes in utilisation of the band by this radiocommunication service on international and national level are currently negotiated over.

Part 14
Final provisions

Article 29
Repealing provision

This is to repeal Measure of General Nature Part No. PV-P/15/03.2006-14 of the Radio Spectrum Utilisation Plan for frequency band 380–470 MHz.

Article 30
Effect

This part of the Radio Spectrum Utilisation Plan comes into effect on 1 March 2009.

⁶⁰) Footnote 5.224B of RR.

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

Explanatory memorandum

To implement Section 16(2) of the Act, the Office issues the Measure of General Nature Part No. PV-P/15/02.2009-4 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 380 MHz to 470 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 (Framework Directive) 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.

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.

The reason for new edition of the part of the plan is its updating on basis of results of World Radiocommunication Conference WRC-07, as well as of publication of new harmonisation documents, implementation of harmonisation intentions, formulation of future use of the band in more precise terms, freeing of some sub-bands of the band from non-civil applications and completion of planning parameters in the mobile service

In Article 2 is information from Frequency Bands allocation Plan (National Table of Frequency Allocations) amended by current utilisation of applications. Column “Future harmonisation” presents future intentions, i.e. allocation to services and utilisation by applications according to ERC Report 25: European Table of Frequency Allocations and Utilisations. The major applications are listed here and more details about applications are in relevant articles on individual radiocommunication services.

Article 3 states characteristics of the frequency band and Article 4 contains international obligations which in this case means the Radio Regulations of the International Telecommunication Union and the HCM Agreement which replaced Agreement Berlin 2003.

The most significant use of the band is operation of mobile networks in framework of the mobile service described in the Part 2.

To the Article 5 with information on the mobile service were projected particularly planned changes of harmonised usage of frequency bands 410–430 MHz by duplex mobile networks. In the sub-bands 413–414.25 MHz / 423–424.25 MHz the conditions are created for implementation and development of digital networks of wideband access to electronic communication services subject to not causing interference to operation of existing networks and links. In the band 440–447 MHz the sub-bands were released in support of civil applications for operation of simplex mobile networks. Sub-bands 442–442.4 MHz, 443.6–446 MHz and 446.2–447 MHz are designated for operation of simplex narrowband applications, selected channels of sub-band 442.4–443.6 MHz are designated for simplex wideband networks with channel separation 200 kHz. In sub-band 446.1–446.2 MHz was in accordance with European harmonisation and valid General Authorisation amended sub-band for operation of digital system PMR446 equipment. Further in Article 5 were modified conditions for spectrum sharing by narrowband and wideband applications and amended planning parameters.

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In Article 6 with information on future development in the mobile service is in paragraph 1 noted intention of further development and specified conditions of wideband systems implementation. Planning parameters of these networks are stated in paragraph 2.

In Article 7 with information on current status in the fixed service the modifications aim at fulfilment of harmonisation intention of gradual diminishing of fixed service operation in bands 410–470 MHz, for simplex fixed links will be designated the band 406.1–410 MHz.

Article 8 on future development in the fixed service informs about terminating of development of the fixed service in this band.

Into paragraphs 1 and 4 of Article 9 with information on the Earth exploration-satellite service was projected footnote on protection of the radio astronomy service adopted by World Radiocommunication Conference WRC-07.

In Articles 10 up to 28 with information on amateur service, radionavigation-satellite service and radiolocation service there were no changes.

On the basis of Section 130 of the Act and in accordance with the Czech Telecommunication Office's Rules for conducting consultations with the entities concerned at the Discussion Site, the Office published at the Discussion Site a draft Part No. PV-P/15/XX.2009-Y of the Radio Spectrum Utilisation Plan together with a call for comments on 15 December 2008. During public consultation the Office received comments from 8 subjects, three of them marked their comments as confidential and one of them delivered its comments after deadline for submitting of comments. Comments accepted by the Office were incorporated into text of the measure. In table of settlement of comments published on the Discussion Site is listed summary of received comments and their settlement.

On behalf of the Council
of the Czech Telecommunication Office
Pavel Dvořák
Chairman of the Council
of the Czech Telecommunication Office
<signed>