

Prague, 26 October 2010
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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/5/10.2010-13 of the Radio Spectrum Utilisation Plan
for the frequency band 66–87.5 MHz.**

Article 1
Introductory provision

This part of the Radio Spectrum Utilisation Plan sets out the technical characteristics and conditions of use of radio spectrum in the frequency band from 66 MHz to 87.5 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
66–67.5	LAND MOBILE	MD	LAND MOBILE	MD
67.5–68	FIXED MOBILE	Mobile networks	LAND MOBILE	Mobile networks
68–70	FIXED MOBILE except aeronautical mobile	Mobile networks	MOBILE	Mobile networks

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. Kyiv, 2009.

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

70–70.5	FIXED MOBILE except aeronautical mobile	MD	MOBILE Radio astronomy	MD Radio astronomy
70.5–73	FIXED MOBILE except aeronautical mobile	Mobile networks	MOBILE except aeronautical mobile Radio astronomy	Mobile networks Radio astronomy
73–74.6	FIXED MOBILE except aeronautical mobile ³⁾ ⁴⁾	Mobile networks MD	MOBILE except aeronautical mobile Radio astronomy ³⁾ ⁴⁾	Mobile networks Radio astronomy MD
74.6–74.8	FIXED MOBILE except aeronautical mobile	Mobile networks	MOBILE except aeronautical mobile Radio astronomy	Mobile networks Radio astronomy
74.8–75.2	AERONAUTICAL RADIONAVIGATION	ILS beacons MD	AERONAUTICAL RADIONAVIGATION	ILS beacons MD
75.2–75.4	FIXED MOBILE except aeronautical mobile	Mobile networks	MOBILE	Mobile networks
75.4–87.5	FIXED MOBILE except aeronautical mobile ⁴⁾	Mobile networks MD	MOBILE ⁴⁾	Mobile networks MD

Article 3

Frequency band characteristics

The band 66–87.5 MHz is designated mainly for the land mobile radiocommunication service. Also mobile, fixed and aeronautical radionavigation services have allocations in the band. Parts of the band are designated for non-civil utilisation. Due to certain specifics based on historic usage of sub-bands (e.g. different duplex separations) the harmonisation of the band is only partial.

Article 4

International obligations

Provisions of the Radio Regulations⁵⁾ (hereinafter „RR“) and HCM Agreement⁶⁾ apply to operation and coordination.

³⁾ See footnote 5.149 of Radio Regulations – guard bands for spectral lines for radio astronomy service.

⁴⁾ According to footnote EU1 of ERC Report 25 the bands 73.3–74.1 MHz and 79–79.7 MHz are harmonised for non-civil utilisation.

⁵⁾ Radio Regulations, International Telecommunication Union, Geneva, 2008.

⁶⁾ HCM Agreement – Agreement between the Administrations of Austria, Belgium, the Czech Republic, Germany, France, Hungary, the Netherlands, Croatia, Italy, Liechtenstein, Lithuania, Luxembourg, Poland, Romania, the Slovak Republic, Slovenia and Switzerland on the co-ordination of frequencies between 29.7 MHz and 39.5 GHz for the fixed service and the land mobile service.

Part 2
Mobile service

Article 5
Current conditions in the mobile service

(1) Within the mobile service in accordance with provisions of RR⁷⁾ the use of bands allocated to the land mobile service and to the mobile except aeronautical mobile service is also stated.

(2) Sub-bands 67.5125–69.9875/70.5125–72.9875 MHz are designated for mobile links and networks⁸⁾ and following conditions apply:

- a) simplex or duplex operation;
- b) duplex separation is 3 MHz, mobile stations transmit in lower sub-band, base stations transmit in upper sub-band;
- c) channel separation is 12.5 kHz, unless specified otherwise;
- d) centre frequencies of radio channels are given by formula

$$f_n \text{ [MHz]} = 67.5 + 0.0125n \text{ and}$$

$$f_n' \text{ [MHz]} = 70.5 + 0.0125n,$$

where n is 1 up to 199;

- e) maximum e.r.p. is 10 W, unless specified otherwise.

(3) Frequencies 67.6 MHz, 67.825 MHz, 67.9125 MHz, 67.95 MHz, 68.2 MHz, 68.25 MHz, 68.65 MHz, 69.075 MHz, 70.6 MHz, 70.825 MHz, 70.9125 MHz, 70.95 MHz, 71.2 MHz, 71.25 MHz, 71.65 MHz and 72.075 MHz are designated for wireless local information systems (BMIS). Detailed conditions for use of radio frequencies, including technical parameters, are set down by General Authorisation⁹⁾.

(4) The sub-band 73.025–74.775 MHz is designated for mobile links and networks and following conditions apply:

- a) simplex operation;
- b) channel separation is 25 kHz;
- c) centre frequencies of radio channels are given by formula

$$f_n \text{ [MHz]} = 73 + 0.025n,$$

where n is within 1 up to 71;

- d) maximum e.r.p. is 10 W;
- e) the sub-band 73.3–74.1 MHz is designated²⁾ ¹⁰⁾ for civil use until 31 December 2010⁴⁾ at the latest. Expiration dates of issued individual authorisations, which on the date when this measure comes into effect will extend beyond this date, remain unaffected;

⁷⁾ Provisions No. 1.24 and 1.26 of RR.

⁸⁾ ECC Decision 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.

⁹⁾ General Authorisation No. VO-R/2/01.2010-1 for the use of radio frequencies and for the operation of the stations of wireless local information systems (BMIS) in the 70 MHz frequency band.

¹⁰⁾ Decree No. 105/2010 Coll., on frequency bands allocation (National frequency table).

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

- d) the frequency 74.725 MHz countrywide, and frequencies 74.325 MHz, 74.375 MHz, 74.450 MHz, 74.475 MHz, 74.500 MHz, 74.525 MHz, 74.550 MHz, 74.575 MHz, 74.600 MHz, 74.625 MHz and 74.650 MHz regionally, are designated exclusively for needs of communication and coordination of activities of organisations of medical rescue service¹¹). The radio frequencies may be used only in the way which is not contrary to above mentioned purpose.
- g) RR footnote³) applies in the sub-band 73–74.6 MHz.

(5) Sub-bands 75.225–76.45/79.725–80.95 MHz are designated for mobile links and networks and following conditions apply:

- a) duplex operation;
- b) duplex separation is 4.5 MHz, mobile stations transmit in lower sub-band, base stations transmit in upper sub-band;
- c) channel separation is 25 kHz;
- d) centre frequencies of radio channels are given by formulas
- $$f_n \text{ [MHz]} = 73.0 + 0.025n \text{ and}$$
- $$f_n' \text{ [MHz]} = 77.5 + 0.025n,$$
- where n is in range 89 up to 138;
- e) maximum e.r.p. is 10 W;

(6) The sub-band 76.475–78.225 MHz is designated for mobile links and networks and following conditions apply:

- a) simplex operation;
- b) channel separation is 25 kHz;
- c) centre frequencies of radio channels are given by formula

$$f_n \text{ [MHz]} = 73 + 0.025n,$$

where n is 139 up to 209;

- d) maximum e.r.p. is 10 W;
- d) frequencies 77.025 MHz, 77.050 MHz, 77.075 MHz, 77.1 MHz, 77.725 MHz and 78 MHz are designated for portable transmitting radio devices using common radio frequency. Detailed conditions for utilisation of listed frequencies, including technical parameters, are set down by General Authorisation¹²).

(7) Sub-bands 78.25–79.475/82.75–83.975 MHz are designated for mobile links and networks and following conditions apply:

- a) duplex operation, in the sub-band 83.525–83.975 MHz also simplex;
- b) duplex separation is 4.5 MHz, mobile stations transmit in the lower sub-band, base stations transmit in the upper sub-band;
- c) channel separation is 25 kHz;
- d) centre frequencies of radio channels are given by formulas

$$f_n \text{ [MHz]} = 73.0 + 0.025n \text{ and}$$

¹¹) Decree of Ministry of health of the Czech Republic No. 434/1992 Coll., on medical rescue service.

¹²) General Authorisation No. VO–R/16/08.2005-28 for the use of frequencies and for the operation of equipment jointly operated on predetermined frequencies in the 27 MHz to 450 MHz bands.

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$$f_n \text{ [MHz]} = 77.5 + 0.025n,$$

where n is 210 up to 259;

- e) maximum e.r.p. is 10 W;
- f) the sub-band 79–79.475 MHz is designated²⁾ ¹⁰⁾ for civil use until 31 December 2011⁴⁾ at the latest. Expiration dates of issued individual authorisations, which on the date when this measure comes into effect will extend beyond this date, remain unaffected;

(8) The sub-band 79.5–79.7 MHz is designated for mobile links and networks and following conditions apply:

- a) simplex operation;
- b) channel separation is 25 kHz;
- c) centre frequencies of radio channels are given by formula

$$f_n \text{ [MHz]} = 73 + 0.025n,$$

where n is 260 up to 268;

- d) maximum e.r.p. is 10 W;
- e) the sub-band is designated²⁾ ¹⁰⁾ for civil use until 31 December 2011⁴⁾ at the latest. Expiration dates of issued individual authorisations, which on the date when this measure comes into effect will extend beyond this date, remain unaffected;

(9) Sub-band 80.975–82.725 MHz is designated for mobile links and networks and following conditions apply:

- a) simplex operation;
- b) channel separation is 25 kHz;
- c) centre frequencies of radio channels are given by formula

$$f_n \text{ [MHz]} = 73 + 0.025n,$$

where n is 319 up to 389;

- d) maximum e.r.p. is 10 W;
- e) frequencies 81.725 MHz and 81.75 MHz are designated for portable transmitting radio devices using common radio frequency. Detailed conditions for utilisation of listed frequencies, including technical parameters, are set down by General Authorisation¹²⁾.

(10) Sub-band 84.01–87.49 MHz is designated for mobile links and networks and following conditions apply:

- a) simplex operation;
- b) channel separation is 20 kHz;
- c) centre frequencies of radio channels are given by formula

$$f_n \text{ [MHz]} = 83.99 + 0.02n,$$

where n is 1 up to 175;

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

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- e) the frequency 86.79 MHz is designated for remote control of acoustic information devices for the blind persons. Detailed conditions for utilisation of the frequency, including technical parameters, are set down by General Authorisation¹³⁾;
- f) frequencies 87.43 MHz and 87.47 MHz are designated for data communication of radio equipment using common radio frequency. Detailed conditions for utilisation of listed frequencies, including technical parameters, are set down by General Authorisation¹²⁾.

(11) For planning of networks the Office takes into account following parameters:

- a) minimum useful intensity of electromagnetic field in the point of electric centre of the receiving antenna is 14 dB μ V/m;
- b) permissible interfering intensity of electromagnetic field in the point of electric centre of the receiving antenna is 6 dB μ V/m;
- c) planning maximum effective antenna height is 35 m;
- d) planning antenna height of base station is 10 m above terrain;
- e) planning antenna height of mobile station as well as of terminal of remote control and signalisation is 3 m above terrain;
- f) maximum operational range is 25 km;
- g) unless specified otherwise, maximum e.r.p. is 10 W;
- h) maximum occupied bandwidth is 11 kHz, or 14 kHz, or 16 kHz for channel separation 12.5 kHz, or 20 kHz, or 25 kHz as appropriate;
- i) in case of relay operation the higher frequency pertains to transmitter of relay station;
- j) in case of relay operation the holder of individual authorisation is obliged, using appropriate technical means, to prevent the appearance of harmful interference which may occur by influence of extraordinary circumstances connected with electromagnetic waves propagation;
- k) in case of national coordination the provisions of HCM Agreement are adequately applied;
- l) in networks designated for remote control and signalisation the terminal of remote control and signalisation is such fixed termination transmitting radio equipment which transmits with duty cycle¹⁴⁾ lesser than 1 % while duration of single transmission not exceeds 1 second;
- m) if conditions of paragraphs a) to l) are fulfilled the nominal repeating distance of location of stations is 120 km.

(12) The coordination of civil and non-civil utilisation is carried out by the Office.

¹³⁾ General Authorisation No. VO–R/10/09.2010-11 for the use of radio frequencies and operation of short range devices, as amended.

¹⁴⁾ Duty cycle is per cent expression of total of all time segments of transmitting on single carrier frequency during set down period in relation to this period.

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Article 6

Information on future development in the mobile service

(1) From the future use point of view the band is designated for the fixed service applications.

(2) The Office will consider experimental use of part of the band 70–70.5 MHz¹⁵⁾ focused on study of radio waves propagation.

(3) In the band 74.6–75.4 MHz the Office may modify conditions for use of listed frequencies in order to protect the aeronautical radiolocation service in accordance with RR footnote¹⁹⁾.

(4) With regard to difference in the use of frequencies in the Czech Republic and in European countries¹⁶⁾, which is given by historical development, no putting into effect of the more significant harmonisation intentions¹⁷⁾ is expected.

Part 3

Fixed service

Article 7

Current conditions in the fixed service

Civil utilisation of the band 66–87.5 MHz in the fixed service is limited only to links between base station and relay station or for data transfer to or from remote controlled objects¹⁸⁾. For purposes of frequency planning and coordination, the same criteria and methods as for land mobile service are used.

Article 8

Information on future development in the fixed service

In accordance with harmonisation intentions the utilisation in the fixed service other than described above is not assumed.

Part 4

Aeronautical radionavigation service

Article 9

Current conditions in the aeronautical radionavigation service

Frequency 75 MHz is in accordance with RR footnote¹⁹⁾ assigned to radio beacons in the aeronautical radionavigation service and is used for radio beacons in system of precise approach beacons ILS²⁰⁾. The guard band 74.8–75.2 MHz is set down for protection of this frequency.

¹⁵⁾ Footnote EU9 of ERC Report No. 25, informs about use of the band 70–70.5 MHz in number of CEPT countries by the amateur service on a secondary basis.

¹⁶⁾ In relation with Recommendation CEPT/ERC T/R 25–08 – Planning criteria and coordination of frequencies in the land mobile service in the range 29.7–960 MHz.

¹⁷⁾ ECC Report No. 25 – Strategies for the European use of frequency spectrum for PMR/PAMR applications, Stavanger, 2003.

¹⁸⁾ Data and command stations. Command station is data station designated for radio control and command of machines and machinery.

¹⁹⁾ Footnote No. 5.180 of RR.

²⁰⁾ Abbreviation ILS stands for Instrument Landing System.

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Article 10

Information on future development in the aeronautical radionavigation service

Changes are not expected in the utilisation of the band by this radiocommunication service on international or national level.

Part 5

Radio astronomy service

Article 11

Current conditions in the radio astronomy service

The radio astronomy service is passive radiocommunication service based on receipt of radio waves of cosmic origin. Due to low level of receiving signals the operation of this service depends on protection against interference from other radiocommunication services.

Article 12

Information on future development in the radio astronomy service

Harmonisation intention²⁾ assumes future allocation of the band 70.45–74.8 MHz to the radio astronomy service on a secondary basis.

Part 6

Final provisions

Article 13

Repealing provision

This is to repeal Measure of General Nature Part No. PV-P/5/03.2006-5 of the Radio Spectrum Utilisation Plan for frequency band 66–87.5 MHz of 1 April 2006.

Article 14

Effect

This part of the Radio Spectrum Utilisation Plan is effective from 1 December 2010.

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Explanatory memorandum

To implement Section 16(2) of the Act, the Office issues the Measure of General Nature Part No. PV-P/5/10.2010-13 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 66 MHz to 87.5 MHz by radiocommunication services.

The part of the plan is based on the principles embedded in the Act and in European legislation, especially 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 ability to anticipate the decisions of the Office. The reason for issue of this part of the plan was particularly modification of conditions determined for operation of BMIS. Into text of the part of the plan, also changes resulted from new issue of National Frequency Table, updated issue of Radio Regulations and other related documents were included.

Article 2 consists of information from Plan of Frequency Bands Allocations (National Frequency Table) amended by information on current utilisation of frequencies. The harmonisation intention is also presented, i.e. allocation to radiocommunication services and utilisation according to ERC Report 25: European Table of Frequency Allocations and Utilisations. As regards utilisation the main applications are listed and further details are in parts dedicated to particular radiocommunication services. Article was modified mainly in connection with new issue of National Frequency Table.

Article 3 presents characteristic of the band and it was newly amended by information on status of harmonisation of the band.

In article 4 the international obligations are listed, in the case of this band it means the Radio Regulations of the International Telecommunication Union and the HCM Agreement.

The most significant utilisation of the band is operation of mobile links and networks described in part 2. In linkage with relevant General Authorisation, further frequencies which may be used by wireless local information systems were added to article 5 of this part. The text of Article 5 was also supplemented with planning parameters, frequency arrangements and periods for civil utilisation of certain sub-bands in accordance with the harmonisation intentions mentioned in the ERC Report No. 25 and which were indicated in previous issue of this part of the plan. In order to improve clarity of the text, also structural and editorial modifications were carried out.

Article 6 of part 2 newly informs in accordance with Radio Regulations about Office's practice in case of need to ensure protection of the aeronautical radionavigation service which has allocation in the band 74.8–75.2 MHz. There is also addition to the article comprising notice on status of harmonisation of the band and information on consideration of experimental utilisation of the band 70–70.5 MHz.

Part 3 informs about the fixed service. Civil utilisation of frequencies in this service is due to harmonisation reasons not further developed.

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Part 4 presents use of frequencies by the aeronautical radionavigation service which can claim protection based both on exclusive allocation in the band 74.8–75.2 MHz as well as on the content of the RR footnote 5.180.

Part 5 describing the radio astronomy service was modified in the sense of expected future allocation of the band 70.45–74.8 MHz to this service.

In Article 13, previous issue of the part of the Radio spectrum utilisation plan for frequency band 66–87.5 MHz is repealed.

Article 14 sets down effect of the Measure of general nature with regard to implementation of Section 124 of the Act.

On the basis of Section 130 of the Act and in accordance with the Czech Telecommunication Office's Rules for conducting consultations at the discussion site, the Office published on 3 September 2010 draft Part No. PV-P/5/XX.2010-Y of the Radio Spectrum Utilisation Plan together with a call for submitting observations. During the public consultation period the Office received contributions from two subjects submitted according to Article 6 of the Czech Telecommunication Office's Rules for conducting consultations at the discussion site. These contributions concerned possibility to release the band 70–70.5 MHz, or its part, for purposes of the amateur service. The Office did not accept this proposal due to inconsistency with the Decree No. 105/2010 Coll., by which the Plan of Frequency Bands Allocations was issued. However the Office, in the interest of possibility to study propagation of radio waves, modified adequately text of Article 6. Wordings of all contributions as well as their settlement are listed in the table of settlements published at the discussion site.

On behalf of the Council of the
Czech Telecommunication Office

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