

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

Prague, 18 October 2005
Ref.: 37761/2005-605

On the basis of public consultation under Section 130 of the Act No. 127/2005 Coll., on electronic communications and on amendment to certain related acts (the Electronic Communications Act) , as amended (hereinafter „the Act“) and 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/4/10.2005-37
of the Radio Spectrum Utilisation Plan
for the frequency band 33.4–39.5 GHz.**

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 33.4 GHz to 39.5 GHz by radiocommunication services. This part of the Radio Spectrum Utilisation Plan follows up with the Common part of the Radio Spectrum Utilisation Plan¹⁾ .

Part 1
General information on the frequency band

Article 2
Frequency bands

Band (GHz)	Current condition		Future harmonisation ²⁾	
	Allocation	Utilisation	Allocation	Utilisation
33.4–34.2	RADIOLOCATION	Military Motion sensors Short range radars Surveying and measuring radars	RADIOLOCATION	Military Motion sensors Short range radars Surveying and measuring radars

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 covering the frequency range 9 KHz -275 GHz, rev, Copenhagen, 2004.

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34.2–34.7	RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space)	Military Motion sensors Short range radars Surveying and measuring radars	RADIOLOCATION SPACE RESEARCH (Earth-to-space)	Military Motion sensors Short range radars Surveying and measuring radars
34.7–5.2	RADIOLOCATION Space research	Military Motion sensors Short range radars Surveying and measuring radars	RADIOLOCATION Space research	Military Motion sensors Short range radars Surveying and measuring radars
35.2–35.5	METEOROLOGICAL AIDS RADIOLOCATION	Military Motion sensors Short range radars Surveying and measuring radars	METEOROLOGICAL AIDS RADIOLOCATION	Military Motion sensors Short range radars Surveying and measuring radars
35.5–36	METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH	Military	METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active)	Military Rain radar from satellites
36–37	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) ³⁾	Military Radio astronomy measurements	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	Military Passive research of Earth surface Radio astronomy measurements
37–37.5	FIXED SPACE RESEARCH (space-to-Earth) Mobile	Fixed links Military	FIXED SPACE RESEARCH (space to Earth)	High density fixed links
37.5–38	FIXED FIXED-SATELLITE (space-to-Earth) SPACE RESEARCH (space to Earth) Earth exploration-satellite (space-to-Earth) Mobile	Fixed links Military	FIXED FIXED SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Earth exploration-satellite (space-to-Earth)	High density fixed links Applications of fixed-satellite service Military

³⁾ In accordance with the remark 5.149 of Radio regulations it is possible to utilise it by radio-astronomic service.

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38–39.5	FIXED FIXED-SATELLITE (space-to-Earth Earth exploration- satellite (space-to- Earth) Mobile	Fixed links Military	FIXED FIXED-SATELLITE (space-to-Earth Earth exploration- satellite (space-to- Earth)	High density fixed links Applications of fixed- satellite service Military
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Article 3

Frequency band characteristics

The band 33.4–37 GHz in Europe is characteristic by its military utilisation and at the national level can be enabled its common utilisation with civil applications. The band 37-39.5 GHz is designated mostly for civil utilisation. The conditions of sharing of the band by terrestrial and space services are determined in accordance with the relevant provisions of the Radio Regulations (hereinafter “RR”) ⁴. The utilisation of the band in the Czech Republic is not in contradiction with the proposal for the harmonised utilisation of the band by European countries.

Article 4

International obligations

Provisions of RR and HCM Agreement apply to operation and coordination ⁵).

Part 2

Fixed service

Article 5

Current conditions in fixed service

(1) For civil utilisation are designated only the bands 37 093–38 178 / 38 353–39 438 MHz. In addition to them it is possible to continue to operate only point-point systems that have been put into operation in the past in the bands 37 058–37 093 / 38 318–38 353 MHz.

(2) The bands are assigned for utilisation by fixed point-point links and used transmitting radio equipment shall meet following conditions:

a) the duplex separation of transmitted and received frequency 1260 MHz;

b) the channel spacing is 56 MHz, whereas centre frequencies f_n and f_n' [MHz] of individual operational channels are in relation to the reference frequency $f_0 = 38 248$ MHz defined by the formula

$$f_n = f_0 - 1218 + 56n \text{ in the lower half of the band and} \\ f_n' = f_0 + 42 + 56n \text{ in the upper half of the band,} \\ \text{where } n = 2,3,4-20 \text{ (preferably 16 to 20) ;}$$

⁴) Article 21, Radio Regulations, International Telecommunication Union, Geneva, 2004.

⁵) 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 Coordination of frequencies between 29.7 MHz and 39.5 GHz for Fixed Service and Land Mobile service, Vilnius 2005.

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or 28 MHz, whereas centre frequencies f_n and f_n' [MHz] of individual operational channels are in relation to the reference frequency $f_n = 38\,248$ MHz defined by following formula

$$\begin{aligned} f_n &= f_0 - 1204 + 28n \text{ in the lower half of the band and} \\ f_n' &= f_0 + 56 + 28n \text{ in the upper half of the band,} \\ &\text{where } n = 2,3,4-40 \text{ (preferably 30 to 40) ;} \end{aligned}$$

or 14 MHz, whereas centre frequencies f_n and f_n' [MHz] of individual operational channels are in relation to the reference frequency $f_n = 38\,248$ MHz defined by following formula

$$\begin{aligned} f_n &= f_0 - 1197 + 14n \text{ in the lower half of the band and} \\ f_n' &= f_0 + 63 + 14n \text{ in the upper half of the band,} \\ &\text{where } n = 3,4,5-80 \text{ (preferably 33 to 58) ;} \end{aligned}$$

or 7 MHz, whereas centre frequencies f_n and f_n' [MHz] of individual operational channels are in relation to the reference frequency $f_n = 38\,248$ defined by following formula

$$\begin{aligned} f_n &= f_0 - 1193.5 + 7n \text{ in the lower half of the band and} \\ f_n' &= f_0 + 66.5 + 7n \text{ in the upper half of the band,} \\ &\text{where } n = 6,7,8-160 \text{ (preferably 26 to 64)} \end{aligned}$$

or 3,5 MHz, whereas centre frequencies f_n and f_n' [MHz] of individual operational channels are in relation to the reference frequency $f_n = 38\,248$ MHz defined by following formula

$$\begin{aligned} f_n &= f_0 - 1191.75 + 3.5n \text{ in the lower half of the band and} \\ f_n' &= f_0 + 68.52 + 3.5n \text{ in the upper half of the band,} \\ &\text{where } n = 11,12,13-320 \text{ (preferably 11-50) .} \end{aligned}$$

This arrangement is in accordance with ITU-R⁶⁾ and CEPT⁷⁾ Recommendations;

c) at least four and more states digital modulation formats (applies to systems that are being put into operation) .

(3) Before granting an individual authorisation the Office carries out national frequency coordination with the Ministry of Defence and international coordination in regions near the frontiers.

(4) In accordance with CEPT Decision⁸⁾ the uncoordinated earth stations in the fixed-satellite service which shares the band 37.5–39.5 GHz with fixed service cannot require protection from stations in fixed service.

Article 6 Information on future development in the fixed service

In the fixed service the development of links with the high density of stations is assumed.

⁶⁾ ITU-R-F 749-1 Recommendation – Radio-frequency channel arrangements for radio-relay systems operating in the 38 GHz band.

⁷⁾ CEPT T/R 12-01 Recommendation – Harmonised radio frequency channel arrangements for analogue and digital terrestrial fixed systems operating in the band 37–39.5 GHz.

⁸⁾ CEPT/ERC/DEC (00)02 Decision – ERC Decision of 27 March 2000 on the use of the band 37.5–40 GHz by the fixed service and Earth stations of the fixed-satellite service (space-to-Earth).

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Part 3
Radiolocation service

Article 7
Current conditions in the radiolocation service

For civil purposes it is possible to use in the radiolocation service the band 33.4–35.2 GHz that is designated for the operation of the short range radars, motion detectors, surveying and analogous measuring equipment.

Article 8
Information on future development in the radiolocation service

For the time being no changes in the use of these radiocommunication services are discussed on the international or national level.

Part 4
Earth exploration-satellite and space research services

Article 9
Current conditions in Earth exploration-satellite and space research services

The active sensors aboard satellites in Earth exploration-satellite and space research services in the band 35.5–36 GHz shall not in accordance with the footnote of the RR⁹⁾ cause harmful interference to the radiolocation service, the meteorological aids service or other services with primary allocation and impose constraints on their operation or development. At present these services are not used in the Czech Republic.

Article 10
Information on future development in Earth exploration-satellite and space research services

For the time being no changes in the use of these radiocommunication services are discussed on the international or national level.

Part 5
Fixed-satellite service

Article 11
Current conditions in the fixed-satellite service

To this service the band 37.5–39.5 GHz is allocated for space-to Earth use. In accordance with CEPT Decision⁸⁾ the uncoordinated earth stations in the fixed-satellite service cannot require protection from stations in the fixed service.

Article 12
Information on future development in the fixed-satellite service

No changes in the use of these radiocommunication services on the international or national level are expected.

⁹⁾ The footnote 5.551A of the RR.

¹⁰⁾ CEPT/ERC/DEC (00)02 Decision – ERC Decision of 27 March 2000 on the use of the band 37.5–40 GHz by the fixed service and Earth stations of the fixed-satellite service (space-to-Earth).

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Part 6
Meteorological aids service

Article 13
Current conditions in the meteorological aids service

In the Czech Republic this radiocommunication service has not at present any civil use.

Article 14
Information of future development in the meteorological aids service

In Europe it is proposed to allocate the band 35.2–35.5 GHz to the satellite meteorological service for satellite radars for monitoring of precipitations. These radars will be operated after relevant coordination is carried out.

Part 7
Radio astronomy service

Article 15
Current conditions in the radio-astronomy service

The radio astronomy service is a passive one, based on the reception of radio waves of space origin. Due to low levels of received signals the operation of this service depends on protection against harmful interference caused by other radiocommunication services. The radio astronomy service can use the frequency band 36.43–36.5 GHz in accordance with the footnote of RR³). At present it is not used in the Czech Republic.

Article 16
Information on future development in the radio-astronomy service

Changes in the utilisation of the band by this radiocommunication service are not assumed neither at international nor national levels.

Part 8
Mobile service

Article 17
Current conditions in the mobile service

Allocation to the mobile service in the band 36–39.5 GHz has no civil use in the Czech Republic.

Article 18
Information on future development in the mobile service

Changes in the utilisation of the band by this radiocommunication service are assumed neither at international nor national levels.

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Part 9
Final provisions

Article 19
Effect

This part of the Radio Spectrum Utilisation Plan comes into effect on 1 April 2006.

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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/4/03.2006-37 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 33.4 GHz to 39.5 GHz by radiocommunication services.

The part of the plan is based on the principles set out in the Act and in European legislation, especially Directive 2002/21/EC of the European Parliament and of the Council of 7 March 2002 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 of 7 March 2002 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 the radio spectrum use and ability to anticipate the decisions of the Office.

Article 1 defines the relation of the part of the plan to the plan of the utilisation of radio spectrum as well as the subject of the document.

Article 2 consists of information from National Table of Frequency Allocations and information on current utilisation by 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. More details about applications are in relevant articles on individual radiocommunication services.

Article 3 presents characteristics of the frequency band and the partition of its utilisation between the civil and military sectors.

Article 4 contains international obligations determined by Radio Regulations of the International Telecommunication Union and HCM agreement upon which the Office acts in radio spectrum management.

In Article 5 the Office sets down conditions for the civil utilisation of the above frequency bands and segments (i.e. frequency bands that are lower than those in the plan of the allocation of frequency bands) in the fixed radiocommunication service. These conditions are basic ones and the Office can determine with respect to a real configuration other technical parameters for the utilisation of radio frequencies by means of an individual authorisation. The Article determines principles of sharing and coordination for individual systems. References to documents, giving information on the conformity of these parameters with those of international documents, are presented in footnotes.

In Article 7 the Office determines the band for civil utilisation by the radiolocation service and its applications.

Other articles give information on radiocommunication services that are not used at present in the Czech Republic.

Article 15 informs on radio-astronomy service. Although it is not at present used in the Czech Republic, the users of radio spectrum must be aware of the fact that this service is passive and uses signals at the level of noise. Potential harmful interference could make the operation of this service impossible for example in neighbouring countries.

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On the basis of Section 130 of the Act and in accordance with the Czech Telecommunication Office's Rules for maintaining consultations with the affected parties at the discussion site, the Office published at the discussion site its draft Part No. PV-P/4/XX.2005-Y of the Radio Spectrum Utilisation Plan on 9 January 2006 together with the Call for comments.

During the public consultation period the Office received only comments on text refining and they were accepted.

Within public consultation the Office received comments. It accepted the proposal of the specification of Article 1 that includes the subject of the document. The proposal of the determination of bands for individual channel separations was accepted partly. Channels with the same bandwidth are typically placed next to each other. Nevertheless, the determination of limits for the allocation of frequencies to links of the same bandwidth would limit the possibility of selection of a frequency according to the situation in a given locality. That is why only information on preferred position for a relevant bandwidth was added.

The table of comments, published on the discussion site, includes the text of all comments and their settlement.

David Stádník
Chairman of the Council
of the Czech Telecommunication Office
<signed>