

Prague 23 January 2018
Ref.: 70 833/2017–619

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 only “the Act”) and under Section 10 of the Act No. 500/2004 Coll., the Administrative Procedure Code, as amended, and on the basis of the decision of the Council of the Czech Telecommunications Office (hereinafter “the Office”) under Section 107(9)(b)(2) of the Act and in order to implement Section 16(2) of the Act, the Office, as the appropriate state administration body under Section 108(1)(b) of the Act, hereby issues this Measure of General Nature

**Part No. PV-P/18/01.2018-1
of the Radio Spectrum Utilisation Plan
for the frequency band 12.5–14.5 GHz.**

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 12.5 GHz to 14.5 GHz 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 (GHz) | Current conditions | | Future harmonisation ²⁾ | |
|------------|-------------------------------------|---|---|---|
| | Allocation | Utilisation | Allocation | Utilisation |
| 12.5–12.75 | FIXED-SATELLITE (space-to-Earth) | Satellite interactive terminals Applications of fixed- satellite service | FIXED-SATELLITE (space-to-Earth) (Earth-to-space) | Satellite interactive terminals Applications of fixed- satellite service |

¹⁾ Common part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35 published in the Telecommunication Journal 14/2005, as amended.

²⁾ ERC Report 25: European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz, rev. 2017.

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

| | | | | |
|-------------|--|---|--|---|
| 12.75–13.25 | FIXED FIXED-SATELLITE (Earth-to-space) Space research (deep space) (space-to-Earth) | Fixed links | FIXED FIXED-SATELLITE (Earth-to-space) | Fixed links Applications of fixed-satellite service |
| 13.25–13.4 | AERONAUTICAL RADIONAVIGATION EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) | MD Aeronautical radionavigation Active scientific applications | AERONAUTICAL RADIONAVIGATION EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) | MD Aeronautical radionavigation Active scientific applications |
| 13.4–13.65 | EARTH EXPLORATION-SATELLITE (active) FIXED-SATELLITE (space-to-Earth) RADIOLOCATION SPACE RESEARCH | MD Active scientific applications SRD | EARTH EXPLORATION-SATELLITE (active) FIXED-SATELLITE (space-to-Earth) RADIOLOCATION SPACE RESEARCH | MD Active scientific applications SRD |
| 13.65–13.75 | EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH | Active scientific applications SRD | EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH | Active scientific applications SRD |
| 13.75–14 | FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Earth exploration-satellite Space research | MD Applications of fixed-satellite service Passive scientific applications SRD | FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Space research | MD Applications of fixed-satellite service Passive scientific applications SRD |
| 14–14.25 | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) Space research | Satellite interactive terminals Applications of fixed-satellite service | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) Space research | Satellite interactive terminals Applications of fixed-satellite service |
| 14.25–14.3 | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) Space research | Satellite interactive terminals Applications of fixed-satellite service | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) Space research | Satellite interactive terminals Applications of fixed-satellite service |
| 14.3–14.4 | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) Radionavigation-satellite | Satellite interactive terminals Applications of fixed-satellite service | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) | Satellite interactive terminals Applications of fixed-satellite service |

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

| | | | | |
|------------|---|---|---|---|
| 14.4–14.47 | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) Space research (space-to-Earth) | Satellite interactive terminals Applications of fixed- satellite service | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) | Satellite interactive terminals Applications of fixed- satellite service |
| 14.47–14.5 | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) Radio astronomy ³⁾ | Satellite interactive terminals Applications of fixed- satellite service | FIXED-SATELLITE (Earth-to-space) Mobile-satellite (Earth-to-space) Radio astronomy ³⁾ | Satellite interactive terminals Applications of fixed- satellite service |

Article 3

Frequency band characteristics

(1) Described band is characteristic of utilisation of satellite communications systems in the fixed-satellite and mobile-satellite services including satellite networks with interactive Earth stations designated particularly for data communication and for satellite news gathering. There are also allocations to the fixed, aeronautical radionavigation and scientific services in the band.

(2) The band 13.25–14 GHz is shared by civil and non-civil applications.

Article 4

International obligations

Provisions of the Radio Regulations⁴⁾ (hereinafter only “RR”) and provisions of HCM Agreement⁵⁾ apply to operation and coordination.

Part 2

Devices operated out of radiocommunication services

Article 5

Current conditions in terms of devices operated out of radiocommunication services

The civil use of the band 13.4–14 GHz is possible in accordance with the Commission Decision⁶⁾ and CEPT Recommendation⁷⁾ by short range devices for radiodetermination. The factual conditions of the use of radio frequencies including technical parameters are set down by the General Authorisation⁸⁾.

³⁾ In accordance with footnote 5.149 of the Radio Regulations users of the band 14.47–14.5 GHz shall take all practicable steps to protect the radio astronomy service.

⁴⁾ Radio Regulations of the International Telecommunication Union, Geneva, 2016.

⁵⁾ 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 43.5 GHz for the fixed service and the land mobile service.

⁶⁾ Commission Implementing Decision (EU) 2017/1483 of 8 August 2017 amending Decision 2006/771/EC on harmonisation of the radio spectrum for use by short range devices and repealing Decision 2006/804/EC.

⁷⁾ Recommendation CEPT/ERC/REC 70-03 – Relating to the use of Short Range Devices (SRD).

⁸⁾ General Authorization No. VO-R/10/12.2017-10 for the use of radio frequencies and for the operation of Short Range Devices, as amended.

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

Article 6

Information on future development for devices operated out of radiocommunication services

The modification of conditions of the use of frequencies by SRD devices is not expected in the bands described in this part of the plan.

Part 3

Fixed-satellite service and mobile-satellite service

Article 7

Current conditions in the fixed-satellite service and mobile-satellite service

(1) In the bands 12.5–14.5 GHz, the networks in the mobile-satellite and fixed-satellite service are operated and the following shall apply:

- a) the band 12.5–12.75 GHz and 14–14.25 GHz may be used on the basis of the CEPT Decision⁹⁾, ¹⁰⁾ for operation of the satellites to interactive terminals LEST¹¹⁾ and HEST¹²⁾ in the networks of the fixed-satellite service,
- b) the band 12.5–12.75 GHz and 14–14.5 GHz may be used on the basis of the CEPT Decision¹³⁾ by Earth stations in the fixed-satellite service. The band may be also used on the basis of the CEPT Decision¹⁴⁾ by VSAT terminals¹⁵⁾ for satellite transmission of news contributions SNG¹⁶⁾,
- c) the band 14.25–14.5 GHz may be used on the basis of the CEPT Decision¹⁷⁾ and in accordance with RR footnote¹⁸⁾ for the operation of Earth stations placed on board of aircraft (hereinafter only “the AES terminals¹⁹⁾”). The AES terminals are designated for ensuring data broadband communications on board of aircraft and cooperating with satellites as a part of the mobile-satellite service,
- d) the band utilisation by systems in the fixed-satellite service is subject to the provisions according to RR footnote²⁰⁾,
- e) specific conditions of the use of the radio frequencies by herein listed terminals including technical parameters are set down in the General authorisation²¹⁾.

⁹⁾ Decision CEPT/ECC/(06)02 of 24 March 2006 on exemption from individual licensing of low e.i.r.p. satellite terminals (LEST) operating within the frequency bands 10.7–12.75 GHz or 19.7–20.2 GHz (Space-to-Earth) and 14–14.25 GHz or 29.5–30 GHz (Earth-to-Space).

¹⁰⁾ Decision CEPT/ECC/(06)03 of 24 March 2006 on exemption from individual licensing of high e.i.r.p. satellite terminals (HEST) operating within the frequency bands 10.7–12.75 GHz or 19.7–20.2 GHz (Space-to-Earth) and 14–14.25 GHz or 29.5–30 GHz (Earth-to-Space).

¹¹⁾ Low E.i.r.p. Satellite Terminals – (LEST).

¹²⁾ High E.i.r.p. Satellite Terminals – (HEST).

¹³⁾ Decision CEPT/ECC/DEC(17)04 of 30 June 2017 on the harmonised use and exemption from individual licensing of fixed earth stations operating with NGSO FSS satellite systems in the frequency bands 10.7–12.75 GHz and 14.0–14.5 GHz.

¹⁴⁾ Decision ECC/DEC/(03)04 of 17 October 2003 on exemption from Individual Licensing of VSAT operating in the frequency bands 14.25–14.5 GHz (Earth-to-space) and 10.7–11.7 GHz (space-to-Earth).

¹⁵⁾ The abbreviation VSAT stands for Very Small Aperture Terminal.

¹⁶⁾ The abbreviation SNG stands for Satellite News Gathering.

¹⁷⁾ Decision CEPT/ECC/(05)11 of 24 June 2005, amended 6 March 2015 on the free circulation and use of Aircraft Earth Stations (AES) in the frequency bands 14–14.5 GHz (Earth-to-space), 10.7–11.7 GHz (space-to-Earth) and 12.5–12.75 GHz (space to Earth).

¹⁸⁾ Footnote 5.504A of RR.

¹⁹⁾ The abbreviation AES stands for Aircraft Earth Stations.

²⁰⁾ Footnote 5.484A of RR.

²¹⁾ General Authorisation No. VO-R/1/05.2017-2 for the operation the users' terminals of the radio networks of the electronic communications, as amended.

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

(2) The use of the band 12.75–13.25 GHz by applications of the fixed-satellite service is guided by RR footnote²²⁾.

(3) The use of the band 13.4–13.65 GHz by systems in the fixed-satellite service is regulated by RR footnotes²³⁾.

(4) The use of the band 13.75–14.5 GHz by applications of the fixed-satellite service is guided by RR footnote²⁰⁾.

Article 8

Information on future development in fixed-satellite service and mobile-satellite service

The changes of the band utilisation by these radiocommunication services are not expected neither at international nor national level.

Part 3

Fixed service

Article 9

Current conditions in the fixed service

(1) The band 12.75–13.25 GHz can be used by the fixed links point-point with frequency division (FDD) with duplex separation of 266 MHz and the equipment in the operation shall fulfil conditions according to any following provisions:

a) the channel spacing and channel separation is 56 MHz, whereas centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 12\,996$ MHz given by formulas:

$$f_n = f_0 - 273 + 56n \text{ in the lower part of the band and} \\ f_n' = f_0 - 7 + 56n \text{ in the upper part of the band,} \\ \text{where } n = 3 \text{ and } 4;$$

b) the channel spacing and channel separation is 28 MHz, whereas centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 12\,996$ MHz given by formulas:

$$f_n = f_0 - 259 + 28n \text{ in the lower part of the band and} \\ f_n' = f_0 + 7 + 28n \text{ in the upper part of the band,} \\ \text{where } n = 1, 2 \text{ up to } 8;$$

c) the channel spacing and channel separation is 7 MHz, whereas centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 12\,996$ MHz given by formulas:

$$f_n = f_0 - 248.5 + 7n \text{ in the lower part of the band and} \\ f_n' = f_0 + 17.5 + 7n \text{ in the upper part of the band,} \\ \text{where } n = 25, 26 \text{ up to } 32;$$

c) the channel spacing and channel separation is 3.5 MHz, whereas centre frequencies f_n and f_n' [MHz] of particular operating channels are in relation to the reference frequency $f_0 = 12\,996$ MHz given by formulas

²²⁾ Footnote 5.441 of RR.

²³⁾ Footnotes 5.499A and 5.499E of RR.

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

$$f_n = f_0 - 246.75 + 3.5n \text{ in the lower part of the band and}$$
$$f_n' = f_0 + 19.25 + 3.5n \text{ in the upper part of the band,}$$

where $n = 57, 58$ up to 64 .

The arrangement is in accordance with the Recommendations CEPT²⁴⁾ and ITU-R²⁵⁾.

(2) Operating channels Nos. 2 and 4 for channel spacing 28 MHz are designated for utilisation on the basis of the short-term authorisation only.

Article 10

Information on future development in the fixed service

The changes of the band utilization by the radiocommunication service are not expected neither at international nor national level.

Part 5

Earth exploration-satellite service and space research service

Article 11

Current conditions in Earth exploration-satellite service and space research service

(1) In accordance with RR footnotes²⁶⁾, ²⁷⁾ the Earth exploration-satellite (active) and space research (active) services shall not cause harmful interference to the aeronautical radionavigation service or constrain its use or development in the band 13.25–13.75 GHz.

(2) In the band 13.4–13.65 GHz, the operational and procedural limitations for the space research service are subject to RR footnote²⁸⁾. Furthermore, in this band the satellite systems in the space research service shall not cause harmful interference to the stations in the fixed, mobile, radiolocation and Earth exploration-satellite service (active) or claim protection from them.

(3) In accordance with RR footnote²⁹⁾, the allocation of the band 13.65–13.75 GHz to the space research service on a primary basis is limited to active spaceborne sensors. Other uses of the band by the space research service are on a secondary basis.

Article 12

Information on future development in Earth exploration-satellite service and space research service

No changes in utilisation of the band by these radiocommunication services at international and national level are expected.

²⁴⁾ Recommendation CEPT/ERC/REC 12-02 – Harmonised radio frequency channel arrangements for analogue and digital terrestrial fixed systems operating in the band 12.75 GHz to 13.25 GHz.

²⁵⁾ Recommendation ITU-R F.497-7 – Radio-frequency channel arrangements for fixed wireless systems operating in the 13 GHz (12.75–13.25 GHz) frequency band.

²⁶⁾ Footnote 5.498A of RR.

²⁷⁾ Footnote 5.501B of RR.

²⁸⁾ Footnote 5.499C of RR.

²⁹⁾ Footnote 5.501A of RR.

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

Part 6
Radio astronomy service

Article 13
Current conditions in radio astronomy service

(1) The radio astronomy service is a 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.

(2) In accordance with RR footnote³⁾ users of the sub-band 14.47–14.5 GHz shall take all practicable steps to protect the radio astronomy service.

Article 14
Information on future development in the radio astronomy service

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

Part 7
Aeronautical radionavigation service

Article 15
Current conditions in the aeronautical radionavigation service

(1) In accordance with RR footnote³⁰⁾, the use of the band 13.25–13.4 GHz by the aeronautical radionavigation service is limited only to the navigation devices that use Doppler effect (Doppler navigator).

(2) The band 13.25–13.4 GHz is used by civil and non-civil applications.

Article 16
Information on future development in the aeronautical radionavigation service

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

Part 8
Radiolocation service

Article 17
Current conditions in the radiolocation service

The band 13.4–14.0 GHz is allocated to the radiolocation service on a primary basis for non-civil use.

³⁰⁾ Footnote 5.497 of RR.

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

Article 18

Information on future development in the radio astronomy service

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

Part 9

Final provision

Article 19

Repealing Provisions

The Part of the Radio Spectrum Utilisation Plan No. PV-P/18/10.2011-15 for the frequency band 12.5–14.5 GHz of 19 October 2011 shall be repealed.

Article 20

Effect

This part of the Radio Spectrum Utilisation Plan shall come into effect from 15 February 2018.

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/18/01.2018-1 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 12.5 GHz to 14.5 GHz by radiocommunication services.

This part of the plan is based on the principles embedded in the Act and in European legislation, especially in Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services within the meaning of the Directive 2009/140/EC³¹⁾ and in Decision No. 676/2002/EC of the European Parliament and of the Council on a regulatory framework for radio spectrum policy in the European Community (Radio Spectrum Decision) as well as on principles determined in the Common Part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35 as amended. The purpose of this part of the plan is to ensure the transparency of conditions for radio spectrum use and the ability to anticipate the future decisions of the Office.

The reason of new issue of this part of the plan is particularly to implement the conditions for the use of channel widths of 56 MHz in the fixed service in the band 12.75–13.25 GHz namely for the support of introduction of broadband fixed links. Among other amendments belong the implementation of relevant provisions of the current issue of Radio Regulations, the changes in allocation of the bands to radiocommunication services, the extension of the conditions for Earth stations in satellite services, the updating of references to harmonisation documents and other amendments.

In Article 2 there is described status of the allocations to radiocommunication services which corresponds with the Plan Frequency Bands Allocations (National Table of Frequency Allocations³²⁾), including their use by applications. European Table of Frequency Allocations and Applications – ERC Report 25 – it adds the general overview of harmonisation intentions in the field of radio spectrum. The main applications are presented from utilisation point of view and other details are in parts dedicated to particular radiocommunication services. In the article there are implemented the modifications on the basis of the current publication of Radio Regulations, the National Table of Frequency Allocations and harmonisation intentions according to ERC Report 25.

Article 3 presents common characteristics of the band described by this part of the plan.

Article 4 contains the international obligations which address the relevant band 12.5–14.5 GHz.

In view of the fact that short range devices (SRD) described in the CEPT Recommendation⁷⁾ and the General authorisation⁸⁾ do not have from point of view of the classification of radiocommunication service the character of stations in the sense of Provision 1.61 of RR, the new Part 2 was inserted after Part 1 with the conditions for devices operated out of radiocommunication services which originally played a part in the article with conditions in the radiolocation service.

Part 3 introduces the conditions of the use of the frequencies in the fixed-satellite and mobile-satellite service. The amendments take into consideration for one thing the deletion of the original Decision CEPT/ERC/DEC(98)15 on the regulatory conditions for operation of the

³¹⁾ Directive 2009/140/EC of the European Parliament and of the Council amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, 2012/19/EC on access to, and interconnection of, electronic communications networks and associated facilities, and 2002/20/EC on the authorization of electronic communications networks and services.

³²⁾ Decree No. 423/2017 Coll., of 29 November 2017, amending Decree No. 105/2010 Coll., on Plan of Frequency Bands Allocations (National Table of Frequency Allocations).

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

satellite terminals in the network of designated operator, and for another the structural amendments carried out on account of clarification. The references to the RR footnotes adopted by the World Radiocommunication Conference WRC-15 are added as well. As a new issue there are allowed the conditions for the operation of Earth stations in non-geostationary networks in the fixed service which are intended besides other things for provision of broadband communications. The operation of mentioned stations is possible on the basis of general authorisation.

Part 4 describes the current situation in the fixed service. In paragraph 1 there were the conditions for the use of frequencies by point-to-point fixed links extended to a possibility of using the channel of 56 MHz width. The Office acceded to enable the use of the channels Nos. 3 and 4 only with this band width due to fact that the channels of 28 MHz width (Nos. 2 and 4) are designated according to paragraph 2 for the short-term use, i.e. for cases unpredictable neither in time nor in location (e.g. provision of television transmissions from unexpected or sporting, possibly cultural events, as the case may be in a moment of emergency situations and the like. This limitation aims at ensuring adequate flexible possibility of allocation of such frequencies in the event of unforeseen needs in every part of the territory of the Czech Republic. If the Office made the channels of 56 MHz width available in the entire range (i.e. channels Nos. 1 up to 4), it would exclude the possibility to allocate the radio channels for the mentioned purposes, because the channel No. 1 of 56 MHz band width overlaps with the channel No. 2 of 28 MHz band width and identically the channel No. 2 of 56 MHz band width overlaps with the channel No. 4 of 28 MHz band width. As a consequence, it could practically make the transmissions of signals impossible in particular from sporting or other important actions as well as potential use in a moment of the emergency needs. The amendment of paragraph 2 in Article 11 (information relating to future development) takes into consideration the achieved situation which was presumed in the former publication of this part of the plan.

Parts 5 and 6 refer to the scientific services – the Earth exploration service, space research and radio astronomy service. The newly inserted provision in Article 11(2), which relates to the space research service, takes into consideration RR footnotes adopted by WRC-15.

Part 7 informs about the allocation of the band 13.25–13.4 GHz on a primary basis to the aeronautical radionavigation service. The band may be used by civil and non-civil applications.

Article 16 with information on future development in the aeronautical radionavigation service was modified pursuant to the current situation, i.e. no proposals for changes concerning this service have not been prepared in the WRC-19 study period.

The former parts with the articles with the conditions in the standard frequency and time signal-satellite service were deleted in accordance with the current proposal of National Table of Frequency Allocations. The use of the service was terminated in Europe.

In Article 19 (part 9), the former issue of the part of the Radio Spectrum Utilisation Plan for the band 12.5-14.5 GHz is cancelled. Article 20 sets down effect of this part of the Radio Spectrum Utilisation Plan in accordance with Section 124 of the Act.

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

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 a draft of Measure of General Nature Part No. PV-P/18/XX.2017-YY of the Radio Spectrum Utilisation Plan on 29 November 2017 together with a call for submitting comments at the discussion site. During public consultation the Office did not receive any comments to the draft submitted by procedure according to Article 6 of Telecommunication Office's Rules.

On behalf of the Council
of the Czech Telecommunication Office
Jiří Peterka
Member of the Council
Of the Czech Telecommunication Office
<signed>