

Prague 30 October 2013
Ref.: ČTÚ-83 736/2013-605

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 according to Section 10 of the Act No. 500/2004 Coll., the Administrative Regulations, 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/22/11.2013-7 of the Radio Spectrum Utilisation Plan
for the frequency band 87.5–146 MHz.**

Article 1
Introductory provision

This part of the Radio Spectrum Utilisation Plan sets down technical characteristics and conditions of use of radio spectrum in the frequency band from 87.5 MHz to 146 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
87.5–108	BROADCASTING	FM sound broadcasting	BROADCASTING	FM sound broadcasting
108–117.975	AERONAUTICAL RADIONAVIGATION ³⁾	ILS-LLZ VOR MD	AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE (R)	ILS-LLZ VOR GBAS MD

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

²⁾ ERC Report 25: The European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz, rev., 2013.

³⁾ The band 108–117.975 MHz is in accordance with footnote 5.197A of the Radio Regulations also allocated to the aeronautical mobile service (R) on a primary basis, taking into account limitations specified in this footnote.

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

117.975–137	AERONAUTICAL MOBILE 4) 5) 6) 7)	Distress frequency 121.5 MHz Auxiliary distress frequency 123.1 MHz Aeronautical applications MD	AERONAUTICAL MOBILE (R) 4) 5) 6) 7)	Distress frequency 121.5 MHz Auxiliary distress frequency 123.1 MHz Aeronautical applications MD
137–137.025	AERONAUTICAL MOBILE (OR) Space operation (space-to-Earth) Fixed Meteorological-satellite (space-to-Earth) Mobile-satellite (space-to-Earth) Space research (space-to-Earth)	MD Aeronautical sport	AERONAUTICAL MOBILE (OR) METEOROLOGICAL- SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Space operation (space-to-Earth) Space research (space-to-Earth)	Meteorological satellites LEO systems Aeronautical sport MD
137.025–138	AERONAUTICAL MOBILE (OR) Space operation (space-to-Earth) Fixed Meteorological-satellite (space-to-Earth) Mobile satellite (space-to-Earth) Mobile except aeronautical mobile (R) Space research (space-to-Earth)	MD Aeronautical sport	AERONAUTICAL MOBILE (OR) METEOROLOGICAL- SATELLITE (space-to-Earth) Mobile-satellite (space-to-Earth) Space operation (space-to-Earth) Space research (space-to-Earth)	LEO systems Aeronautical sport MD
138–143.6	AERONAUTICAL MOBILE (OR) LAND MOBILE Space research (space-to-Earth)	MD SRD	AERONAUTICAL MOBILE (OR) LAND MOBILE Space research (space-to-Earth)	SRD MD
143.6–143.65	AERONAUTICAL MOBILE (OR) LAND MOBILE Space research (space-to-Earth)	MD	AERONAUTICAL MOBILE (OR) LAND MOBILE Space research (space-to-Earth)	MD

⁴⁾ The band 132–136 MHz is in accordance with footnote 5.201 of the Radio Regulations also allocated to the aeronautical mobile (OR) service on a primary basis.

⁵⁾ The band 136–137 MHz is in accordance with footnote 5.202 of the Radio Regulations also allocated to the aeronautical mobile (OR) service on a primary basis.

⁶⁾ Footnote No. 5.111 of the Radio Regulations.

⁷⁾ Footnote No. 5.200 of the Radio Regulations pertaining to conditions of use of the distress frequency 121.5 MHz and the aeronautical auxiliary distress frequency 123.1 MHz.

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

143.65–144	AERONAUTICAL MOBILE (OR) LAND MOBILE Space research (space- to-Earth)	MD	AERONAUTICAL MOBILE (OR) LAND MOBILE	MD
144–146	AMATEUR AMATEUR-SATELLITE	Amateur applications Amateur-satellite applications	AMATEUR AMATEUR-SATELLITE	Amateur applications Amateur-satellite applications

Article 3

Frequency band characteristics

(1) For the band is characteristic intensive use for FM sound broadcasting in the range 87.5–108 MHz. Consecutive frequency sub-bands are important for the use in aeronautical applications.

(2) The band 117.975–137 MHz is used for voice and data communication in the aeronautical mobile service. In accordance with procedure described in the article 5(3), the voice communication is under a changeover process from the 25 kHz channel bandwidth to the 8.33 kHz channel bandwidth.

Article 4

International obligations

Provisions of Radio Regulations⁸⁾ (hereinafter only “RR”) apply to operation and coordination. Planning of stations in the broadcasting service is administered by the Geneva 1984 Plan⁹⁾.

Part 2

Aeronautical mobile service and aeronautical mobile-satellite service

Article 5

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

(1) In the aeronautical mobile service and the aeronautical mobile-satellite service, the marking (R) after name of the service means a service on national and international air routes, (OR) outside these air routes.

(2) The band 108–117.975 MHz may be in accordance with RR footnote³⁾ used by the aeronautical mobile (R) service on a primary basis for systems transmitting information in support of the air navigation and surveillance over aeronautical traffic in accordance with recognised international aviation standards. Such use shall be in accordance with Resolution of World Radiocommunication Conference 2012¹⁰⁾ and shall not cause harmful interference to

⁸⁾ Radio Regulations, International Telecommunication Union, Geneva, 2012.

⁹⁾ Final Acts of the Regional Administrative Conference for the Planning of VHF Sound Broadcasting (Region 1 and Part of Region 3), Geneva, 1984.

¹⁰⁾ Resolution 413 (WRC-07).

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

nor claim protection from stations operating in the aeronautical radionavigation service in accordance with international aeronautical standards.

(3) The aeronautical mobile (R) service has allocation in the band 117.975–137 MHz. In Europe the band is heavily used for voice and data communication ground-air-ground related to safety and regularity of flight. Below mentioned data on changeover to new conditions of the use of radio spectrum are defined in Commission implementing regulation¹¹⁾ and following conditions apply:

- a) the sub-band 118.0–121.45 MHz is designated for national utilisation and international utilisation on the basis of mutual coordination;
- b) the frequency 121.5 MHz is designated for distress signals and voice distress communication, including ELT beacons¹²⁾. In case of need, in the sense of RR footnote⁷⁾, it might be used for search and rescue operations. Any transmission capable of causing harmful interference to distress and urgent communications is prohibited on this frequency. The auxiliary distress frequency 123.1 MHz is also designated for coordinated search and rescue utilisation SAR¹³⁾ in the aeronautical and maritime mobile service;
- c) the sub-band 121.550–121.9917 MHz is reserved for connection within airport surface except take-offs and landings;
- d) the frequency sub-bands 122–123.05 MHz and 123.15–131.4 MHz are national allocations for communications in the aeronautical mobile service;
- e) the sub-band 131.4–131.975 MHz is designated for operational communication¹⁴⁾;
- f) the sub-band 132–137 MHz is in accordance with RR footnotes⁴⁾, ⁵⁾ allocated also to the aeronautical mobile (OR) service;
- g) the sub-band 136.7–136.975 MHz is reserved for data communication¹⁵⁾. The frequencies 131.525 MHz, 131.725 MHz and 131.825 MHz are designated for the Aircraft Communications Addressing and Reporting System (ACARS);
- h) with the exception of the use of frequencies according to letters b) and g), the channel bandwidth is 25 kHz or 8.33 kHz. The aeronautical and aircraft stations newly put into operation from 17 November 2013, must be able to communicate with utilisation of both channel bandwidth 25 kHz and 8.33 kHz;
- i) the aeronautical stations equipped with channel bandwidth 25 kHz only can use the frequencies until 31 December 2017 only;
- j) time limits of the use of radio frequencies with channel bandwidth 25 kHz will be defined in accordance with the frequency plan of transition to be developed by Ministry of Transport¹⁶⁾. When the time limits stipulated in the plan of the transition expire, the

¹¹⁾ Commission implementing regulation (EU) No. 1079/2012 of 16 November 2012 laying down requirements for voice channels spacing for the single European sky.

¹²⁾ Abbreviation ELT stands for Emergency Locator Transmitter. Obligations of holders of individual authorisations for use of the aeronautical mobile service frequencies are set down in appropriate parts of aeronautical regulations L6 and L10.

¹³⁾ Abbreviation SAR stands for Search and Rescue.

¹⁴⁾ Marked by abbreviation OCC which stands for Operational Control Communications.

¹⁵⁾ Marked by abbreviation VDL which stands for VHF data link.

¹⁶⁾ Aeronautical circular AIC C 02/13.

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

radio frequencies shall be used with channel bandwidth 8.33 kHz only, namely under conditions fulfilled the provision of letter h).

(4) The allocation to the aeronautical mobile (OR) service in the band 137–138 MHz might be used also for aeronautical sport under condition that coordination with non-civil utilisation is successfully carried out. The coordination is carried out by the Office.

(5) The band 138–144 MHz is allocated to the aeronautical mobile (OR) service and has no civil utilisation.

Article 6

Information on future development in the aeronautical mobile service and aeronautical mobile-satellite service

Coordinated European change to the use of the 8.33 kHz channel width in aeronautical voice communication will continue in period until 31 December 2018. After this date the 8.33 kHz channel bandwidth shall be used only.

Part 3

Aeronautical radionavigation service

Article 7

Current conditions in the aeronautical radionavigation service

In the aeronautical radionavigation service there are operated localizers of instrument landing system (ILS-LLZ) in the band 108–112 MHz with system link to the band 328.6–335.4 MHz where are operated glide path beacons for instrument landing system ILS-GP¹⁷⁾ and to the band 960–1215 MHz where is operated distance measuring equipment DME¹⁸⁾ used for determination of stopping distance between aircraft and ground equipment. In the band 108–117.975 MHz are operated navigational VHF omnidirectional radio beacons VOR¹⁹⁾ with systems' link to the band 960–1215 MHz (DME).

Article 8

Information on future development in the aeronautical radionavigation service

Gradual phase-out of VOR equipment utilisation is expected after global navigation system GALILEO will come into operation. It can be expected that with development of satellite navigation systems, also integration of other navigation systems as it is, e.g. GBAS²⁰⁾ and for data transfer VDL¹⁵⁾ will progress in the bands of aeronautical radionavigation.

Part 4

Land mobile service and mobile service except aeronautical mobile (R)

Article 9

Current conditions in the land mobile service and mobile service except aeronautical mobile (R)

¹⁷⁾ The abbreviation stands for Instrument Landing System – Glide Path.

¹⁸⁾ The abbreviation stands for Distance Measuring Equipment.

¹⁹⁾ The abbreviation stands for VHF Omni-directional Radio Range.

²⁰⁾ The abbreviation stands for Ground-based augmentation system.

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

(1) In accordance with European Commission Decision²¹⁾ and CEPT Recommendation²²⁾ the band 87.5–108 MHz may be used for operation of short range devices²³⁾ which are consumer electronics products containing FM transmitters with very low radiated power. Conditions for the use of radio frequencies including technical parameters are set down by the General Authorisation²⁴⁾.

(2) The bands from range 138–144 MHz are allocated to the land mobile service on a primary basis and are designated for non-civil use. In this band the frequencies from sub-band 138.2–138.45 MHz in accordance with CEPT Recommendation²²⁾ are allowed to use for non-specific short range stations²³⁾. Conditions for the use of radio frequencies including technical parameters are set down by the General Authorisation²⁴⁾.

Article 10

Information on future development in the land mobile service and mobile service except aeronautical mobile (R)

No information on the change of utilisation in the land mobile service and mobile service except aeronautical mobile (R) is known for the time being.

Part 5

Mobile-satellite service

Article 11

Current conditions in the mobile-satellite service

(1) The frequency 121.5 MHz may be in accordance with RR footnote⁶⁾ and procedures applying for terrestrial radiocommunication services used for search and rescue operations concerning manned space vehicles.

(2) Use of the band 137–138 MHz by the mobile-satellite service in the space-to-Earth direction is according to RR footnote²⁵⁾ subject to coordination under RR provision²⁶⁾, RR footnotes²⁷⁾, ²⁸⁾ for protection of the radio astronomy service apply and the utilisation is in accordance with RR footnote²⁹⁾ limited to non-geostationary-satellite systems. Systems on low-altitude Earth orbits (LEO) in the mobile-satellite service are designated for low capacity data communications M2M³⁰⁾, delivery of messages, determination of position and other “non-voice” applications with low duty cycle with worldwide coverage for reception on personal terminals S-PCS³¹⁾.

²¹⁾ Commission Decision No. 2010/368/EU of 30 June 2010 amending Decision 2006/771/EC on harmonisation of radio spectrum for short range devices.

²²⁾ Recommendation CEPT/ERC/REC 70-03 Relating to the use of Short Range Devices (SRD).

²³⁾ Equipment of short range, marked by abbreviation SRD which stands for Short Range Devices.

²⁴⁾ General Authorisation No. VO-R/10/04.2012-7 for the use of radio frequencies and for the operation of short range devices, as amended.

²⁵⁾ Footnote 5.208 of RR.

²⁶⁾ Provision 9.11A of RR.

²⁷⁾ Footnote 5.208A of RR.

²⁸⁾ Footnote 5.208B of RR.

²⁹⁾ Footnote 5.209 of RR.

³⁰⁾ The abbreviation stands for Machine-to-Machine communication.

³¹⁾ The abbreviation stands for Satellite-Personal Communication System.

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

Article 12

Information on future development in the mobile-satellite service

Implementation of low-altitude Earth orbiting systems in the 137–138 MHz band is in Europe harmonised by CEPT Decision³²⁾, which has particularly ensure supervision of these systems development.

Part 6

Broadcasting service

Article 13

Current conditions in the broadcasting service

(1) The band 87.5–108 MHz is allocated to the broadcasting service on a primary basis. The band is used by sound broadcasting and the use is regulated by the Geneva 1984 Plan⁹⁾.

(2) According to paragraph (1) the frequency band may be used by the broadcasting service, on conditions providing compatibility with the aeronautical radionavigation service (systems: ILS, VOR, GBAS, VDL), which has in the neighbouring band 108–117.975 MHz an allocation on a primary basis. The protection of the applications in the aeronautical radionavigation service from interference produced by stations operated in the broadcasting service must be guaranteed because these applications are important for safety and smoothness of aeronautical traffic.

(3) The radio transmitting equipment operated in the broadcasting service uses assigned radio frequencies on the basis of the individual authorisation for the use of the radio frequencies issued by the Office upon positive result of the national and the international coordination in the frame of the broadcasting service and coordination with means of the aeronautical radionavigation service in neighbouring band.

(4) For planning and coordination of transmitting radio equipment the Office proceeds from following parameters which are given by ITU-R Recommendation³³⁾;

- a) minimum value of usable signal intensity considered for reception on fixed receiving antenna at height of 10 m above terrain is 54 dB μ V/m;
- b) maximum peak frequency deviation of transmitter shall not exceed value ± 75 kHz;
- c) power of complete multiplex signal³⁴⁾ shall not exceed level 0 dBr;
- d) protective ratios to be used for calculation of interference of analogue sound broadcasting signal with parameters defined in letters b) and c), steadily interfered by analogue sound broadcasting signal presents following table:

³²⁾ CEPT/ERC/DEC(99)06 – ERC Decision of 10 March 1999 on the harmonised introduction of satellite personal communication systems operating in the bands below 1 GHz (S-PCS<1 GHz), revised 27 July 2000.

³³⁾ Recommendation ITU-R BS.412-9 – Planning standards for terrestrial FM sound broadcasting at VHF.

³⁴⁾ Multiplex signal power (it is listed in [dBr]) is ratio of complete multiplex signal power, including pilot and other associated signals, integrated over any interval of 60 seconds, to reference terrestrial analogue sound broadcasting signal power which is modulated with single sinusoidal tone in such way that causes frequency deviation of ± 19 kHz.

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

Carrier frequency spacing (kHz)	Protection ratio (dB)
0	45
100	33
200	7
300	-7
400	-20

The parameters defined in letters b) and c) shall apply for use of radio frequencies by all transmitting radio equipment of the broadcasting service in the band 87.5–108 MHz.

Article 14

Information on future development in the broadcasting service

In the very long term outlook the gradual transition from sound FM broadcasting to digital transmission is assumed. Technologies to be applicable in the course of digitalisation of the band 87.5–108 MHz describes CEPT Report³⁵).

Part 7

Amateur service and amateur-satellite service

Article 15

Current conditions in the amateur service and the amateur-satellite service

The band 144–146 MHz is allocated to the amateur service and amateur–satellite service on a primary basis. Operation of the amateur and amateur-satellite service is governed by the special legal measure³⁶).

Article 16

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

No information on the change of utilisation in the amateur service and the amateur-satellite service is known for the time being.

Part 8

Fixed service

Article 17

Current conditions in the fixed service

In the Czech Republic, the band 137–138 MHz is allocated to the fixed service on the secondary basis; non-civil use was terminated.

Article 18

Information on future development in the fixed service

In accordance with harmonisation intentions²) the allocation to the fixed service in the Czech Republic will be terminated.

³⁵) CEPT/ECC Report No. 141 – Future possibilities for the digitalisation of band II (87.5–108 MHz), St. Petersburg, May, 2010.

³⁶) Decree No. 156/2005 Coll., on the technical and operating conditions of the amateur radio communication service.

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

Part 9
Space operation service

Article 19
Current conditions in the space operation service

The band 137–138 MHz is allocated to the space operation service.

Article 20
Information on future development in the space operation service

No information on the change of utilisation in the space operation service is known for the time being.

Part 10
Space research service

Article 21
Current conditions in the space research service

The bands from range of 138–144 MHz are allocated to the space research service on a secondary basis for space-to-Earth direction.

Article 22
Information on future development in the space research service

No information on the change of utilisation in the space research service is known for the time being.

Part 11
Meteorological-satellite service

Article 23
Current conditions in the meteorological-satellite service

The band 137–138 MHz is allocated to the meteorological-satellite service for transmission of information from satellites.

Article 24
Information on future development in the meteorological-satellite service

No information on the change of utilisation in the meteorological-satellite service is known for the time being.

Part 12
Final provisions

Article 25
Repealing provision

This is to repeal Measure of General Nature Part No. PV-P/22/06.2011-9 of the Radio Spectrum Utilisation Plan for the frequency band 87.5–146 MHz from 7 June 2011.

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

Article 26 Effect

This part of the Radio Spectrum Utilisation Plan is effective from 15 November 2013.

Explanatory memorandum

To implement Section 16(2) of the Act, the Office issues the Measure of General Nature Part No. PV-P/22/11.2013-7 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 frequency band from 87.5 MHz to 146 MHz by the radiocommunication services. This part of the plan is based on the principles established in the Act and in European legislation, especially in the *Directive 2002/21/EC of the European Parliament and of the Council on a common regulatory framework for electronic communications networks and services (as amended by Directive 2009/140/EC³⁷)* 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)*. It further refers to 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 and to anticipate the future decisions of the Office.

This Measure of General Nature replaces the part of the Radio Spectrum Utilisation Plan No. PV-P/22/06.2011-9 for the frequency band 87.5–146 MHz from 7 June 2011 and its purpose is to ensure transparency of conditions for radio spectrum use and ability to anticipate the future decisions of the Office. The reason for new issue of the plan is particularly implementation of the conditions which ensure subsequent phases of transition and more effective use of the radio frequencies in the aeronautical mobile service in the European Union.

Article 2 presents information from the Frequency Band Allocation Plan (National Table of Frequency Allocation) including current utilisation. The harmonisation intention is presented as well, i.e. allocation to the radiocommunication services and utilisation by applications pursuant to ERC Report No. 25 – the European Table of Frequency Allocations and Applications. As regards utilisation, the main applications are mentioned and further details are described in the relevant parts devoted to the particular radiocommunication services.

Article 3 describes important characteristics of the use of the band 87.5–146 MHz and common information referring to radiocommunication services using the described band. The purpose of the article is to provide brief overview of described band and its use. The specific conditions of the use of the particular bands are defined in subsequent articles.

In article 4 are introduced, the international obligations which are decisive for conditions of the use of radio frequencies both from point of view of national compatibility of the use of spectrum and coordination to be used abroad.

Article 5 contains information about the aeronautical services and specifies conditions of the use of frequencies by applications which are important for safety of the aircraft operations. These applications limit the use of adjacent band for FM broadcasting and the possibilities for coordination of new frequencies for FM stations. Due to implementation of subsequent phase of transition to the use of narrower channels width in the aeronautical voice communication which brings saving of radio spectrum and opportunity to meet demand for frequencies in the bands 117.975–137 MHz, and generally by introduction of more efficient aeronautical communication in European Union, the time-scale of transition to 8.33 kHz bandwidth is established pursuant to Commission implementing regulation¹¹). The Ministry of

³⁷) Directive 2009/140/EC of the European Parliament and of the Council amending Directives 2002/21/EC on a common regulatory framework for electronic communications networks and services, Directive 2012/19/EC on access to, and interconnection of, electronic communications networks and associated facilities and Directive 2002/20/EC on the authorisation of electronic communications networks and services.

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

Transport of the Czech Republic is the main administrator of this regulation. In case of stations newly put into operation after 17 November 2013, the obligation of the mode enabling operation using both the 25 kHz and 8.33 kHz channel bandwidth in specified bands used for voice communication is added. The ensuring of observance of time limit of transition of those individual authorisations to the use of frequencies by aeronautical stations, where validity exceeds 31 December 2017, will be realised by procedure in accordance with Section 19(1) of the Act. The change of the individual authorisations to the use of frequencies by the aeronautical stations including frequencies of these stations will be carried out in line with the national plan of the Ministry of Transport of the Czech Republic to the coordinated transition on unified bandwidth 8.33 kHz (published Aeronautical circular¹⁶). In article 5(3)(b), the conditions of the use of the frequency 121.5 MHz are modified in compliance with the provision of Appendix 15 of Radio Regulations and Annex 10 of the Convention of International Civil Aviation Organisation (ICAO). Due to the category of the frequency designated for rescue operations, the prohibition of any other transmission which could cause harmful interference is added. In paragraph 3(g), the frequencies designated for data communication are summary listed, including ACARS system, which are not part of unified transition to other channel width. Paragraph 4 specifies range of frequencies used for aeronautical sport which operation is regulated by the Decree of the Ministry of Transport and Telecommunications No. 108/1997 Coll., which implements the Act No. 49/1997 Coll., on civil aviation, as amended. Specification of types of flying devices are listed in Section 24 of the cited Decree.

In article 6 with information on future development in the aeronautical mobile service and the aeronautical mobile satellite service, the assumption on time period of transition to the unified narrower bandwidth of channels is presented. As of December 31, 2018 all assignments of frequencies will be converted into channel bandwidth 8.33 kHz including the aeronautical stations with exception of the frequencies defined in article 6 of Commission implementing regulation¹¹). More detailed description outside the scope of spectrum utilisation plan is presented in the Aviation circular¹⁶) which is accessible on websites www.rlp.cz and www.ctu.cz

Article 7 includes information on the aeronautical radionavigation service which adjoins the band of the broadcasting service. Because of the fact that the service belongs from point of view of Radio Regulations to the category which provides the safety of live it is entirely indispensable that relevant protection ratios in relation to the use of the broadcasting service should be maintained. In article 8, the expected future changes are introduced in aeronautical radionavigation with respect to the implementation of terrestrial components of the satellite navigation systems.

Articles 9 and 10 concerns services in the land mobile service and the mobile service except the aeronautical mobile service (R). Within the civil use of the mentioned services, only the operation of the short range devices (SRD) have importance. As a result of very small power output and coverage from SRD devices operated in the FM band, the compatibility with operation of FM transmitters in the broadcasting service is ensured.

Part 5 describes conditions of the use of frequencies by applications in the mobile satellite service. Described conditions reflect the termination of utilisation of the 121.5 MHz distress frequency with the ELT/EPIRB applications in the satellite service. For mentioned purpose the frequency band 406–406.1 MHz is designated and remains in existence. In the Czech Republic, the utilisation of the band 137–138 MHz by the mobile satellite service is minimal.

Article 13 contains the basic planning and operational parameters of the radio transmitting devices which use the band 87.5–108 MHz in the broadcasting radiocommunication service. Described parameters comply with the international obligations of the Czech Republic⁸), ⁹) and legal order of the Czech Republic³⁸), ³⁹). Fulfilment of these parameters shall be conducive to the equal competition terms for operators in broadcasting and also for preservation of protection ratios to avoid causing harmful interference to the

³⁸) Decree No. 105/2010 Coll., of 19 April 2010, on Plan of Frequency Bands Allocations (National Frequency Table).
³⁹) The Electronic Communications Act.

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

radiocommunication services of broadcasting and aeronautical radionavigation. Paragraph 4(c) presents the complete multiplex power signal parameter based on the fact, that the FM broadcasting is being developed and new broadcasting signal processing has been introduced subsequently. However, such signal processing was causing the excess of operational parameters of the FM stations beyond the planned criteria (parameters). FM broadcasting transmitters shall use the frequencies only on the basis of realized national and international coordination. The coordination process is based on international obligations⁸⁾, ⁹⁾, recommendations and ITU-R methodologies and in accordance with generally adopted physical principles of the evaluation of the compatibility of radio devices, utilisation of the 87.5–108 MHz band as well as the utilisation of the adjacent bands in other radiocommunication services is taken into account. For planning of FM broadcasting transmitters, one of the basic criteria, besides standard parameters such as the frequency peak deviation and the useful field strength, the protection ratios which are defined in article 13, paragraph 4(d) should be observed. These ratios are used for calculation of level of the harmful interference of analogue broadcasting signal. The table contains a set of key parameters derived from the ITU-R Recommendation³³⁾, on which the parameters of frequency utilisation are based – in particular permissible radiated power determining the service area covered by the broadcasting radio signal with specified quality parameters. However, development and introducing of advanced audio signal processing methods which consist among others in modification of equalisation and audio dynamic range of sound, causes increasing of signal energy (i.e. signal level) of the complete multiplex signal. Such processing improves audibility (more precisely, effective coverage of service area) at the expense of decreasing of protection ratios both in relation to the FM transmitters in the Czech Republic also abroad and to radionavigation applications (VOR, ILS), which use the adjacent band 108–117.975 MHz allocated to the aeronautical radionavigation service on a primary basis. With regard to the Radio Regulations' footnotes⁴⁰⁾, ⁴¹⁾, ⁴²⁾ the radionavigation service has special requirements regarding protection from harmful interference especially due the safety-of-life service category. In this case, it is due to the difficult flight stages as well, e.g. landing. The maximal peak frequency deviation of transmitter and the power of the complete multiplex signal represent limit operational parameters of transmitting radio stations in the FM band.

Article 14 includes facts on future development of the broadcasting service and informs about anticipated future digitalisation of the broadcasting service in FM band. However, such changes are not expected during next decade in the Czech Republic.

Articles 15 and 16 inform about allocation of specified band to the amateur services. On account of the fact that operation of spectrum utilisation is regulated by specific legal regulation³⁶⁾, the radio spectrum utilisation plan does not define particular conditions of use of the radio frequencies by these services.

Part 8 with information on fixed radiocommunication service, part 9 on space operation service, part 10 on space research service and part 11 on meteorological - satellite service are introduced due to the consistency with information about allocations to radiocommunication services in the Czech Republic. In mentioned services, the frequencies are not used⁴³⁾ actively in the Czech Republic and the services are put into category of secondary services.

⁴⁰⁾ Provision No. 1.169 of Radio Regulations – Harmful interference: Interference which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs, or repeatedly interrupts a radiocommunication service operating in accordance with Radio Regulations.

⁴¹⁾ Provision No. 4.10 of Radio Regulations – Member States recognize that the safety aspects of radionavigation and other safety services require special measures to ensure their freedom from harmful interference; it is necessary therefore to take this factor into account in the assignment and use of frequencies.

⁴²⁾ Provision No. 4.22 of Radio Regulations – Any emission capable of causing harmful interference to distress, alarm, urgency or safety communications on the international distress and emergency frequencies established for these purposes by these Regulations is prohibited. Supplementary distress frequencies available on less than a worldwide basis should be afforded adequate protection.

⁴³⁾ Individual authorisations are not granted for the stations designated for transmitting in these services in the Czech Republic.

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

Article 25 contains provision which repeals Part No. PV-P/22/06.2011-9 of the Radio Spectrum Utilisation Plan for the frequency band 87.5–146 MHz from 7 June 2011 due to publication of new part of the plan for mentioned frequency band.

Article 26 sets down the effect of this part of the plan with regard to practice of Section 124(2) of the Act.

On the basis of Section 130 of the Act and in accordance with the Czech Telecommunication Office Rules for Conducting Consultations at the Discussion Site (hereinafter only "Rules"), the Office published a draft of Measure of General Nature Part No. PV-P/22/XX.2013-YY of the Radio Spectrum Utilisation Plan together with a call for comments on the discussion site on 13 September 2013. During public consultation, the Office obtained comments from eight entities. Part of comments refer to the concretisation of implementation of Commission implementing regulation¹¹⁾ in the aeronautical mobile service whereas another part proposed modification of conditions of the use of the band allocated to the broadcasting service. Two comments about implementation of concerned regulation were completely accepted and one comment not entirely. The comments about parameters in the broadcasting service which proposed increasing the power of the complete multiplex signal were not accepted particularly on account of the compliance with international obligations and due to the protection of the aeronautical radionavigation systems.

The settlement table with all comments published on the discussion site presents full wording of all comments and viewpoints and the way they were processed by the Office including detailed justification.

On behalf of the Council of the Czech
Telecommunication Office

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