Prague, 2 September 2015 Ref.: ČTÚ-42 885/2015-619

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 "the Act") and under 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/1/09.2015-6 of the Radio Spectrum Utilisation Plan for the frequency band 146–174 MHz.

# Article 1 Introductory provision

This part of the Radio Spectrum Utilisation Plan sets down the technical characteristics and conditions of use of radio spectrum in the frequency band from 146 MHz to 174 MHz by radiocommunication services. This part of the Radio Spectrum Utilisation Plan is follow-up to the Common part of the Radio Spectrum Utilisation Plan<sup>1</sup>).

# Part 1 General information on the frequency band

### Article 2 Frequency bands

Band (MHz) Current conditions Future harmonisation²)

Allocation Utilisation Allocation Utilisation

146–148 FIXED Mobile networks MOBILE except aeronautical mobile (R)

1) Common part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35, as amended.

<sup>&</sup>lt;sup>2</sup>) ERC Report 25: European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz, rev. 2014.

148–149.9	FIXED	LEO satellites	MOBILE	LEO satellites
	MOBILE except aeronautical mobile (R)	Mobile networks	MOBILE SATELLITE (Earth-to-space)	Mobile networks
	MOBILE-SATELLITE (Earth-to-space)		3)	
149.9– 150.05	MOBILE-SATELLITE (Earth-to-space) RADIONAVIGATION- SATELLITE	LEO satellites Radionavigation	MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space)	LEO satellites Mobile networks
150.05–153	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY  5)	Mobile networks Radio astronomy	MOBILE except aeronautical mobile RADIO ASTRONOMY	Mobile networks Radio astronomy
153–154	FIXED MOBILE except aeronautical mobile (R) Meteorological aids	Mobile networks Meteorological radiosondes MD	MOBILE except aeronautical mobile (R)	Mobile networks Meteorological radiosondes MD
154– 156.4875	FIXED MOBILE except aeronautical mobile (R)	Mobile networks MD Communication of vessels	MOBILE except aeronautical mobile (R)	Mobile networks MD Communication of vessels
156.4875– 156.5625	MARITIME MOBILE (distress and calling)  6)	Distress and calling DSC frequency 156.525 MHz	MARITIME MOBILE (distress and calling)	Distress and calling DSC frequency 156.525 MHz
156.5625– 156.7625	FIXED MOBILE except aeronautical mobile (R)	Mobile networks Communication of vessels	MOBILE except aeronautical mobile (R)	Mobile networks Communication of vessels

<sup>&</sup>lt;sup>3</sup>) In accordance with footnote 5.218 of the Radio Regulations the band is additionally allocated also to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under procedure set down in provision No. 9.21 of the Radio Regulations.

The validity of the allocation to the radionavigation service is limited by footnote 5.224B of the Radio Regulations.

In accordance with footnote 5.149 of the Radio Regulations, users of the band 150.05-153 MHz shall take all practicable measures to protect the radio astronomy service.

In accordance with footnote 5.227 of the Radio Regulations the bands 156.4875-156.5125 MHz and 156.5375-156.5625 MHz are also allocated to the fixed and land mobile services on a primary basis. The use of these bands by the fixed and land mobile services shall not cause harmful interference to nor claim protection from the maritime mobile VHF radiocommunication service.

156.7625- 156.7875 156.7875- 156.8125	MOBILE except aeronautical mobile MARITIME MOBILE (distress and calling)	Communication of vessels Distress and calling frequency 156.8 MHz	MARITIME MOBILE Mobile-satellite (Earthto-space) MARITIME MOBILE (distress and calling)	Communication of vessels Satellite AIS Distress and calling frequency 156.8 MHz
156.8125– 156.8375			MARITIME MOBILE Mobile-satellite (Earth-to-space)	Communication of vessels Satellite AIS
156.8375– 160.625	FIXED MOBILE except aeronautical mobile	Mobile networks Communication of vessels MD	MOBILE except aeronautical mobile	Mobile networks Communication of vessels MD
160.625– 161.9625	FIXED MOBILE except aeronautical mobile	Mobile networks Communication of vessels Identification of vessels AIS1 161.975 MHz MD	MOBILE except aeronautical mobile	Mobile networks Communication of vessels
161.9625– 161.9875			MOBILE except aeronautical mobile Mobile-satellite (Earth- to-space)	Identification of vessels AIS1 161.975 MHz SAR <sup>7</sup> )
161.9875– 162.0125	FIXED MOBILE except	Mobile networks AIS2 162.025 MHz MD SRD	MOBILE except aeronautical mobile	Mobile networks Satellite AIS AIS2 162.025 MHz SAR MD SRD
162.0125– 162.0375	aeronautical mobile		MOBILE except aeronautical mobile Mobile-satellite (Earth- to-space)	
162.0375– 174			MOBILE except aeronautical mobile	טאט

### Article 3 Frequency band characteristics

- (1) Frequency band 146–174 MHz is designated mainly for land mobile service. Parts of the band are used for the maritime mobile service and communication on inland waterways. The mobile-satellite service, radio astronomy service and meteorological aids service have also allocation in the band.
- (2) The use of the band in the Czech Republic in the past did not correspond to intentions on harmonised utilisation of the band in European countries in accordance with ERC Report<sup>2</sup>) and arrangement of sub-bands, according to the CEPT Recommendation<sup>8</sup>). Completion of the harmonisation of band utilisation is currently in progress.

7) The abbreviation is derived from Search and Rescue – application for coordinated search and rescue operations.

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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.

#### Article 4 International obligations

Provisions of the Radio Regulations<sup>9</sup>) (hereinafter "RR") and its Appendix No. 18, which contains the VHF frequency band arrangement of the maritime mobile service, HCM Agreement<sup>10</sup>) and RAINWAT Arrangement<sup>11</sup>) apply to operation and coordination.

#### Part 2 Mobile service

#### Article 5 Current conditions in the mobile service

- (1) The bands 146-149.9 MHz, 150.05-156.4875 MHz and 156.5625-174 MHz are allocated to the mobile except aeronautical mobile service. For new issued authorisations apply:
- a) the sub-bands 146-146.8 MHz, 154.5-154.65 MHz, 160.975-161.475 MHz, 165.2-165.225 MHz and 169.4–169.825 MHz are designated for simplex operation;
- b) the sub-bands 146.8-149.9 / 151.4-154.5 MHz, 150.05-151.4 / 154.65-156 MHz, 157.45-160.6 / 162.05-165.2 MHz and 165.225-169.4 / 169.825-174 MHz are designated for duplex operation. Duplex spacing is 4.6 MHz, terminals transmit in lower sub-band and base stations transmit in upper one;
  - c) channel separation is 12.5 kHz;
  - d) centre frequencies of radio channels are given by formula

 $f_n [MHz] = (146-0.00625+0.0125n) + 0.00625,$ 

where n is 1 up to 2239;

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

Proposed channel arrangement is based on CEPT Recommendation<sup>8</sup>) and ERC Report<sup>2</sup>). The use of frequencies, which is not in accordance with these conditions, is possible until the end of validity of authorisation, but not later than 31 December 2016, unless specified otherwise in this article.

- (2) For nationwide mobile networks PMR/PAMR<sup>12</sup>) operated for purposes of railway transport, sub-bands 148.2-149.05 MHz, 150.05-150.975 MHz, 152.8-153.65 MHz and 157.45–158.375 MHz are designated and apply, that
  - a) in sub-bands 148.2-149.05 MHz and 152.8-153.65 MHz, no new networks and links are permitted if they do not correspond to described purpose. Within existing networks and links it is possible to carry out only such changes that do not constrain development of mobile PMR/PAMR networks operated for purposes of railway transport;

 <sup>&</sup>lt;sup>9</sup>) Radio Regulations, International Telecommunication Union, Geneva, 2012.
 <sup>10</sup>) 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.

<sup>11)</sup> RAINWAT - Regional Arrangement concerning the Radiotelephone Service on Inland Waterways, Bucharest, 2012, as amended.

<sup>12)</sup> Abbreviation PAMR stands for Public Access Mobile Radio (PMR network with access point to public networks).

- b) only legal person, which is rail operator or railway transport operator pursuant to the special legal act<sup>13</sup>) or which is managing the state property consisting the railway transport way<sup>14</sup>) and which is awarded by the individual authorisation for radio frequencies utilisation, can be operator of the network;
- c) the Office can authorise the holder of individual authorisation for the use of radio frequencies to carry out nationwide frequency planning in given sub-bands. The Office carries out the international frequency coordination and coordination with other users of frequencies on the basis of application submitted by the holder of individual authorisation for the use of radio frequencies;
- d) in the sub-bands mentioned in paragraph 3, simplex operation is also possible. In the simplex operation, the lower sub-band is preferably used by mobile stations, the upper sub-band is preferably used by base stations;
- e) operation of stations is possible on the basis of General Authorisation<sup>15</sup>).
- (3) Frequencies 149.125 MHz, 149.25 MHz, 155.725 MHz and 156,15 MHz may be used for data communication<sup>16</sup>) by portable stations using common frequency on basis of General Authorisation<sup>17</sup>). Maximum radiated power e.r.p. is 0.5 W, channel separation is 25 kHz.
- (4) The band 149.9–150.05 MHz is possible to use on the basis of short-term authorisation to use radio frequencies or on the basis of individual authorisation to use radio frequencies for experimental purposes.
- (5) Frequencies 149.2 MHz and 151.95 MHz are used by stations for data transmission<sup>16</sup>). Maximum radiated power e.r.p. is 1 W. Existing networks and links with channel separation 25 kHz can be operated until their individual authorisation will expire with the proviso that they are not changed for the purpose of their extension.
- (6) Frequencies 151.05 MHz, 151.275 MHz and 151.35 MHz are used for local paging, channel separation is 25 kHz.
- (7) Frequencies 151.225 MHz, 151.65 MHz, 151.8 MHz, 151.875 MHz, 151.9 MHz, 151.975 MHz and 152 MHz are used by stations for data transmission. Maximum radiated power is 10 W e.r.p. Existing networks and links with channel separation 25 kHz can be operated until their individual authorisation will expire and with the condition that no changes will lead to their extension.
- (8) Frequencies 151.4 / 155.9 MHz, 151.475 / 155.975 MHz, 151.55 / 156.05 MHz and 156.075 / 151.575 MHz are used in duplex operation by stations for data transmission<sup>16</sup>). Duplex separation is 4.5 MHz, maximum radiated power e.r.p. is 10 W. Existing networks and links with channel separation 25 kHz can be operated until their individual authorisation will expire and with the condition that no changes will lead to their extension.

14) Act No. 77/2002 Coll., on the Czech Railways, joint stock company, the Railway Infrastructure Administration, state organisation and on amendment of Act No. 266/1994 Coll., on railways, as amended and of Act No. 77/1997 on State enterprise, as amended.

15) General Authorization No. VO-R/1/04.2014-2 for the operation of users' terminals of the radio networks of the electronic communications, as amended.

Non-personal communication referred to as data links, data stations, command stations, stations for transmission of data, M2M (machine-to-machine) and the like.

<sup>17</sup>) General Authorization No. VO-R/16/08.2005-28 for the use of radio frequencies and for the operation of equipment jointly operated on predetermined frequencies in the 27 MHz to 450 MHz band.

<sup>&</sup>lt;sup>13</sup>) Act No. 266/1994 Coll., on railways, as amended.

- (9) Frequency 155.45 MHz is used in simplex operation for the monitoring of movement of rescue dogs. The frequency is shared among stations.
- (10) Arrangement RAINWAT<sup>11</sup>) refers to the use of frequencies within sub-bands 156–157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz. These frequencies are preferentially used by the maritime mobile service applications, described in Article 9 of this part of the plan. For land mobile service networks apply:
  - a) they shall not limit the implementation of applications of the maritime mobile service nor claim protection from them;
  - b) for simplex operation is designated the sub-band 156.375–156.875 MHz;
  - c) for duplex operation are designated the sub-bands 156–156.3625 / 160.6–160.9625 MHz and 156.8875–157.4375 / 161.4875–162.0375 MHz. Duplex separation is 4.6 MHz, in lower sub-band terminals transmit and in upper one base stations transmit;
  - d) channel spacing, centre frequencies of the radio channels and maximal e.r.p. are defined according to Article 5(1)(c) to (e).
- (11) Frequency 161.1375 MHz on regional level and frequency 161.2 MHz on nationwide level are designated exclusively for voice communication ensuring interoperability of medical emergency service organisations. The frequency modulation is used, whereas the only channel with analogue information is transferred.
- (12) Frequencies 162.5 MHz, 164.425 MHz, 164.45 MHz, 167 MHz, 167.025 MHz and 168.825 MHz are used in simplex mode by stations for data transmission not later than 31 December 2017.
- (13) Frequency 169.375 MHz is designated exclusively for voice communication in order to ensure the interoperability of fire protection units. The frequency modulation is used, whereas the only channel with analogue information is transferred.
- (14) In the framework of European Union, the use of the sub-band 169.4–169.8125 MHz is harmonised on the basis of the Commission Decisions<sup>18</sup>) for use by short range devices. Specific conditions of the use of radio frequencies including technical parameters are set down by General Authorisation<sup>19</sup>).
- (15) Frequencies 170.475 MHz, 173.025 MHz and 173.1 MHz are used by stations for data transmission<sup>16</sup>) and local paging. Existing networks and links with channel spacing 25 kHz can be operated until their individual authorisation will expire and with the condition that no changes will lead to their extension.
- (16) Frequencies 172.525 MHz, 172.575 MHz, 173.65 MHz and 173.95 MHz are used by short range devices for remote control of cranes, forest machines, railway trails and other machinery. Stations can be operated on the basis of General Authorisation<sup>19</sup>). Maximum radiated power is 0.1 W e.r.p., channel spacing is 12.5 kHz.
- (17) Frequencies 172.65 MHz, 172.725 MHz, 172.95 MHz, 172.975 MHz and 173.05 MHz may be used for voice communication by means of portable stations using

<sup>&</sup>lt;sup>18</sup>) Implementation Commission Decision 2013/752/EU of 11 December 2013 amending Commission Decision 2006/771/EC on harmonisation of the radio spectrum for use by short-range devices and repealing Decision 2005/928/EC.

<sup>19)</sup> General Authorization No. VO-R/10/05.2014-3 for the use of radio frequencies and for the operation of Short Range Devices.

common frequency on the basis of General Authorisation<sup>17</sup>). Channel spacing is 12.5 kHz. Maximum radiated power of stations operated on frequencies:

- a) 172.65 MHz, 172.95 MHz and 172.975 MHz is 5 W e.r.p.;
- b) 172.725 MHz or 173.05 MHz is 1 W e.r.p.
- (18) The frequency 173.3 MHz and the sub-band 173.965–174.015 MHz are used by wireless microphones, which may be operated on the basis of General Authorisation<sup>19</sup>).
  - (19) For granting of the individual authorisation, the Office uses following parameters:
  - a) minimum useful intensity of electromagnetic field is 20 dBµV/m;
  - b) acceptable interfering intensity of electromagnetic field is 12 dBµV/m;
  - c) planning maximum effective height of antenna is 35 m;
  - d) planning effective height of base station antenna is 10 m above terrain;
  - e) planning height of mobile station antenna and remote control and signalisation terminal above terrain is 3 m;
  - f) nominal repeating distance of frequency raster is 90 km;
  - g) maximum operational range is 20 km;
  - h) in the case of the radio frequency in nationwide use the service area is described by centre with geographical coordinates 15 E 26 00 / 49 N 46 00 (WGS84 system<sup>20</sup>)) and radius of 250 km.
  - i) unless otherwise stated, maximum e.r.p. is 10 W;
  - j) maximum occupied bandwidth is 11 kHz for channel spacing 12.5 kHz, or 16 kHz for channel spacing 25 kHz;
  - k) in the case of transponders (repeater stations) the higher frequency belongs to repeater station;
  - in the case of transponders, the holder of individual authorisation is obliged to prevent by adequate technical means the origin of harmful interference, which would happen by influence of extraordinary circumstances in propagation of electromagnetic waves;
  - m) in the case of national coordination, the provisions of HCM Agreement are applied adequately;
  - n) as the terminal for remote control and signalisation in networks designated for remote control and signalisation is considered such terminal stationary transmitting radio equipment, which transmits with duty cycle<sup>21</sup>) smaller than 1 % and at the same time the period of their single transmission does not exceed 1 s and their maximum e.r.p. does not exceed 10 W;
  - o) short data broadcast in order to establish the radio contact for stations using voice communication (selective calling) is not considered as transmission of data.
- (20) Frequencies for ensuring and operation of common warning and notification system pursuant to special legal regulation<sup>22</sup>) are used with channel spacing of 25 kHz.

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<sup>20)</sup> Worldwide geodetic reference system 1984 described according to Section 2, letter f) of Decree No. 237/2007 Coll., (Decree on transfer data for purposes of distress calls).

<sup>21)</sup> Duty cycle enables sharing of systems operated in the same frequency range. It is defined by per cent expression of total of all time periods of transmissions on one carrier frequency during given period in relation to this period.

<sup>&</sup>lt;sup>22</sup>) Act No. 239/2000 Coll., on Integrated Rescue System, as amended.

- (21) For stations operated by user pursuant to Act<sup>23</sup>), simplex operation is also possible in the sub-bands described by Article 5(1)(b), whereas lower sub-band is preferentially used by mobile stations, upper sub-band is preferentially used by base stations.
- (22) The Office carries out the coordination between the civil and non-civil utilisation of the band.

#### Article 6 Information on future development in the mobile service

- (1) Gradual harmonisation of band utilisation is assumed, depending on termination of operation of equipment with operational conditions set down on the basis of original planning parameters.
- (2) Frequencies of the sub-bands 156–157.45 MHz, 160.6–160.975 MHz and 161.475–162.05 MHz will be preferentially used by the maritime mobile service applications pursuant to Article 9 and 10. Subject to not constrain implementation of the maritime mobile service applications the frequencies will be used also for communication related to ensuring of water transport, maintenance of water courses, water rescue service and for granting of short-term authorisations. Operation of other land mobile service networks, particularly with respect to international commitments, will be gradually terminated.
- (3) The allocation to the mobile service in the sub-band 149.9–150.05 MHz is assumed on national level without terminating the allocation to the mobile-satellite service. In this case the change will be implemented in new version of National Table of Frequency Allocation.
- (4) Release of the sub-bands of spectrum in relation with completion of transition to harmonized use of frequencies for purposes of railway transport is assumed.

#### Part 3 Fixed service

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

In the Czech Republic the fixed service has no use in this band. Footnote of ERC Report<sup>24</sup>) mentions, that the fixed service in the band is limited to low-capacity fixed links in sparsely populated areas only. These links, similarly as links used for connection of controlling station with repeater station or for data transmission<sup>16</sup>) to remotely controlled objects, are for frequency planning purposes and coordination considered as links in the land mobile service framework.

# Article 8 Information on future development in the fixed service

The use of the band by the fixed service is not assumed.

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<sup>&</sup>lt;sup>23</sup>) Act No. 238/2000 Coll., on Fire Rescue Brigade of the Czech Republic, as amended.

<sup>&</sup>lt;sup>24</sup>) Footnote EU7 of ERC Report No. 25.

#### Part 4

#### Maritime mobile service and radiocommunication on inland waterways

#### Article 9

#### Current conditions in the maritime mobile service and radiocommunication on inland waterways

- (1) In accordance with provision of RR Appendix<sup>25</sup>) and RAINWAT Arrangement<sup>11</sup>), the selected frequencies in sub-bands 156-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz may be preferentially used by applications of the maritime mobile service and on inland waterways.
- (2) For radiocommunication on inland waterways in framework of the maritime mobile service following conditions apply:
  - a) simplex and duplex operation;
  - b) duplex separation 4.6 MHz;
  - c) channel spacing 25 kHz;
  - maximum output power of portable VHF equipment within range 0.5–6 W;
  - e) maximum output power of fixed VHF equipment within range 6-25 W;
  - further technical and operational conditions are governed by special legal regulation<sup>26</sup>) and by provisions of RAINWAT Arrangement<sup>11</sup>).
- (3) For radiocommunication ship-to-ship are designated frequencies 156.5 MHz (channel No. 10 pursuant to Appendix<sup>25</sup>) of RR and 156.65 MHz (channel No. 13). For operation on frequency channels of ship-to-ship service category<sup>27</sup>) the output power of the ship station shall be limited automatically to a value between 0.5-1 W.
- (4) For transmission of shipping information are designated frequencies 156.4 MHz (channel No. 8), 156.45 MHz (channel No. 9), 156.7 MHz (channel No. 14) and 157.025 MHz / 161.625 MHz (channel No. 80). The channel No. 80 is designated also for announcement of nautical accidents. For operation on frequency channels of nautical information service category<sup>27</sup>) the output power of ship station shall be limited automatically to a value between 0.5-1 W.
- (5) For radiotelephone distress, urgency and safety communication and for calling (establishing of the connection) is in accordance with RR footnote<sup>28</sup>) designated frequency 156.8 MHz (channel No. 16). In inland waterways this channel belongs to the category of the service of nautical information. Frequency 156.8 MHz may be in accordance with RR footnote<sup>29</sup>) and procedures for terrestrial radiocommunication services used for search and rescue operations concerning manned space vehicles. On account of the protection of channel 16, the output power of the transmitters using channels 75 and 76 is limited to maximum of 1 W in accordance with RR Appendix<sup>25</sup>).
- (6) For connection ship-to-port authorities are designated frequencies 156.55 MHz (channel No. 11), 156.575 MHz (channel No. 71), 156.625 MHz (channel No. 72) and 156.725 MHz (channel No. 74). For operation on frequency channels of ship-to-port

Appendix No. 18 of RR.
 Decree of the Ministry of Transport and Communications No. 138/2000 Coll., on the radiotelephone operation on inland waterways.

<sup>&</sup>lt;sup>27</sup>) RAINWAT Arrangement terminology.

<sup>&</sup>lt;sup>28</sup>) Footnote 5.226 of RR.

<sup>&</sup>lt;sup>29</sup>) Footnote 5.111 of RR.

authorities service category<sup>27</sup>), the output power of ship station shall be reduced automatically to a value between 0.5–1 W.

- (7) For on board communications, the frequencies 156.75 MHz (channel No. 15) and 156.85 MHz (channel No. 17) are designated with maximum e.r.p. 1 W.
- (8) For use within framework of river information services RIS<sup>30</sup>), in accordance with RR Appendix<sup>25</sup>) and CEPT Decision<sup>31</sup>), the frequencies 161.975 MHz (AIS 1)<sup>32</sup>) and 162.025 MHz (AIS 2) are designated. The output power of the station for AIS transmission shall not exceed 25 W.
- (9) Frequency 156.525 MHz (channel No. 70) is according to RR footnote<sup>28</sup>) designated for the maritime mobile service, exclusively for mode DSC<sup>33</sup>) for distress, urgency and safety communication or for calling. Conditions for the use of this frequency are prescribed in RR<sup>34</sup>). This status shall be observed when using this frequency in the Czech Republic. The use of DSC on inland waterways is not permitted. Frequency 156.525 MHz can be in accordance with RR footnote<sup>29</sup>) and procedures for terrestrial radiocommunication services used for search and rescue operations concerning manned space vehicles.
- (10) Vessels, to which in accordance with RAINWAT Arrangement<sup>11</sup>) was assigned ATIS code<sup>35</sup>), shall in case of transmitting use the identification by this code pursuant to RAINWAT Arrangement.

#### Article 10

### Information on future development in the maritime mobile service and in radiocommunication on inland waterways

- (1) Release of further frequencies for purposes of communication on inland waterways, particularly frequencies designated for shipping information, is expected after updating of the special legal document<sup>26</sup>).
  - (2) Development of the river information systems RIS<sup>30</sup>) is assumed.
- (3) Activity on the development of the automatic identification systems (AIS) continues. Further specification of operational and regulatory conditions, in particular namely of Appendix RR<sup>25</sup>) will be subject of WRC-15<sup>36</sup>) and WRC-19 conferences' conclusions.

<sup>&</sup>lt;sup>30</sup>) Abbreviation RIS stands for River Information System.

<sup>&</sup>lt;sup>31</sup>) Decision CEPT/ERC/DEC/(99)17 of 1 June 1999 on the Universal Shipborne Automatic Identification System (AIS) channels in the maritime VHF band.

<sup>&</sup>lt;sup>32</sup>) The abbreviation AIS stands for Automatic Identification System.

<sup>33)</sup> Abbreviation DSC stands for Digital Selective Calling and it names the class of operation for distress, safety communication and calling in order to establish connection.

<sup>&</sup>lt;sup>34</sup>) Article 31 and Appendix 18 of RR.

<sup>&</sup>lt;sup>35</sup>) Abbreviation ATIS stands for Automatic Terminal Information Service.

<sup>&</sup>lt;sup>36</sup>) World Radiocommunication Conference 2015.

#### Part 5 Mobile-satellite service

#### Article 11 Current conditions in the mobile-satellite service

- (1) The band 148–150.05 MHz is allocated to the mobile-satellite service on the primary basis and its use is, in accordance with RR footnote<sup>37</sup>), limited to non-geostationary satellite systems. The band can be used for the communication of terminals in the Earth-to-space direction with Low Earth Orbit satellites.
- (2) Use of the band 148–149.9 MHz by the mobile-satellite service is, in accordance with RR footnotes<sup>38</sup>), subject to coordination under provision of RR<sup>39</sup>). The mobile-satellite service shall not constrain development and operation of the fixed and mobile service and space operation service in the band 148–149.9 MHz.
- (3) CEPT Decision<sup>40</sup>) sets down the operational conditions of satellite systems for personal communication S-PCS<sup>41</sup>) (low speed data transmission service) in the bands below 1 GHz. In the Czech Republic, terminals of systems for personal communication on the basis of General Authorisation<sup>15</sup>) can be operated in the band 148–149.9 MHz. The band 149.9–150.05 MHz is not used in the Czech Republic. The coordination of frequencies for satellite systems proceeds pursuant to relevant RR provisions.

## Article 12 Information on future development in the mobile-satellite service

Information about envisaged national allocation of the band 149.9–150.05 MHz to the mobile service presents Article 6 in paragraph 3.

# Part 6 Radionavigation-satellite service

### Article 13 Current conditions in the radionavigation-satellite service

The allocation to the radionavigation-satellite service in the band 149.9–150.05 MHz is in accordance with RR footnote<sup>42</sup>) terminated on 1 January 2015. The service is not utilised in the Czech Republic.

### Article 14 Information on future development in the radionavigation-satellite service

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

<sup>&</sup>lt;sup>37</sup>) Footnote 5.209 of RR.

<sup>&</sup>lt;sup>38</sup>) Footnotes 5.219 and 5.220 of RR.

<sup>&</sup>lt;sup>39</sup>) Provision No. 9.11A of RR.

<sup>&</sup>lt;sup>40</sup>) Decision CEPT/ERC/(99)06 of 10 March 1999 on the harmonised introduction of satellite personal communication systems operating in the bands below 1 GHz (S-PCS<1GHz) ], Helsinki, 1999.

<sup>41)</sup> Abbreviation S-PCS stands for Satellite-Personal Communication System.

<sup>&</sup>lt;sup>42</sup>) Footnote 5.224B of RR.

#### Part 7 Radio astronomy service

#### Article 15 Current conditions in the radio astronomy service

- (1) Radio astronomy service is passive radiocommunication service based on receiving of the radio waves of space origin. Due to low levels of receiving signals the operation of the service depends on protection from interference of other services. According to RR footnote<sup>5</sup>), users of the band 150.05–153 MHz shall take all practicable measures to protect the radio astronomy service.
  - (2) In the Czech Republic is not the band by the service used.

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

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

#### Part 8 Meteorological aids service

# Article 17 Current conditions in the meteorological aids service

In the meteorological aids service it is possible to use the sub-band 153–154 MHz under conditions of a secondary service.

### Article 18 Information on future development in the meteorological aids service

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

### Part 9 Space operation service

### Article 19 **Current conditions in the space operation service**

In accordance with RR footnote<sup>43</sup>) the band 148–149.9 MHz is additionally also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under procedure set down in RR provision<sup>44</sup>). The bandwidth of any individual transmission shall not exceed  $\pm$  25 kHz.

<sup>&</sup>lt;sup>43</sup>) Footnote 5.218 of RR.

<sup>&</sup>lt;sup>44</sup>) Provision No. 9.21 of RR.

# Article 20 Information on future development in the space operation service

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

## Part 10 Final provisions

## Article 21 Repealing provision

The Part of the Radio Spectrum Utilisation Plan No. PV-P/1/12.2014-10 for frequency band 146–174 MHz of 3 December 2014 is cancelled.

#### Article 22 Effect

This part of the Radio Spectrum Utilisation Plan is effective from 20 September 2015.

#### **Explanatory memorandum**

To implement Section 16(2) of the Act, the Office issues the Measure of General Nature Part No. PV-P/1/XX.2015-YY 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 146 MHz to 174 MHz 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/EC<sup>45</sup>) 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 take into account the current situation of the transition on the harmonise use of radio spectrum and the adjustment of deadline until the frequencies in the land mobile service can be provisionally used on the basis of former conditions.

Article 2 contains information from the Plan Frequency Bands Allocations (National Table of Frequency Allocations). The information is amended by current utilisation by applications. At the same time the harmonisation intention is mentioned, i.e. allocation to services and utilisation by applications according to ERC Report 25 (European Table of Frequency Allocations and Applications). The main applications are presented from utilisation point of view and other details are in parts dedicated to particular radiocommunication services. The amendments in the table correspond to the current publication of Radio Regulations.

Article 3 presents characteristics of the band with information common to radiocommunication services using the band 146 MHz to 174 MHz. The amendments of the article have specifying character.

Article 4 contains international obligations, which in case of this band means Radio Regulations of the International Telecommunication Union, HCM Agreement and RAINWAT Arrangement.

Part 2 presents the conditions of the use of band by applications of the mobile service. The modification of time limits for transition to harmonised spectrum utilisation is based on the requirement of the users of frequencies reserved for railway transport operators who applied repeatedly, in written form, for the extension of the time-period of the use of frequencies according to the former channel arrangement namely from operational reasons, for ensuring of the continual operation of communication devices during final phase of transition to harmonise utilisation of frequencies. In view of the fact that neither current nor potential users of frequencies are affected by the extension of transitional period, the Office approved the request and in article 5(1) amended transitional time limit which enables former conditions of the use of frequencies until 31 December 2016. In respect of the band 149.9–150.05 MHz, it is not used in the Czech Republic by terminals of the mobile-satellite service. Furthermore, European harmonisation tends to the utilisation of sub-bands in the mobile

<sup>45)</sup> 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.

service. Moreover, the allocation of the sub-band to the radionavigation-satellite service<sup>4</sup>) was terminated by Radio Regulations. Therefore, it is possible to use sub-band by the mobile service on the basis of short-term authorisation for the use of radio frequencies or on the basis of individual authorisation for the use of radio frequencies for experimental purposes, namely by time than the allocation of the sub-band to the mobile service on national level will come in force. New paragraph 4 in article 5 and paragraph 3 in article 6 was added in this sense. The other amendments of part 2 have specifying character.

Part 3 relates to the fixed service which has no civil utilisation in the described bands.

Part 4 informs on the use of frequencies in the maritime mobile service and radiocommunication on inland waterways which subjects to RAINWAT Arrangement. The article was amended due to reason to make text more transparent.

Part 5 describes conditions of the band utilisation by applications of the mobile-satellite service. The provisions of Radio Regulations are implemented by modification of conditions effective from 1 January 2015 (i.e. termination of the limitation for the land mobile service and lose of the limitation in relation to the radionavigation-satellite service for which the allocation is terminated in accordance with footnote of Radio Regulations). In view of the fact that the band 149.9–150.05 MHz is not used in the Czech Republic by terminals of satellite networks, it is added presumption that the national allocation of band to the mobile service is possible without terminating of the allocation to the mobile-satellite service.

Part 6 informs on allocation of the band to the radionavigation-satellite service which is in accordance with footnote of Radio Regulations<sup>42</sup>) terminated on 1. January 2015.

Parts 7 to 9 contain the conditions of the use of bands allocated to the radioastronomy, meteorological aids and space operation services.

Part 10, Article 21 repeals previous issue of the part of Radio Spectrum Utilisation Plan for band 146–174 MHz and in Article 22 the Office set down the effect of issued Measure of General Nature in accordance with 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 a draft of Measure of General Nature Part No. č. PV-P/1/XX.2015-Y of the Radio Spectrum Utilisation Plan on 23 July 2015 together with a call for submitting comments at discussion site. During public consultation the Office did not receive any comments to the proposal.

On behalf of the Council of the Czech Telecommunication Office

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