

Prague, 30 August 2022  
Ref.: ČTÚ-30 895/2022-619

Based on the results of a public consultation held 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 the decision of the Council of the Czech Telecommunication Office (hereinafter “the Office”) under Section 107(9)(b)(2) of the Act and to implement Section 16(2) of the Act, the Office as the competent administration authority under Section 108(1)(b) of the Act and Section 10 of the Act No. 500/2004 Coll., the Administrative Procedure Code, as amended, hereby issues this Measure of General Nature

**Part No. PV-P/1/08.2022-18 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 for the 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 band characteristics**

(1) The frequency band 146–174 MHz is mainly used by applications for land mobile service. Frequencies from the bands 156–157.45 MHz, 160.6–160.975 MHz and 161.475–162.05 MHz are used by applications for the maritime mobile and maritime mobile-satellite services on a primary basis according to the conditions stated in Article 8. The designated frequencies shall be used for communication related to ensuring inland waterways transport, maintaining water courses, water rescue service and for granting short-term authorisations.

(2) The mobile-satellite service, radio astronomy service and meteorological aids service have also allocation in the band. In accordance with footnote<sup>2</sup> of the Radio

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

<sup>2</sup> Footnote 5.149 of RR.

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Regulations<sup>3</sup> (hereinafter “RR”), the users of the 150.05–153 MHz band shall take all practicable measures to protect the radio astronomy service.

(3) In Chapter 5 of Part V of the Government Decree,<sup>4</sup> the allocation of frequency bands to radiocommunication services complies with the European harmonisation target.<sup>5</sup>

(4) Information stated in this article are further detailed in parts setting the specific conditions for the use of radio frequencies range in individual radiocommunication services and bands, as described in this part of the plan.

### Article 3 International obligations

(1) The provisions of RR and its Appendix No. 18, which contains the VHF frequency band arrangement of the maritime mobile service, harmonisation documents of the European Commission (hereinafter “Commission”), HCM Agreement<sup>6</sup> and RAINWAT Arrangement<sup>7</sup> apply to utilisation and coordination of radio frequencies.

(2) If this Part of the Radio Spectrum Utilisation Plan states that the RR footnote applies, the text of the RR footnote stated in Chapter 5 of the Part III of the Government Decree<sup>4</sup> applies.

### Article 4 Information on future development

(1) In accordance with amendments to Appendix No. 18 of RR, the communications on inland waterways will deploy new services, deployment and use of which within CEPT is harmonized by the CEPT Electronic Communications Committee (hereinafter “ECC”).<sup>8</sup>

(2) New satellite communications in the 148–150.05 MHz band is planned in mobile satellite service.

(3) Operation conditions for Short Range Devices are periodically updated by the ECC and the Commission.

## Part 2 Conditions for utilisation

### Article 5 Short Range Devices

(1) Short Range Devices using frequencies in bands allocated to different radiocommunication services shall not cause harmful interference to applications

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<sup>3</sup> Radio Regulations, International Telecommunication Union, Geneva, 2020.

<sup>4</sup> Government Decree No. 105/2010 Coll., on the Frequency Band Allocation Plan (National Table of Frequency Allocation), as amended.

<sup>5</sup> ERC Report 25: European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz, rev. 2021.

<sup>6</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>7</sup> RAINWAT - Regional Arrangement concerning the Radiotelephone Service on Inland Waterways, Bucharest, 2012, as amended.

<sup>8</sup> Decision ECC/DEC/(19)03 - Harmonised usage of the channels of the Radio Regulations Appendix 18 (transmitting frequencies in the VHF maritime mobile band).

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of radiocommunication services and, at the same time, shall not claim protection against interference by radiocommunication service stations.

(2) In accordance with Commission Decisions<sup>9,10</sup> ECC Decision<sup>11</sup> and ECC Recommendation,<sup>12</sup> the 146–174 MHz band shall be used by following Short Range Devices (SRD):<sup>13</sup>

- a) Sub-bands of radio frequencies from the range of 169.4–169.8125 MHz by unspecified devices, tracking and data collection devices; alarms and wireless audio transmission devices;
- b) Radio frequencies 172.525 MHz, 172.575 MHz, 173.650 MHz and 173.950 MHz by devices for remote control of cranes, forest machines and other machinery;
- c) Radio frequencies 173.3 MHz and 173.965–174.015 MHz by wireless audio transmission devices;
- d) Whole range of radio frequencies<sup>14</sup> described in this part of the plan by ultra-wideband radars designated to depict the structure of walls and Earth's surface (GPR/WPR).

(3) Specific conditions for the utilisation of radio frequencies, including technical parameters, are set by the relevant General Authorisation.<sup>15</sup>

#### Article 6

#### **Mobile service**

(1) For the utilisation of the 146–174 MHz band by mobile service applications applies:

- a) For simplex operation, the sub-bands 146–146.8 MHz, 149.9–150.05 MHz, 154.5–154.65 MHz, 160.975–161.475 MHz and 165.2–165.225 MHz are designated;
- b) For duplex operation, 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. Duplex separation is 4.6 MHz, terminals do transmit in lower sub-band and base stations do transmit in the upper one;
- c) The channel separation is 12.5 kHz;
- d) The centre frequencies of radio channels are given by formula
$$f_n \text{ [MHz]} = (146 - 0.00625 + 0.0125n) + 0.00625,$$
where n is 1 up to 2239;
- e) Maximum e.r.p. is 10 W.

The band arrangement is based on ECC Recommendation.<sup>16</sup>

<sup>9</sup> Commission Implementing Decision (EU) 2022/180 of 8 February 2022 amending Decision 2006/771/EC as regards the update of harmonised technical conditions in the area of radio spectrum use for short-range devices.

<sup>10</sup> Commission Implementing Decision (EU) 2019/785 of 14 May 2019 on the harmonisation of radio spectrum for equipment using ultra-wideband technology in the Union and repealing Decision 2007/131/EC.

<sup>11</sup> Decision ECC/DEC/(05)02 - A harmonised frequency plan for the use of the band 169.4-169.8125 MHz.

<sup>12</sup> Recommendation ERC/REC 70-03 relating to the use of Short Range Devices (SRD).

<sup>13</sup> SRD stands for Short Range Device.

<sup>14</sup> Total range of 30-230 MHz.

<sup>15</sup> General Authorisation VO-R/10/07.2021-8 for the use of radio frequencies and for the operation of short range devices, as amended.

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(2) For nationwide mobile networks PMR/PAMR,<sup>17</sup> operated for railway transport purposes, the sub-bands 148.2–149.05 MHz and 152.8–153.65 MHz are designated, and the following shall apply:

- a) In the relevant sub-bands, no new networks and links are permitted if they do not correspond with the described purpose. Within the 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 railway transport purposes;
- b) A legal person only, who is the rail operator or railway transport operator pursuant to the special legal Act,<sup>18</sup> or who is managing the state property consisting the railway transport way<sup>19</sup> and who was granted the individual authorisation for radio frequencies utilisation, can be the 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 the given sub-bands. The Office carries out the international frequency coordination and coordination with other users of frequencies based on requests submitted by the holder of individual authorisation for the use of radio frequencies;
- d) In the sub-bands mentioned in Paragraph 2, the simplex operation is also possible. In the simplex operation, the lower sub-band is used by mobile stations on a priority basis, the upper sub-band is used on primary basis by base stations;
- e) Specific conditions for the utilisation of radio frequencies, including technical parameters, are set by the relevant General Authorisation.<sup>20</sup>

(3) Frequencies 149.125 MHz, 149.25 MHz, 155.725 MHz and 156.15 MHz may be used for data communication<sup>21</sup> by portable stations using common frequency. Specific conditions for the utilisation of radio frequencies, including technical parameters, are set by the relevant General Authorisation.<sup>22</sup>

(4) The 149.9–150.05 MHz band can be used either based on a short-term authorisation for the use of radio frequencies or based on individual authorisation for the use of radio frequencies for experimental purposes.

(5) The frequency 151.95 MHz is used by stations for data transmission.<sup>21</sup> The maximum radiated power e.r.p. is 1 W. The existing networks and links with channel separation of 25 kHz can be operated until their individual authorisation will expire provided that they are not changed in order to be extended.

(6) The frequencies 151.275 MHz and 151.35 MHz are shared for local paging; the channel separation is 25 kHz.

(7) The frequencies 151.225 MHz, 151.65 MHz, 151.8 MHz, 151.875 MHz, 151.975 MHz and 152 MHz are used by stations for data transmission. The maximum

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<sup>16</sup> Recommendation ECC T/R 25-08 - Planning criteria and cross-border coordination of frequencies for land mobile systems in the range 29.7-470 MHz

<sup>17</sup> Abbreviation PAMR stands for Public Access Mobile Radio (PMR network with access point to public networks).

<sup>18</sup> Act No. 266/1994 Coll., on railways, as amended.

<sup>19</sup> 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 undertaking, as amended.

<sup>20</sup> General Authorisation VO-R/1/6.2022-6 for the operation of user's terminals of electronic communications radio networks, as amended.

<sup>21</sup> Non-personal communication referred to also as data links, data stations, command stations, stations for transmission of data, M2M (machine-to-machine) etc.

<sup>22</sup> General Authorisation VO-R/16/05.2020-6 for the use of radio frequencies, and for the operation of equipment jointly operated on predetermined frequencies in the 27 MHz to 450 MHz bands, as amended.

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radiated power is 10 W e.r.p. The existing networks and links with channel separation of 5 kHz can be operated until their individual authorisation will expire provided that they are not changed in order to be extended.

(8) The 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>21</sup> The duplex separation is 4.5 MHz, the maximum radiated power e.r.p. is 10 W. The existing networks and links with channel separation of 25 kHz can be operated until their individual authorisation will expire provided that they are not changed in order to be extended.

(9) The 155.45 MHz frequency is shared in simplex operation for tracking the movement of dogs. The frequency is shared among equipment. The specific conditions for the utilisation of radio frequencies, including technical parameters, are set by the relevant General Authorisation.<sup>23</sup>

(10) The RAINWAT Arrangement<sup>7</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 8 of this part of the plan. For the land mobile service networks applies:

- a) They shall not limit the implementation of applications of the maritime mobile service nor claim protection from them, see also RR footnote;<sup>24</sup>
- b) The 156.375–156.875 MHz sub-band is designated for simplex operation;
- c) The sub-bands 156–156.3625 / 160.6–160.9625 MHz and 156.8875–157.4375 / 161.4875–162.0375 MHz are designated for duplex operation. Duplex separation is 4.6 MHz, the terminals transmit in lower sub-band and the base stations transmit in the upper one;
- d) The channel spacing, centre frequencies of the radio channels and maximal e.r.p. are defined according to Article 6(1)(c) to (e).

(11) The 161.1375 MHz frequency on regional level and frequency 161.2 MHz on nationwide level are reserved for voice communication ensuring interoperability of medical emergency service organisations. These frequencies may also be utilised for the time indispensable for communication to ensure interaction with aeronautical/aerial emergency medical service up to a maximum altitude of 300 m above terrain, under conditions for the use on a secondary basis, i.e. the utilisation must not cause harmful interference to other users and, at the same time, it is not entitled to be protected against harmful interference from stations of other users. The frequency modulation is used, whereas the single channel with analogue information is transferred.

(12) In accordance with RR footnote,<sup>25</sup> the bands 161.9625–161.9875 MHz (AIS 1 channel) and 162.0125–162.0375 MHz (AIS 2 channel) may be utilised by aeronautical stations used for search and rescue operations and other safety-oriented communication.

(13) The 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 a single channel with analogue information is transferred.

(14) The frequencies 170.475 MHz, 173.025 MHz and 173.1 MHz are shared by stations for data transmission<sup>21</sup> and local paging. The existing networks and links with

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<sup>23</sup> General Authorisation VO-R/25/11.2017-8 for the use of radio frequencies and for operation of the tracking equipment of movement of dogs, as amended.

<sup>24</sup> Footnote 5.227 of RR.

<sup>25</sup> Footnote 5.228A of RR.

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channel spacing of 25 kHz can be operated until their individual authorisation will expire provided that they are not changed in order to be extended.

(15) The 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 a common frequency. Specific conditions for the utilisation of radio frequencies, including technical parameters, are set by relevant General Authorisation.<sup>22</sup>

(16) For purposes of granting the individual authorisation, the Office uses following parameters (unless specified differently in the previous paragraphs):

- a) Minimum useful intensity of electromagnetic field is 20 dB $\mu$ V/m;
- b) Acceptable interfering intensity of electromagnetic field is 12 dB $\mu$ V/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 terminal of remote control and signalisation is 3 m above terrain;
- f) Nominal repeating distance of frequency raster is 90 km;
- g) Maximum operational range is 20 km;
- h) For nationwide use of the radio frequency, the service area is described by centre with geographical coordinates 15 E 26 00 / 49 N 46 00 (WGS84 system<sup>26</sup>) and radius of 250 km;
- i) Unless stated differently, the maximum e.r.p. is 10 W;
- j) Maximum occupied bandwidth is 11 kHz for channel spacing of 12.5 kHz, or 16 kHz for channel spacing of 25 kHz;
- k) For transponders (repeater stations) the higher frequency belongs to repeater station;
- l) For transponders, the holder of individual authorisation is obliged to prevent the origin of harmful interference, which would arise due to unforeseeable atmospheric conditions affecting the propagation of electromagnetic waves, by adequate technical means;
- m) For national coordination, the provisions of HCM Agreement<sup>6</sup> 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>27</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.
- p) Spatial separation of the stations utilising adjacent radio channels is 1 km.

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<sup>26</sup> Worldwide geodetic reference system 1984 described according to Section 2 of Decree No. 430/2006 Coll., on the determination of geodetic reference systems and state mapping works binding on the territory of the state and the principles of their use, as amended.

<sup>27</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.

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(17) Frequencies for ensuring and operation of common warning and notification system pursuant to special legal regulation<sup>28</sup> are used with channel spacing of 25 kHz.

(18) For stations operated by a user pursuant to Act,<sup>29</sup> simplex operation is also possible in the sub-bands described by Article 6(1)(b), whereas lower sub-band is preferentially used by mobile stations, upper sub-band is preferentially used by base stations.

(19) The national and international frequency coordination is carried out by the Office.

#### Article 7 **Fixed service**

The fixed service has no civil use in this band in the Czech Republic. A footnote of ERC Report<sup>30</sup> mentions, that the fixed service in the band is limited to low-capacity fixed links in sparsely populated areas only. These links are considered as links in the land mobile service framework for frequency planning purposes and coordination, similarly as links used for connection of controlling station with repeater station or for data transmission<sup>21</sup> to remotely controlled objects.

#### Article 8 **Maritime mobile service, maritime mobile-satellite service and radiocommunication on inland waterways**

(1) In accordance with provision of RR Appendix<sup>31</sup> and the RAINWAT Arrangement<sup>7</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, within the maritime mobile service, the following conditions apply:

- a) Simplex and duplex operation;
- b) Duplex separation of 4.6 MHz;
- c) Channel spacing of 25 kHz;
- d) Maximum output power of portable radio station within range of 0.5–6 W;
- e) Maximum output power of fixed radio station within range of 6–25 W;
- f) Further technical and operational conditions are governed by special legal regulation<sup>32</sup> and by provisions of the RAINWAT Arrangement.<sup>7</sup>

(3) The frequencies 156.5 MHz (channel No. 10 pursuant to Appendix of RR<sup>31</sup> and 156.65 MHz (channel No. 13) are designated for ship-to-ship service category. For operation on frequency channels of ship-to-ship service category, the output power of a ship station shall be limited automatically to a value between 0.5–1 W.

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<sup>28</sup> Act No. 239/2000 Coll., on Integrated Rescue System and amendments to certain related acts, as amended.

<sup>29</sup> Act No. 320/2015 Coll., on Fire Rescue Service of the Czech Republic and amendments to certain related acts, as amended.

<sup>30</sup> Footnote ECA7 of ERC Report No. 25.

<sup>31</sup> Appendix No. 18 of RR.

<sup>32</sup> Decree of the Ministry of Transport and Communications No. 138/2000 Coll., on the radiotelephone operation on inland waterways, as amended.

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(4) The frequencies 156.4 MHz (channel No. 8), 156.45 MHz (channel No. 9), 156.7 MHz (channel No. 14) and 157.025/161.625 MHz (channel No. 80) are designated for shipping information service category. The channel No. 80 is designated also for announcing nautical accidents. For operation on frequency channels of nautical information service category, the output power of a ship station shall be limited automatically to a value between 0.5–1 W.

(5) The frequency 156.8 MHz (channel No. 16) is in accordance with RR footnote<sup>33</sup> designated for radiotelephone emergency, urgency and safety communication and for calling (establishing of the connection). On inland waterways, this channel belongs to the nautical information service category. The frequency 156.8 MHz may be used for search and rescue operations concerning manned space vehicles in accordance with RR footnote<sup>34</sup> and the procedures for terrestrial radiocommunication services. To protect the channel No. 16, the output power of the transmitters using channels 75 and 76 is limited to a maximum of 1 W in accordance with RR Appendix.<sup>31</sup>

(6) 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) are designated for the ship-to-port authorities service category. For operation on frequency channels of ship-to-port authorities service category, the output power of a ship station shall be reduced automatically to a value between 0.5–1 W.

(7) The frequencies 156.75 MHz (channel No. 15) and 156.85 MHz (channel No. 17) are designated for on board communications with maximum e.r.p. of 1 W.

(8) For the use within framework of river information services RIS,<sup>35</sup> the frequencies 161.975 MHz (AIS 1)<sup>36</sup> and 162.025 MHz (AIS 2) are designated in accordance with RR Appendix<sup>31</sup> and ECC Decision,<sup>8</sup> The output power of a station for AIS transmission shall not exceed 25 W.

(9) The frequency 156.525 MHz (channel No. 70) is, according to RR footnote,<sup>33</sup> designated for the maritime mobile service, exclusively for mode DSC<sup>37</sup> for emergency, urgency and safety communication or for calling. The conditions for the use of this frequency are prescribed in RR,<sup>38</sup> This status shall be taken into account when using this frequency in the Czech Republic. The use of DSC on inland waterways is not permitted. The frequency 156.525 MHz can be used for search and rescue operations concerning manned space vehicles in accordance with RR footnote<sup>34</sup> and procedures for terrestrial radiocommunication services.

(10) For VDES services,<sup>39</sup> the original radio channels 24, 84, 25, 85, 26 and 86 (157.200–157.325 MHz/161.800–161.925 MHz) are divided into the new channels 1024, 2024, 1084, 2084, 1025, 2025, 1085, 2085, 1026, 2026, 1087 and 2087. Deployment of the service will be carried out in accordance with relevant ECC Decision.<sup>8</sup>

(11) The lower parts of duplex channels 27 and 28 are designated for ASM service.<sup>40</sup> The original duplex pairs were divided into new channels 1027 and 2027 or 1028 and 2028.

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<sup>33</sup> Footnote 5.226 of RR.

<sup>34</sup> Footnote 5.111 of RR.

<sup>35</sup> Abbreviation RIS stands for River Information System.

<sup>36</sup> The abbreviation AIS stands for Automatic Identification System.

<sup>37</sup> Abbreviation DSC stands for Digital Selective Calling and it means the class of operation for distress, safety communication and calling in order to establish connection.

<sup>38</sup> Article 31 and Appendix 18 of RR.

<sup>39</sup> VHF Data Exchange System.

<sup>40</sup> Application Specific Messages defined by the relevant local authority.



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The channel 2027 (161.950 MHz) is designated for ASM1 and the channel 2028 (162.000 MHz) for ASM2.

(12) According to Annex 2 of the ECC Decision,<sup>8</sup> the so called introductory period is underway until 31 December 2023, when the relevant channels will be released for VDES use. From 1 January 2024, the original analogue radiotelephony utilisation of these channels will not be protected and administrations that have adopted the relevant ECC Decision will not allow the original utilisation.

(13) Vessels, to which the ATIS code<sup>41</sup> was assigned in accordance with RAINWAT Arrangement<sup>7</sup> shall use the identification by this code during transmission pursuant to RAINWAT Arrangement.

(14) According to RR footnote,<sup>42</sup> in the 157.1875–157.3375 MHz band, the protection of radio astronomy service utilising the 150.05–153 MHz band is required against harmful interference from unwanted maritime mobile-satellite radiation (space-to-Earth), as stated in the latest version of ITU-R Recommendation,<sup>43</sup> According to RR footnote,<sup>44</sup> compatibility of the radio astronomy service and active services in adjacent bands is subject to RR Resolution.<sup>45</sup>

(15) According to RR footnotes,<sup>46</sup> utilisation of the bands 157.1875–157.3375 MHz and 161.7875–161.9375 MHz by maritime mobile-satellite (Earth-to-space) and (space-to-Earth) is limited for non-geostationary satellite systems operated in accordance with RR Appendix.<sup>31</sup>

(16) According to RR footnote,<sup>47</sup> the bands 161.9375–161.9625 MHz and 161.9875–162.0125 MHz may be utilised in the maritime mobile-satellite service by systems operating in accordance with RR Appendix<sup>31</sup> for satellite reception of ASM within VDES (see ITU-R Recommendation<sup>48</sup>).

## **Article 9 Mobile-satellite service**

(1) The 148–150.05 MHz band is allocated to the mobile-satellite service on a primary basis and its use is, in accordance with RR footnote,<sup>49</sup> limited to non-geostationary satellite systems. The band can be used for communication of terminals in the Earth-to-space direction with Low Earth Orbit satellites.

(2) Use of the 148–150.05 MHz band by the mobile-satellite service is, in accordance with RR footnotes,<sup>50</sup> subject to coordination under provision of RR.<sup>51</sup> The mobile-satellite service shall not constrain the development and operation of the fixed and mobile service and space operation service in the 148–149.9 MHz band.

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<sup>41</sup> Abbreviation ATIS stands for Automatic Terminal Information Service.

<sup>42</sup> Footnote 5.208A of RR.

<sup>43</sup> Recommendation ITU-R RA.769.

<sup>44</sup> Footnote 5.208B of RR.

<sup>45</sup> Resolution 739 of RR.

<sup>46</sup> Footnotes 5.228AB and 5.228AC of RR.

<sup>47</sup> Footnote 5.228AA of RR.

<sup>48</sup> Recommendation ITU-R M.2092.

<sup>49</sup> Footnote 5.209 of RR.

<sup>50</sup> Footnotes 5.219 and 5.220 of RR.

<sup>51</sup> Provision No. 9.11A of RR.

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(3) The ECC Decision<sup>52</sup> sets down the operational conditions of satellite systems for personal communication S-PCS<sup>53</sup> (low speed data transmission service) in the bands below 1 GHz. In the Czech Republic, terminals of personal communication systems can be operated in the 148–150.05 MHz band. Specific conditions for the utilisation of radio frequencies by terminals, including technical parameters, are set by relevant General Authorisation.<sup>20</sup> The coordination of frequencies for satellite systems proceeds pursuant to relevant RR provisions.

(4) In accordance with RR footnotes,<sup>54</sup> the bands 156.7625–156.7875 MHz, 156.8125–156.8375 MHz, 161.9625–161.9875 MHz and 162.0125–162.0375 MHz, allocated on a secondary basis (Earth-to-space), are designated for reception of transmission of automatic identification system (AIS) from the stations operated in the maritime mobile service.

#### Article 10 **Radio astronomy service**

(1) Radio astronomy service is passive radiocommunication service based on receiving the radio waves of space origin. Due to low levels of receiving signals, the operation of the service is dependent on protection from interference of other radiocommunication services. According to RR footnote,<sup>55</sup> the users of the 150.05–153 MHz band shall take all practicable measures to protect the radio astronomy service.

(2) In the Czech Republic, the band is not utilised by the service, but users of the 150.05-153 MHz band shall consider the possible use of the radio astronomy service in neighbouring countries.

#### Article 11 **Meteorological aids service**

In the meteorological aids service, the 153–154 MHz sub-band can be utilised under conditions of service on a secondary basis.

#### Article 12 **Space operation service**

In accordance with RR footnote,<sup>56</sup> the 148–149.9 MHz band is additionally allocated to the space operation service (Earth-to-space) on a primary basis, subject to an agreement obtained under procedure set down in RR provision.<sup>57</sup> The bandwidth of any individual transmission shall not exceed  $\pm 25$  kHz and in accordance with RR footnote,<sup>58</sup> the 148-149.9 MHz band is designated for short term missions of non-geostationary satellite systems. These missions shall not cause unacceptable interference to or claim protection from existing services on a primary basis in this band. In accordance with the RR footnote,<sup>59</sup> utilisation of the 148-149.9 MHz band by non-geostationary satellite systems in the space traffic service identified as short term missions is not subject to the provisions of the RR.<sup>51</sup>

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<sup>52</sup> Decision ERC/DEC/(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>53</sup> Abbreviation S-PCS stands for Satellite-Personal Communication System.

<sup>54</sup> Footnotes 5.228 and 5.228F of RR.

<sup>55</sup> Footnote 5.149 of RR.

<sup>56</sup> Footnote 5.218 of RR.

<sup>57</sup> Provision No. 9.21 of RR.

<sup>58</sup> Footnote 5.218A of RR.

<sup>59</sup> Footnote 5.219 of RR.

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Part 3  
**Final provisions**

Article 13  
**Repealing provision**

This is to repeal the Measure of General Nature Part No. PV-P/1/11.2017–9 of the Radio Spectrum Utilisation Plan for the 146–174 MHz band of 7 November 2017 and the Measure of General Nature Part No. PV-P/1/12.2020–11 amending the Measure of General Nature Part No. PV-P/1/11.2017–9 for the 146-174 MHz band of 8 December 2020.

Article 14  
**Effect**

This part of the Radio Spectrum Utilisation Plan shall come into effect on 1 October 2022.

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/1/08.2022-18 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 (EU) 2018/1972 of the European Parliament and of the Council, establishing the European Electronic Communications Code 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. The purpose of this part of the plan is to ensure the transparency of conditions for radio spectrum use and to anticipate the future decisions of the Office.

The purpose of the new issue of this part of the plan is particularly to update conditions of the use in mobile service, e.g. modifying conditions for the use of radio frequencies reserved for ensuring interoperability of medical emergency service organisations, updating conditions for the communication on water courses in connection with the conclusion of the World Radio Communication Conference WRC-19, and extension of the range of radio frequencies used by satellite terminals.

Article 2 presents characteristics of the band with information common to radiocommunication services using the band 146 MHz to 174 MHz. The band is utilised particularly by applications in mobile service and for the communication on inland waterways. National allocation of frequency bands to radiocommunication services is in accordance with the European harmonisation.

Article 3 states international obligations specifying the conditions for the use of frequencies between states and radiocommunication services. The use of frequencies is generally governed by the provisions of the Radio Regulations of the International Telecommunication Union, the HCM Agreement on coordination in the fixed and land mobile service and the RAINWAT Arrangement on radiocommunication service for inland waterways. Harmonised conditions for the European Union are regulated by Commission documents.

Article 4 contains information on future developments and highlights the implementation of amendments to Appendix No. 18 of RR in CEPT countries and the plans of satellite operators to deploy new satellite systems.

Article 5 lays down the conditions for the use of the band by Short Range Devices and refers to the relevant general authorisation.

The conditions for the use of the band by mobile service applications are stated in Article 6. In order to utilise the allocation of the 149.9-150.05 MHz band to the mobile service in the National Table of Frequency Allocation, this range has been added to the list of available frequencies in Paragraph 1, which sets the sub-bands for simplex and duplex operation. The band is designated for simplex operation. The 169.4-169.825 MHz band, which is used by Short Range Devices based on harmonisation, has been deleted from the same Paragraph. Paragraph 2 sets the conditions and frequencies for mobile networks operated for railway transport purposes. The reservation of this purpose in Paragraph 2 is based on the needs of railway transport operation and other needs in accordance with the relevant legislation. The following paragraphs of Article 6 specify the conditions for the use of specific frequencies by different types of applications, considering national needs, so that the conditions allow to set a range of technical parameters for different purposes. The use of frequencies under a general authorisation is regulated in Paragraphs 3 (data

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communication), 9 (dog tracking equipment) and 15 (voice communication on a common frequency). The 149.9-150.05 MHz band described in Paragraph 4 may be used for short-term or experimental use under an individual authorisation. Paragraphs 5 to 8 and 14 lay down the conditions for the use of frequencies under an individual authorisation, so that the conditions aim to phase out the operation of stations using channels with a non-perspective spacing of 25 kHz. This is due to the gradual transition to the uniform conditions referred to in Paragraph 1. The conditions for communications on waterways are generally governed by Paragraph 10 in accordance with the RAINWAT Arrangement, which allows the use of designated frequencies in maritime mobile service by stations on inland waterways. More detailed conditions are stated in Article 8. Paragraph 11 of Article 5, at the request of potential users of the frequencies, allows communication to ensure interaction of emergency medical services with their aeronautical units up to 300 m above terrain, provided that such use shall not cause interference to other users and shall not enjoy protection against interference. The conditions consider the time-limited duration of such communication at the site of an aeronautical intervention and are also based on common practice in neighbouring countries. Paragraph 12 contains the AIS1 and AIS2 Automatic Identification System channels in maritime mobile service which may also be used in mobile service by aeronautical stations for search and rescue operations. In Paragraph 13, a frequency is reserved for voice communication by fire protection units to ensure availability of the frequency for these purposes. Paragraph 16 contains common conditions which the Office shall set in an individual authorisation for the use of radio frequencies. Regarding the duties assigned to the Office by the Act, Paragraph 19 explicitly states that the coordination of radio frequencies shall be carried out by the Office.

Article 7 refers to fixed service, which has no civil use in the bands described. Any requirements on fixed links are dealt with under the conditions set for the mobile service.

Article 8 informs about the use of frequencies in maritime mobile service and newly also in maritime mobile-satellite service. The frequencies set in Paragraph 1 are used on inland waterways in the Czech Republic, in accordance with Appendix No. 18 of RR and RAINWAT Arrangement. Paragraph 2 sets basic parameters for the use and refers to specific conditions laid down by the Ministry of Transport by the Decree.<sup>32</sup> The following paragraphs with conditions for the use of individual frequencies and specific applications are based on the RR, the RAINWAT Arrangement and ITU-R and CEPT documents. The new conditions also consider the progressive trend towards digitalisation of communications in the maritime service and the needs of data transmission. Paragraphs 10 and 11 redefine the radio channels for the VKV Data Exchange System (VDES) and Specific Messages (ASM) of the Automatic Identification System (AIS). Paragraph 12 sets, in accordance with European harmonisation, the dates for the introductory period to release channels for VDES use. Paragraph 13 sets the obligation for the use of the ATIS code when it has been allocated to a vessel in accordance with the RAINWAT Arrangement. Paragraphs 14 to 16 set the conditions for use in the maritime mobile-satellite service based on the conclusions adopted by WRC-19.

Article 9 describes conditions for the band's utilisation by applications of the mobile-satellite service. It extends the utilisation of frequencies in the mobile-satellite service from the existing 148–149.9 MHz to 148–150.05 MHz, in accordance with relevant RR provisions. The reason is that new satellite operators have expressed their interest in using the 149.9-150.05 MHz band for the operation of S-PCS in Europe and new systems have been included in the Annexes to the ECC Decision.<sup>52</sup> The S-PCS terminals may be used under the General Authorisation.<sup>20</sup> In accordance with the modifications and conditions in Articles 6 and 8, Paragraph 5 has been added here as well for the transmission of AIS for reception on satellites.

Articles 10 to 12 contain the conditions for the use of bands allocated to the radioastronomy, meteorological aids and space operation services. These conditions are in accordance with RR. The services are not utilised in the Czech Republic, but the utilisation

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in the Czech Republic may affect the utilisation in neighbouring countries, and it is therefore necessary to draw attention to the relevant RR provisions.

Article 13 repeals the former issue of the part of Radio Spectrum Utilisation Plan for the frequency band 146–174 MHz and in Article 14, the Office sets down the effect of issued Measure of General Nature in accordance with Section 124 of the Act.

Based on Section 130 of the Act and in accordance with the Czech Telecommunication Office Rules for Conducting Consultations at the Discussion Site, the Office published a draft Measure of General Nature Part No. č. PV-P/1/XX.2022-YY of the Radio Spectrum Utilisation Plan on 13 July 2022 together with a call for submitting comments at the discussion site. During the public consultation, the Office did not receive any comments to this draft part of the plan.

On behalf of the Council  
of the Czech Telecommunication Office  
Hana Továrková  
Chair of the Council  
of the Czech Telecommunication Office  
<signed>