

Prague, 16 March 2021
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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 Code of Administrative Procedure, as amended, hereby issues this Measure of General Nature

**Part No. PV-P/24/03.2021-2
for the frequency band 4200–5925 MHz.**

**Article 1
Introductory provision**

This part of the Radio Spectrum Utilisation Plan sets down the technical characteristics and conditions of the use of radio spectrum in the 4200–5925 MHz band by radiocommunication services. This part of the Radio Spectrum Utilisation Plan is a follow-up to the Common part of the Radio Spectrum Utilisation Plan.¹⁾

**Part 1
General information on the frequency band**

**Article 2
Frequency bands**

Band (MHz)	Current conditions		Future harmonisation ²⁾	
	Allocation	Utilisation	Allocation	Utilisation
4200–4400	AERONAUTICAL MOBILE (R) AERONAUTICAL RADIONAVIGATION ^{3),4)}	Airborne altimeters Avionics Intra- Communications Passive scientific applications	AERONAUTICAL MOBILE (R) AERONAUTICAL RADIONAVIGATION ^{3),4)}	Airborne altimeters Avionics Intra- Communications Passive scientific applications

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

²⁾ ERC Report 25: European Table of Frequency Allocations and Applications in the frequency range 8,3 kHz to 3000 GHz, rev. 2020.

³⁾ Footnote 5.436 of RR.

⁴⁾ Footnote 5.437 of RR.

		MD		MD
4400–4500	FIXED MOBILE	Fixed links SAB/SAP MD	FIXED MOBILE	Fixed links SAB/SAP MD
4500–4800	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE	SAB/SAP SRD MD	FIXED FIXED-SATELLITE (space-to-Earth) MOBILE	SAB/SAP SRD MD
4800–4990	FIXED MOBILE ⁵⁾ Radio astronomy ^{6),7)}	SAB/SAP Passive scientific applications SRD MD	FIXED MOBILE except aeronautical mobile Radio astronomy ^{6),7)}	SAB/SAP Passive scientific applications SRD MD
4990–5000	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY ⁶⁾	SAB/SAP Radio astronomy SRD MD	FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY ⁶⁾	SAB/SAP Radio astronomy SRD MD
5000–5010	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION- SATELLITE (Earth-to-space) AERONAUTICAL MOBILE -SATELLITE (R) Space research (passive)	Aeronautical radionavigation SRD MD	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION- SATELLITE (Earth-to-space) AERONAUTICAL MOBILE-SATELLITE (R) Radio astronomy Space research (passive)	Aeronautical radionavigation Satellite navigation systems Aeronautical mobile-satellite applications Radio astronomy SRD MD
5010–5030	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION- SATELLITE (space-to-Earth) (space-space) AERONAUTICAL MOBILE-SATELLITE (R) Space research (passive)	Aeronautical radionavigation SRD MD	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION- SATELLITE(space – to-Earth) (space- space) AERONAUTICAL MOBILE-SATELLITE (R) Radio astronomy Space research (passive)	Aeronautical radionavigation Satellite navigation systems Aeronautical mobile-satellite applications Radio astronomy SRD MD
5030–5091	AERONAUTICAL RADIONAVIGATION AERONAUTICAL	Microwave Landing System MLS SRD MD	AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE (R)	Microwave Landing System MLS Aeronautical mobile and

⁵⁾ In accordance with footnote 5.442 of RR, the allocation to the mobile service in the bands 4825–4835 MHz and 4950–4990 MHz is limited to the mobile service, except aeronautical mobile.

⁶⁾ In accordance with footnote 5.149 of RR, the users of the bands 4825–4835 MHz, 4950–4990 MHz and 4990–5000 MHz shall take all practicable steps to protect the radio astronomy service.

⁷⁾ In accordance with footnote 5.339 of RR, the 4950–4990 MHz band is also allocated to the space research (passive) and Earth exploration-satellite (passive) services on a secondary basis.

	MOBILE (R) ⁸⁾ AERONAUTICAL MOBILE-SATELLITE (R) ⁹⁾		AERONAUTICAL MOBILE-SATELLITE (R)	aeronautical mobile-satellite applications SRD MD
5091-5150	FIXED-SATELLITE AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE SATELLITE AERONAUTICAL MOBILE (R) ^{10),11)}	Microwave Landing System MLS SRD MD	FIXED-SATELLITE AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE AERONAUTICAL MOBILE-SATELLITE (R) ¹¹⁾	Microwave Landing System MLS Aeronautical mobile and aeronautical mobile-satellite applications SRD MD
5150-5250	AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile ^{12),13),14),15)}	Microwave Landing System MLS WAS/RLAN SRD MD	FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile ^{12),13)}	Mobile-satellite service feeder links Aeronautical radionavigation WAS/RLAN SRD MD
5250-5255	EARTH EXPLORATION- SATELLITE (active) MOBILE except aeronautical mobile RADIOLOCATION SPACE RESEARCH	Active sensors WAS/RLAN SRD MD	EARTH EXPLORATION- SATELLITE (active) MOBILE except aeronautical mobile RADIOLOCATION SPACE RESEARCH	Active sensors WAS/RLAN Radars SRD MD
5255-5350	EARTH EXPLORATION- SATELLITE (active) MOBILE except aeronautical mobile RADIOLOCATION SPACE RESEARCH (active)	Active sensors WAS/RLAN SRD MD	EARTH EXPLORATION- SATELLITE (active) MOBILE except aeronautical mobile RADIOLOCATION SPACE RESEARCH (active)	Active sensors WAS/RLAN Radars SRD MD
5350-5460	EARTH EXPLORATION- SATELLITE (active) RADIOLOCATION AERONAUTICAL RADIONAVIGATION	Active sensors Aeronautical radionavigation SRD MD	EARTH EXPLORATION- SATELLITE (active) RADIOLOCATION AERONAUTICAL RADIONAVIGATION	Active sensors Radars SRD MD

⁸⁾ Footnote 5.443C of RR.

⁹⁾ Footnote 5.443D of RR.

¹⁰⁾ Footnote 5.443AA of RR.

¹¹⁾ In accordance with footnote 5.444A of RR, the 5091-5150 MHz band is also allocated to the fixed-satellite service (Earth-to-space) on a priority basis.

¹²⁾ In accordance with footnote 5.447B of RR, the 5150-5216 MHz band is additionally allocated also to the fixed-satellite service (space-to-Earth) on a priority basis.

¹³⁾ In accordance with footnote 5.446 of RR, the band 5150-5216 MHz is additionally allocated also to the radiodetermination-satellite service (space-to-Earth) on a secondary basis.

¹⁴⁾ Footnote 5.446C of RR.

¹⁵⁾ Footnote 5.447C of RR.

	SPACE RESEARCH (active)		SPACE RESEARCH (active)	
5460–5470	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active)	Active sensors SRD MD	EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active)	Active sensors Radars SRD MD
5470–5570	EARTH EXPLORATION-SATELLITE (active) MOBILE except aeronautical mobile RADIOLOCATION MARITIME RADIONAVIGATION SPACE RESEARCH (active)	Active sensors WAS/RLAN SRD MD	EARTH EXPLORATION-SATELLITE (active) MOBILE except aeronautical mobile RADIOLOCATION MARITIME RADIONAVIGATION SPACE RESEARCH (active)	Active sensors WAS/RLAN Radars SRD MD
5570–5650	MOBILE except aeronautical mobile RADIOLOCATION MARITIME RADIONAVIGATION	WAS/RLAN Meteorological radars SRD MD	MOBILE except aeronautical mobile RADIOLOCATION MARITIME RADIONAVIGATION	WAS/RLAN Meteorological radars SRD MD
5650–5725	MOBILE except aeronautical mobile RADIOLOCATION Amateur Amateur-satellite	WAS/RLAN Amateur applications Amateur-satellite applications SRD MD	MOBILE except aeronautical mobile RADIOLOCATION Amateur Amateur-satellite (Earth-to-space)	WAS/RLAN Amateur applications Amateur-satellite applications Radars SRD MD
5725–5830	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur Mobile ¹⁶⁾	WAS/RLAN Amateur applications ISM RTTT SRD MD	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur Mobile ¹⁶⁾	WAS/RLAN Amateur applications ISM RTTT SRDMD
5830–5850	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur Amateur-satellite (space-to-Earth) Mobile ¹⁶⁾	WAS/RLAN Amateur applications Amateur-satellite applications ISM SRD MD	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Amateur Amateur-satellite (space-to-Earth) Mobile ¹⁶⁾	WAS/RLAN Amateur applications Amateur-satellite applications ISM SRD MD

¹⁶⁾ In accordance with footnote 5.150 of RR, the 5725–5875 MHz band is possible to use for industrial, scientific and medical purposes (ISM). Radiocommunication services operating within this band must accept harmful interference caused by these applications.

5850–5925	FIXED FIXED-SATELLITE (Earth-to-space) Mobile ¹⁶⁾	ISM SRD ITS	FIXED FIXED-SATELLITE (Earth-to-space) MOBILE ¹⁶⁾	Fixed-satellite service coordinated terrestrial stations ISM SRD ITS
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Article 3 Frequency band characteristics

(1) The band 4400–5000 MHz is harmonised band for non-civil use by fixed and mobile systems and therefore, non-civil use has priority over civil use.

(2) The band 5030–5250 MHz is used by MLS¹⁷⁾ systems for precision approach and landing of aircrafts.

(3) The bands 5150–5350 MHz and 5470–5850 MHz are utilised by radio access networks WAS/RLAN¹⁸⁾ for broadband data transfer.

(4) In accordance with the footnote of Radio Regulations,¹⁹⁾ the 5725–5875 MHz band is utilised for industrial, scientific and medical purposes by ISM.²⁰⁾ ISM means use of the radio frequencies for purposes other than transmission of information, e.g. technological heating, lighting, cooking, scientific experiments, etc. Harmful interference caused by these applications shall be reduced to minimum.

Article 4 International obligations

Provisions of Radio Regulations²¹⁾ (hereinafter only “RR”), Commission harmonisation documents and provisions of HCM²²⁾ Agreement apply to operation and coordination.

Part 2 Devices operated outside the radiocommunication services

Article 5 Current conditions for devices operated outside radiocommunication services

(1) The 4500–5925 MHz band can be used in compliance with the Commission Decision²³⁾ and CEPT Recommendation²⁴⁾ by short-range devices (SRD²⁵⁾ for radiodetermination. The operation of these devices is possible based on the General

¹⁷⁾ Abbreviation MLS stands for Microwave Landing System.

¹⁸⁾ Abbreviation WAS/RLAN stands for Wireless Access Systems (WAS) which include Radio Local Area Networks (RLAN).

¹⁹⁾ Footnote 5.150 of RR of the International Telecommunication Union, Geneva, 2020.

²⁰⁾ Abbreviation ISM stands for Industrial, Scientific and Medical applications.

²¹⁾ Radio Regulations, International Telecommunication Union, Geneva, 2020.

²²⁾ 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 Coordination of frequencies between 29.7 MHz and 43.5 GHz for the fixed service and the land mobile service.

²³⁾ Commission Implementing Decision (EU) 2019/1345 of 2 August 2019 amending Decision 2006/771/EC updating harmonised technical conditions in the area of radio spectrum use for short-range devices.

²⁴⁾ Recommendation CEPT/ERC/REC 70-03 – Relating to the use of short-range devices.

²⁵⁾ Abbreviation SRD stands for short range devices.

Authorisation²⁶⁾ which lays down specific conditions for the use of radio frequencies, including technical parameters.

(2) The 5725–5875 MHz band can be utilised in compliance with the Commission Decision and CEPT Recommendation²⁴⁾ by unspecified short-range devices (SRD) with e.i.r.p. up to 25 mW. The General Authorisation²⁶⁾ lays down specific conditions for the use of radio frequencies, including technical parameters. Stations with e.i.r.p. above 25 mW are not considered as SRD and conditions stated in Article 7(3) apply to them.

(3) The bands 5795–5815 and 5855–5875 MHz can be utilised in compliance with CEPT Recommendation²⁴⁾ by SRD for road transport and traffic telematics (RTTT²⁷⁾). The General Authorisations lay down conditions for the use of radio frequencies, including technical parameters.²⁶⁾

(4) The 5875–5925 MHz range can be used in compliance with Commission Decision²⁸⁾ and ECC Decision²⁹⁾ by SRD applications of Intelligent Transport Systems (ITS³⁰⁾), ensuring the safety of road traffic. The General Authorisation²⁶⁾ lays down conditions for the use of radio frequencies, including technical parameters.

(5) SRDs shall not cause any harmful interference to other band users and shall not claim protection against harmful interference caused by other authorised band users.

Article 6

Information on future development for devices operated outside the radiocommunication services

Currently, there are no expected changes in the ranges of frequencies for the use by SRDs.

Part 3

Mobile service

Article 7

Current conditions in the mobile service

(1) The use of the 4400–5000 MHz band by the mobile service is mainly non-civil and the 4500–5000 MHz band is used exclusively by mobile service for non-civil application.

(2) In accordance with Commission Decision³¹⁾ and CEPT/ECC Decision³²⁾ and national conditions for the 5150–5250 MHz band, the bands 5150–5350 MHz and 5470–5725 MHz may be used by radio transmitting devices WAS/RLAN³³⁾ for broadband data transfer and following conditions apply:

²⁶⁾ General Authorisation VO-R/10/01.2019-1 for the use of radio frequencies and for the operation of short-range devices, as amended.

²⁷⁾ Abbreviation RTTT stands for Road Transport and Traffic Telematics.

²⁸⁾ Commission Implementing Decision (EU) 2020/1426 of 7 October 2020 on the harmonised use of radio spectrum in the 5875-5935 MHz frequency band for safety-related applications of intelligent transport systems (ITS) and repealing Decision 2008/671/EC.

²⁹⁾ ECC Decision 08(01) on the harmonised use of the 5875-5925 MHz frequency band for Intelligent Transport Systems (ITS), amended on 06 March 2020.

³⁰⁾ Abbreviation ITS stands for Intelligent Transport Systems.

³¹⁾ Commission Decision 2007/90/EC of 12 February 2007 amending Decision 2005/513/EC on the harmonised use of radio spectrum in the 5 GHz frequency band for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLAN).

³²⁾ CEPT Decision ECC/DEC/(04)08 of 9 July 2004 amended 30 October 2009 according to Commission Decision 2005/513/EC and 2007/90/EC on the harmonised use of the 5 GHz frequency bands for the implementation of Wireless Access Systems including Radio Local Area Network (WAS/RLAN)].

³³⁾ Wireless Access Systems, Radio Local Area Networks.

- a) the use of the bands 5150–5350 MHz and 5470–5725 MHz by stations in the mobile service shall, in accordance with RR footnote,³⁴⁾ meet the conditions specified by the Resolution of RR;³⁵⁾
- b) the WAS/RLAN stations can be operated in the 5150–5250 MHz band both inside the building and, at national level, outside the building providing the stations are registered under the General Authorisation³⁶⁾ and under other conditions referred to in Point f);
- c) stations in the mobile service, in accordance with RR footnote,³⁷⁾ shall not claim protection from earth stations in fixed-satellite service in the 5150–5250 MHz band. For mobile service in relation to earth stations of the fixed-satellite service, the RR provision³⁸⁾ does not apply;
- d) in the 5250–5350 MHz band, stations in the mobile service, in accordance with RR footnote,³⁹⁾ shall not claim protection from the radiolocation service, the Earth exploration-satellite service (active) and even from the space research service (active). These services shall not impose more stringent protection criteria on the mobile service than those stated in RR Resolution;³⁵⁾
- e) in the 5470–5725 MHz band, stations in the mobile service, in accordance with RR footnote,⁴⁰⁾ shall not claim protection from the radiodetermination services. Radiodetermination services shall not impose on the mobile service more stringent criteria than those stated in Resolution;³⁵⁾
- f) specific conditions for the use of radio frequencies including technical parameters are set in detail by the General Authorisation.⁴¹⁾

(3) The 5725–5875 MHz band may be utilised by radio transmitting WAS/RLAN devices for broadband data transfer and the following conditions apply:

- a) specific conditions for the use of radio frequencies including technical parameters are set in detail by the General Authorisation;⁴¹⁾
- b) the operation of WAS/RLAN stations shall not cause harmful interference to radiocommunication stations on a priority basis, i.e. in fixed-satellite service and radiolocation service;
- c) outdoor WAS/RLAN stations can be operated providing the stations are registered and they shall not be installed in protection zones as permanently defined in General Authorisation;⁴¹⁾
- d) beyond the protection zones permanently defined in Point c), the Office may designate a protection zone with a temporary limitation on WAS/RLAN operations. The Office shall designate such zones geographically and well in advance by amending the General Authorisation.⁴¹⁾

Article 8

Information on future development in the mobile service

(1) In the 5150-5250 MHz band, draft harmonised conditions allowing WAS/RLAN operation newly in car, train and aircraft cabins are being discussed on the European level. The change of conditions will be reflected in the amendment to the Commission Decision.³¹⁾

³⁴⁾ Footnote 5.446A of RR.

³⁵⁾ Resolution 229 of RR (rev. WRC-19).

³⁶⁾ With the exception of client stations and stations in „Slave“ mode.

³⁷⁾ Footnote 5.446B of RR.

³⁸⁾ Footnote 5.43A of RR.

³⁹⁾ Footnote 5.447E of RR.

⁴⁰⁾ Footnote 5.450A of RR.

⁴¹⁾ General Authorisation VO-R/12/11.2021-11 for the use of radio frequencies and for the operation of equipment for broadband data transmission in the 2,4 GHz – 66 GHz band. Public consultation on the draft VO-R/12 is being conducted in parallel with the draft RSUP 24.

(2) A draft ECC Report on the operation of WAS/RLAN stations at national levels while ensuring coexistence with other applications using this band is being discussed for the 5725-5850 MHz band.

Part 4

Aeronautical mobile service and aeronautical mobile-satellite service

Article 9

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

(1) In the aeronautical mobile service and the aeronautical mobile-satellite service, the symbol (R) after the name of the service relates to service on regular flight routes.

(2) The aeronautical mobile service has allocation on a priority basis in the 5091–5150 MHz band. In accordance with RR footnote,⁴²⁾ the civil and non-civil use is limited to applications at airport areas and it is subject to the provisions of Resolution of RR.⁴³⁾ In accordance with RR provision,⁴⁴⁾ the aeronautical telemetry transmissions from aircraft stations is subject to the Resolution of RR.⁴⁵⁾

Article 10

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

No changes in the utilisation of the band by the service are currently considered on national or international level.

Part 5

Fixed service

Article 11

Current conditions in the fixed service

The fixed service is used in the 4400–5000 MHz band particularly for non-civil purposes. The civil use is limited to coordinated occasional reportage links in the SAB/SAP⁴⁶⁾ application which includes all applications related to audiovisual production. The Office carries out frequency coordination.

Article 12

Information on future development in the fixed service

No changes in the utilisation of the band by the service are currently considered on the national or international level.

⁴²⁾ Footnote 5.444B of RR.

⁴³⁾ Resolution 748 of RR (rev. WRC-19).

⁴⁴⁾ Provision 1.83 of RR.

⁴⁵⁾ Resolution 418 of RR (rev. WRC-19).

⁴⁶⁾ Abbreviation SAB/SAP stands for auxiliary Service Ancillary for Broadcasting/Service Ancillary for Program.

Part 6
Fixed-satellite service

Article 13
Current conditions in the fixed-satellite service

(1) The 5091–5150 MHz band is allocated to the fixed-satellite service (Earth-to-space) on a priority basis. In accordance with RR footnote,⁴⁷⁾ the allocation is limited to feeder links of non-geostationary systems of the mobile-satellite service and the allocation is subject to coordination according to RR provision⁴⁸⁾ and the Resolution of RR⁴⁹⁾ applies. Granting of individual authorisations for the use of the radio frequencies by the earth stations of non-geostationary systems' feeder links of the mobile-satellite service, which used the frequencies in the fixed-satellite service, was terminated.

(2) The allocation to the fixed-satellite service for Earth-to-space direction in the 5150–5250 MHz band is limited to non-geostationary systems' feeder links of the mobile-satellite service in accordance with RR footnote⁵⁰⁾ and is subject to coordination according to RR provision.⁴⁸⁾

(3) The utilisation of the 5150–5216 MHz range by the fixed-satellite service (space-to-Earth) in the category of a service on a priority basis based on the additional allocation is limited to non-geostationary systems' feeder links in the mobile-satellite service, in accordance with RR footnote,⁵¹⁾ and is subject to RR provision.⁴⁸⁾

Article 14
Information on future development in the fixed-satellite service

No changes in the utilisation of the band by the service are currently considered on national or international level.

Part 7
Radiodetermination service

Article 15
Current conditions in the radiodetermination service

(1) The radiodetermination service consists, in accordance with the Frequency band allocation plan and RR provisions,⁵²⁾ inter alia of radionavigation, aeronautical radionavigation and radiolocation services.

(2) In the 4200–4400 MHz band, the utilisation by the aeronautical radionavigation service, in accordance with RR footnote,⁵³⁾ is reserved exclusively for airborne radio altimeters and for the associated ground transponders.

(3) The 5030–5150 MHz band is designated for the operation of the MLS¹⁷⁾ international standard systems for precision approach and landing of aircraft. In accordance with RR footnote,⁵⁴⁾ the requirements of this system shall take precedence over other uses

⁴⁷⁾ Footnote 5.444A of RR.

⁴⁸⁾ Provision 9.11A of RR.

⁴⁹⁾ Resolution 114 of RR (rev.WRC-15).

⁵⁰⁾ Footnote 5.447A of RR.

⁵¹⁾ Footnote 5.447B of RR.

⁵²⁾ Provision 1.40, 1.42, 1.46 a 1.48 of RR.

⁵³⁾ Footnote 5.438 of RR.

⁵⁴⁾ Footnote 5.444 of RR.

of this band and therefore restrictive conditions for the fixed-satellite service apply in this band in accordance with RR footnote.⁴⁷⁾

(4) In the bands 5250–5570 MHz and 5600–5470 MHz, ground and airborne radars for meteorological phenomena monitoring may be operated.

(5) In accordance with RR footnote,⁵⁵⁾ the use of the 5350–5470 MHz band by the aeronautical radionavigation service is limited to airborne radars and associated airborne beacons.

(6) In accordance with RR footnote,⁵⁶⁾ in the 5350–5470 MHz band, the stations in radiolocation service shall not cause harmful interference to nor claim protection from radar systems in aeronautical radionavigation service operating in accordance with RR footnote.⁵⁵⁾

(7) In accordance with RR footnote,⁵⁷⁾ in the 5470–5650 MHz, stations in radiolocation service, except for ground-based radars used for meteorological purposes in the 5600–5650 MHz band, shall not cause harmful interference to nor claim protection from radar systems in the maritime radionavigation service.

(8) In accordance with RR footnote,⁵⁸⁾ the 5600–5650 MHz range may be utilised by ground-based radars used for meteorological purposes on the basis of equality with stations of the maritime radionavigation service.

(9) There are two meteorological radars in the Czech Republic operated for the meteorological purposes on frequencies 5645 MHz (Skalky near Protivanov in Central Moravia) and 5630 MHz (Brdy in Central Bohemia). These radars monitor precipitation cloudiness.

Article 16

Information on future development in the radiodetermination service

No changes in the utilisation of the band by the service are currently considered on the national or international level.

Part 8

Radiodetermination-satellite service

Article 17

Current conditions in the radiodetermination-satellite service

(1) In accordance with RR footnote,⁵⁹⁾ the 5010–5030 MHz band is used by systems and networks in the radionavigation-satellite service⁶⁰⁾ for which complete coordination or notification information, as appropriate, was received by the Radiocommunication Bureau after 1 January 2005. The use is subject to the application of RR provisions⁶¹⁾ and Resolution of RR.⁶²⁾

(2) In order not to cause harmful interference to the microwave landing systems operating above 5030 MHz, the aggregate power flux-density produced on the Earth surface in the 5030–5150 MHz band by all the space stations within any radionavigation-satellite

⁵⁵⁾ Footnote 5.449 of RR.

⁵⁶⁾ Footnote 5.448D of RR.

⁵⁷⁾ Footnote 5.450B of RR.

⁵⁸⁾ Footnote 5.452 of RR.

⁵⁹⁾ Footnote 5.328B of RR.

⁶⁰⁾ In accordance with Provision 1.43 of RR, the radionavigation-satellite service is a radiodetermination-satellite service used for the purpose of radionavigation.

⁶¹⁾ Provision 9.12, 9.12A a 9.13 of RR.

⁶²⁾ Resolution 610 of RR (rev. WRC-19).

system (space-to-Earth) operating in the 5010–5030 MHz band shall not, in accordance with RR footnote,⁶³⁾ exceed -124.5 dB(W/m²) in any range of 150 kHz width.

(3) In order not to cause harmful interference to the radio astronomy service in the 4990–5000 MHz band, the radionavigation-satellite service systems operating in the 5010–5030 MHz band shall comply with the limits for the 4990–5000 MHz band as defined in Resolution of RR.⁶⁴⁾

(4) In accordance with RR footnote,¹³⁾ the use of the 5150–5216 MHz band by the radiodetermination-satellite service (space-to-Earth) on a secondary basis, based on the additional allocation, is limited to radiodetermination-satellite service feeder links operating in bands 1610–1626.5 MHz and/or 2483.5–2500 MHz. The total power flux-density on the Earth surface shall not in any case exceed -159 dB(W/m²) in any range of 4 kHz width for all incidence angles.

Article 18

Information on future development in the radiodetermination-satellite service

No changes in the utilisation of the band by the service are currently considered on the national or international level.

Part 9

Space research and Earth exploration-satellite services

Article 19

Current conditions in the space research and Earth exploration-satellite services

(1) In accordance with RR footnote,⁵³⁾ the passive sensors, e.g. for measurement of sea surface temperature, may be authorised within the space research and Earth exploration-satellite services in the 4200–4400 MHz band on a secondary basis, i.e. without protection from airborne radio altimeters.

(2) In accordance with RR footnote,⁶⁵⁾ the allocation of the 5250–5255 MHz band to the space research service on a priority basis is limited to active spaceborne sensors. Other uses of the band by the space research service are on a secondary basis.

(3) In accordance with RR footnote,⁶⁶⁾ the Earth exploration-satellite (active) and space research (active) services in the 5250–5350 MHz band shall not claim protection from the radiolocation service. The RR provision⁶⁷⁾ does not apply.

(4) In accordance with RR footnote,⁶⁸⁾ the Earth exploration-satellite (active), operating in the 5350–5570 MHz band and space research service (active) operating in the 5460–5570 MHz band, shall not cause harmful interference to the aeronautical radionavigation service in the 5350–5460 MHz band, to the radionavigation service in the 5460–5470 MHz band and to the maritime radionavigation service in the 5470–5570 MHz band.

(5) In accordance with RR footnote,⁶⁹⁾ the space research service (active), operating in the 5350–5460 MHz band, shall not cause harmful interference to nor claim protection from other services to which this band is allocated.

⁶³⁾ Footnote 5.443B of RR.

⁶⁴⁾ Resolution 741 of RR (rev. WRC-15).

⁶⁵⁾ Footnote 5.447D of RR.

⁶⁶⁾ Footnote 5.448A of RR.

⁶⁷⁾ Provision 5.43A of RR.

⁶⁸⁾ Footnote 5.448B of RR.

⁶⁹⁾ Footnote 5.448C of RR.

Article 20
**Information on future development in the space research and Earth exploration-
satellite services**

No changes in the utilisation of the band by the service are currently considered on the national or international level.

Part 10
Radio astronomy service

Article 21
Current conditions in the radio astronomy service

The radio astronomy service is a passive radiocommunication service based on receiving radio waves of cosmic origin. With regard to low levels of received signals, the operation of the service depends on protection from interference caused by other radiocommunication services. In accordance with RR footnote,⁷⁰⁾ the users of the bands 4825–4835 MHz, 4950–4990 MHz, and 4990–5000 MHz shall take all practicable steps to protect the radio astronomy service.

Article 22
Information on future development in the radio astronomy service

No changes in the utilisation of the band by the service are currently considered on the national or international level.

Part 11
Amateur service and amateur-satellite service

Article 23
Current conditions in the amateur service and amateur-satellite services

- (1) The 5650–5850 MHz band is allocated to the amateur service on a secondary basis.
- (2) In accordance with RR footnote,⁷¹⁾ it is possible to operate the amateur-satellite service in the 5650–5670 MHz band. The service is limited to the Earth-to-space direction subject to not causing harmful interference to other services operating in accordance with the Frequency band allocation plan.
- (3) The 5830–5850 MHz band is allocated to the amateur-satellite service on a secondary basis for use in the space-to-Earth direction.
- (4) The use of frequencies by the stations of the amateur and amateur-satellite services is given by a special legal measure.⁷²⁾

⁷⁰⁾ Footnote 5.149 of RR.

⁷¹⁾ Footnote 5.282 of RR.

⁷²⁾ Decree No. 156/2005 Coll., on the technical and operating conditions of the amateur radiocommunication service.

Article 24

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

No changes in the utilisation of the band by the service are currently considered on the national or international level.

Part 12

Final provisions

Article 25

Repealing provision

This is to repeal Measure of General Nature Part No. PV-P/24/06.2012-9 of the Radio Spectrum Utilisation Plan for the 4200–5925 MHz frequency band of 26 June 2012.

Article 26

Effect

This part of the Radio Spectrum Utilisation Plan comes into effect from 15 April 2021.

Explanatory memorandum

To implement Section 16(2) of the Act, the Office issues the Measure of General Nature Part No. PV-P/24/03.2021-2 of the Radio Spectrum Utilisation Plan (hereinafter “the part of the plan”), specifying the technical characteristics and conditions of utilisation of radio spectrum in the frequency band from 4200 MHz to 5925 MHz by radiocommunication services.

The part of the plan is based on the principles established in the Act in European legislation, especially in Directive (EU) 2018/1972 of the European Parliament and of the Council establishing the European Electronic Communications Code, 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 also refers to principles determined in the Common Part of the Radio Spectrum Utilisation Plan No. PV/10.2005-35.

The main reason for the new release of this part of the plan was, in particular, the extension of conditions for the use of radio frequencies by WAS/RLAN¹⁸⁾ stations in mobile service. The new conditions allow to utilise the 5150–5250 MHz band by WAS/RLAN stations also outside buildings, however, the WAS/RLAN access points must be registered on CTU portal. Also, the 5725–5850 MHz band is made available for the use by the WAS/RLAN stations, however, there also applies the obligation to register on CTU portal the access points of fixed outdoor WAS/RLAN stations with e.i.r.p. performance above 200mW. Further modifications to this part of the plan include update of references to harmonisation documents and structural adjustments to the text.

Article 2 presents information from the Frequency band allocations plan (National Table of Frequency Allocations). This information is complemented with current or possible use by applications. The harmonisation intention, i.e. allocation to the radiocommunication services and use by applications according to the ERC Report 25 (European Table of Frequency Allocations and Utilisations), is also presented here. From the utilisations, the major applications and additional details are described in parts dedicated to the particular radiocommunication services. The table is updated in compliance with the National Table of Frequency Allocation and based on the results of WRC conference, i.e. in compliance with the Radiocommunication Regulation. Also, the information on the extended utilisation by other applications was added.

Article 3 presents the characteristic of the band together with information common to the radiocommunication services using the described band. The information on microwave landing system MLS¹⁷⁾ which is designated for precision approach and landing of aircrafts on airports stresses the importance of the band for this use. Extending the band for WAS/RLAN in Paragraph 3 reflects the new conditions for these applications described in Article 7, extending the current band for WAS/RLAN with another 125 MHz.

Article 4 presents international obligations, represented for the described band with Radio Regulations²¹⁾ and the HCM Agreement.²²⁾

Part 2 on the conditions for the devices operated outside the radiocommunication services generally sets the conditions for short-range devices (SRD). These devices shall not be considered as stations according to the definition of radiocommunication service described in provision 1.61 of the RR. The General Authorisation²⁶⁾ sets the conditions for their operation.

Part 3 sets general conditions on harmonised utilisation of the bands of 5 GHz by WAS/RLAN stations in mobile service, with new release of two bands for the operation of WAS/RLAN stations also in outdoor environment, in addition to the European harmonisation.

Article 7(2) sets the framework conditions for the use of frequencies in the bands 5150–5350 MHz and 5470–5725 MHz by WAS/RLAN stations. The conditions are based both on the European harmonisation³¹⁾ and on the conditions laid down by the Resolution 229 of the RR

(ITU-R) which, following the adoption of modifications by the WRC-19 conference, newly allows the states to operate WAS/RLAN stations in the 5150–5250 MHz band in outdoor environment.⁷³⁾ National spectrum managers shall ensure controlled operation of these applications and record the total number of stations to estimate the overall effect of radiation of the current operation of WAS/RLAN stations on other services. For this reason, mandatory registration of stations is included in national conditions on the outdoor operation of WAS/RLAN stations. Detailed conditions are set in the relevant General Authorisation VO-R/12.⁴¹⁾ Such a form of regulation enables the Office to meet the requirements of the RR in an appropriate manner.

Article 7(3) sets the framework conditions on the use of 5725–5850 MHz band which has been newly released at national level for the use by WAS/RLAN stations both inside and outside buildings. The relevant General Authorisation⁴¹⁾ sets the specific conditions for the band's utilisation. As part of the band is used in the 5795–5815 MHz range by electronic toll system radio devices on certain areas of motorways and Class I roads to control vehicles when passing through, circular geographical protection zones with a ban to operate specified types of WAS/RLAN⁷⁴⁾ stations are defined around certain toll gates.

In accordance with the National Table of Frequency Allocation, the band is also allocated to a non-civilian user in radiolocation service. For this reason, the conditions for the shared utilisation of the band, based on the geographical definition of the protection zones in which the operation of specified WAS/RLAN stations is also prohibited, have been agreed with the Ministry of Defence. To support the feasibility of these regulatory conditions, the Office's registration web portal <https://rlan.ctu.cz> has been established. The geographical protection zones are defined by the General Authorisation VO-R/12,⁴¹⁾ which details the conditions and procedures for the use of the band, including the conditions for registration of users and stations on the portal.

With regard to a possible exceptional need for the operation of military applications outside the ex-ante permanently defined protection zones (in the General Authorisation⁴¹⁾), a provision is added for reasons of predictability and legal certainty in Point (d) on the possible temporary suspension of the operation of WAS/RLAN stations in the designated geographical area which in such a case would be implemented by issuing a new General Authorisation VO-R/12 with a modified table in Annex 2. The Office shall also announce in advance the obligation to temporarily suspend WAS/RLAN operations in the designated area via the Electronic Notice Board (i.e. the CTU's website) and directly to WAS/RLAN access point operators via the e-mail address which the affected operators used to register on the Office's portal at <https://rlan.ctu.cz> or on the Office's previous portal <https://60ghz.ctu.cz>, operated until 30 November 2020. The provision in Paragraph (d) is based on the needs of the Ministry of Defence with respect to the operation of stations in the radiolocation service outside the permanently designated areas. However, such a situation is considered unique.

The provisions of Article 7(3)(c) and (d), the specific implementation of which is regulated by the General Authorisation VO-R/12, and the resulting partial limitations on users of the 5725–5850 MHz band are without prejudice to operate SRD equipment with e.i.r.p. up to 25 mW in accordance with the General Authorisation VO-R/10.²⁶⁾

In Article 8 on the assumptions for future developments in mobile service, Paragraph 1 mentions the preparation of harmonised conditions to release the current limitation of WAS/RLAN operation in the 5150–5250 MHz band to indoors only. The harmonisation is discussed within the CEPT/ECC; at EU level, a modification of the Commission Decision³¹⁾ will be a result. Paragraph 2 informs about the European preparatory work on draft conditions for the use of the 5725–5850 MHz band by the WAS/RLAN applications on national levels while ensuring co-existence with RTTT⁷⁵⁾ applications and military radars at the same time.

⁷³⁾ Until now, the operation in the 5150-5250 MHz band was limited to indoor use only.

⁷⁴⁾ The geographical limitation does not apply to SRDs with a performance up to 25 mW e.i.r.p. operated in accordance with Article 3 of the General Authorisation VO-R/10/12.2019-9 (use of radio frequencies and operation of short-range devices).

⁷⁵⁾ Abbreviation RTTT stands for Road Transport and Traffic Telematics. It includes also the electronic toll systems.

Part 4 with the aeronautical mobile and aeronautical mobile-satellite services sets out the conditions and allocation of bands to these services in accordance with the RR. With regard to the importance of allocation to the aeronautical mobile service in the 5091–5150 MHz band, this band is not shared with other active services except for aeronautical service.

In Part 5 with information on the fixed service, basic conditions are laid down for the use of the 4400–5000 MHz band by applications SAB/SAP which are designated for radio and television broadcasting or for programme content production.

Part 6 on the fixed-satellite service excludes granting of individual authorisation for the use of radio frequencies by feeder links of non-geostationary terrestrial stations in the mobile-satellite service, with regard to the importance of the 5091–5150 MHz band in aeronautical services.

In Part 7 with the conditions of the use of radio frequencies by the radiodetermination service, regulatory conditions of radars used for different purposes are amended. The operation of meteorological radars in the 5600–5650 MHz band for monitoring the precipitation cloudiness is included as one of the important usages.

Within Part 8 which informs on the radiodetermination-satellite service, the conditions for the use of frequencies are also presented for the stations of the radionavigation-satellite service which is, in accordance with Provision 1.43 of Radio Regulations, listed in the category of radiodetermination-satellite service.

Part 9 summarizes conditions in the space research and Earth exploration-satellite services. The conditions also take into account the protection of the important European project Copernicus focused on examining the Earth environment through the Sentinel satellites.

Part 10 informs on the allocation of bands to the radio astronomy service which does not use the frequencies actively, but from the viewpoint of Radio Regulations, it may claim protection from other services.

Part 11 informs on the conditions of the use of frequencies by applications in amateur services which have allocation on a secondary basis in the described bands, i.e. the amateur services shall not interfere with the services with allocation on a priority basis in the band.

Article 25 of Part 12 repeals the former issue of the part of the Radio Spectrum Utilisation Plan for the 4200–5925 MHz band and in Article 26, the Office set the effect of the issued Measure of General Nature in compliance with the provision of Section 124 of the Act.

Based on the Section 130 of the Act and in accordance with the Rules of the Czech Telecommunication Office for Consultations at the Discussion Site, the Office published a draft of Measure of General Nature part No. PV-P/24/XX.2021-Y of the Radio Spectrum Utilisation Plan together with a call for comments at the discussion site on 21 January 2021. During the public consultation, the Office didn't receive any comments. The Office received comments from two subjects, which are not being settled. Based on one comment, the explanatory note was specified on the purpose of the radio segment of the electronic toll system.

The working of the comments is presented in the settlement table published on the Discussion Site in compliance with the Rules of the Czech Telecommunication Office for Consultations at the Discussion Site.

On behalf of the Council of the
Czech Telecommunication Office

Mgr. Ing. Hana Továrková

Chair of the Council
of the Czech Telecommunication Office

<signed>