Electronic Communications Committee (ECC)
within the European Conference of Postal and
Telecommunications Administrations (CEPT)

european
communications
office

THE EUROPEAN TABLE OF FREQUENCY ALLOCATIONS AND APPLICATIONS IN THE FREQUENCY RANGE 8.3 kHz to 3000 GHz (ECA TABLE)

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ECA

1 INTRODUCTION

Key objectives of the ECC, as defined in its Terms of Reference, are, among others, to develop European common positions and proposals for use in the framework of international and regional bodies, to harmonise within Europe the efficient use of the radio spectrum and satellite orbits so as to satisfy the requirements of users and industry and to maintain the ECC multi-annual Strategic Plan.

In order to achieve these objectives CEPT endorsed in 2002 the principle of adopting a harmonised European Table of Frequency Allocations and Applications to establish a strategic framework for the utilisation of the radio spectrum in Europe. After a detailed review in 2010 of the key principles defining the ECA Table, WG FM concluded at its meeting in February 2011 that the Table should essentially deliver information on the current situation, although some future oriented information could still be maintained for some specific frequency bands (e.g. if a cut-off date needs to be defined), see Annex 34 to document FM(11)062r1 (WGFM#71 meeting report) / FM(20)080 Annex 8.

The task of developing and maintaining this Table is the responsibility of the Working Group Frequency Management (WG FM). Much of this work is carried out by the European Communications Office (ECO) on behalf of WG FM and a fully searchable electronic version of the ECA can be found at: http://www.efis.dk.

The factual information of the ECA Table (Attachment of this Report) will typically be updated by the ECO three times a year, after every ECC meeting. These amendments will not require a public consultation. A fundamental update on the ERC Report 25 and its Attachment will be carried out at least after every WRC and will undergo a CEPT wide public consultation. The conclusions on the update process were drawn by WG FM in February 2011 (71st meeting).

The present edition of the ECA Table takes into account ECC harmonisation deliverables (ECC Decisions and ECC Recommendations) approved for publication including the ECC Plenary #54 on 16-20 November 2020.

2 EUROPEAN TABLE OF FREQUENCY ALLOCATIONS AND APPLICATIONS

A European Table of Frequency Allocations and Applications for the frequency range 8.3 kHz to 3000 GHz (ECA Table) is provided in the Attachment of this Report. Information collected in the ECA Table is intended to reflect the main usage of spectrum within CEPT countries. This information can be used for the development of Decisions, Recommendations, Reports and European Common Proposals (ECPs) for future Radiocommunication Conferences of the ITU and as a reference document when developing national frequency allocation tables and national frequency usage plans.

3 ITU RADIOCOMMUNICATION CONFERENCES

Due account has been taken of the relevant decisions of the ITU World Radiocommunication Conferences WARC-92, WRC-95, WRC-97, WRC-2000, WRC-03, WRC-07, WRC-12, WRC-15 and WRC-19 as well as the Regional Radiocommunication Conference Geneva-06 and of strategies developed by other international for a concerning, in particular, the introduction and development of mobile and mobile-satellite services.

4 ECC/ERC DECISIONS AND RECOMMENDATIONS

During the preparation and update of the ECA Table account was taken of work already completed by CEPT in respect of systems expected to operate in this frequency range. The ECC/ERC Decisions and ECC/ERC Recommendations, which are relevant to frequency management issues and which have been incorporated into the Table are listed in Annex 3 of the Attachment.

Understanding of the term "to designate"

ECC/ERC Decisions that "designate" a frequency band for a harmonised application are intended to foster the deployment of an application to meet a market demand in a harmonised manner throughout CEPT. Members signing the Decision commit themselves to make spectrum available for this harmonised application which includes assessing when and where there is a demand for the harmonised service/ application and deciding whether that demand is great enough to exclude other services and applications from the harmonised band. Thus, such Decisions do not necessarily preclude authorising other uses and applications in the same band, or part(s) thereof on the following conditions:

1. an underlay application (i.e., able to share co-frequency, co-coverage with the application for which the band was designated) may be implemented, preferably subject to prior harmonisation at CEPT level, without affecting the application for which the band is designated, i.e., this underlay system is designed in such a way that they are not causing interference to the application for which the band is designated nor request protection against interference;

2. the deployment of the application for which a band is designated may be constrained geographically in a reasonable extent in order to protect stations of another service/application using the same band;

3. there may be a lack of market demand for the application for which the band is designated in some cases:

   a. absence of demand for deployment in certain geographical areas, thus enabling geographical sharing with other applications;

   b. transition period until equipment are available for the deployment of the harmonised application, so that other applications may be introduced or retained for this temporary period;

   c. in cases where market demand does not fully materialise for the harmonised application, all or parts of the band could be used for alternative applications, having due regard to spectrum use consideration (channelling, guard bands, protection of the harmonised application).

In all these cases, Members retain the commitment to make their best efforts to make the frequency band available for the application for which the band is designated in due time where the market demand materialises.

Underlay regulations

Underlay regulations by contrast do not "designate" a specific frequency band for a certain usage but rather define conditions of use of the radio spectrum across a relatively wide frequency range. The intentional emissions of underlay applications are not always limited to the boundaries of a specific frequency band, which implies that in some cases underlay regulations cannot be referenced conveniently in a frequency allocation table.

Regulations developed within CEPT for applications using Ultra-Wideband (UWB) technology typically fit within this regulatory approach.

For example, the following regulations available at the date of publication of this Report can be described as "underlay regulations":

1. ECC/DEC/(06)04 on generic UWB, latest amendment of 8 March 2019;

2. ECC/DEC/(06)08 on GPR/WPR imaging systems latest amendment of 26 October 2018;

3. ECC/DEC/(07)01 on specific Material Sensing Devices, latest amendment 8 March 2019;

4. ECC/DEC/(12)03 on the harmonised conditions for UWB applications onboard aircraft, corrected 6 March 2020.

Detailed references to these regulations can be found in Annex 3 of the Attachment (ECA Table).

5 MILITARY REQUIREMENTS

Liaison with military authorities from CEPT countries has also been necessary in view of their use of, and requirements in, the relevant frequency range. Although no single representative military body exists for all CEPT member countries, the North Atlantic Treaty Organisation (NATO) has a Joint Civil/Military Frequency Agreement (NATO Joint Civil/Military Frequency Agreement (NJFA), Extract for Public Disclosure, 14 February 2017), which is taken into account by NATO nations as a base contribution for radio frequency planning and policy making. A forum that allows both civil and military frequency managers from all CEPT countries to meet has also been established by CEPT. This forum, the civil military meeting, considers requirements for harmonised military usage of spectrum to meet the needs of both NATO and non-NATO CEPT countries and invites WGFM to consider follow-up actions. Military requirements vary both between activities and countries. In some countries national requirements may be more than those indicated in the ECA Table or specifically harmonised by NATO and NATO member nations for military use.

In general, the 'harmonised military bands' by NATO and NATO member nations should provide a common military frequency resource in order to allow systems to operate in common border areas, facilitate common exercises and operations, and include the core frequency assets for day-to-day training, exercise, combat readiness and deployment.

The NATO Civil/Military Spectrum Capability Panel (CaP3) invited the NATO nations to provide information to the EFIS database on the military use of spectrum including EFIS application layer 2 as a harmonised approach, except where national laws do not allow. WGFM decided that in cases where several layer 2 applications are utilised, the layer 1 terminology may be used.

6 UPDATES PROCESS

The ECA Table (Attachment of this Report) will typically be updated by the ECO three times a year, normally after every ECC meeting.

Update of factual information which will not require a public consultation: 1. ECO will update the information on harmonised standards when it becomes available (expected three times a year in the OJEU). Other standards may also be mentioned in the ECA Table if necessary.

1. ECO will include/update references to ECC/ERC Decisions and Recommendations in the ECA Table after every ECC meeting (expected three times a year).

2. ECO will update also other ordinary issues.

The actual ECA Table is made available as an Attachment of ERC Report 25.

ECO will update the references to all ECC/ERC Decisions and Recommendations, which are relevant to frequency management issues and which had been finally adopted should be incorporated in the ECA Table and listed in Annex 3.

Update which requires a public consultation:

a. The general part of ERC Report 25 will be updated by taking into account the conclusions as described above.

b. UWB applications should be included in the Table itself (except for the GPR/WPR for which the frequency range would be too large) for the core frequency ranges identified in the scope of the respective Harmonised European Standards as well as in ERC Recommendation 70-03.

c. Update of all information which is not only factual.

d. Update of the first two columns (RR Article 5 allocation and European allocation).

e. Update of ECA allocations (column 2) after a WRC taking into account the ECPs for the WRC.

f. Public consultation on the complete ERC Report always soon after a WRC or when requested by WGFM.

Other aspects

During future update processes it should be verified whether the EU footnotes are still valid. If possible, footnotes should be deleted, or the content of the footnotes should be transferred into the table by other means.

7 THE EUROPEAN TABLE OF FREQUENCY ALLOCATIONS AND APPLICATIONS IN THE FREQUENCY RANGE 8.3 kHz to 3000 GHz (ECA TABLE)

The ECA Table and its six Annexes are provided in the Attachment.

Annex 1: ECA footnotes included in the ECA Table / Annex 2: ITU Radio Regulations footnotes for Region 1 / Annex 3: Relevant ECC/ERC Decisions and Recommendations / Annex 4: European Standards included in the ECA Table / Annex 5: for receive only standards / Annex 6: List of abbreviations used in the ECA Table.

Explanatory notes to the ECA Table

The heading of the ECA Table in the Attachment includes a number of columns, with the following contents:

Column 1: RR Region 1 Allocation and RR footnotes applicable to CEPT

Indicates the frequency band referred to in that row of the ECA Table and current ITU RR Article 5 allocations and footnotes which correspond to ITU Region 1. See Annex 2 for description of the RR Article 5 footnotes included in the ECA Table.

Column 2: European Common Allocation and ECA Footnotes

Contains in each frequency band:

1. Allocations of major use or major interest in CEPT member countries. This should include allocations made available in at least 15 CEPT administrations according to EFIS.

2. RR Article 5 footnotes affecting a major number of CEPT countries. RR Article 5 footnotes with general provisions applicable to CEPT countries are only included in the European Table if 10 or more CEPT countries are included in the footnote. This column may also contain ECA footnotes relevant to the European allocation, an application, or the frequency band, see Annex 1 of the Attachment.

Column 3: ECC/ERC harmonisation measure

This column contains information about ECC/ERC Decisions and Recommendations relevant to the particular radio application. The ECC/ERC documents are described in Annex 3 of the Attachment.

Column 4: Applications

A radio application will be added to the ECA Table as an "Application" if:

a. An ECC/ERC Decision, EC Decision or ECC/ERC Recommendation exists which harmonises or designates frequency bands, or

b. At least 10 CEPT administrations have made available the relevant frequency band for a radio application according to EFIS, or

c. WG FM has decided to do so (based on other aspects).

A future reduction of the number of administrations (below 10) will not automatically generate a withdrawal of a radio application from the ECA Table. There is no priority implied by the order in which the radio applications are listed.

Column 5: Standard

This column contains information about the relevant Harmonised European standards - see Annex 4. Also those standards may be referenced which had not been cited in the Official Journal of the European Union (OJEU) in the point of time of publication of this version of the ERC Report.

Column 6: Notes

This column may be used in order to reflect any other relevant information, such as the nature of use of a radio application or decisions which might affect the future use of the band.

Attachment (ECA Table) with 6 Annexes.

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
0 Hz - 8300 Hz					
Not allocated 5.53 5.54	Not allocated 5.53 5.54				
8300 Hz - 9 kHz					
METEOROLOGICAL AIDS 5.54A 5.54B	METEOROLOGICAL AIDS 5.54A		Lightning detection systems		
9 kHz - 11.3 kHz					
METEOROLOGICAL AIDS 5.54A RADIONAVIGATION	METEOROLOGICAL AIDS 5.54A RADIONAVIGATION	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Lightning detection systems		
11.3 kHz - 14 kHz					
RADIONAVIGATION	RADIONAVIGATION	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
14 kHz - 19.95 kHz					
FIXED MARITIME MOBILE 5.57 5.55 5.56	FIXED MARITIME MOBILE 5.57 5.56 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
19.95 kHz - 20.05 kHz					
STANDARD FREQUENCY AND TIME SIGNAL (20 KHZ)	STANDARD FREQUENCY AND TIME SIGNAL (20 KHZ)	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
20.05 kHz - 70 kHz					
FIXED MARITIME MOBILE 5.57 5.56 5.58	FIXED MARITIME MOBILE 5.57 5.56 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		
70 kHz - 72 kHz					
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		
72 kHz - 84 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.60 5.56	FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.60 5.56 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		
			Standard frequency and time signal		77.5 kHz DCF time signal

84 kHz - 86 kHz

RADIONAVIGATION 5.60	RADIONAVIGATION 5.60 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

86 kHz - 90 kHz

FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.56	FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.56 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

90 kHz - 110 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
RADIONAVIGATION 5.62 Fixed 5.64	RADIONAVIGATION 5.62 Fixed 5.64 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

110 kHz - 112 kHz

FIXED MARITIME MOBILE RADIONAVIGATION 5.64	FIXED MARITIME MOBILE RADIONAVIGATION 5.64 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

112 kHz - 115 kHz

RADIONAVIGATION 5.60	RADIONAVIGATION 5.60 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

115 kHz - 117.6 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
RADIONAVIGATION 5.60 Fixed Maritime Mobile 5.64 5.66	RADIONAVIGATION 5.60 Fixed Maritime Mobile 5.64 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

117.6 kHz - 126 kHz

FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

126 kHz - 129 kHz

RADIONAVIGATION 5.60	RADIONAVIGATION 5.60 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

129 kHz - 130 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

130 kHz - 135.7 kHz

FIXED MARITIME MOBILE 5.64 5.67	FIXED MARITIME MOBILE 5.64 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

135.7 kHz - 137.8 kHz

FIXED 5.64 MARITIME MOBILE Amateur 5.67A 5.67B	FIXED 5.64 MARITIME MOBILE Amateur 5.67A 5.67B ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
			Amateur	EN 301 783	Within the band 135.7-137.8 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

137.8 kHz - 148.5 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MARITIME MOBILE 5.64 5.67	FIXED MARITIME MOBILE 5.64 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 303 447 EN 303 454	Within the band 9-148.5 kHz
			Land military systems		
			Maritime military systems		

148.5 kHz - 255 kHz

BROADCASTING 5.68 5.69 5.70	BROADCASTING	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
			Broadcasting	EN 302 017 EN 302 245	Frequency Assignment plan GE75. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

255 kHz - 283.5 kHz

AERONAUTICAL RADIONAVIGATION BROADCASTING 5.70	AERONAUTICAL RADIONAVIGATION BROADCASTING ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
			Aeronautical military systems		
			Beacons (aeronautical)		Frequency Assignment plan GE85
			Broadcasting	EN 302 017 EN 302 245	Frequency Assignment plan GE75. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime military systems		

283.5 kHz - 315 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (RADIOBEACONS) 5.73 5.74	AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (RADIOBEACONS) 5.73 5.74 ECA36	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
			Aeronautical military systems		
			Beacons (aeronautical)		Frequency Assignment plan GE85
			Beacons (maritime)		Frequency Assignment plan GE85
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime military systems		

315 kHz - 325 kHz

AERONAUTICAL RADIONAVIGATION Maritime Radionavigation (radiobeacons) 5.73 5.75	AERONAUTICAL RADIONAVIGATION Maritime Radionavigation (radiobeacons) 5.73 ECA36		Aeronautical military systems		
			Beacons (aeronautical)		Frequency Assignment plan GE85
			Beacons (maritime)		Frequency Assignment plan GE85. IALA - plan to allow differential GPS
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz
			Maritime military systems		

325 kHz - 405 kHz

AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION ECA36		Aeronautical military systems		
			Beacons (aeronautical)		Frequency Assignment plan GE85
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz

405 kHz - 415 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
RADIONAVIGATION 5.76	RADIONAVIGATION 5.76 ECA36		Aeronautical military systems		
			Beacons (aeronautical)		Frequency Assignment plan GE85
			Beacons (maritime)		Frequency Assignment plan GE85. IALA - plan to allow differential GPS
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime military systems		

415 kHz - 435 kHz

AERONAUTICAL RADIONAVIGATION MARITIME MOBILE 5.79	AERONAUTICAL RADIONAVIGATION MARITIME MOBILE 5.79 ECA36		Aeronautical military systems		
			Beacons (aeronautical)		Frequency Assignment plan GE85
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime communications	EN 300 338	Frequency Assignment plan GE85
			Maritime military systems		

435 kHz - 472 kHz

MARITIME MOBILE 5.79 Aeronautical Radionavigation 5.77 5.82	MARITIME MOBILE 5.79 Aeronautical Radionavigation 5.82 ECA36		Aeronautical military systems		
		ERC/REC 70-03	Emergency detection	EN 300 330 EN 300 718	442.2-450 kHz and 456.9-457.1 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime communications	EN 300 338	Frequency Assignment plan GE85
			Maritime military systems		

472 kHz - 479 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
MARITIME MOBILE 5.79 Aeronautical Radionavigation 5.77 5.80 Amateur 5.80A 5.80B 5.82	MARITIME MOBILE 5.79 Aeronautical Radionavigation Amateur 5.80A 5.80B ECA36 5.82	ERC/REC 70-03	Aeronautical military systems		
			Amateur	EN 301 783	
			Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime communications	EN 300 338	Frequency Assignment plan GE85
			Maritime military systems		

479 kHz - 495 kHz

MARITIME MOBILE 5.79 5.79A Aeronautical Radionavigation 5.77 5.82	MARITIME MOBILE 5.79 5.79A Aeronautical Radionavigation 5.82 ECA36	ERC/REC 70-03	Aeronautical military systems		
			Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime communications	EN 300 338	Frequency Assignment plan GE85
			Maritime military systems		
			NAVTEX	EN 300 065	490 kHz: NAVTEX transmission in national language

495 kHz - 505 kHz

MARITIME MOBILE 5.82C	MOBILE ECA36	ERC/REC 70-03	Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime military systems		

505 kHz - 526.5 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL RADIONAVIGATION MARITIME MOBILE 5.79 5.79A 5.84	AERONAUTICAL RADIONAVIGATION MARITIME MOBILE 5.79 5.79A 5.84 ECA36		Aeronautical military systems		
			Beacons (aeronautical)		Frequency Assignment plan GE85
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime communications	EN 300 338	Frequency Assignment plan GE85
			Maritime military systems		
			NAVTEX	EN 300 065	518 kHz: NAVTEX transmission in national language

526.5 kHz - 1606.5 kHz

BROADCASTING 5.87 5.87A	BROADCASTING		Broadcasting	EN 302 017 EN 302 245	Frequency Assignment plan GE75. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330 EN 302 536	Within the band 148.5 kHz - 30 MHz.For RFID only within the band 400-600 kHz

1606.5 kHz - 1625 kHz

FIXED LAND MOBILE MARITIME MOBILE 5.90 5.92	FIXED LAND MOBILE MARITIME MOBILE 5.90 Radiolocation ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	Frequency Assignment plan GE85
			Maritime military systems		
			Radiodetermination applications		

1625 kHz - 1635 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
RADIOLOCATION 5.93	RADIOLOCATION 5.93 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Radiodetermination applications		
			Radiolocation (military)		

1635 kHz - 1800 kHz

FIXED LAND MOBILE MARITIME MOBILE 5.90 5.92 5.96	FIXED LAND MOBILE MARITIME MOBILE 5.90 5.96 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	Frequency Assignment plan GE85
			Maritime military systems		
			Radiodetermination applications		

1800 kHz - 1810 kHz

RADIOLOCATION 5.93	RADIOLOCATION 5.93 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Radiodetermination applications		
			Radiolocation (military)		

1810 kHz - 1850 kHz

AMATEUR 5.98 5.99 5.100	AMATEUR 5.98 5.100		Amateur	EN 301 783	Within the band 1810-2000 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

1850 kHz - 2000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.92 5.96 5.103	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Amateur 5.96 ECA36 5.103	ERC/REC 70-03	Amateur	EN 301 783	Within the band 1810-2000 kHz
			Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	
			Maritime military systems		
			Radiodetermination applications		

2000 kHz - 2025 kHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.92 5.103	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.103 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	
			Maritime military systems		
			Radiodetermination applications		

2025 kHz - 2045 kHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) Meteorological Aids 5.104 5.92 5.103	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.103 ECA36 5.104	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	
			Maritime military systems		
			Oceanographic buoys		Meteorological
			Radiodetermination applications		

2045 kHz - 2160 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED LAND MOBILE MARITIME MOBILE 5.92	FIXED LAND MOBILE MARITIME MOBILE 5.92 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	Frequency Assignment plan GE85
			Maritime military systems		

2160 kHz - 2170 kHz

RADIOLOCATION 5.93 5.107	RADIOLOCATION 5.93 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Radiodetermination applications		
			Radiolocation (military)		

2170 kHz - 2173.5 kHz

MARITIME MOBILE	MARITIME MOBILE ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	
			Maritime military systems		

2173.5 kHz - 2190.5 kHz

MOBILE (DISTRESS AND CALLING) 5.108 5.109 5.110 5.111	MOBILE (DISTRESS AND CALLING) 5.108 ECA36 5.109 5.110 5.111		DSC	EN 302 885 EN 303 402	2187.5 kHz (DSC for distress and calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	2182 kHz (Radiotelephony distress and calling). 2174.5 kHz (Telex distress traffic)

2190.5 kHz - 2194 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
MARITIME MOBILE	MARITIME MOBILE ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	
			Maritime military systems		

2194 kHz - 2300 kHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.92 5.103 5.112	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.103 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	
			Maritime military systems		
			Radiodetermination applications		

2300 kHz - 2498 kHz

BROADCASTING 5.113 FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.103	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.103 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	
			Maritime military systems		

2498 kHz - 2501 kHz

STANDARD FREQUENCY AND TIME SIGNAL (2 500 KHZ)	STANDARD FREQUENCY AND TIME SIGNAL (2 500 KHZ)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

2501 kHz - 2502 kHz

STANDARD FREQUENCY AND TIME SIGNAL Space Research	STANDARD FREQUENCY AND TIME SIGNAL Space Research	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
2502 kHz - 2625 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.92 5.103 5.114	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.92 ECA36 5.103	ERC/REC 70-03	Inductive applications Land military systems Maritime military systems Radiodetermination applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
2625 kHz - 2650 kHz					
MARITIME MOBILE MARITIME RADIONAVIGATION 5.92	MARITIME MOBILE MARITIME RADIONAVIGATION 5.92 ECA36	ERC/REC 70-03	Inductive applications Maritime communications Maritime military systems	EN 300 330 EN 303 402	Within the band 148.5 kHz - 30 MHz
2650 kHz - 2850 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.92 5.103	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.92 ECA36 5.103	ERC/REC 70-03	Inductive applications Land military systems Maritime military systems Radiodetermination applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
2850 kHz - 3025 kHz					
AERONAUTICAL MOBILE (R) 5.111 5.115	AERONAUTICAL MOBILE (OR) 5.111 ECA36 5.115		Aeronautical communications Aeronautical military systems		Appendix 27 Allotment Plan
		ERC/REC 70-03	Inductive applications SAR (communications)	EN 300 330 EN 303 402	Within the band 148.5 kHz - 30 MHz 3023 kHz (Aeronautical/Maritime radiotelephony SAR coordination)

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
3025 kHz - 3155 kHz					
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications		Appendix 26 Allotment Plan
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
3155 kHz - 3200 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.116 5.117	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.116 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 3155-3400 kHz; and within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	
			Maritime military systems		
3200 kHz - 3230 kHz					
BROADCASTING 5.113 FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.116	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.116 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 3155-3400 kHz; and within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	
			Maritime military systems		
3230 kHz - 3400 kHz					
BROADCASTING 5.113 FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.116 5.118	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.116 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 3155-3400 kHz; and within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	
			Maritime military systems		

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
3400 kHz - 3500 kHz					
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R) ECA36		Aeronautical communications		Appendix 27 Allotment Plan. Including HF Data Links
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
3500 kHz - 3800 kHz					
AMATEUR FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.92	AMATEUR FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.92 ECA36	ERC/REC 70-03	Amateur	EN 301 783	
			Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	
			Maritime military systems		
3800 kHz - 3900 kHz					
AERONAUTICAL MOBILE (OR) FIXED LAND MOBILE	AERONAUTICAL MOBILE (OR) FIXED LAND MOBILE ECA36		Aeronautical communications		Appendix 26 Allotment Plan
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
3900 kHz - 3950 kHz					
AERONAUTICAL MOBILE (OR) 5.123	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications		Appendix 26 Allotment Plan
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
3950 kHz - 4000 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING FIXED	BROADCASTING FIXED ECA36		Broadcasting	EN 302 017 EN 302 245	Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		

4000 kHz - 4063 kHz

FIXED MARITIME MOBILE 5.127 5.126	FIXED MARITIME MOBILE 5.127 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	Appendix 17 channeling plan.Appendix 25 allotment plan
			Maritime military systems		

4063 kHz - 4438 kHz

MARITIME MOBILE 5.79A 5.109 5.110 5.128 5.130 5.131 5.132	MARITIME MOBILE 5.109 5.110 5.79A 5.130 5.131 5.132 ECA36		DSC	EN 302 885 EN 303 402	4207.5 kHz (DSC distress traffic). Ship stations 4208, 4208.5, 4209 kHz. Coast stations 4219.5, 4220, 4220.5 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channelling plan. Appendix 25 allotment plan. 4125 kHz (Radiotelephony distress and safety traffic. 4177.5 kHz (Telex distress traffic). 4209.5 kHz (Meteorological and navigational warnings. 4210 kHz (Safety Information)
			Maritime military systems		
			NAVTEX	EN 300 065	4209.5 kHz
		ERC/REC 70-03	Railway applications	EN 302 608	4234 kHz

4438 kHz - 4488 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) Radiolocation 5.132A 5.132B	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) Radiolocation 5.132A ECA36	ERC/REC 70-03	Inductive applications Land military systems Maritime military systems Radiolocation (military)	EN 300 330	Within the band 148.5 kHz - 30 MHz

4488 kHz - 4650 kHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) ECA36	ERC/REC 70-03	Inductive applications Land military systems Maritime military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz

4650 kHz - 4700 kHz

AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R) ECA36		Aeronautical communications Aeronautical military systems		Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

4700 kHz - 4750 kHz

AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications Aeronautical military systems		Appendix 26 Allotment Plan
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

4750 kHz - 4850 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL MOBILE (OR) BROADCASTING 5.113 FIXED LAND MOBILE	AERONAUTICAL MOBILE (OR) FIXED LAND MOBILE ECA36	ERC/REC 70-03	Aeronautical communications Aeronautical military systems Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz

4850 kHz - 4995 kHz

BROADCASTING 5.113 FIXED LAND MOBILE	FIXED LAND MOBILE ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz

4995 kHz - 5003 kHz

STANDARD FREQUENCY AND TIME SIGNAL (5 000 KHZ)	STANDARD FREQUENCY AND TIME SIGNAL (5 000 KHZ)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

5003 kHz - 5005 kHz

STANDARD FREQUENCY AND TIME SIGNAL Space Research	STANDARD FREQUENCY AND TIME SIGNAL Space Research	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

5005 kHz - 5060 kHz

BROADCASTING 5.113 FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz

5060 kHz - 5250 kHz

FIXED Mobile except aeronautical mobile 5.133	FIXED Mobile except aeronautical mobile ECA36	ERC/REC 70-03	Inductive applications Land military systems Maritime military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
5250 kHz - 5275 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation 5.132A 5.133A	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation 5.132A ECA36	ERC/REC 70-03	Inductive applications Land military systems Maritime military systems Radiolocation (military)	EN 300 330	Within the band 148.5 kHz - 30 MHz
5275 kHz - 5351.5 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE ECA36	ERC/REC 70-03	Inductive applications Land military systems Maritime military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
5351.5 kHz - 5366.5 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Amateur 5.133B	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Amateur 5.133B ECA36	ERC/REC 70-03	Amateur Inductive applications Land military systems Maritime military systems	EN 301 783 EN 300 330	Within the band 148.5 kHz - 30 MHz
5366.5 kHz - 5450 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE ECA36	ERC/REC 70-03	Inductive applications Land military systems Maritime military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
5450 kHz - 5480 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL MOBILE (OR) FIXED LAND MOBILE	AERONAUTICAL MOBILE (OR) FIXED LAND MOBILE ECA36		Aeronautical communications Aeronautical military systems		
		ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz

5480 kHz - 5680 kHz

AERONAUTICAL MOBILE (R) 5.111 5.115	AERONAUTICAL MOBILE (OR) 5.111 ECA36 5.115		Aeronautical communications Aeronautical military systems		Appendix 27 Allotment Plan.Including HF Data Links
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			SAR (communications)	EN 303 402	5680 kHz (Aeronautical/Maritime radiotelephony SAR coordination)

5680 kHz - 5730 kHz

AERONAUTICAL MOBILE (OR) 5.111 5.115	AERONAUTICAL MOBILE (OR) 5.111 ECA36 5.115		Aeronautical communications Aeronautical military systems		Appendix 26 Allotment Plan
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			SAR (communications)	EN 303 402	5680 kHz (Aeronautical/Maritime radiotelephony SAR coordination)

5730 kHz - 5900 kHz

FIXED LAND MOBILE	FIXED LAND MOBILE ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz

5900 kHz - 5950 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING 5.134 5.136	BROADCASTING 5.134 5.136		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

5950 kHz - 6200 kHz

BROADCASTING	BROADCASTING		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

6200 kHz - 6525 kHz

MARITIME MOBILE 5.109 5.110 5.130 5.132 5.137	MARITIME MOBILE 5.109 5.110 5.130 5.132 ECA36 5.137		DSC	EN 302 885 EN 303 402	6312 kHz (DSC distress traffice). 6312.5, 6313, 6313.5, 6331, 6331.5, 6332 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channeling plan. Appendix 25 allotment plan. 6215 kHz. (Radiotelephony distress and safety traffic). 6268 kHz (Telex distress traffic). 6314 kHz (Maritime Safety Information)
			Maritime military systems		

6525 kHz - 6685 kHz

AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R) ECA36		Aeronautical communications		Appendix 27 Allotment Plan. Including HF Data Links
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

6685 kHz - 6765 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications		Appendix 26 Allotment Plan
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

6765 kHz - 7000 kHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.138	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.138 ECA36		ISM		Within the band 6765-6795 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 6765-6795 kHz; and within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		

7000 kHz - 7100 kHz

AMATEUR AMATEUR-SATELLITE 5.140 5.141 5.141A	AMATEUR AMATEUR-SATELLITE		Amateur	EN 301 783	Within the band 7000-7200 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

7100 kHz - 7200 kHz

AMATEUR 5.141A 5.141B	AMATEUR		Amateur	EN 301 783	Within the band 7000-7200 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

7200 kHz - 7300 kHz

BROADCASTING	BROADCASTING		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
7300 kHz - 7400 kHz					
BROADCASTING 5.134 5.143 5.143A 5.143B 5.143C 5.143D	BROADCASTING 5.134 5.143 5.143B		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
7400 kHz - 7450 kHz					
BROADCASTING 5.143B 5.143C	BROADCASTING 5.143B		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 7400-8800 kHz; and within the band 148.5 kHz - 30 MHz
7450 kHz - 8100 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.144	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 7400-8800 kHz; and within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
8100 kHz - 8195 kHz					
FIXED MARITIME MOBILE	FIXED MARITIME MOBILE ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 7400-8800 kHz; and within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime communications	EN 303 402	Appendix 17 channeling plan
			Maritime military systems		
8195 kHz - 8815 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
MARITIME MOBILE 5.109 5.110 5.132 5.145 5.111	MARITIME MOBILE 5.109 5.110 5.132 5.145 5.111 ECA36		DSC	EN 302 885 EN 303 402	8414.5 kHz (DSC distress traffic). 8415, 8415.5, 8416, 8436.5, 8437, 8437.5 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 7400-8800 kHz; and within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channeling plan. Appendix 25 allotment plan. 8291 kHz (Radiotelephony distress and safety traffic).8376.5 kHz (Telex distress traffic). 8416.5 kHz (Maritime Safety Information)
			Maritime military systems		
8815 kHz - 8965 kHz					
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R) ECA36		Aeronautical communications		Appendix 27 Allotment Plan. Including HF Data Links
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
8965 kHz - 9040 kHz					
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications		Appendix 26 Allotment Plan
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
9040 kHz - 9305 kHz					
FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
9305 kHz - 9355 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED Radiolocation 5.145A 5.145B	FIXED Radiolocation 5.145A ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
9355 kHz - 9400 kHz					
FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
9400 kHz - 9500 kHz					
BROADCASTING 5.134 5.146	BROADCASTING 5.134 5.146		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
9500 kHz - 9900 kHz					
BROADCASTING 5.147	BROADCASTING 5.147		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
9900 kHz - 9995 kHz					
FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
9995 kHz - 10003 kHz					
STANDARD FREQUENCY AND TIME SIGNAL (10 000 KHZ) 5.111	STANDARD FREQUENCY AND TIME SIGNAL (10 000 KHZ) 5.111	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
10003 kHz - 10005 kHz					
STANDARD FREQUENCY AND TIME SIGNAL Space Research 5.111	STANDARD FREQUENCY AND TIME SIGNAL Space Research 5.111	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			SAR (communications)		10003 kHz (+/-3 kHz) concerning manned space vehicles
10005 kHz - 10100 kHz					
AERONAUTICAL MOBILE (R) 5.111	AERONAUTICAL MOBILE (R) 5.111 ECA36		Aeronautical communications		Appendix 27 Allotment Plan. Including HF Data Links
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
10100 kHz - 10150 kHz					
FIXED Amateur	FIXED Amateur ECA36		Amateur	EN 301 783	
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
10150 kHz - 11175 kHz					
FIXED Mobile except aeronautical mobile (R)	FIXED Mobile except aeronautical mobile (R) ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 10200-11000 kHz; and within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
11175 kHz - 11275 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications		Appendix 26 Allotment Plan
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

11275 kHz - 11400 kHz

AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R) ECA36		Aeronautical communications		Appendix 27 Allotment Plan. Including HF Data Links
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

11400 kHz - 11600 kHz

FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

11600 kHz - 11650 kHz

BROADCASTING 5.134 5.146	BROADCASTING 5.134 5.146		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

11650 kHz - 12050 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING 5.147	BROADCASTING 5.147		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

12050 kHz - 12100 kHz

BROADCASTING 5.134 5.146	BROADCASTING 5.134 5.146		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

12100 kHz - 12230 kHz

FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

12230 kHz - 13200 kHz

MARITIME MOBILE 5.109 5.110 5.132 5.145	MARITIME MOBILE 5.109 5.110 5.132 5.145 ECA36		DSC	EN 302 885 EN 303 402	12577 kHz (DSC distress traffic). 12577.5, 12578, 12578.5, 12657, 12657.5, 12658 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channeling plan. Appendix 25 allotment plan. 12290 kHz (Radiotelephony distress and safety traffic). 12520 kHz (Telex distress traffic). 12579 kHz (Maritime Safety Information)
			Maritime military systems		
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
13200 kHz - 13260 kHz					
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications		Appendix 26 Allotment Plan
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
13260 kHz - 13360 kHz					
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R) ECA36		Aeronautical communications		Appendix 27 Allotment Plan. Including HF Data Links
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
13360 kHz - 13410 kHz					
FIXED RADIO ASTRONOMY 5.149	FIXED RADIO ASTRONOMY 5.149 ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Radio astronomy		Continuum observations
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
13410 kHz - 13450 kHz					
FIXED Mobile except aeronautical mobile (R)	FIXED Mobile except aeronautical mobile (R) ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
13450 kHz - 13550 kHz					
FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A 5.149A	FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
13550 kHz - 13570 kHz					
FIXED Mobile except aeronautical mobile (R) 5.150	FIXED Mobile except aeronautical mobile (R) 5.150 ECA36		ISM		Within the band 13553-13567 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 13553-13567 kHz; and within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
		ERC/REC 70-03	Non-specific SRDs	EN 300 330	Within the band 13553-13567 kHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
13570 kHz - 13600 kHz					
BROADCASTING 5.134 5.151	BROADCASTING 5.134 5.151		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
13600 kHz - 13800 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING	BROADCASTING		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

13800 kHz - 13870 kHz

BROADCASTING 5.134 5.151	BROADCASTING 5.134 5.151		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

13870 kHz - 14000 kHz

FIXED Mobile except aeronautical mobile (R)	FIXED Mobile except aeronautical mobile (R) ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

14000 kHz - 14250 kHz

AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLITE		Amateur	EN 301 783	Within the band 14000-14350 kHz
			Amateur-satellite		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

14250 kHz - 14350 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AMATEUR 5.152	AMATEUR		Amateur	EN 301 783	Within the band 14000-14350 kHz
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

14350 kHz - 14990 kHz

FIXED Mobile except aeronautical mobile (R)	FIXED Mobile except aeronautical mobile (R) ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

14990 kHz - 15005 kHz

STANDARD FREQUENCY AND TIME SIGNAL (15 000 KHZ) 5.111	STANDARD FREQUENCY AND TIME SIGNAL (15 000 KHZ) 5.111	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
			SAR (communications)		14993 kHz (+/-3 kHz) concerning manned space vehicles

15005 kHz - 15010 kHz

STANDARD FREQUENCY AND TIME SIGNAL Space Research	STANDARD FREQUENCY AND TIME SIGNAL Space Research	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz

15010 kHz - 15100 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications		Appendix 26 Allotment Plan
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
15100 kHz - 15600 kHz					
BROADCASTING	BROADCASTING		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
15600 kHz - 15800 kHz					
BROADCASTING 5.134 5.146	BROADCASTING 5.134 5.146		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
15800 kHz - 16100 kHz					
FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
		ERC/REC 70-03	Railway applications	EN 302 609	Mainly within the band 11100-16000 kHz
16100 kHz - 16200 kHz					
FIXED Radiolocation 5.145A 5.145B	FIXED Radiolocation 5.145A ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
16200 kHz - 16360 kHz					
FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
16360 kHz - 17410 kHz					
MARITIME MOBILE 5.109 5.110 5.132 5.145	MARITIME MOBILE 5.109 5.110 5.132 5.145 ECA36		DSC	EN 302 885 EN 303 402	16804.5 kHz (DSC distress traffic).16805, 16805.5, 16806, 16903, 16903.5, 16904 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channeling plan.Appendix 25 allotment plan.16420 kHz (Radiotelephony distress and safety traffic).16695 kHz (Telex distress traffic).16806.5 kHz (Maritime Safety Information)
			Maritime military systems		
17410 kHz - 17480 kHz					
FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
17480 kHz - 17550 kHz					
BROADCASTING 5.134 5.146	BROADCASTING 5.134 5.146		Broadcasting	EN 302 017 EN 302 245	Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
17550 kHz - 17900 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING	BROADCASTING		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

17900 kHz - 17970 kHz

AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R) ECA36		Aeronautical communications		Appendix 27 Allotment Plan. Including HF Data Links
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

17970 kHz - 18030 kHz

AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications		Appendix 26 Allotment Plan
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

18030 kHz - 18052 kHz

FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		

18052 kHz - 18068 kHz

FIXED Space Research	FIXED Space Research ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		

18068 kHz - 18168 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AMATEUR AMATEUR-SATELLITE 5.154	AMATEUR AMATEUR-SATELLITE		Amateur	EN 301 783	
			Amateur-satellite		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

18168 kHz - 18780 kHz

FIXED Mobile except aeronautical mobile	FIXED Mobile except aeronautical mobile ECA36		DSC	EN 302 885 EN 303 402	18898.5, 18899. 18899.5 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		

18780 kHz - 18900 kHz

MARITIME MOBILE	MARITIME MOBILE ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channeling plan
			Maritime military systems		

18900 kHz - 19020 kHz

BROADCASTING 5.134 5.146	BROADCASTING 5.134 5.146		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

19020 kHz - 19680 kHz

FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
19680 kHz - 19800 kHz					
MARITIME MOBILE 5.132	MARITIME MOBILE 5.132 ECA36		DSC	EN 302 885 EN 303 402	19703.5, 19704, 19704.5 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channeling plan. Appendix 25 allotment plan.19680.5 kHz (Maritime Safety Information)
			Maritime military systems		
19800 kHz - 19990 kHz					
FIXED	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
19990 kHz - 19995 kHz					
STANDARD FREQUENCY AND TIME SIGNAL Space Research 5.111	STANDARD FREQUENCY AND TIME SIGNAL Space Research 5.111	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			SAR (communications)		19993 kHz (+/-3 kHz) concerning manned space vehicles
19995 kHz - 20010 kHz					
STANDARD FREQUENCY AND TIME SIGNAL (20 000 KHZ) 5.111	STANDARD FREQUENCY AND TIME SIGNAL (20 000 KHZ) 5.111	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
20010 kHz - 21000 kHz					
FIXED Mobile	FIXED Mobile ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
21000 kHz - 21450 kHz					
AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLITE		Amateur Amateur-satellite	EN 301 783	
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
21450 kHz - 21850 kHz					
BROADCASTING	BROADCASTING		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
21850 kHz - 21870 kHz					
FIXED 5.155A 5.155	FIXED ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
21870 kHz - 21924 kHz					
FIXED 5.155B	FIXED 5.155B ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
21924 kHz - 22000 kHz					
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R) ECA36		Aeronautical communications Aeronautical military systems		Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
22000 kHz - 22855 kHz					
MARITIME MOBILE 5.132 5.156	MARITIME MOBILE 5.132 ECA36		DSC	EN 302 885 EN 303 402	22374.5, 22375, 22375.5, 22444, 22444.5, 22445 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channeling plan. Appendix 25 allotment plan. 22376 kHz safety information
			Maritime military systems		
22855 kHz - 23000 kHz					
FIXED 5.156	FIXED ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
23000 kHz - 23200 kHz					
FIXED Mobile except aeronautical mobile (R) 5.156	FIXED Mobile except aeronautical mobile (R) ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
23200 kHz - 23350 kHz					
AERONAUTICAL MOBILE (OR) FIXED 5.156A	AERONAUTICAL MOBILE (OR) FIXED 5.156A ECA36		Aeronautical communications		
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
23350 kHz - 24000 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.157	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.157 ECA36	ERC/REC 70-03	Inductive applications Land military systems Maritime military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
24000 kHz - 24450 kHz					
FIXED LAND MOBILE	FIXED LAND MOBILE ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
24450 kHz - 24600 kHz					
FIXED LAND MOBILE Radiolocation 5.132A 5.158	FIXED LAND MOBILE Radiolocation 5.132A ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
24600 kHz - 24890 kHz					
FIXED LAND MOBILE	FIXED LAND MOBILE ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
24890 kHz - 24990 kHz					
AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLITE		Amateur Amateur-satellite	EN 301 783	
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
24990 kHz - 25005 kHz					
STANDARD FREQUENCY AND TIME SIGNAL (25 000 KHZ)	STANDARD FREQUENCY AND TIME SIGNAL (25 000 KHZ)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
25005 kHz - 25010 kHz					
STANDARD FREQUENCY AND TIME SIGNAL Space Research	STANDARD FREQUENCY AND TIME SIGNAL Space Research	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Space research		Scientific and medical space research
25010 kHz - 25070 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
25070 kHz - 25210 kHz					
MARITIME MOBILE	MARITIME MOBILE ECA36		DSC	EN 302 885 EN 303 402	25208.5, 25209, 25209.5 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channeling plan
			Maritime military systems		
25210 kHz - 25550 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
25550 kHz - 25670 kHz					
RADIO ASTRONOMY 5.149	RADIO ASTRONOMY 5.149	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Radio astronomy		Continuum observations

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
25670 kHz - 26100 kHz					
BROADCASTING	BROADCASTING		Broadcasting	EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
26100 kHz - 26175 kHz					
MARITIME MOBILE 5.132	MARITIME MOBILE 5.132 ECA36		DSC	EN 302 885 EN 303 402	26121, 26121.5, 26122 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications	EN 303 402	Appendix 17 channeling plan. Appendix 25 allotment plan. 26100.5 kHz Maritime Safety Information
			Maritime military systems		
26175 kHz - 26200 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
26200 kHz - 26350 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation 5.132A 5.133A	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation 5.132A ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
26350 kHz - 27500 kHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.150	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.150 ECA36	ECC/DEC/(11)03	CB radio	EN 300 433	(CEPT PR 27). Within the band 26.960-27.410 MHz
			ISM		Within the band 26.957-27.283 MHz
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
		ERC/REC 70-03	Model control	EN 300 220	26.995, 27.045, 27.095, 27.145, 27.195 MHz
		ERC/REC 70-03	Non-specific SRDs	EN 300 220	Within the band 26.957-27.283 MHz
		ERC/REC 70-03	Railway applications	EN 302 608	27.095 MHz Eurobalise system

27500 kHz - 28 MHz

FIXED METEOROLOGICAL AIDS MOBILE	FIXED METEOROLOGICAL AIDS MOBILE ECA36		Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		

28 MHz - 29.7 MHz

AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLITE		Amateur	EN 301 783	
			Amateur-satellite		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz

29.7 MHz - 30.005 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE	MOBILE ECA36	ERC/REC 70-03	Active medical implants	EN 302 510	Within the band 30.0-37.5 MHz
			Aeronautical military systems		
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Land military systems		
			Maritime military systems		
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

30.005 MHz - 30.01 MHz

FIXED MOBILE SPACE OPERATION (SATELLITE IDENTIFICATION) SPACE RESEARCH	MOBILE ECA36	ERC/REC 70-03	Active medical implants	EN 302 510	Within the band 30.0-37.5 MHz
			Aeronautical military systems		
			Land military systems		
			Maritime military systems		
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
			Satellite systems (military)		

30.01 MHz - 37.5 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE	MOBILE	ECA36	ERC/REC 70-03	Active medical implants	EN 302 510	Within the band 30.0-37.5 MHz
				Aeronautical military systems		
				Land military systems		
				Maritime military systems		
			ERC/DEC/(01)11 ERC/REC 70-03	Model control	EN 300 220	Within the band 34.995-35.225 MHz only for flying models
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Within the band 30.01-34.90 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

37.5 MHz - 38.25 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE Radio Astronomy 5.149	MOBILE Radio Astronomy 5.149	ECA36		Aeronautical military systems Land military systems Maritime military systems		
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
				Radio astronomy		Continuum observations
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

38.25 MHz - 39 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE	MOBILE	ECA36		Aeronautical military systems Land military systems Maritime military systems		
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

39 MHz - 39.5 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE Radiolocation 5.132A 5.159	MOBILE Radiolocation 5.132A	ECA36		Aeronautical military systems Land military systems Maritime military systems		
			ERC/REC/(00)04	Meteor scatter communications		Within the band 39.0-39.2 MHz
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

39.5 MHz - 39.986 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE	MOBILE	ECA36		Aeronautical military systems		
				Land military systems		
				Maritime military systems		
			ERC/REC/(00)04	Meteor scatter communications		Within the band 39.0-39.2 MHz
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

39.986 MHz - 40.02 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE Space Research	MOBILE Space Research	ECA36		Aeronautical military systems Land military systems Maritime military systems		
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

40.02 MHz - 40.66 MHz

FIXED MOBILE	MOBILE	ECA36		Aeronautical military systems Land military systems Maritime military systems		
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
40.66 MHz - 40.7 MHz					
FIXED MOBILE 5.150	MOBILE 5.150 ECA36		Aeronautical military systems		
			ISM		
			Land military systems		
			Maritime military systems		
		ERC/DEC/(01)12 ERC/REC 70-03	Model control	EN 300 220	40.665, 40.675, 40.685, 40.695 MHz
		ERC/REC 70-03	Non-specific SRDs	EN 300 220	
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
40.7 MHz - 40.98 MHz					
FIXED MOBILE	MOBILE ECA36		Aeronautical military systems		
			Land military systems		
			Maritime military systems		
		T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
40.98 MHz - 41.015 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE Space Research 5.160 5.161	MOBILE Space Research	ECA36		Aeronautical military systems Land military systems Maritime military systems		
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

41.015 MHz - 42 MHz

FIXED MOBILE 5.160 5.161 5.161A	MOBILE	ECA36		Aeronautical military systems Land military systems Maritime military systems		
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
42 MHz - 42.5 MHz						
FIXED MOBILE Radiolocation 5.132A 5.160 5.161B	FIXED MOBILE Radiolocation 5.132A 5.161B	ECA36		Aeronautical military systems Land military systems Maritime military systems		
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
42.5 MHz - 44 MHz						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE 5.160 5.161 5.161A	MOBILE	ECA36		Aeronautical military systems Land military systems Maritime military systems		
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

44 MHz - 47 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE 5.162A	MOBILE 5.162A ECA36		Aeronautical military systems		
			Land military systems		
			Maritime military systems		
		T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
			Wind profilers		In the range 46-68 MHz, geographical sharing with other services

47 MHz - 50 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING 5.162A 5.163 5.164 5.165	LAND MOBILE 5.162A 5.164 ECA36		Earth exploration-satellite		In the range 48.5-50 MHz. Space Research/ EESS
			Land military systems		
			On-site paging	EN 300 224	On site paging in the band 47.0-47.25 MHz
		T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Single frequency applications
			Wind profilers		In the range 46-68 MHz, geographical sharing with other services

50 MHz - 52 MHz

BROADCASTING Amateur 5.166C 5.166E 5.166B 5.162A 5.164 5.165 5.166A 5.169A 5.169B	LAND MOBILE Amateur 5.162A 5.164 5.166A 5.169B ECA36		Amateur	EN 301 783	
			Land military systems		
		T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Single frequency applications
			Wind profilers		In the range 46-68 MHz, geographical sharing with other services

52 MHz - 68 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING 5.162A 5.163 5.163 5.164 5.169A 5.169B	LAND MOBILE 5.162A 5.163 5.164	ECA36		Land military systems		
			T/R 25-08	PMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Mobile station transmit band in 54-61 MHz paired with base station transmit band in 61-68 MHz. Single frequency applications
				Wind profilers		In the range 46-68 MHz, geographical sharing with other services

68 MHz - 70.45 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.175	MOBILE Amateur			Amateur	EN 301 783	Within the band 69.9-70.5 MHz
		ECA9 ECA36		Land military systems		
				Maritime military systems		
			ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Mobile station transmit paired with 77.8-80.25 MHz

70.45 MHz - 74.8 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.149 5.175 5.177 5.178 5.179	MOBILE EXCEPT AERONAUTICAL MOBILE Amateur Radio Astronomy 5.149 ECA9 ECA36		Amateur	EN 301 783	Within the band 69.9-70.5 MHz
			Land military systems		
			Maritime military systems		
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Mobile station transmit paired with 80.25-84.6 MHz
			Radio astronomy		Continuum observations (inter alia solar wind monitoring in 73-74.6 MHz)

74.8 MHz - 75.2 MHz

AERONAUTICAL RADIONAVIGATION 5.180 5.181	AERONAUTICAL RADIONAVIGATION 5.180		ILS		Marker beacons

75.2 MHz - 87.5 MHz

FIXED Mobile except aeronautical mobile 5.175 5.179 5.187	MOBILE ECA36		Land military systems		
			Maritime military systems		
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Mobile station transmit band in 75.2-77.7 MHz paired with base station transmit band in 85.0-87.5 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
87.5 MHz - 100 MHz					
BROADCASTING 5.190	BROADCASTING		FM sound analogue	EN 302 018 EN 303 345	Geneva Agreement GE84
		ERC/REC 70-03	Wireless audio/multimedia	EN 301 357	Within the band 87.5-108.0 MHz
100 MHz - 108 MHz					
BROADCASTING 5.192 5.194	BROADCASTING		FM sound analogue	EN 302 018 EN 303 345	Geneva Agreement GE84
		ERC/REC 70-03	Wireless audio/multimedia	EN 301 357	Within the band 87.5-108.0 MHz
108 MHz - 117.975 MHz					
AERONAUTICAL RADIONAVIGATION 5.197 5.197A	AERONAUTICAL MOBILE (R) AERONAUTICAL RADIONAVIGATION 5.197A		Aeronautical communications	EN 301 842	Safety and regularity of flights, below 112 MHz limited to ground based data link transmitters
			GBAS	EN 303 084	GBAS/VDB within 112-117.975 MHz
			ILS		Localiser within the band 108-112 MHz
			VOR		Within the band 108-117.975 MHz
117.975 MHz - 121.45 MHz					
AERONAUTICAL MOBILE (R) 5.200	AERONAUTICAL MOBILE (R) 5.200 ECA5		Aeronautical communications	EN 300 676 EN 301 841 EN 301 842	Safety and regularity of flights. EN 301 841-3 is for ground-based equipment
121.45 MHz - 121.55 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL MOBILE (R) 5.111 5.200	AERONAUTICAL MOBILE (R) 5.111 5.200		-	EN 300 676 EN 301 841 EN 302 961	EN 301 841-3 is for ground-based equipment. Maritime Personal Homing Beacon for search and rescue purposes
			EPIRBs	EN 300 152	Band only available for distress and safety

121.55 MHz - 136 MHz

AERONAUTICAL MOBILE (R) 5.200 5.201	AERONAUTICAL MOBILE (R) 5.200 ECA5 5.201		Aeronautical communications	EN 300 676 EN 301 841 EN 301 842	123.1 MHz Aeronautical mobile distress communication. EN 301 841-3 is for ground-based equipment

136 MHz - 137 MHz

AERONAUTICAL MOBILE (R) 5.202	AERONAUTICAL MOBILE (R) 5.202 ECA5		Aeronautical communications	EN 300 676 EN 301 841 EN 301 842	EN 301 841-3 is for ground-based equipment

137 MHz - 137.025 MHz

METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208A 5.208B 5.209 SPACE OPERATION (SPACE-TO-EARTH) 5.203C SPACE RESEARCH (SPACE-TO-EARTH) Fixed Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208	METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208A 5.208B 5.209 SPACE OPERATION (SPACE-TO-EARTH) SPACE RESEARCH (SPACE-TO-EARTH) 5.203C 5.206 ECA6 5.208 ECA36	ERC/DEC/(99)06	Aeronautical military systems Land military systems Land mobile MSS Earth stations Satellite systems (military) Weather satellites	EN 301 721	Mobile restricted to Aeronautical Mobile (OR), including air sport Non-geostationary

137.025 MHz - 137.175 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) SPACE OPERATION (SPACE-TO-EARTH) 5.203C SPACE RESEARCH (SPACE-TO-EARTH) Fixed Mobile except aeronautical mobile (R) Mobile-Satellite (space-to-Earth) 5.208A 5.208B 5.209 5.204 5.205 5.206 5.207 5.208	METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE SPACE OPERATION (SPACE-TO-EARTH) SPACE RESEARCH (SPACE-TO-EARTH) 5.203C Mobile-Satellite (space-to-Earth) 5.208A 5.208B 5.209 5.206 ECA6 5.208 ECA36	ERC/DEC/(99)06	Aeronautical military systems Land military systems Land mobile MSS Earth stations Satellite systems (military) Weather satellites	EN 301 721	Mobile restricted to Aeronautical Mobile (OR), including air sport Non-geostationary

137.175 MHz - 137.825 MHz

METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208A 5.208B 5.209 SPACE OPERATION (SPACE-TO-EARTH) 5.209A 5.203C SPACE RESEARCH (SPACE-TO-EARTH) Fixed Mobile except aeronautical mobile (R) 5.204 5.205 5.206 5.207 5.208	METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208A 5.208B 5.209 SPACE OPERATION (SPACE-TO-EARTH) 5.203C 5.209A SPACE RESEARCH (SPACE-TO-EARTH) 5.206 ECA6 5.208 ECA36	ERC/DEC/(99)06	Aeronautical military systems Land military systems Land mobile MSS Earth stations Satellite systems (military) Weather satellites	EN 301 721	Mobile restricted to Aeronautical Mobile (OR), including air sport Non-geostationary

137.825 MHz - 138 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) SPACE OPERATION (SPACE-TO-EARTH) 5.203C SPACE RESEARCH (SPACE-TO-EARTH) Fixed Mobile except aeronautical mobile (R) Mobile-Satellite (space-to-Earth) 5.208A 5.208B 5.209 5.204 5.205 5.206 5.207 5.208	METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE SPACE OPERATION (SPACE-TO-EARTH) 5.203C SPACE RESEARCH (SPACE-TO-EARTH) Mobile-Satellite (space-to-Earth) 5.208A 5.208B 5.209 5.206 ECA6 5.208 ECA36		Aeronautical military systems Land military systems Land mobile MSS Earth stations Satellite systems (military) Weather satellites		Mobile restricted to Aeronautical Mobile (OR), including air sport Non-geostationary
138 MHz - 143.6 MHz					
AERONAUTICAL MOBILE (OR) 5.210 5.211 5.212 5.214	AERONAUTICAL MOBILE (OR) LAND MOBILE Space Research (space-to-Earth) 5.211 ECA5 ECA36		Aeronautical military systems Land military systems Land mobile Maritime military systems		
		ERC/REC 70-03	Non-specific SRDs	EN 300 220	Within the band 138.20-138.45 MHz
143.6 MHz - 143.65 MHz					
AERONAUTICAL MOBILE (OR) SPACE RESEARCH (SPACE-TO-EARTH) 5.211 5.212 5.214	AERONAUTICAL MOBILE (OR) LAND MOBILE SPACE RESEARCH (SPACE-TO-EARTH) 5.211 ECA5 ECA36		Aeronautical military systems Land military systems Land mobile Maritime military systems		
143.65 MHz - 144 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*		*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL MOBILE (OR) 5.210 5.211 5.212 5.214	AERONAUTICAL MOBILE (OR) LAND MOBILE 5.211	ECA5 ECA36		Aeronautical military systems Land military systems Land mobile Maritime military systems		

144 MHz - 146 MHz

AMATEUR AMATEUR-SATELLITE 5.216	AMATEUR AMATEUR-SATELLITE			Amateur Amateur-satellite	EN 301 783	

146 MHz - 148 MHz

FIXED Mobile except aeronautical mobile (R)	MOBILE	ECA7	ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Single frequency applications

148 MHz - 149.9 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Footnotes*	*Allocation and ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE-SATELLITE (EARTH-TO-SPACE) 5.209 5.218A Mobile except aeronautical mobile (R) 5.218 5.219 5.221	MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) 5.209 5.218A 5.218 5.219 5.221	 ECA6 ECA7	ERC/DEC/(99)06 ECC/DEC/(19)02 T/R 25-08	MSS Earth stations PMR/PAMR	EN 301 721 EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Non-geostationary Mobile station transmit band paired with 152.6-154.5 MHz

149.9 MHz - 150.05 MHz

MOBILE-SATELLITE (EARTH-TO-SPACE) 5.209 5.220	MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) 5.209 5.220	 ECA6	ERC/DEC/(99)06 ECC/DEC/(19)02 T/R 25-08	MSS Earth stations PMR/PAMR	EN 301 721 EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Non-geostationary Single frequency applications

150.05 MHz - 153 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY 5.149	MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY 5.149 ECA7	ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	150.05-151.4 MHz mobile station transmit paired with 154.65-156.0 MHz, 151.4-153 MHz, base station transmit paired with 146.8-148.4 MHz
			Radio astronomy		Continuum observations (inter-alia solar research)

153 MHz - 154 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) Meteorological Aids	MOBILE EXCEPT AERONAUTICAL MOBILE (R) ECA7	ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Base station transmit paired with 148.4-149.4 MHz

154 MHz - 156.4875 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.225A 5.226	MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.226 ECA7 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	154-154.5 MHz base station transmit paired with 149.4-149.9 MHz, 154.5-154.65 MHz single frequency appl. 154.65-156 MHz, base station transmit paired with 150.05-151.4 MHz

156.4875 MHz - 156.5125 MHz

MARITIME MOBILE (DISTRESS AND CALLING VIA DSC) 5.226 5.227	MARITIME MOBILE (DISTRESS AND CALLING VIA DSC) 5.226 ECA7 5.227 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18

156.5125 MHz - 156.5375 MHz

MARITIME MOBILE (DISTRESS AND CALLING VIA DSC) 5.111 5.226	MARITIME MOBILE (DISTRESS AND CALLING VIA DSC) 5.111 5.226	ECC/DEC/(19)03	DSC	EN 301 025 EN 301 929 EN 302 885 EN 303 132	RR Appendix 18. Distress, safety and calling 156.525 MHz

156.5375 MHz - 156.5625 MHz

MARITIME MOBILE (DISTRESS AND CALLING VIA DSC) 5.226 5.227	MARITIME MOBILE (DISTRESS AND CALLING VIA DSC) MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.226 ECA7 5.227 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
156.5625 MHz - 156.7625 MHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.226	MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.226 ECA7 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
156.7625 MHz - 156.7875 MHz					
MARITIME MOBILE Mobile-Satellite (Earth-to-space) 5.111 5.226 5.228	MARITIME MOBILE (DISTRESS AND CALLING) 5.111 5.226 5.228	ECC/DEC/(19)03	Maritime communications	EN 301 929	RR Appendix 18. Satellite AIS Earth-to-space
156.7875 MHz - 156.8125 MHz					
MARITIME MOBILE (DISTRESS AND CALLING) 5.111 5.226	MARITIME MOBILE (DISTRESS AND CALLING) 5.111 5.226	ECC/DEC/(19)03	Maritime communications	EN 300 162	RR Appendix 18. Distress, safety and calling 156.8 MHz for the maritime mobile VHF radiotelephone service
156.8125 MHz - 156.8375 MHz					
MARITIME MOBILE Mobile-Satellite (Earth-to-space) 5.111 5.226 5.228	MARITIME MOBILE 5.111 5.226 5.228	ECC/DEC/(19)03	Maritime communications	EN 301 929	RR Appendix 18. Satellite AIS Earth-to-space
156.8375 MHz - 157.1875 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.226	MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 ECA7 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	

157.1875 MHz - 157.3375 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 Maritime Mobile-Satellite 5.208A 5.208B 5.228AC 5.228AB	Maritime Mobile-Satellite 5.208A 5.208B 5.228AB 5.228AC Mobile except aeronautical mobile 5.226 ECA7 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	

157.3375 MHz - 161.7875 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.226	MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 ECA7 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	

161.7875 MHz - 161.9375 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 Maritime Mobile-Satellite 5.208A 5.228AC 5.228AB 5.208B	MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 Maritime Mobile-Satellite 5.208A 5.208B 5.228AB 5.228AC ECA7 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	

161.9375 MHz - 161.9625 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MARITIME MOBILE-SATELLITE (EARTH-TO-SPACE) 5.228AA MOBILE EXCEPT AERONAUTICAL MOBILE 5.226	MOBILE EXCEPT AERONAUTICAL MOBILE Maritime Mobile-Satellite (Earth-to-space) 5.228AA 5.226 ECA7 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	

161.9625 MHz - 161.9875 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 Mobile-Satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B	MOBILE EXCEPT AERONAUTICAL MOBILE Mobile-Satellite (Earth-to-space) 5.228F 5.226 ECA7 ECA8		AIS	EN 303 098	161.975 MHz
		ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18

161.9875 MHz - 162.0125 MHz

FIXED MARITIME MOBILE-SATELLITE (EARTH-TO-SPACE) 5.228AA MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 5.229	MARITIME MOBILE-SATELLITE (EARTH-TO-SPACE) 5.228AA MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 ECA7 ECA8	ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18

162.0125 MHz - 162.0375 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Mobile-Satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B 5.229	MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 ECA7 ECA8		AIS	EN 303 098	162.025 MHz
		ECC/DEC/(19)03	Maritime communications	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18

162.0375 MHz - 169.4 MHz

FIXED Mobile except aeronautical mobile 5.226 5.229	Mobile except aeronautical mobile ECA7	ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Single frequency applications 165.225-169.4 MHz mobile station transmit paired with 169.825-174.0 MHz, 162.05-165.2 MHz: Base station transmit paired with 157.45-160.6 MHz. 169.825-174 MHz Base station transmit paired with 165.225-169.4 MHz

169.4 MHz - 169.8125 MHz

FIXED Mobile except aeronautical mobile 5.226 5.229	Mobile except aeronautical mobile	ECC/DEC/(05)02 ERC/REC 70-03	ALD	EN 300 422	The bands 169.400-169.475 MHz; and 169.4875-169.5875; and within the band 169.4-174.0 MHz on a tuning range basis
		ECC/DEC/(05)02 ERC/REC 70-03	Meter reading	EN 300 220	Within the band 169.400-169.475 MHz
		ECC/DEC/(05)02 ERC/REC 70-03	Non-specific SRDs	EN 300 220	

169.8125 MHz - 174 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED Mobile except aeronautical mobile 5.226 5.229	Mobile except aeronautical mobile ECA7	ERC/REC 70-03	ALD	EN 300 422	The bands 169.400-169.475 MHz, 169.4875-169.5875 MHz and within the band 169.4-174.0 MHz on a tuning range basis
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Single frequency applications. 165.225-169.4 MHz mobile station transmit paired with 169.825-174.0 MHz. 162.05-165.2 MHz base station transmit paired with 157.45-160.6 MHz. 169.825-174 MHz base station transmit paired with 165.225-169.4 MHz
		ERC/REC 70-03	Radio microphones and ALD	EN 300 422	For ALD systems within the band 173.965-216 MHz on a tuning range basis

174 MHz - 223 MHz

BROADCASTING 5.235	BROADCASTING LAND MOBILE 5.235		Broadcasting (terrestrial)	EN 302 077 EN 302 296	Geneva Agreement 2006. TV Broadcasting T-DAB
		ERC/REC 25-10	PMSE		Audio links within 174-216 MHz
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	On a tuning range basis within 174-216 MHz

223 MHz - 225 MHz

BROADCASTING Fixed Mobile 5.243 5.246 5.247	BROADCASTING		Broadcasting (terrestrial)	EN 302 077 EN 302 296	Geneva Agreement 2006. TV Broadcasting, T-DAB

225 MHz - 230 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING Fixed Mobile 5.246 5.247	BROADCASTING Land Mobile ECA10 ECA36		Broadcasting (terrestrial) Defence systems	EN 302 077 EN 302 296	Geneva Agreement 2006.This band is within the military tuning range 225-400 MHz. Sharing with defence on national basis. TV Broadcasting, T-DAB
230 MHz - 235 MHz					
FIXED MOBILE 5.247 5.251 5.252	MOBILE ECA10 ECA36		Defence systems T-DAB	 EN 302 077 EN 303 345	 T-DAB sharing with defence on a national basis. Wiesbaden 1995 Special Arrangement, as revised in Constanta, 2007
235 MHz - 240 MHz					
FIXED MOBILE 5.252 5.254	MOBILE 5.254 ECA10 ECA36		Defence systems T-DAB	 EN 302 077 EN 303 345	 T-DAB sharing with defence on a national basis. Wiesbaden 1995 Special Arrangement, as revised in Constanta, 2007
240 MHz - 242.95 MHz					
FIXED MOBILE 5.111 5.254 5.256	MOBILE 5.254 ECA10 ECA36		Defence systems	EN 302 617	
242.95 MHz - 243.05 MHz					
FIXED MOBILE 5.111 5.254 5.256	AERONAUTICAL MOBILE 5.111 5.254 5.256		EPIRBs	EN 300 152	Band only available for distress and safety purposes 243.0 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
243.05 MHz - 267 MHz						
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.111 5.252 5.254 5.256 5.256A	MOBILE 5.254	ECA10 ECA36		Defence systems	EN 302 617	
267 MHz - 272 MHz						
FIXED MOBILE Space Operation (space-to-Earth) 5.254 5.257	MOBILE 5.254 5.257	ECA10 ECA36		Defence systems	EN 302 617	
272 MHz - 273 MHz						
FIXED MOBILE SPACE OPERATION (SPACE-TO-EARTH) 5.254	MOBILE 5.254	ECA10 ECA36		Defence systems	EN 302 617	
273 MHz - 312 MHz						
FIXED MOBILE 5.254	MOBILE 5.254	ECA10 ECA36		Defence systems	EN 302 617	
312 MHz - 315 MHz						
FIXED MOBILE Mobile-Satellite (Earth-to-space) 5.254 5.255	MOBILE 5.254 5.255	ECA10 ECA36		Defence systems	EN 302 617	
315 MHz - 322 MHz						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE 5.254	MOBILE 5.254 ECA10 ECA36		Defence systems	EN 302 617	

322 MHz - 328.6 MHz

FIXED MOBILE RADIO ASTRONOMY 5.149	MOBILE RADIO ASTRONOMY 5.149 ECA10 ECA36		Defence systems Radio astronomy		Continuum and spectral line observations (e.g. deuterium), VLBI

328.6 MHz - 335.4 MHz

AERONAUTICAL RADIONAVIGATION 5.258 5.259	AERONAUTICAL RADIONAVIGATION 5.258		ILS		Glide path

335.4 MHz - 380 MHz

FIXED MOBILE 5.254	MOBILE 5.254 ECA7 ECA10 ECA36		Defence systems	EN 302 617	

380 MHz - 385 MHz

FIXED MOBILE 5.254	MOBILE 5.254 ECA10 ECA36		Defence systems		PPDR sharing with defence applications
		ECC/DEC/(06)05 ECC/DEC/(08)05 ERC/DEC/(01)19 T/R 25-08	PPDR	EN 300 113 EN 300 390 EN 302 561 EN 303 039	Within the bands 384.8-385.0 and 394.8-395.0 MHz for AGA, 384.750-384.800 MHz and 394.750-394.800 MHz may be used as preferred extension bands for AGA. Within the bands 380-380.15 and 390-390.15 MHz for DMO. Mobile station transmit paired with 390.0-395.0 MHz. PPDR sharing with defence applications. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
385 MHz - 387 MHz						
FIXED MOBILE 5.254	MOBILE 5.254	ECA10 ECA36	T/R 25-08	Defence systems PMR/PAMR	EN 300 113 EN 300 390 EN 301 166 EN 302 561 EN 303 039	Digital land mobile PMR/PAMR. Mobile station transmit paired with 395-397 MHz. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
387 MHz - 390 MHz						
FIXED MOBILE Mobile-Satellite (space-to-Earth) 5.208A 5.254 5.255 5.208B	MOBILE	ECA10 ECA36	T/R 25-08	Defence systems PMR/PAMR	EN 300 113 EN 300 390 EN 301 166 EN 302 561 EN 303 039	Digital land mobile PMR/PAMR. Mobile station transmit paired with 397.0-399.9 MHz. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
390 MHz - 395 MHz						
FIXED MOBILE 5.254	MOBILE 5.254	ECA10 ECA36	ECC/DEC/(06)05 ECC/DEC/(08)05 ERC/DEC/(01)19 T/R 25-08	Defence systems PPDR	EN 300 113 EN 300 390 EN 302 561 EN 303 039	PPDR sharing with defence applications Within the bands 384.8-385.0 and 394.8-395.0 MHz for AGA, 384.750-384.800 MHz and 394.750-394.800 MHz may be used as preferred extension bands. Within the bands 380-380.15 and 390-390.15 MHz for DMO. Base station transmit paired with 380-385 MHz. PPDR sharing with defence applications. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
395 MHz - 399.9 MHz						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE 5.254	MOBILE 5.254 ECA10 ECA36		Defence systems		
		T/R 25-08	PMR/PAMR	EN 300 113 EN 300 390 EN 301 166 EN 302 561 EN 303 039	Digital land mobile PMR/PAMR. Base station transmit paired with 385.0-389.9 MHz.PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05

399.9 MHz - 400.05 MHz

MOBILE-SATELLITE (EARTH-TO-SPACE) 5.220 5.209 5.260A 5.260B	MOBILE-SATELLITE (EARTH-TO-SPACE) 5.209 5.220	ERC/DEC/(99)05 ERC/DEC/(99)06	MSS Earth stations	EN 301 721	
		ECC/DEC/(08)05	PPDR		

400.05 MHz - 400.15 MHz

STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHZ) 5.261 5.262	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHZ) 5.261 5.262	ECC/DEC/(08)05	PPDR		

400.15 MHz - 401 MHz

METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208A 5.208B 5.209 SPACE RESEARCH (SPACE-TO-EARTH) 5.263 Space Operation (space-to-Earth) 5.262 5.264	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208A 5.208B 5.209 SPACE OPERATION (SPACE-TO-EARTH) SPACE RESEARCH (SPACE-TO-EARTH) 5.263 5.262 5.264	ERC/DEC/(99)05 ERC/DEC/(99)06	MSS Earth stations	EN 301 721	Non-geostationary
		ERC/DEC/(99)05 ERC/DEC/(99)06	MSS Earth stations	EN 301 721	
		ECC/DEC/(08)05	PPDR		
			Sondes	EN 302 054	
			Weather satellites		

401 MHz - 402 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE) SPACE OPERATION (SPACE-TO-EARTH) Fixed Mobile except aeronautical mobile 5.264A 5.264B	EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE) 5.264A 5.264B	ERC/DEC/(01)17	Active medical implants	EN 302 537	ULP-AMI within the band 401-406 MHz
			Sondes	EN 302 054	
			Weather satellites		Data collection platform telemetry

402 MHz - 403 MHz

EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE) Fixed Mobile except aeronautical mobile 5.264A 5.264B	EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE) 5.264A 5.264B	ERC/DEC/(01)17	Active medical implants	EN 301 839	ULP-AMI within the band 401-406 MHz
			Sondes	EN 302 054	
			Weather satellites		Data collection platform telemetry

403 MHz - 406 MHz

METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile 5.265	METEOROLOGICAL AIDS 5.265	ERC/DEC/(01)17	Active medical implants	EN 301 839 EN 302 537	ULP-AMI within the band 401-406 MHz
			Sondes	EN 302 054	

406 MHz - 406.1 MHz

MOBILE-SATELLITE (EARTH-TO-SPACE) 5.265 5.266 5.267	MOBILE-SATELLITE (EARTH-TO-SPACE) 5.265 5.266 5.267		EPIRBs	EN 300 066 EN 302 152	Band only available for distress and safety purposes

406.1 MHz - 410 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY 5.149 5.265	LAND MOBILE RADIO ASTRONOMY 5.149 ECA36 5.265		Land military systems Maritime military systems		
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Single frequency applications. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
			Radio astronomy		Continuum observations, VLBI

410 MHz - 420 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE SPACE RESEARCH (SPACE-TO-SPACE) 5.268	MOBILE EXCEPT AERONAUTICAL MOBILE ECA36		Land military systems Maritime military systems		
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Mobile station transmit paired with 420-430 MHz.
		ECC/DEC/(16)02 T/R 25-08	PPDR	EN 303 505	BB-PPDR within 410-415 MHz / 420-425 MHz, 411-416 MHz / 421-426 MHz and 412-417 MHz / 422-427 MHz. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05.

420 MHz - 430 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation 5.269 5.270 5.271	MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation ECA7 ECA36		Land military systems Maritime military systems		
		ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Base station transmit paired with 410-420 MHz.
		ECC/DEC/(16)02 T/R 25-08	PPDR	EN 303 505	BB-PPDR within 410-415 MHz / 420-425 MHz, 411-416 MHz / 421-426 MHz and 412-417 MHz / 422-427 MHz. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05.
			Radiolocation (military)		

430 MHz - 432 MHz

AMATEUR RADIOLOCATION 5.271 5.274 5.275 5.276 5.277	AMATEUR RADIOLOCATION ECA12 ECA36		Amateur Radiolocation (military)	EN 301 783	Within the band 430-440 MHz
		ERC/REC 70-03	ULP-WMCE	EN 303 520	Within the band 430-440 MHz

432 MHz - 433.05 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AMATEUR RADIOLOCATION Earth Exploration-Satellite (active) 5.279A 5.138 5.271 5.276 5.277 5.280	AMATEUR RADIOLOCATION Earth Exploration-Satellite (active) 5.279A ECA12 ECA36		Active sensors (satellite)		The use of this band by sensors in the EESS (active) shall be in accordance with Recommendation ITU-R SA 1260-1
			Amateur	EN 301 783	Within the band 430-440 MHz
			Radiolocation (military)		
		ERC/REC 70-03	ULP-WMCE	EN 303 520	Within the band 430-440 MHz

433.05 MHz - 434.79 MHz

AMATEUR RADIOLOCATION Earth Exploration-Satellite (active) 5.279A 5.138 5.271 5.276 5.277 5.280 5.281	AMATEUR RADIOLOCATION Earth Exploration-Satellite (active) 5.279A Land Mobile 5.138 ECA12 5.280 ECA36		Active sensors (satellite)		The use of this band by sensors in the EESS (active) shall be in accordance with Recommendation ITU-R SA 1260-1
			Amateur	EN 301 783	Within the band 430-440 MHz
			ISM		
		ERC/REC 70-03	Non-specific SRDs	EN 300 220	
			Radiolocation (military)		
		ERC/REC 70-03	ULP-WMCE	EN 303 520	Within the band 430-440 MHz

434.79 MHz - 438 MHz

AMATEUR RADIOLOCATION Earth Exploration-Satellite (active) 5.279A 5.138 5.271 5.276 5.277 5.280 5.282	AMATEUR AMATEUR-SATELLITE RADIOLOCATION Earth Exploration-Satellite (active) 5.279A ECA12 ECA36		Active sensors (satellite)		The use of this band by sensors in the EESS (active) shall be in accordance with Recommendation ITU-R SA 1260-1
			Amateur	EN 301 783	Within the band 430-440 MHz
			Amateur-satellite		Amateur Satellite Service restricted to 435-438 MHz
			Radiolocation (military)		
		ERC/REC 70-03	ULP-WMCE	EN 303 520	Within the band 430-440 MHz

438 MHz - 440 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AMATEUR RADIOLOCATION 5.271 5.274 5.275 5.276 5.277 5.283	AMATEUR RADIOLOCATION ECA12 ECA36		Amateur Radiolocation (military) ULP-WMCE	EN 301 783 EN 303 520	Within the band 430-440 MHz Within the band 430-440 MHz

440 MHz - 450 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation 5.269 5.270 5.271 5.284 5.285 5.286	MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation ECA7 ECA36		Land military systems Maritime military systems On-site paging PMR 446 PMR/PAMR	 EN 300 224 EN 303 405 EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	 Call-out & answer-back PMR446 in 446.0-446.2 MHz Single frequency operation. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05. Wide area paging on a tuning range basis in 440-470 MHz such as NP2M
		ECC/DEC/(15)05 ECC/DEC/(19)02 T/R 25-08			
			Radiolocation (military) Wind profilers	 	 Geographical sharing with other services

450 MHz - 455 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE 5.286AA 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E	MOBILE	ECA7 ECA34		On-site paging	EN 300 224	Call-out & answer-back
			ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Mobile station transmit paired with 460-465 MHz. Wide area paging on a tuning range basis in 440-470 MHz such as NP2M
			ECC/DEC/(16)02 T/R 25-08	PPDR	EN 303 505	BB-PPDR within 450.5-456.0 MHz /460.5-466.0 MHz and 452.0-457.5 MHz / 462.0-467.5 MHz. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05

455 MHz - 456 MHz

FIXED MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 5.286E	MOBILE	ECA7 ECA34		Land mobile		Existing public cellular networks
				On-site paging	EN 300 224	Call-out & answer-back
			ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Mobile station transmit paired with 465-466 MHz. Wide area paging on a tuning range basis in 440-470 MHz such as NP2M
			ECC/DEC/(16)02 T/R 25-08	PPDR	EN 303 505	BB-PPDR within 450.5-456.0 MHz /460.5-466.0 MHz and 452.0-457.5 MHz / 462.0-467.5 MHz. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
456 MHz - 459 MHz						
FIXED MOBILE 5.286AA 5.271 5.287 5.288	MOBILE 5.287	ECA7 ECA34		Land mobile		Existing public cellular networks
				On-board communications	EN 300 720	Within 457.5125-457.5875 MHz and 467.5125-467.5875 MHz
				On-site paging	EN 300 224	Call-out & answer-back
			ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Mobile station transmit paired with 466-469 MHz. Wide area paging on a tuning range basis in 440-470 MHz such as NP2M
			ECC/DEC/(16)02 T/R 25-08	PPDR	EN 303 505	BB-PPDR within 450.5-456.0 MHz /460.5-466.0 MHz and 452.0-457.5 MHz / 462.0-467.5 MHz. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
459 MHz - 460 MHz						
FIXED MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 5.286E	MOBILE	ECA7		Land mobile		Existing public cellular networks
				On-site paging	EN 300 224	Call-out & answer-back
			ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Mobile station transmit paired with 469-470 MHz. Wide area paging on a tuning range basis in 440-470 MHz such as NP2M

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
460 MHz - 470 MHz						
FIXED MOBILE 5.286AA Meteorological-Satellite (space-to-Earth) 5.287 5.288 5.289 5.290	MOBILE 5.287 5.289	ECA7 ECA34		Land mobile		Existing public cellular networks
				Meteorological aids (military)		
				On-board communications	EN 300 720	Within 457.5125-457.5875 MHz and 467.5125-467.5875 MHz
				On-site paging	EN 300 224	Call-out & answer-back
			ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561 EN 303 039	Base station transmit paired with 450-460 MHz. BB-PPDR according to ECC/DEC/(16)02. Wide area paging on a tuning range basis in 440-470 MHz such as NP2M
			ECC/DEC/(16)02 T/R 25-08	PPDR	EN 303 505	BB-PPDR within 450.5-456.0 MHz /460.5-466.0 MHz and 452.0-457.5 MHz / 462.0-467.5 MHz. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
				Space research		Allocation to EESS is via RR 5.289. Data collection platform telecommand. Geographical sharing with other services
470 MHz - 694 MHz						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING 5.149 5.291A 5.294 5.296 5.300 5.304 5.306 5.312	BROADCASTING 5.149 ECA13 5.291A 5.296 5.306		Broadcasting (terrestrial)	EN 302 296 EN 303 340	Geneva Agreement 2006. TV Broadcasting
		ERC/REC 25-10	PMSE	EN 300 422 EN 300 454	Audio links
			Radio astronomy		Continuum observations, VLBI
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 470-789 MHz on a tuning range basis
			Wind profilers		Limited to the band 470-494 MHz. Geographical sharing with other services

694 MHz - 790 MHz

BROADCASTING MOBILE EXCEPT AERONAUTICAL MOBILE 5.312A 5.317A 5.300 5.312	BROADCASTING MOBILE EXCEPT AERONAUTICAL MOBILE 5.312A 5.317A 5.312 ECA38		Broadcasting (terrestrial)	EN 302 296 EN 303 340	Geneva Agreement 2006 TV Broadcasting
		ECC/DEC/(15)01 ECC/DEC/(22)01 ECC/REC/(15)01	MFCN		
		ERC/REC 25-10	PMSE	EN 300 422 EN 300 454	Audio links
		ECC/DEC/(16)02 ECC/REC/(16)03	PPDR	EN 303 505	BB-PPDR options in 698-703/753-758 MHz, 703-733/758-788 MHz and 733-736/788-791 MHz
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 470-789 MHz on a tuning range basis

790 MHz - 862 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.317A 5.316B 5.312 5.319	MOBILE EXCEPT AERONAUTICAL MOBILE 5.312 ECA13 5.316B ECA38 5.317A		-		Geneva Agreement 2006
		ECC/DEC/(09)03 ECC/DEC/(22)01 ECC/REC/(11)04	MFCN	EN 301 908	
		ECC/DEC/(16)02 ECC/REC/(16)03	PPDR		BB-PPDR options in 698-703/753-758 MHz, 703-733/758-788 MHz and 733-736/788-791MHz
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 823-832 MHz

862 MHz - 870 MHz

BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A 5.319 5.323	MOBILE 5.317A 5.323 ECA13 ECA36		-		This band is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonised introduction of IMT
		ERC/REC 70-03	Alarms	EN 300 220	Within the band 868.6-869.700 MHz
			Land military systems		
			Maritime military systems		
		ERC/REC 70-03	Non-specific SRDs	EN 300 220	Within the band 862-876 MHz
		ERC/REC 70-03	RFID	EN 302 208	Within the band 865-868 MHz
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422 EN 301 357	Within the band 863-865 MHz
		ERC/REC 70-03	Tracking, tracing and data acquisition		Within the band 865-868 MHz
		ERC/REC 70-03	Wideband data transmission systems		Within the band 863-868 MHz

870 MHz - 876 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A 5.319 5.323	MOBILE 5.317A 5.323 ECA13 ECA36		-		This band is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonised introduction of IMT
		ECC/DEC/(20)02	FRMCS	EN 301 502	Within the band 874.4-880.0 MHz and 919.4-925.0 MHz
			Land military systems		The bands 870-876 MHz and 915-921 MHz are used for land military systems, specifically for unmanned systems. In countries where these bands are or will be in civil use according to ERC/ECC Deliverables, shared use of the bands should be considered on a national basis. Other sub-bands within the tuning range 610-960 MHz may also be used on a national basis according to the national requirements
			Maritime military systems		
		ERC/REC 70-03	Non-specific SRDs	EN 300 220	Within the band 863-876 MHz
		ERC/REC 70-03	Tracking, tracing and data acquisition	EN 303 204	Within the band 870-875.6 MHz for Metropolitan/Rural Area Networks

876 MHz - 880 MHz

BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A 5.319 5.323	MOBILE 5.317A 5.323 ECA13 ECA36		-		This band is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonised introduction of IMT
		ECC/DEC/(20)02	FRMCS	EN 301 502	Within the band 874.4-880.0 MHz and 919.4-925.0 MHz
		ECC/DEC/(02)05 ECC/REC/(05)08	GSM-R	EN 301 502 EN 301 511	Within the band 876-880 MHz paired with 921-925 MHz. Railway systems
			Land military systems		
			Maritime military systems		

880 MHz - 890 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A 5.319 5.323	MOBILE 5.317A 5.323 ECA13 ECA29 ECA32	ECC/REC/(05)08 ECC/REC/(08)02 ERC/DEC/(97)02	GSM	EN 301 502 EN 301 511 EN 303 609	Within the band 880-890 MHz paired with 925.935 MHz
		ECC/DEC/(06)13 ECC/REC/(08)02	IMT		
		ECC/DEC/(08)08	MCV		

890 MHz - 915 MHz

BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A Radiolocation 5.323	MOBILE 5.317A Radiolocation 5.323 ECA13 ECA14 ECA29 ECA32 ECA36	ECC/REC/(05)08 ECC/REC/(08)02 ERC/DEC/(94)01 ERC/DEC/(97)02	GSM	EN 301 502 EN 301 511 EN 303 609	Within the band 890-915 MHz paired with 935-960 MHz
		ECC/DEC/(06)13 ECC/REC/(08)02	IMT		
			Land military systems		
		ECC/DEC/(08)08	MCV		
			Maritime military systems		

915 MHz - 921 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A Radiolocation 5.323	MOBILE 5.317A Radiolocation 5.323 ECA13 ECA14 ECA36		-		The band 915-925 MHz is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonised introduction of IMT
		ECC/DEC/(20)02	FRMCS	EN 301 502	Within the band 874.4-880.0 MHz and 919.4-925.0 MHz
			Land military systems		The bands 870-876 MHz and 915-921 MHz are used for land military systems, specifically for unmanned systems. In countries where these bands are or will be in civil use according to ERC/ECC Deliverables, shared use of the bands should be considered on a national basis. Other sub-bands within the tuning range 610-960 MHz may also be used on a national basis according to the national requirements
			Maritime military systems		
		ERC/REC 70-03	Non-specific SRDs	EN 300 220	
		ERC/REC 70-03	RFID	EN 302 208	

921 MHz - 925 MHz

BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A Radiolocation 5.323	MOBILE 5.317A Radiolocation 5.323 ECA13 ECA14 ECA36		-		The band 915-925 MHz is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonised introduction of IMT
		ECC/DEC/(20)02	FRMCS	EN 301 502	Within the band 874.4-880.0 MHz and 919.4-925.0 MHz
		ECC/DEC/(02)05 ECC/REC/(05)08	GSM-R	EN 301 502 EN 301 511	Within the bands 876-880 MHz paired with 921-925 MHz
			Land military systems		
			Maritime military systems		

925 MHz - 942 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A Radiolocation 5.323	MOBILE 5.317A Radiolocation 5.323 ECA13 ECA14 ECA29 ECA30 ECA32 ECA36	ECC/REC/(05)08 ECC/REC/(08)02 ERC/DEC/(94)01 ERC/DEC/(97)02	GSM	EN 301 502 EN 301 511 EN 303 609	Within the bands 935-960 MHz paired with 890-915 MHz
		ECC/DEC/(06)13 ECC/REC/(08)02	IMT		
			Land military systems		
		ECC/DEC/(08)08	MCV		
			Maritime military systems		

942 MHz - 960 MHz

BROADCASTING 5.322 FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.317A 5.323	MOBILE 5.317A 5.323 ECA13 ECA29 ECA32	ECC/REC/(05)08 ECC/REC/(08)02 ERC/DEC/(94)01 ERC/DEC/(97)02	GSM	EN 301 502 EN 301 511 EN 303 609	Base station transmit paired with 897-915 MHz
		ECC/DEC/(06)13 ECC/REC/(08)02	IMT		
		ECC/DEC/(08)08	MCV		

960 MHz - 1164 MHz

AERONAUTICAL MOBILE (R) 5.327A AERONAUTICAL RADIONAVIGATION 5.328 5.328AA	AERONAUTICAL MOBILE (R) 5.327A AERONAUTICAL MOBILE-SATELLITE (R) AERONAUTICAL RADIONAVIGATION 5.328 5.328AA ECA36		Aeronautical		Including DME and SSR
			Aeronautical military systems		Military use includes JTIDS/MIDS and TACAN within 108.7-1092.3 MHz

1164 MHz - 1215 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL RADIONAVIGATION 5.328 RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.328B 5.328A	AERONAUTICAL RADIONAVIGATION 5.328 RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.328B 5.328A ECA36		Aeronautical military systems		Military use includes JTIDS/MIDS
			Aeronautical navigation		
			GALILEO	EN 303 413	Within the band 1164-1214 MHz
			GLONASS	EN 303 413	Within the band 1190.3-1213.8 MHz
		ECC/REC/(10)02	GNSS Repeater	EN 302 645	Within the band 1164-1300 MHz
			Satellite systems (military)		

1215 MHz - 1240 MHz

EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.328B 5.329 5.329A SPACE RESEARCH (ACTIVE) 5.330 5.331 5.332	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.328B 5.329 5.329A SPACE RESEARCH (ACTIVE) 5.331 ECA36 5.332		Active sensors (satellite)		
			GLONASS	EN 303 413	Within the band 1237.8-1253.8 MHz
		ECC/REC/(10)02	GNSS Repeater	EN 302 645	Within the band 1164-1300 MHz
			GPS	EN 303 413	Within the band 1215.6-1239.6 MHz
			Radiolocation (civil)		Radar and Navigation systems
			Radiolocation (military)		
			Satellite systems (military)		

1240 MHz - 1300 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.329 5.328B 5.329A SPACE RESEARCH (ACTIVE) Amateur 5.282 5.330 5.331 5.332 5.335 5.335A	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.228B 5.329 5.329A SPACE RESEARCH (ACTIVE) Amateur Amateur-Satellite 5.282 ECA36 5.331 5.332 5.335A	ECC/REC/(10)02	Active sensors (satellite)		
			Amateur	EN 301 783	
			Amateur-satellite		Within the band 1260-1270 MHz
			GALILEO	EN 303 413	Within the band 1260-1300 MHz
			GLONASS	EN 303 413	Within the band 1237.8-1253.8 MHz
			GNSS Repeater	EN 302 645	Within the band 1164-1300 MHz
			Radiolocation (civil)		Radar and Navigation systems
			Radiolocation (military)		
			Satellite systems (military)		
			Wind profilers		Within the band 1270-1295 MHz

1300 MHz - 1350 MHz

AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION RADIONAVIGATION-SATELLITE (EARTH-TO-SPACE) 5.149 5.337A	AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION RADIONAVIGATION-SATELLITE (EARTH-TO-SPACE) 5.149 ECA36 5.337A		Radio astronomy		Continuum and spectral line observations (e.g. neutral hydrogen line). VLBI
			Radiolocation (civil)		Radar and Navigation systems
			Radiolocation (military)		
			Satellite navigation systems		
			Satellite systems (military)		

1350 MHz - 1400 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE RADIOLOCATION 5.149 5.338 5.338A 5.339	FIXED MOBILE RADIOLOCATION 5.149 ECA36 5.338A 5.339		Aeronautical military systems		
		T/R 13-01	Fixed	EN 302 217	Low capacity fixed links
			Land military systems		
			Maritime military systems		
			Radio astronomy		Continuum and spectral line observations (e.g. neutral hydrogen line). VLBI
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	
			Radiolocation (military)		

1400 MHz - 1427 MHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341	ECC/DEC/(11)01	Passive sensors (satellite)		Measurement of soil moisture, salinity, ocean surface temperature, vegetation index
			Radio astronomy		Continuum and spectral line observations (e.g. neutral hydrogen line). VLBI

1427 MHz - 1429 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.341A SPACE OPERATION (EARTH-TO-SPACE) 5.338A 5.341	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE SPACE OPERATION (EARTH-TO-SPACE) 5.338A ECA36 5.341	T/R 13-01	Fixed	EN 302 217	Low capacity fixed links
			Land military systems		
		ECC/DEC/(17)06 ECC/DEC/(22)01	MFCN	EN 301 908	Supplemental Downlink
			Maritime military systems		

1429 MHz - 1452 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.341A 5.338A 5.341 5.342	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A ECA36 5.341	T/R 13-01	Fixed	EN 302 217	Low capacity fixed links
			Land military systems		
		ECC/DEC/(17)06 ECC/DEC/(22)01	MFCN	EN 301 908	Supplemental Downlink
			Maritime military systems		

1452 MHz - 1492 MHz

BROADCASTING BROADCASTING-SATELLITE 5.208B FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.346 5.341 5.342 5.345	BROADCASTING MOBILE EXCEPT AERONAUTICAL MOBILE Fixed 5.341 5.342 5.345	ECC/DEC/(13)03 ECC/DEC/(22)01 ECC/REC/(15)01	MFCN	EN 301 908	Supplemental Downlink
			T-DAB	EN 302 077 EN 303 345	Within the band 1452.0-1479.5 MHz. Maastricht 2002 Special Arrangement, as revised in Constanta, 2007

1492 MHz - 1518 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.341A 5.341 5.342	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.341 ECA36	T/R 13-01	Fixed	EN 302 217	Low capacity fixed links
			Land military systems		
		ECC/DEC/(17)06 ECC/DEC/(22)01	MFCN	EN 301 908	Supplemental Downlink
			Maritime military systems		
		ERC/REC 70-03	Radio microphones and ALD	EN 300 422	On a tuning range basis

1518 MHz - 1525 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.348 5.348A 5.348B 5.351A 5.341 5.342	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.348 5.348A 5.348B 5.351A 5.341 ECA15 ECA36		Fixed IMT-2000 satellite component Land military systems	EN 302 217	Unidirectional fixed links
		ECC/DEC/(04)09 ECC/DEC/(12)01	MSS Earth stations	EN 301 444 EN 301 473 EN 301 681	
			Maritime military systems		
		ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	On a tuning range basis

1525 MHz - 1530 MHz

FIXED MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208B 5.351A SPACE OPERATION (SPACE-TO-EARTH) Earth Exploration-Satellite Mobile except aeronautical mobile 5.349 5.341 5.342 5.350 5.351 5.352A 5.354	FIXED MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208B 5.351A SPACE OPERATION (SPACE-TO-EARTH) 5.341 5.351 5.354		Fixed IMT-2000 satellite component	EN 302 217	Unidirectional fixed links
		ECC/DEC/(12)01	MSS Earth stations	EN 301 426 EN 301 444 EN 301 473 EN 301 681	

1530 MHz - 1535 MHz

MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208B 5.353A 5.351A SPACE OPERATION (SPACE-TO-EARTH) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile 5.341 5.342 5.351 5.354	MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208B 5.351A 5.353A SPACE OPERATION (SPACE-TO-EARTH) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile 5.341 5.351 5.354		IMT-2000 satellite component		
		ECC/DEC/(12)01	MSS Earth stations	EN 301 426 EN 301 444 EN 301 473 EN 301 681	Priority for GMDSS Distress, urgency and safety and for AMS(R)S categories 1 to 6 communications

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
1535 MHz - 1559 MHz					
MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208B 5.351A 5.341 5.351 5.353A 5.354 5.355 5.356 5.357 5.357A 5.359	MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208B 5.351A 5.341 5.351 5.353A 5.354 5.356 5.357 5.357A 5.359		IMT-2000 satellite component		
		ECC/DEC/(12)01	MSS Earth stations	EN 301 426 EN 301 444 EN 301 473 EN 301 681	Priority for GMDSS Distress, urgency and safety and for AMS(R)S categories 1 to 6 communications whitin the band 1544-1545 MHz
1559 MHz - 1610 MHz					
AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) 5.208B RADIONAVIGATION-SATELLITE (SPACE-TO-SPACE) 5.328B 5.329A 5.341	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) 5.208B RADIONAVIGATION-SATELLITE (SPACE-TO-SPACE) 5.328B 5.329A 5.341		GALILEO	EN 303 413	Within the band 1559.42-1591.42 MHz
			GLONASS	EN 303 413	Within the band 1592.9-1610.5 MHz
		ECC/REC/(11)08	GNSS Pseudolites		
		ECC/REC/(10)02	GNSS Repeater	EN 302 645	
			GPS	EN 303 413	Within the band 1563.42-1587.42 MHz
1610 MHz - 1610.6 MHz					
AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.371 5.372	AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.341 5.359 5.364 5.366 5.367 5.368 5.371 5.372		GLONASS		Within the band 1592.9-1610.5 MHz
			IMT-2000 satellite component		
		ECC/DEC/(09)02 ECC/DEC/(12)01	MSS Earth stations	EN 301 441 EN 301 473	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
1610.6 MHz - 1613.8 MHz					
AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A RADIO ASTRONOMY 5.149 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.371 5.372	AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A RADIO ASTRONOMY 5.149 5.341 5.359 5.364 5.366 5.367 5.368 5.371 5.372	ECC/DEC/(09)02 ECC/DEC/(12)01	IMT-2000 satellite component MSS Earth stations Radio astronomy	 EN 301 441 EN 301 473 	 Spectral line observations (e.g. hydroxyl line). VLBI
1613.8 MHz - 1621.35 MHz					
AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A Mobile-Satellite (space-to-Earth) 5.208B 5.341 5.355 5.359 5.364 5.365 5.366 5.367 5.368 5.369 5.371 5.372	AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A Mobile-Satellite (space-to-Earth) 5.208B 5.341 5.359 5.364 5.365 5.366 5.367 5.368 5.371 5.372	ECC/DEC/(09)02 ECC/DEC/(09)04 ECC/DEC/(12)01	IMT-2000 satellite component MSS Earth stations	 EN 301 426 EN 301 441 EN 301 473	
1621.35 MHz - 1626.5 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL RADIONAVIGATION MARITIME MOBILE-SATELLITE (SPACE-TO-EARTH) 5.373A 5.373 MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A Mobile-Satellite (space-to-Earth) 5.208B Mobile-satellite except maritime mobile satellite (space-to-Earth) 5.341 5.355 5.359 5.364 5.365 5.366 5.367 5.368 5.369 5.371 5.372	AERONAUTICAL RADIONAVIGATION MARITIME MOBILE-SATELLITE (SPACE-TO-EARTH) 5.373 5.373A MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A Mobile-Satellite (space-to-Earth) 5.208B Mobile-satellite except maritime mobile satellite (space-to-Earth) 5.341 5.359 5.364 5.365 5.365 5.366 5.367 5.368 5.371 5.372		IMT-2000 satellite component MSS Earth stations	 EN 301 426 EN 301 441 EN 301 473	
		ECC/DEC/(09)02 ECC/DEC/(09)04 ECC/DEC/(12)01			

1626.5 MHz - 1660 MHz

MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.341 5.351 5.353A 5.354 5.355 5.357A 5.359 5.374 5.375 5.376	MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.100 5.341 5.351 5.353A 5.354 5.359 5.374 5.375 5.376	ERC/REC 70-03	ALS IMT-2000 satellite component	EN 300 422	Within 1656.5-1660.5 MHz
		ECC/DEC/(12)01	MSS Earth stations	EN 301 426 EN 301 473 EN 301 681	Priority for GMDSS Distress, urgency and safety and for AMS(R)S categories 1 to 6 communications within the band 1645.5-1646.5 MHz

1660 MHz - 1660.5 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A RADIO ASTRONOMY 5.149 5.341 5.351 5.354 5.376A	MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A RADIO ASTRONOMY 5.149 5.341 5.351 5.354 5.376A	ERC/REC 70-03	ALS	EN 300 422	Within 1656.5-1660.5 MHz
			IMT-2000 satellite component		
		ECC/DEC/(12)01	MSS Earth stations	EN 301 426 EN 301 444 EN 301 473 EN 301 681	
			Radio astronomy		Continuum and spectral line observations (e.g. hydroxyl line), VLBI

1660.5 MHz - 1668 MHz

RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A	RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379A		Radio astronomy		Continuum and spectral line observations (e.g. hydroxyl line), VLBI

1668 MHz - 1668.4 MHz

MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.379B 5.379C RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A	MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.379B 5.379C RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379A		IMT-2000 satellite component	EN 301 473	
			Radio astronomy		Continuum and spectral line observations (e.g. hydroxyl line), VLBI

1668.4 MHz - 1670 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED METEOROLOGICAL AIDS MOBILE EXCEPT AERONAUTICAL MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.379B 5.379C RADIO ASTRONOMY 5.149 5.341 5.379D 5.379E	FIXED METEOROLOGICAL AIDS MOBILE EXCEPT AERONAUTICAL MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.379B 5.379C RADIO ASTRONOMY 5.149 5.341 5.379D 5.379E		IMT-2000 satellite component Meteorology Radio astronomy	EN 301 473 EN 302 454	 Continuum and spectral line observations (e.g. hydroxyl line), VLBI

1670 MHz - 1675 MHz

FIXED METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.379B 5.341 5.379D 5.379E 5.380A	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.379B Fixed 5.341 5.379D 5.379E 5.380A	ECC/DEC/(04)09 ECC/DEC/(12)01	IMT-2000 satellite component MSS Earth stations Meteorology Weather satellites	 EN 301 444 EN 301 473 EN 301 681 EN 302 454	

1675 MHz - 1690 MHz

FIXED METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.341	FIXED METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.341 ECA36		Land military systems Maritime military systems Meteorological aids (military) Sondes Weather satellites	 EN 302 454	 Meteorological radiosondes Data collection platform

1690 MHz - 1700 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) Fixed Mobile except aeronautical mobile 5.289 5.341 5.382	METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) Fixed Mobile except aeronautical mobile 5.289 ECA36 5.341		Land military systems Maritime military systems Meteorological aids (military) Weather satellites		 Data collection platform. Allocation to EESS is via RR 5.289

1700 MHz - 1710 MHz

FIXED METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.289 5.341	FIXED METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) Mobile except aeronautical mobile 5.289 ECA36 5.341		Land military systems Maritime military systems Meteorological aids (military) Weather satellites		 Data collection platform. Allocation to EESS is via RR 5.289

1710 MHz - 1785 MHz

FIXED MOBILE 5.384A 5.149 5.341 5.385 5.386 5.387	FIXED MOBILE 5.384A 5.149 ECA29 5.341 5.385	ECC/REC/(05)08 ECC/REC/(08)02 ERC/DEC/(95)03 ECC/DEC/(06)13 ECC/REC/(08)02 ECC/DEC/(06)07 ECC/DEC/(08)08	GSM IMT MCA MCV Radio astronomy	EN 301 502 EN 301 511 EN 303 609 EN 301 908 EN 302 480 Spectral line observations (e.g. hydroxyl line), VLBI

1785 MHz - 1800 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and Footnotes*	*ECA*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE 5.384A 5.386 5.387	FIXED MOBILE	ECA36		-		This band is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonised introduction of IMT
				Land military systems		
				Land mobile		Mobile applications
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 1785-1804.8 MHz

1800 MHz - 1805 MHz

FIXED MOBILE 5.384A 5.386	MOBILE Fixed	ECA36		-		This band is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonized introduction of IMT
				Land military systems		
			ERC/REC 25-10 ERC/REC 70-03	Radio microphones and ALD	EN 300 422	Within the band 1785-1804.8 MHz

1805 MHz - 1880 MHz

FIXED MOBILE 5.384A 5.386	FIXED MOBILE 5.384A	ECA29	ECC/REC/(05)08 ECC/REC/(08)02 ERC/DEC/(95)03	GSM	EN 301 502 EN 301 511 EN 303 609	
			ECC/DEC/(06)13 ECC/REC/(08)02	IMT	EN 301 908	
			ECC/DEC/(06)07	MCA	EN 302 480	
			ECC/DEC/(08)08	MCV		

1880 MHz - 1885 MHz

FIXED MOBILE 5.384A	MOBILE 5.384A Fixed		ERC/DEC/(94)03 ERC/DEC/(98)22	DECT	EN 300 700 EN 301 406 EN 301 908	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
1885 MHz - 1900 MHz					
FIXED MOBILE 5.388A 5.388B 5.388	MOBILE 5.388A Fixed 5.388	ERC/DEC/(94)03 ERC/DEC/(98)22	DECT	EN 300 700 EN 301 406 EN 301 908	
1900 MHz - 1930 MHz					
FIXED MOBILE 5.388A 5.388B 5.388	MOBILE 5.388A ECA38 Fixed 5.388 ECA29		-		This band can also be used by fixed service on a national basis
		ECC/DEC/(06)07	MCA		Within the band 1920-1980 MHz
		ECC/DEC/(08)08	MCV		Within the band 1920-1980 MHz
		ECC/DEC/(06)01 ERC/REC/(01)01	MFCN	EN 301 908	Within the band 1920-1980 MHz
1930 MHz - 1970 MHz					
FIXED MOBILE 5.388A 5.388B 5.388	MOBILE 5.388A ECA38 Fixed 5.388 ECA29		-		This band can also be used by fixed service on a national basis
		ECC/DEC/(06)07	MCA		Within the band 1920-1980 MHz
		ECC/DEC/(08)08	MCV		Within the band 1920-1980 MHz
		ECC/DEC/(06)01 ERC/REC/(01)01	MFCN	EN 301 908	Within the band 1920-1980 MHz
1970 MHz - 1980 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE 5.388A 5.388B 5.388	MOBILE 5.388A ECA38 Fixed 5.388 ECA29		-		This band can also be used by fixed service on a national basis
		ECC/DEC/(06)07	MCA		Within the band 1920-1980 MHz
		ECC/DEC/(08)08	MCV		Within the band 1920-1980 MHz
		ECC/DEC/(06)01 ERC/REC/(01)01	MFCN	EN 301 908	Within the band 1920-1980 MHz

1980 MHz - 2010 MHz

FIXED MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.388 5.389A 5.389B 5.389F	MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.388 5.389A		-		This band can also be used by fixed service on a national basis
		ECC/DEC/(06)09 ECC/DEC/(06)10 ECC/DEC/(12)01	MSS Earth stations	EN 301 442 EN 301 473 EN 302 574	The mobile satellite systems using this band may incorporate a complementary Ground Component (CGC)

2010 MHz - 2025 MHz

FIXED MOBILE 5.388A 5.388B 5.388	MOBILE Fixed		-		This band can also be used by fixed service on a national basis
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video links and cordless cameras

2025 MHz - 2110 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) (SPACE-TO-SPACE) FIXED MOBILE 5.391 SPACE OPERATION (EARTH-TO-SPACE) (SPACE-TO-SPACE) SPACE RESEARCH (EARTH-TO-SPACE) (SPACE-TO-SPACE) 5.392	EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) (SPACE-TO-SPACE) FIXED MOBILE 5.391 SPACE OPERATION (EARTH-TO-SPACE) (SPACE-TO-SPACE) SPACE RESEARCH (EARTH-TO-SPACE) (SPACE-TO-SPACE) 5.392 ECA16A ECA36		Aeronautical military systems		
		T/R 13-01	Fixed	EN 302 217	
			Land military systems		
			Maritime military systems		
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video and cordless cameras
			Space research		Satellite payload and platform telecommand
			Telemetry/Telecommand (military)		

2110 MHz - 2120 MHz

FIXED MOBILE 5.388A 5.388B SPACE RESEARCH (DEEP SPACE) (EARTH-TO-SPACE) 5.388	MOBILE 5.388A SPACE RESEARCH (DEEP SPACE) (EARTH-TO-SPACE) Fixed 5.388 ECA29		-		Satellite payload and platform telecommand for space research (deep space). This band can also be used by fixed service on a national basis
		ECC/DEC/(06)07	MCA		Within the band 2110-2170 MHz
		ECC/DEC/(08)08	MCV		Within the band 2110-2170 MHz
		ECC/DEC/(06)01 ERC/REC/(01)01	MFCN	EN 301 908	Within the band 2110-2170 MHz

2120 MHz - 2170 MHz

FIXED MOBILE 5.388A 5.388B 5.388	MOBILE 5.388A Fixed 5.388 ECA29		-		This band can also be used by fixed service on a national basis
		ECC/DEC/(06)07	MCA		Within the band 2110-2170 MHz
		ECC/DEC/(08)08	MCV		Within the band 2110-2170 MHz
		ECC/DEC/(06)01 ERC/REC/(01)01	MFCN	EN 301 908	Within the band 2110-2170 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
2170 MHz - 2200 MHz					
FIXED MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.351A 5.388 5.389A 5.389F	MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.351A 5.388 5.389A		-		This band can also be used by fixed service on a national basis
		ECC/DEC/(06)09 ECC/DEC/(06)10 ECC/DEC/(12)01 ECC/REC/(10)01	MSS Earth stations	EN 301 442 EN 301 473 EN 302 574	The mobile satellite systems using this band may incorporate a Complementary Ground Component (CGC)
2200 MHz - 2290 MHz					
EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) FIXED MOBILE 5.391 SPACE OPERATION (SPACE-TO-EARTH) (SPACE-TO-SPACE) SPACE RESEARCH (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.392	EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) FIXED MOBILE 5.391 SPACE OPERATION (SPACE-TO-EARTH) (SPACE-TO-SPACE) SPACE RESEARCH (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.392 ECA16A ECA36		Aeronautical military systems		
		T/R 13-01	Fixed	EN 302 217	
			Land military systems		
			Maritime military systems		
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video and cordless cameras
			Radio astronomy		Continuum observations, VLBI (used by SRS)
		ECC/REC/(10)01	Space research		EESS Satellite payload and platform telemetry
			Telemetry/Telecommand (military)		
2290 MHz - 2300 MHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE SPACE RESEARCH (DEEP SPACE) (SPACE-TO-EARTH)	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE SPACE RESEARCH (DEEP SPACE) (SPACE-TO-EARTH)		Land mobile		Mobile applications
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video and cordless cameras
			Space research		Satellite payload and platform telemetry for space research (deep space). Continuum observations, VLBI (used by SRS)

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
2300 MHz - 2400 MHz					
FIXED MOBILE 5.384A Amateur Radiolocation 5.395	FIXED MOBILE 5.384A Amateur Radiolocation ECA36		Aeronautical military systems		
		ERC/REC 62-02	Aeronautical telemetry		Parts of the band are used for aeronautical telemetry on a national basis
			Amateur	EN 301 783	Within the band 2300-2450 MHz
			Land military systems		
		ECC/DEC/(14)02 ECC/REC/(14)04	MFCN	EN 301 908	Shared use of spectrum envisaged
			Maritime military systems		
		ECC/REC/(15)04 ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video and cordless cameras
			Telemetry/Telecommand (military)		
2400 MHz - 2450 MHz					
FIXED MOBILE Amateur Radiolocation 5.150 5.282	FIXED MOBILE Amateur Amateur-Satellite Radiolocation 5.150 5.282		Amateur	EN 301 783	Within the band 2300-2450 MHz
			Amateur-satellite		
			ISM		
		ERC/REC 70-03	Non-specific SRDs	EN 300 440	Within the band 2400.0-2483.5 MHz
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video and cordless cameras
		ERC/REC 70-03	RFID	EN 300 440	Within the band 2446-2454 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 300 440	Within the band 2400.0-2483.5 MHz
		ERC/REC 70-03	Wideband data transmission systems	EN 300 328	Within the band 2400-2483.5 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
2450 MHz - 2483.5 MHz					
FIXED MOBILE Radiolocation 5.150	FIXED MOBILE 5.150		ISM		
		ERC/REC 70-03	Non-specific SRDs	EN 300 440	Within the band 2400.0-2483.5 MHz
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video and cordless cameras
		ERC/REC 70-03	RFID	EN 300 440	Within the band 2446-2454 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 300 440	Within the band 2400.0-2483.5 MHz
		ERC/REC 70-03	Wideband data transmission systems	EN 300 328	Within the band 2400-2483.5 MHz
2483.5 MHz - 2500 MHz					
FIXED MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.351A RADIODETERMINATION-SATELLITE (SPACE-TO-EARTH) 5.398 Radiolocation 5.398A 5.150 5.399 5.401 5.402	FIXED MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.351A 5.150 5.399 5.402	ERC/REC 70-03	Active medical implants	EN 301 559	Low Power Active Medical Implants and associated peripherals
			IMT-2000 satellite component		
			ISM		
			Land mobile		Mobile applications
		ERC/REC 70-03	MBANS	EN 303 203	
		ECC/DEC/(09)02 ECC/DEC/(12)01	MSS Earth stations	EN 301 441 EN 301 473	
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video and cordless cameras
2500 MHz - 2520 MHz					
FIXED 5.410 MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A 5.412	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A	ECC/DEC/(08)08	MCV		Within the bands 2500-2570 MHz and 2620-2690 MHz
		ECC/DEC/(05)05 ECC/REC/(11)05	MFCN	EN 301 908	Within the band 2500-2690 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
2520 MHz - 2655 MHz					
BROADCASTING-SATELLITE 5.413 5.416 FIXED 5.410 MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A 5.339 5.403 5.412 5.418B 5.418C	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A ECA38 5.339 ECA16 5.418B 5.418C	ECC/DEC/(08)08	MCV		Within the bands 2500-2570 MHz and 2620-2690 MHz
		ECC/DEC/(05)05 ECC/REC/(11)05	MFCN	EN 301 908	Within the band 2500-2690 MHz
2655 MHz - 2670 MHz					
BROADCASTING-SATELLITE 5.208B 5.413 5.416 FIXED 5.410 MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive) 5.149 5.412 5.420	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive) 5.149 ECA16 5.208B	ECC/DEC/(08)08	MCV		Within the bands 2500-2570 MHz and 2620-2690 MHz
		ECC/DEC/(05)05 ECC/REC/(11)05	MFCN	EN 301 908	Within the band 2500-2690 MHz
			Radio astronomy		Continuum observations, VLBI
2670 MHz - 2690 MHz					
FIXED 5.410 MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive) 5.149 5.412 5.419	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A Radio Astronomy 5.149	ECC/DEC/(08)08	MCV		Within the bands 2500-2570 MHz and 2620-2690 MHz
		ECC/DEC/(05)05 ECC/REC/(11)05	MFCN	EN 301 908	Within the band 2500-2690 MHz
			Radio astronomy		Continuum observations, VLBI
2690 MHz - 2700 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.422	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite) Radio astronomy		 Continuum observations, VLBI

2700 MHz - 2900 MHz

AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423	AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423 ECA36	ECC/REC/(02)09 ERC/REC 25-10	Aeronautical navigation PMSE Radiolocation (civil) Radiolocation (military) Weather radar	 EN 302 064 EN 303 347	Radar and navigation systems Portable or mobile wireless video and cordless cameras

2900 MHz - 3100 MHz

RADIOLOCATION 5.424A RADIONAVIGATION 5.426 5.425 5.427	RADIOLOCATION 5.424A RADIONAVIGATION 5.426 5.425 ECA36 5.427		Radiolocation (civil) Radiolocation (military)	EN 302 248 EN 302 752	Radar and navigation systems

3100 MHz - 3300 MHz

RADIOLOCATION Earth Exploration-Satellite (active) Space Research (active) 5.149 5.428	RADIOLOCATION Earth Exploration-Satellite (active) Space Research (active) 5.149 ECA36		Active sensors (satellite) Radio astronomy Radiolocation (civil) Radiolocation (military)	 	 Spectral line observations (e.g. methine line) Radars
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB applications	EN 302 065	Generic UWB. Location Tracking Type 2 (LT2). Location Application for Emergency Services (LAES)

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
3300 MHz - 3400 MHz					
RADIOLOCATION 5.149 5.429 5.429A 5.429B 5.430	RADIOLOCATION 5.149 ECA36		Radio astronomy		Spectral line observations (e.g. methine line)
			Radiolocation (civil)		Upper limit for airborne radars 3410 MHz
			Radiolocation (military)		Upper limit for airborne radars is 3410 MHz
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB applications	EN 302 065	Generic UWB. Location Tracking Type 2 (LT2). Location Application for Emergency Services (LAES)
3400 MHz - 3600 MHz					
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.430A Radiolocation 5.431	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.430A ECA38 Amateur Radiolocation ECA36		Amateur	EN 301 783	Within the band 3400-3410 MHz
			FSS Earth stations	EN 301 443	
		ECC/DEC/(11)06 ECC/REC/(15)01	MFCN	EN 301 908	Within the band 3400-3800 MHz
		ECC/DEC/(22)01 ECC/REC/(20)03 ECC/REC/(21)02	MFCN		
			PMSE	EN 302 064	For coordinated Wireless Video Links applications for occasional use. In some countries the mobile service may be on secondary basis
			Radiolocation (civil)		Upper limit for airborne radars is 3410 MHz
			Radiolocation (military)		Upper limit for airborne radars is 3410 MHz
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB applications	EN 302 065	Generic UWB. Location Tracking Type 2 (LT2). Location Application for Emergency Services (LAES)
3600 MHz - 4200 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) Mobile	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE ECA38 ECA37		-		In some countries the mobile service may be on secondary basis
		ECC/DEC/(05)09	ESV	EN 301 447	Within the band 3700-4200 MHz
			FSS Earth stations	EN 301 443	Priority for civil networks
		ERC/REC 12-08	Fixed	EN 302 217	Medium/high capacity fixed
		ECC/DEC/(11)06 ECC/REC/(15)01	MFCN	EN 301 908	Within the band 3400-3800 MHz
		ECC/DEC/(22)01 ECC/REC/(20)03 ECC/REC/(21)02	MFCN		Within the band 3400-3800 MHz
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB applications	EN 302 065	Generic UWB. Location Tracking Type 2 (LT2). Location Application for Emergency Services (LAES)

4200 MHz - 4400 MHz

AERONAUTICAL MOBILE (R) 5.436 AERONAUTICAL RADIONAVIGATION 5.438 5.437 5.439 5.440	AERONAUTICAL MOBILE (R) 5.436 AERONAUTICAL RADIONAVIGATION 5.438 5.437 ECA36 5.440		Aeronautical military systems		
			Altimeters		
			Passive sensors (satellite)		For sea surface temperature measurements
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB applications	EN 302 065	Generic UWB. Location Tracking Type 2 (LT2). Location Application for Emergency Services (LAES)
			WAIC		

4400 MHz - 4500 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE	FIXED MOBILE		Aeronautical military systems		
	ECA20 ECA36		Land military systems		
			Maritime military systems		
			PMSE	EN 302 064	Mobile applications for coordinated Wireless Video Links applications for occasional use
			Telemetry/Telecommand (military)		
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB applications	EN 302 065	Generic UWB. Location Tracking Type 2 (LT2). Location Application for Emergency Services (LAES)

4500 MHz - 4800 MHz

FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.441 MOBILE	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.441 MOBILE		Aeronautical military systems		
	ECA20 ECA36		FSS Earth stations		FSS not to be implemented in NATO Europe. Fixed-Satellite frequency plan in 4500-4800 MHz
			Land military systems		
			Maritime military systems		
			PMSE	EN 302 064	Mobile applications for coordinated Wireless Video Links applications for occasional use
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Telemetry/Telecommand (military)		
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB applications	EN 302 065	Generic UWB. Location Tracking Type 2 (LT2). Location Application for Emergency Services (LAES)

4800 MHz - 4990 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE 5.442 5.440A 5.441A 5.441B Radio Astronomy 5.149 5.339 5.443	FIXED MOBILE 5.440A 5.441A 5.441B 5.442 Radio Astronomy 5.149 ECA20 5.339 ECA36		Aeronautical military systems		
		ECC/REC/(08)04	BBDR	EN 302 625	Within the band 4940-4990 MHz. Optinal band for BBDR within the PPDR uses
			Land military systems		
			Maritime military systems		
			PMSE	EN 302 064	Mobile applications for coordinated Wireless Video Links applications for occasional use
			Passive sensors (satellite)		Space Research and EESS (passive) above 4950 MHz in some countries
			Radio astronomy		Continuum and spectral line observations, (e.g. formaldehyde line), VLBI
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Telemetry/Telecommand (military)		

4990 MHz - 5000 MHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY Space Research (passive) 5.149	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY 5.149 ECA20 ECA36		Aeronautical military systems		
			Land military systems		
			Maritime military systems		
			PMSE		Mobile applications for coordinated Wireless Video Links applications for occasional use
			Radio astronomy		Continuum observations, VLBI
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Telemetry/Telecommand (military)		

5000 MHz - 5010 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (EARTH-TO-SPACE)	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (EARTH-TO-SPACE) Radio Astronomy Space Research (passive)	ERC/REC 70-03	GALILEO		For future use by Galileo
			Radio astronomy		Continuum observation, VLBI
			Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Satellite navigation systems		Aeronautical Radionavigation and FSS envisaged in some countries

5010 MHz - 5030 MHz

AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.328B 5.443B	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.328B 5.443B Radio Astronomy Space Research (passive)	ERC/REC 70-03	GALILEO		C1
			Radio astronomy		Continuum observation, VLBI
			Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Satellite navigation systems		Aeronautical Radionavigation and FSS envisaged in some countries

5030 MHz - 5091 MHz

AERONAUTICAL MOBILE (R) 5.443C AERONAUTICAL MOBILE-SATELLITE (R) 5.443D AERONAUTICAL RADIONAVIGATION 5.444	AERONAUTICAL MOBILE (R) 5.443C AERONAUTICAL MOBILE-SATELLITE (R) 5.443D AERONAUTICAL RADIONAVIGATION 5.444	ERC/REC 70-03	MLS		Aeronautical Radionavigation envisaged in some countries. FSS in use in some countries
			Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application

5091 MHz - 5150 MHz

AERONAUTICAL MOBILE 5.444B AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (EARTH-TO-SPACE) 5.444A 5.444	AERONAUTICAL MOBILE 5.444B AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (EARTH-TO-SPACE) 5.444A 5.444	ERC/REC 70-03	-		FSS in use in some countries
			Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
5150 MHz - 5250 MHz					
AERONAUTICAL RADIONAVIGATION 5.446D FIXED-SATELLITE (EARTH-TO-SPACE) 5.447A MOBILE EXCEPT AERONAUTICAL MOBILE 5.446B 5.446A 5.446 5.446C 5.447 5.447B 5.447C	AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (EARTH-TO-SPACE) 5.447A MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.446B 5.446 5.446C 5.447 5.447B 5.447C		Aeronautical telemetry		
		ECC/REC/(08)04	BBDR	EN 302 625	Temporary use by PPDR users
			Feeder links		Feeder links for MSS. Aeronautical Radionavigation and FSS envisaged in some countries
		ECC/DEC/(04)08	RLAN	EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
5250 MHz - 5255 MHz					
EARTH EXPLORATION-SATELLITE (ACTIVE) MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.447F RADIOLOCATION SPACE RESEARCH 5.447D 5.447E 5.448 5.448A	EARTH EXPLORATION-SATELLITE (ACTIVE) MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.447F RADIOLOCATION SPACE RESEARCH 5.447D 5.448A ECA22 ECA36		-		Position fixing
			Active sensors (satellite)		
			Maritime radar		Shipborne and VTS radar
		ECC/DEC/(04)08	RLAN	EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
			Weather radar	EN 303 347	Ground based and airborne
5255 MHz - 5350 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (ACTIVE) MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.447F RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.447E 5.448 5.448A	EARTH EXPLORATION-SATELLITE (ACTIVE) MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.447F RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.448A ECA22 ECA36		-		Position fixing
			Active sensors (satellite)		
			Maritime radar		Shipborne and VTS radar
		ECC/DEC/(04)08	RLAN	EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
			Weather radar	EN 303 347	Ground based and airborne

5350 MHz - 5460 MHz

AERONAUTICAL RADIONAVIGATION 5.449 EARTH EXPLORATION-SATELLITE (ACTIVE) 5.448B RADIOLOCATION 5.448D SPACE RESEARCH (ACTIVE) 5.448C	AERONAUTICAL RADIONAVIGATION 5.449 EARTH EXPLORATION-SATELLITE (ACTIVE) 5.448B RADIOLOCATION 5.448D SPACE RESEARCH (ACTIVE) 5.448C ECA22 ECA36		-		Position fixing
			Active sensors (satellite)		
			Maritime radar		Shipborne and VTS radar
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
			Weather radar	EN 303 347	Ground based and airborne

5460 MHz - 5470 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION 5.448D RADIONAVIGATION 5.449 SPACE RESEARCH (ACTIVE) 5.448B	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION 5.448D RADIONAVIGATION 5.449 SPACE RESEARCH (ACTIVE) 5.448B ECA22 ECA36		-		Position fixing
			Active sensors (satellite)		
			Maritime radar		Shipborne and VTS radar
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
			Weather radar	EN 303 347	Ground based and airborne

5470 MHz - 5570 MHz

EARTH EXPLORATION-SATELLITE (ACTIVE) MARITIME RADIONAVIGATION MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A RADIOLOCATION 5.450B SPACE RESEARCH (ACTIVE) 5.448B 5.450 5.451	EARTH EXPLORATION-SATELLITE (ACTIVE) MARITIME RADIONAVIGATION MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A RADIOLOCATION 5.450B SPACE RESEARCH (ACTIVE) 5.448B ECA22 ECA36		-		Position fixing
			Active sensors (satellite)		
			Maritime radar		Shipborne and VTS radar
		ECC/DEC/(04)08	RLAN	EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
			Weather radar	EN 303 347	Ground based and airborne

5570 MHz - 5650 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
MARITIME RADIONAVIGATION MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A RADIOLOCATION 5.450B 5.450 5.451 5.452	MARITIME RADIONAVIGATION MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A RADIOLOCATION 5.450B 5.452 ECA22 ECA36		-		Position fixing
			Maritime radar		Shipborne and VTS radar
		ECC/DEC/(04)08	RLAN	EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
			Weather radar	EN 303 347	Ground based

5650 MHz - 5725 MHz

MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A RADIOLOCATION Amateur Space Research (deep space) 5.282 5.451 5.453 5.454 5.455	MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A RADIOLOCATION Amateur Amateur-Satellite (Earth-to-space) 5.282 ECA22 ECA23 ECA36		-		Position fixing
			Amateur	EN 301 783	Within the band 5650-5850 MHz
			Amateur-satellite		Within the band 5650-5670 MHz
			Maritime radar		Shipborne and VTS radar
		ECC/DEC/(04)08	RLAN	EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
			Weather radar	EN 303 347	Ground based and airborne

5725 MHz - 5830 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED-SATELLITE (EARTH-TO-SPACE) RADIOLOCATION Amateur 5.150 5.451 5.453 5.455	FIXED-SATELLITE (EARTH-TO-SPACE) RADIOLOCATION Amateur Fixed Mobile 5.150 ECA17 ECA22 ECA36		Amateur	EN 301 783	Within the band 5650-5850 MHz
		ECC/REC/(06)04	BFWA	EN 302 502	Within the band 5725-5875 MHz
			ISM		Within the band 5725-5875 MHz
		ERC/REC 70-03	Non-specific SRDs	EN 300 440	Within the band 5725-5875 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
		ERC/REC 70-03	TTT	EN 300 674	Within the band 5795-5805 MHz. TTT in the band 5805-5815 MHz on a national basis
		ERC/REC 70-03	WIA	EN 303 258	Within the band 5725-5875 MHz
			Weather radar	EN 303 347	Ground based and airborne

5830 MHz - 5850 MHz

FIXED-SATELLITE (EARTH-TO-SPACE) RADIOLOCATION Amateur Amateur-Satellite (space-to-Earth) 5.150 5.451 5.453 5.455	FIXED-SATELLITE (EARTH-TO-SPACE) RADIOLOCATION Amateur Amateur-Satellite (space-to-Earth) Fixed Mobile 5.150 ECA22 ECA23 ECA36		-		Within the band 5725-5875 MHz
			Amateur	EN 301 783	Within the band 5650-5850 MHz
			Amateur-satellite		Within the band 5830-5850 MHz
			BFWA		Within the band 5725-5875 MHz
			ISM		Within the band 5725-5875 MHz
		ERC/REC 70-03	Non-specific SRDs	EN 300 440	Within the band 5725-5875 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
		ERC/REC 70-03	WIA	EN 303 258	Within the band 5725-5875 MHz
			Weather radar	EN 303 347	Ground based and airborne

5850 MHz - 5925 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE 5.150	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE 5.150	ECC/REC/(06)04	BFWA	EN 302 502	Within the band 5725-5875 MHz
		ECC/DEC/(15)03	DA2GC	EN 303 316 EN 303 339	Within the band 5855-5875 MHz
			FSS Earth stations	EN 301 443	Priority for civil networks
			ISM		Within the band 5725-5875 MHz
		ECC/DEC/(08)01 ECC/REC/(08)01	ITS	EN 302 571 EN 302 636 EN 302 637	Within the bands 5875-5935 MHz and 5855-5875 MHz. Traffic safety applications within the band 5875-5935 MHz
		ECC/REC/(17)03	MBR	EN 303 276	Within 5852-5872 MHz and 5880-5900 MHz
		ERC/REC 70-03	Non-specific SRDs	EN 300 440	Within the band 5725-5875 MHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
		ERC/REC 70-03	WIA	EN 303 258	Within the band 5725-5875

5925 MHz - 6700 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED 5.457 FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B MOBILE 5.457C 5.149 5.440 5.458	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE Earth Exploration-Satellite (passive) 5.149 5.440 5.458		-		
		ECC/DEC/(05)09	ESV	EN 301 447	Within the band 5925-6425 MHz
		ECC/DEC/(05)09	FSS Earth stations	EN 301 443	Priority for civil networks
		ECC/REC/(14)06 ERC/REC 14-01 ERC/REC 14-02	Fixed	EN 302 217	Point-to-point
		ECC/DEC/(08)01	ITS		Urban rail systems only 5925–5935 MHz. Within the bands 5875-5935 MHz and 5855-5875 MHz. Traffic safety applications within the band 5875-5935 MHz. 5925-5935 for safety-related Urban Rail ITS only.
			Passive sensors (satellite)		For sea surface temperature, sea surface wind speed and soil moisture measurements
		ECC/DEC/(20)01	RLAN		Within the band 5945 to 6425 MHz
			Radio astronomy		Spectral line observations (e.g. methanol line), VLBI.
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 4500-7000 MHz for TLPR application and 6000-8500 MHz for LPR applications
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as UWB on-board aircraft regulation within the band 6.0- 8.5 GHz

6700 MHz - 7075 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) (SPACE-TO-EARTH) 5.441 MOBILE 5.458 5.458A 5.458B	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) (SPACE-TO-EARTH) 5.441 MOBILE Earth Exploration-Satellite (passive) 5.458 5.458A 5.458B		FSS Earth stations	EN 301 443	Within the band 6725-7025 MHz. Priority for civil networks
			Feeder links		
		ECC/REC/(14)06 ERC/REC 14-02	Fixed	EN 302 217	Point-to-point
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
			Passive sensors (satellite)		For sea surface temperature, sea surface wind speed and soil moisture measurements
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 4500-7000 MHz for TLPR application. Within the band 6000-8500 MHz for LPR applications
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as on-board aircraft regulation within the band 6.0-8.5 GHz

7075 MHz - 7145 MHz

FIXED MOBILE 5.458 5.459	FIXED MOBILE Earth Exploration-Satellite (passive) 5.458	ECC/REC/(02)06 ECC/REC/(14)06 ERC/REC 14-02	Fixed	EN 302 217	Point-to-point
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
			Passive sensors (satellite)		For sea surface temperature, sea surface wind speed and soil moisture measurements
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as on-board aircraft regulation within the band 6.0-8.5 GHz

7145 MHz - 7190 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE SPACE RESEARCH (DEEP SPACE) (EARTH-TO-SPACE) 5.458 5.459	FIXED MOBILE SPACE RESEARCH (DEEP SPACE) (EARTH-TO-SPACE) Space Operation (Earth-to-space) 5.458	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB. On-board aircraft regulation within the band 6.0-8.5 GHz

7190 MHz - 7235 MHz

EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) 5.460A 5.460B FIXED MOBILE SPACE RESEARCH (EARTH-TO-SPACE) 5.460 5.458 5.459	EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) 5.460A 5.460B FIXED MOBILE SPACE RESEARCH (EARTH-TO-SPACE) 5.460 5.458	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
			Passive sensors (satellite)		For sea surface temperature, sea surface wind speed and soil moisture measurements
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB. On-board aircraft regulation within the band 6.0-8.5 GHz

7235 MHz - 7250 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) 5.460A FIXED MOBILE 5.458	EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) 5.460A FIXED Space Research (Earth-to-space)	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
			Passive sensors (satellite)		For sea surface temperature, sea surface wind speed and soil moisture measurements
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as on-board aircraft regulation within the band 6.0-8.5 GHz

7250 MHz - 7300 MHz

FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE 5.461	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE 5.461 ECA36	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point. FIXED and MOBILE services not to be implemented in most NATO countries
			Land military systems		
			MSS Earth stations		Mobile satellite applications within the band 7250-7375 MHz
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Satellite systems (military)		
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as on-board aircraft regulation within the band 6.0-8.5 GHz

7300 MHz - 7375 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.461	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.461 ECA36	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
			Land military systems		
			MSS Earth stations		Mobile satellite applications within the band 7250-7375 MHz
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Satellite systems (military)		
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB. On-board aircraft regulation within the band 6.0-8.5 GHz

7375 MHz - 7450 MHz

FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MARITIME MOBILE-SATELLITE (SPACE-TO-EARTH) 5.461AA 5.461AB MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MARITIME MOBILE-SATELLITE (SPACE-TO-EARTH) 5.461AA 5.461AB MOBILE EXCEPT AERONAUTICAL MOBILE ECA36	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
			Land military systems		
			MSS Earth stations		Mobile satellite applications within the band 7250-7375 MHz
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Satellite systems (military)		
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB. On-board aircraft regulation within the band 6.0-8.5 GHz

7450 MHz - 7550 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MARITIME MOBILE-SATELLITE (SPACE-TO-EARTH) 5.461AA 5.461AB METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.461A	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MARITIME MOBILE-SATELLITE (SPACE-TO-EARTH) 5.461AA 5.461AB METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.461A ECA36	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
			Land military systems		
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Satellite systems (military)		
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as on-board aircraft regulation within the band 6.0-8.5 GHz
			Weather satellites		Limited to geostationary systems

7550 MHz - 7750 MHz

FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MARITIME MOBILE-SATELLITE (SPACE-TO-EARTH) 5.461AA 5.461AB MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MARITIME MOBILE-SATELLITE (SPACE-TO-EARTH) 5.461AA 5.461AB MOBILE EXCEPT AERONAUTICAL MOBILE ECA36	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
			Land military systems		
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Satellite systems (military)		
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB. On-board aircraft regulation within the band 6.0-8.5 GHz

7750 MHz - 7900 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) 5.461B MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) 5.461B MOBILE EXCEPT AERONAUTICAL MOBILE	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as on-board aircraft regulation within the band 6.0-8.5 GHz
			Weather satellites		Limited to non-geostationary systems

7900 MHz - 8025 MHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE 5.461	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE 5.461 ECA36	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
			Land military systems		
			MSS Earth stations		Mobile satellite applications
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Satellite systems (military)		
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB. On-board aircraft regulation within the band 6.0-8.5 GHz

8025 MHz - 8175 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE 5.463 5.462A	EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE 5.463 5.462A ECA36		Earth exploration-satellite		Satellite payload telemetry
		ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
			Land military systems		
			Land mobile		Mobile applications within the band 8025-8200 MHz
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Satellite systems (military)		
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as on-board aircraft regulation within the band 6.0-8.5 GHz

8175 MHz - 8215 MHz

EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) FIXED FIXED-SATELLITE (EARTH-TO-SPACE) METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE) MOBILE 5.463 5.462A	EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) FIXED FIXED-SATELLITE (EARTH-TO-SPACE) METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE) MOBILE 5.463 5.462A ECA36		Earth exploration-satellite		Satellite payload telemetry
		ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
			Land military systems		
			Land mobile		Mobile applications within the band 8025-8200 MHz
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Satellite systems (military)		
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB. On-board aircraft regulation within the band 6.0-8.5 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
8215 MHz - 8400 MHz					
EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE 5.463 5.462A	EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.462A 5.463		Earth exploration-satellite		Satellite payload telemetry
		ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
			Land military systems		
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
			Radio astronomy		Continuum observations, VLBI (used by SRS)
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Satellite systems (military)		
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as on-board aircraft regulation within the band 6.0-8.5 GHz
8400 MHz - 8500 MHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE SPACE RESEARCH (SPACE-TO-EARTH) 5.465 5.466	FIXED SPACE RESEARCH (SPACE-TO-EARTH) 5.465 Radiolocation	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
		ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video, cordless cameras, temporary P-t-P video links in 7-8.5 GHz tuning range
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 729	Within the band 6000-8500 MHz for LPR applications
			Space research		Satellite payload telemetry. The band 8400-8450 MHz is limited to deep space applications. Continuum observations, VLBI (used by SRS)
		ECC/DEC/(06)04 ECC/DEC/(12)03	UWB applications	EN 302 065	Generic UWB as well as on-board aircraft regulation within the band 6.0-8.5 GHz
8500 MHz - 8550 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
RADIOLOCATION 5.468 5.469	RADIOLOCATION 5.469 ECA24 ECA36		Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135	Shipborne, land and airborne surveillance
			Radiolocation (military)		Shipborne, land and airborne surveillance
		ECC/DEC/(06)04	UWB applications	EN 302 065	Generic UWB

8550 MHz - 8650 MHz

EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.468 5.469 5.469A	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.469 ECA24 5.469A ECA36		Active sensors (satellite)		
			Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135	Shipborne, land and airborne surveillance
			Radiolocation (military)		Shipborne, land and airborne surveillance
		ECC/DEC/(06)04	UWB applications	EN 302 065	Generic UWB

8650 MHz - 8750 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
RADIOLOCATION 5.468 5.469	RADIOLOCATION 5.469 ECA24 ECA36		Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135	Shipborne, land and airborne surveillance
			Radiolocation (military)		Shipborne, land and airborne surveillance
		ECC/DEC/(06)04	UWB applications	EN 302 065	Generic UWB

8750 MHz - 8850 MHz

AERONAUTICAL RADIONAVIGATION 5.470 RADIOLOCATION 5.471	AERONAUTICAL RADIONAVIGATION 5.470 RADIOLOCATION Space Research ECA24 ECA36		Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135	Shipborne, land and airborne surveillance
			Radiolocation (military)		Shipborne, land and airborne surveillance
		ECC/DEC/(06)04	UWB applications	EN 302 065	Generic UWB

8850 MHz - 9000 MHz

MARITIME RADIONAVIGATION 5.472 RADIOLOCATION 5.473	MARITIME RADIONAVIGATION 5.472 RADIOLOCATION Space Research 5.473 ECA24 ECA36		Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135	Shipborne, land and airborne surveillance
			Radiolocation (military)		Shipborne, land and airborne surveillance
		ECC/DEC/(06)04	UWB applications	EN 302 065	Generic UWB

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
9000 MHz - 9200 MHz					
AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.471 5.473A	AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION Space Research 5.471 ECA24 5.473A ECA36	ERC/REC 70-03	Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
			Radiodetermination applications	EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135 EN 303 213	Shipborne, land and airborne surveillance. EN 303 213-1 X-band sensors
			Radiolocation (military)		Shipborne, land and airborne surveillance
9200 MHz - 9300 MHz					
EARTH EXPLORATION-SATELLITE (ACTIVE) 5.474A 5.474B 5.474C MARITIME RADIONAVIGATION 5.472 RADIOLOCATION 5.473 5.474 5.474D	EARTH EXPLORATION-SATELLITE (ACTIVE) 5.474A 5.474B 5.474C MARITIME RADIONAVIGATION 5.472 RADIOLOCATION Space Research 5.473 ECA24 5.474 ECA36 5.474D	ERC/REC 70-03	Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
			Radiodetermination applications	EN 300 440 EN 302 372	Within the band 9200-9975 MHz; and within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135	Shipborne, land and airborne surveillance
			Radiolocation (military)		Shipborne, land and airborne surveillance
			Synthetic aperture radar		
9300 MHz - 9500 MHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION RADIONAVIGATION 5.475 SPACE RESEARCH (ACTIVE) 5.427 5.474 5.475 5.475A 5.475B 5.476A	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION RADIONAVIGATION 5.476A SPACE RESEARCH (ACTIVE) 5.427 ECA24 5.474 ECA36 5.475 5.475A 5.475B 5.476A	ERC/REC 70-03	Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
			Radiodetermination applications	EN 300 440 EN 302 372	Within the band 9200-9975 MHz; and within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 302 194 EN 302 248 EN 302 752 EN 303 135 EN 303 213	Shipborne, land and airborne surveillance EN 303 213-6-1 X-band sensors
			Radiolocation (military)		Shipborne, land and airborne surveillance
			Satellite systems (military)		
			Weather radar	EN 303 347	Shipborne, land and airborne serveillance

9500 MHz - 9800 MHz

EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (ACTIVE) 5.476A	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.476A ECA24 ECA36		Active sensors (satellite)		
			Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
		ERC/REC 70-03	Radiodetermination applications	EN 300 440 EN 302 372	Within the band 9200-9975 MHz, and within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135	Shipborne, land and airborne surveillance
			Radiolocation (military)		Shipborne, land and airborne surveillance
			Satellite systems (military)		

9800 MHz - 9900 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
RADIOLOCATION Earth Exploration-Satellite (active) Fixed Space Research (active) 5.477 5.478 5.478A 5.478B	RADIOLOCATION Earth Exploration-Satellite (active) Space Research (active) 5.478A ECA24 5.478B ECA36	ERC/REC 70-03	Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
			Radiodetermination applications	EN 300 440 EN 302 372	Within the band 9200-9975 MHz; and within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135	Shipborne, land and airborne surveillance
			Radiolocation (military)		Shipborne, land and airborne surveillance
			Satellite systems (military)		

9900 MHz - 10000 MHz

EARTH EXPLORATION-SATELLITE (ACTIVE) 5.474A 5.474B 5.474C RADIOLOCATION Fixed 5.477 5.478 5.479	EARTH EXPLORATION-SATELLITE (ACTIVE) 5.474A 5.474B 5.474C RADIOLOCATION Fixed 5.477 5.478 5.479	ERC/REC 70-03	Aeronautical military systems		
			Aeronautical navigation	EN 303 064	Civil and military e.g. Airfield approach
			Radiodetermination applications	EN 300 440 EN 302 372	Within the band 9200-9975 MHz, and within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)	EN 303 135	Shipborne, land and airborne surveillance
			Radiolocation (military)		Shipborne, land and airborne surveillance
			Satellite systems (military)		
			Synthetic aperture radar		

10000 MHz - 10400 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (ACTIVE) 5.474A 5.474B 5.474C FIXED MOBILE RADIOLOCATION Amateur 5.474D 5.479	EARTH EXPLORATION-SATELLITE (ACTIVE) 5.474A 5.474B 5.474C FIXED MOBILE RADIOLOCATION Amateur 5.474D ECA17A 5.479 ECA36		Aeronautical military systems		
			Amateur	EN 301 783	Within the band 10-10.5 GHz
			FWA	EN 302 326	Including Point-to-Multipoint
		ERC/REC 12-05	Fixed	EN 302 217	
			Land military systems		
			Maritime military systems		
		ERC/REC 25-10	PMSE	EN 302 064	Portable video, cordless cameras, temporary P-t-P video links in the 10.0- 10.68 GHz tuning range
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)		
			Radiolocation (military)		
			Synthetic aperture radar		

10400 MHz - 10450 MHz

FIXED MOBILE RADIOLOCATION Amateur	FIXED RADIOLOCATION Amateur Mobile ECA17 ECA17A ECA36		Aeronautical military systems		
			Amateur	EN 301 783	Within the band 10-10.5 GHz
			Land military systems		
			Maritime military systems		
		ERC/REC 25-10	PMSE	EN 302 064	Portable video, cordless cameras, temporary P-t-P video links in the 10.0-10.68 GHz tuning range
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 8.5-10.6 GHz for TLPR applications
			Radiolocation (civil)		Low power radars in certain subbands
			Radiolocation (military)		

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
10450 MHz - 10.5 GHz					
RADIOLOCATION Amateur Amateur-Satellite 5.481	FIXED MOBILE RADIOLOCATION Amateur Amateur-Satellite 5.481 ECA17 ECA17A ECA23 ECA36		Aeronautical military systems		
			Amateur	EN 301 783	Within the band 10-10.5 GHz
			Amateur-satellite		
			Land military systems		
			Maritime military systems		
		ERC/REC 25-10	PMSE	EN 302 064	Portable video, cordless cameras, temporary P-t-P video links in the 10.0-10.68 GHz tuning range
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 10.5-10.6 GHz, and within the band 8.5-10.6 GHz for TLPR application
			Radiolocation (civil)		
			Radiolocation (military)		
10.5 GHz - 10.55 GHz					
FIXED MOBILE Radiolocation	FIXED MOBILE Radiolocation ECA17A	ERC/REC 12-05	Fixed	EN 302 217 EN 302 326	Including Point-to-Multipoint
		ERC/REC 25-10	PMSE	EN 302 064	Portable video, cordless cameras, temporary P-t-P video links in the 10.0-10.68 GHz tuning range
		ERC/REC 70-03	Radiodetermination applications	EN 300 440 EN 302 372	Within the band 10.5-10.6 GHz; and within the band 8.5-10.6 GHz for TLPR application
10.55 GHz - 10.6 GHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE Radiolocation ECA17A	ERC/REC 12-05	Fixed	EN 302 217 EN 302 326	Including Point-to-Multipoint
		ERC/REC 25-10	PMSE	EN 302 064	Portable video, cordless cameras, temporary P-t-P video links in the 10.0-10.68 GHz tuning range
		ERC/REC 70-03	Radiodetermination applications	EN 300 440 EN 302 372	Within the band 10.5-10.6 GHz, and within the band 8.5-10.6 GHz for TLPR application

10.6 GHz - 10.68 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Mobile except aeronautical mobile Radiolocation 5.149 5.482 5.482A	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Mobile except aeronautical mobile Radiolocation 5.149 ECA17 5.482 5.482A	ECC/DEC/(10)01 ERC/REC 12-05	Fixed	EN 302 217 EN 302 326	Including Point-to-Multipoint
		ERC/REC 25-10	PMSE	EN 302 064	Portable video, cordless cameras, temporary P-t-P video links in the 10.0-10.68 GHz tuning range
			Passive sensors (satellite)		Surface emissivity and precipitation measurements
			Radio astronomy		Continuum observations, VLBI

10.68 GHz - 10.7 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.483	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite)		Surface emmissivity and precipitation measurement
			Radio astronomy		Continuum observations, VLBI

10.7 GHz - 10.95 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484 FIXED-SATELLITE (SPACE-TO-EARTH) 5.441 MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484 FIXED-SATELLITE (SPACE-TO-EARTH) 5.441 MOBILE EXCEPT AERONAUTICAL MOBILE Mobile-Satellite (space-to-Earth)	ECC/DEC/(05)11	AES	EN 302 186	
		ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(05)10	ESV	EN 302 340	
		ECC/DEC/(19)04 ERC/DEC/(00)08	FSS Earth stations	EN 301 360 EN 301 427 EN 301 428 EN 301 430 EN 301 459 EN 302 448	Within the band 10.7-10.95/11.2-11.45 GHz in accordance with App 30B of RR SIT/SUT - VSAT
		ERC/DEC/(00)08 ERC/REC 12-06	Fixed	EN 302 217	Limited to high capacity fixed links
		ECC/DEC/(06)03	HEST	EN 301 428 EN 301 459	
		ECC/DEC/(06)02	LEST	EN 301 428 EN 301 459	
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	

10.95 GHz - 11.2 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484 FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484 FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE	ECC/DEC/(05)11	AES	EN 302 186	
		ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(05)10	ESV	EN 302 340	
		ERC/DEC/(00)08 ERC/REC 12-06	Fixed	EN 302 217	Limited to high capacity fixed links
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
11.2 GHz - 11.45 GHz					
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484 FIXED-SATELLITE (SPACE-TO-EARTH) 5.441 MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484 FIXED-SATELLITE (SPACE-TO-EARTH) 5.441 MOBILE EXCEPT AERONAUTICAL MOBILE	ECC/DEC/(05)11	AES	EN 302 186	
		ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(05)10	ESV	EN 302 340	
		ERC/DEC/(00)08 ERC/REC 12-06	Fixed	EN 302 217	Limited to high capacity fixed links
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	
11.45 GHz - 11.7 GHz					
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484 FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484 FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE	ECC/DEC/(05)11	AES	EN 302 186	
		ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(05)10	ESV	EN 302 340	
		ERC/DEC/(00)08 ERC/REC 12-06	Fixed	EN 302 217	Limited to high capacity fixed links
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	
11.7 GHz - 12.5 GHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING BROADCASTING-SATELLITE 5.492 FIXED Mobile except aeronautical mobile 5.487 5.487A	BROADCASTING-SATELLITE 5.492 MOBILE EXCEPT AERONAUTICAL MOBILE 5.487 ECA28 5.487A	ERC/DEC/(00)08	Broadcasting (satellite)	EN 301 360 EN 301 459 EN 302 340 EN 302 448	In accordance with App 30 of RR. SIT within the band 12.4 - 12.5 GHz
		ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(06)03	HEST		
		ECC/DEC/(06)02	LEST		
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	

12.5 GHz - 12.75 GHz

FIXED-SATELLITE (EARTH-TO-SPACE) FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B 5.494 5.495 5.496	FIXED-SATELLITE (EARTH-TO-SPACE) FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B 5.496	ECC/DEC/(05)11	AES	EN 302 186	
		ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(05)10	ESV	EN 302 340	
		ECC/DEC/(19)04	FSS Earth stations	EN 301 360 EN 301 427 EN 301 428 EN 301 430 EN 301 459 EN 302 448	Priority for civil networks. Low density carriers, including VSATs and digital SNG are encouraged to use this band VSAT - SIT/SUT
		ECC/DEC/(06)03	HEST	EN 301 428 EN 301 459	
		ECC/DEC/(06)02	LEST	EN 301 428 EN 301 459	
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
12.75 GHz - 13.25 GHz					
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.441 MOBILE Space Research (deep space) (space-to-Earth)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.441	ECC/DEC/(19)04	FSS Earth stations	EN 301 430	
		ERC/REC 12-02	Fixed	EN 302 217	
13.25 GHz - 13.4 GHz					
AERONAUTICAL RADIONAVIGATION 5.497 EARTH EXPLORATION-SATELLITE (ACTIVE) SPACE RESEARCH (ACTIVE) 5.498A 5.499	AERONAUTICAL RADIONAVIGATION 5.497 EARTH EXPLORATION-SATELLITE (ACTIVE) SPACE RESEARCH (ACTIVE) 5.498A ECA26		Active sensors (satellite)		Altimeters, scatterometers, precipitation radars
			Airborne doppler navigation aids		
			Maritime radar		Ship berthing radars
13.4 GHz - 13.65 GHz					
EARTH EXPLORATION-SATELLITE (ACTIVE) FIXED-SATELLITE (SPACE-TO-EARTH) 5.499A 5.499B RADIOLOCATION SPACE RESEARCH 5.499C 5.499D Standard Frequency and Time Signal-Satellite (Earth-to-space) 5.499E 5.500 5.501 5.501B	EARTH EXPLORATION-SATELLITE (ACTIVE) FIXED-SATELLITE (SPACE-TO-EARTH) 5.499A 5.499B RADIOLOCATION SPACE RESEARCH 5.499C 5.499D 5.501B ECA26 ECA36		-		Data relay satellites
			Active sensors (satellite)		Altimeters, scatterometers, preciptation radars
			Airborne doppler navigation aids		
			FSS Earth stations		
			Maritime radar		Ship berthing radars
		ERC/REC 70-03	Radiodetermination applications	EN 300 440	Within the band 13.4-14.0 GHz
			Radiolocation (military)		
13.65 GHz - 13.75 GHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION SPACE RESEARCH 5.501A Standard Frequency and Time Signal-Satellite (Earth-to-space) 5.499 5.500 5.501 5.501B	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION SPACE RESEARCH 5.501A 5.501B ECA26 ECA36		-		Data relay satellites
			Active sensors (satellite)		Altimeters, scatterometers, preciptation radars
			Airborne doppler navigation aids		
			Maritime radar		Ship berthing radars
		ERC/REC 70-03	Radiodetermination applications	EN 300 440	Within the band 13.4-14.0 GHz
			Radiolocation (military)		

13.75 GHz - 14 GHz

FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A RADIOLOCATION Earth Exploration-Satellite Space Research Standard Frequency and Time Signal-Satellite (Earth-to-space) 5.499 5.500 5.501 5.502 5.503	FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A RADIOLOCATION Space Research 5.502 ECA26 5.503 ECA36		-		Data relay satellites
			FSS Earth stations	EN 301 430	
			Maritime radar		Navigation radars, ship berthing radars
			Passive sensors (satellite)		Future VLBI measurements
		ERC/REC 70-03	Radiodetermination applications	EN 300 440	Within the band 13.4-14.0 GHz
			Radiolocation (military)		

14 GHz - 14.25 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.506 5.506B 5.484B RADIONAVIGATION 5.504 Mobile-Satellite (Earth-to-space) 5.504B 5.504C 5.506A Space Research 5.504A 5.505	FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.484B 5.506 5.506B Mobile-Satellite (Earth-to-space) 5.504B 5.504C 5.506A Space Research 5.504	ECC/DEC/(05)11	AES	EN 302 186	
		ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(05)10	ESV	EN 302 340	
		ECC/DEC/(06)03	HEST	EN 301 428	
		ECC/DEC/(06)02	LEST	EN 301 428	
			MSS Earth stations	EN 301 427 EN 302 977	Priority for civil networks
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	
		ERC/REC 13-03	VSAT	EN 301 428 EN 301 430	Low density carriers, including VSATs and digital SNG, are encouraged to use this band

14.25 GHz - 14.3 GHz

FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.484B 5.506 5.506B RADIONAVIGATION 5.504 Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.508A Space Research 5.504A 5.505 5.508	FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.484B 5.506 5.506B Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.508A Space Research 5.504	ECC/DEC/(05)11	AES	EN 302 186	
		ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(05)10	ESV	EN 302 340	
			MSS Earth stations	EN 301 427 EN 302 977	Priority for civil networks
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	
		ERC/REC 13-03	VSAT	EN 301 428 EN 301 430	SNG

14.3 GHz - 14.4 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.506 5.457A 5.506B 5.484A 5.457B 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.509A Radionavigation-Satellite 5.504A	FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.484B 5.506 5.506B Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.509A	ECC/DEC/(05)11	AES	EN 302 186	
		ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(05)10	ESV	EN 302 340	
			FSS Earth stations	EN 302 340	Fixed links to be coordinated with Fixed Satellite Services on a national basis
			MSS Earth stations	EN 301 427 EN 302 977	Priority for civil networks
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	
		ERC/REC 13-03	VSAT	EN 301 428 EN 301 430	SNG

14.4 GHz - 14.47 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.506 5.506B 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.509A Space Research (space-to-Earth) 5.504A	FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.484B 5.506 5.506B Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.509A 5.504A	ECC/DEC/(05)11	AES	EN 302 186	
		ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
		ECC/DEC/(05)10	ESV	EN 302 340	
			FSS Earth stations	EN 302 340	Fixed links to be coordinated with Fixed Satellite Services on a national basis
			MSS Earth stations	EN 301 427 EN 302 977	Priority for civil networks
		ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	
		ERC/REC 13-03	VSAT	EN 301 428 EN 301 430	SNG

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*		*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
14.47 GHz - 14.5 GHz						
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.506 5.506B MOBILE EXCEPT AERONAUTICAL MOBILE Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.509A Radio Astronomy 5.149 5.504A	FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.484A 5.506 Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.509A Radio Astronomy 5.149 5.504A		ECC/DEC/(05)11	AES	EN 302 186	
			ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980 EN 303 981	
			ECC/DEC/(05)10	ESV	EN 302 340	
				FSS Earth stations	EN 302 340	Fixed links to be coordinated with Fixed Satellite Service on a national basis
				MSS Earth stations	EN 301 427 EN 302 977	Priority for civil networks
			ECC/DEC/(17)04	NGSO FSS	EN 303 980 EN 303 981	
				Radio astronomy		Spectral line observations, VLBI
			ERC/REC 13-03	VSAT	EN 301 428 EN 301 430	SNG
14.5 GHz - 14.75 GHz						
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.510 5.509B 5.509C 5.509D 5.509E 5.509F MOBILE Space Research 5.509G	FIXED MOBILE Radio Astronomy	ECA20 ECA36	ERC/REC 12-07	Aeronautical military systems Fixed Land military systems Maritime military systems	EN 302 217	
				Radio astronomy		VLBI (when compatible with primary use)
14.75 GHz - 14.8 GHz						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.510 MOBILE Space Research 5.509G	FIXED MOBILE Radio Astronomy ECA20 ECA36		Aeronautical military systems Land military systems Maritime military systems Radio astronomy		 VLBI (when compatible with primary use)

14.8 GHz - 15.35 GHz

FIXED MOBILE Space Research 5.339	FIXED MOBILE Radio Astronomy 5.339 ECA20 ECA36	ERC/REC 12-07	Aeronautical military systems Fixed Land military systems Maritime military systems Radio astronomy	 EN 302 217 	 VLBI (when compatible with primary use)

15.35 GHz - 15.4 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.511	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite) Radio astronomy		 Continuum observations, VLBI

15.4 GHz - 15.43 GHz

AERONAUTICAL RADIONAVIGATION RADIOLOCATION 5.511E 5.511F	AERONAUTICAL RADIONAVIGATION RADIOLOCATION 5.511E 5.511F		Airborne doppler navigation aids Radiolocation (civil)		Doppler radar low power sensing Ground movement radars

15.43 GHz - 15.63 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (EARTH-TO-SPACE) 5.511A RADIOLOCATION 5.511E 5.511F 5.511C	AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (EARTH-TO-SPACE) RADIOLOCATION 5.511E 5.511F 5.511C		Airborne doppler navigation aids		Doppler radar low power sensing
			FSS Earth stations		MSS feeder links
			Radiolocation (civil)		Ground movement radars

15.63 GHz - 15.7 GHz

AERONAUTICAL RADIONAVIGATION RADIOLOCATION 5.511E 5.511F	AERONAUTICAL RADIONAVIGATION RADIOLOCATION 5.511E 5.511F		Airborne doppler navigation aids		Doppler radar low power sensing
			Radiolocation (civil)		Ground movement radars

15.7 GHz - 16.6 GHz

RADIOLOCATION 5.512 5.513	RADIOLOCATION ECA36		Radiolocation (military)		

16.6 GHz - 17.1 GHz

RADIOLOCATION Space Research (deep space) (Earth-to-space) 5.512 5.513	RADIOLOCATION Space Research (deep space) (Earth-to-space) ECA36		Radiolocation (military)		

17.1 GHz - 17.2 GHz

RADIOLOCATION 5.512 5.513	RADIOLOCATION Mobile ECA36	ERC/REC 70-03	GBSAR	EN 300 440	
			Radiolocation (military)		

17.2 GHz - 17.3 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.512 5.513 5.513A	EARTH EXPLORATION-SATELLITE (ACTIVE) MOBILE RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.513A ECA36	ERC/REC 70-03	GBSAR	EN 300 440	
			Radiolocation (military)		

17.3 GHz - 17.7 GHz

FIXED-SATELLITE (EARTH-TO-SPACE) 5.516 FIXED-SATELLITE (SPACE-TO-EARTH) 5.516A 5.516B Radiolocation 5.514	FIXED-SATELLITE (EARTH-TO-SPACE) 5.516 FIXED-SATELLITE (SPACE-TO-EARTH) 5.516A 5.516B Radiolocation ECA36	ECC/DEC/(05)08	FSS Earth stations		High Density FSS
			Feeder links		Feeder links for the BSS service. Appendix 30A of RR
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S
			Radiolocation (military)		

17.7 GHz - 18.1 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.516 FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.517A MOBILE	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.516 FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
			Feeder links		Feeder links for the BSS service. Appendix 30A of RR
		ERC/DEC/(00)07 ERC/REC 12-03	Fixed	EN 302 217	
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S

18.1 GHz - 18.4 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.520 FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.517A MOBILE 5.519 5.521	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.520 FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) 5.519	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
			Feeder links		Feeder links for the BSS service
		ERC/DEC/(00)07 ERC/REC 12-03	Fixed	EN 302 217	
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S

18.4 GHz - 18.6 GHz

FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.517A MOBILE	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
		ERC/DEC/(00)07 ERC/REC 12-03	Fixed	EN 302 217	
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S

18.6 GHz - 18.8 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.522B 5.517A MOBILE EXCEPT AERONAUTICAL MOBILE Space Research (passive) 5.522A 5.522C	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.522B 5.522A	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
		ERC/DEC/(00)07 ERC/REC 12-03	Fixed	EN 302 217	
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S
			Passive sensors (satellite)		Surface emmissivity, snow, sea, ice and precipitation

18.8 GHz - 19.3 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.523A 5.517A MOBILE	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.523A	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
		ERC/DEC/(00)07 ERC/REC 12-03	Fixed	EN 302 217	
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S

19.3 GHz - 19.7 GHz

FIXED FIXED-SATELLITE (SPACE-TO-EARTH) (EARTH-TO-SPACE) 5.523B 5.523C 5.523D 5.523E 5.517A MOBILE	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) (EARTH-TO-SPACE) 5.523B 5.523C 5.523D 5.523E	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
		ERC/DEC/(00)07 ERC/REC 12-03	Fixed	EN 302 217	
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S

19.7 GHz - 20.1 GHz

FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.516B 5.527A 5.484B Mobile-Satellite (space-to-Earth) 5.524	FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B 5.516B 5.527A Mobile-Satellite (space-to-Earth)	ECC/DEC/(05)08	FSS Earth stations	EN 301 360 EN 301 459	High Density FSS
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(06)03	HEST	EN 301 360 EN 301 459	
		ECC/DEC/(06)02	LEST	EN 301 360 EN 301 459	
			MSS Earth stations	EN 301 360 EN 301 459	For uncoordinated Earth stations SUT
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S

20.1 GHz - 20.2 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.516B 5.527A 5.484B MOBILE-SATELLITE (SPACE-TO-EARTH) 5.524 5.525 5.526 5.527 5.528	FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B 5.516B 5.527A MOBILE-SATELLITE (SPACE-TO-EARTH) 5.525 5.526 5.527 5.528	ECC/DEC/(05)08	FSS Earth stations	EN 301 360 EN 301 459	High Density FSS
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(06)03	HEST	EN 301 360 EN 301 459	
		ECC/DEC/(06)02	LEST	EN 301 360 EN 301 459	
			MSS Earth stations	EN 301 360 EN 301 459	For uncoordinated Earth stations SUT
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S

20.2 GHz - 21.2 GHz

FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH) Standard Frequency and Time Signal-Satellite (space-to-Earth) 5.524	FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH) ECA36		MSS Earth stations Satellite systems (military)		For uncoordinated Earth stations

21.2 GHz - 21.4 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE SPACE RESEARCH (PASSIVE)	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE SPACE RESEARCH (PASSIVE)	ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link

21.4 GHz - 22 GHz

BROADCASTING-SATELLITE 5.208B FIXED MOBILE 5.530A 5.530B	BROADCASTING-SATELLITE 5.208B 5.530A 5.530B		Broadcasting (satellite)	EN 301 360 EN 301 459	
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
22 GHz - 22.21 GHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.149	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.149 ECA17A	T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
			Radio astronomy		Continuum and spectral line observations (e.g. water line), VLBI
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013
22.21 GHz - 22.5 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.149 5.532	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Earth Exploration-Satellite (passive) Mobile ECA39 5.149 ECA17A 5.532	T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
			Radio astronomy		Continuum and spectral line observations (e.g. water line), VLBI
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013
22.5 GHz - 22.55 GHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE	FIXED MOBILE ECA39 RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) ECA17A	T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
			Radio astronomy		Continuum and spectral line observations (e.g. water line), VLBI
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013

22.55 GHz - 23.15 GHz

FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (EARTH-TO-SPACE) 5.532A 5.149	FIXED INTER-SATELLITE 5.338A MOBILE ECA39 RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) ECA17A	T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
			Radio astronomy		Continuum and spectral line observations (e.g. water line), VLBI
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013

23.15 GHz - 23.55 GHz

FIXED INTER-SATELLITE 5.338A MOBILE	FIXED INTER-SATELLITE 5.338A MOBILE ECA39	T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013

23.55 GHz - 23.6 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE	FIXED INTER-SATELLITE MOBILE ECA39	T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013

23.6 GHz - 24 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite)		Measurement of water vapour, liquid water, clouds for atsmospheric sounding
			Radio astronomy		Continuum and spectral line observations (e.g. ammonia line). VLBI
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013

24 GHz - 24.05 GHz

AMATEUR AMATEUR-SATELLITE 5.150	AMATEUR AMATEUR-SATELLITE 5.150		Amateur	EN 301 783	Within the band 24-24.25 GHz
			Amateur-satellite		
			ISM		Within the band 24-24.25 GHz
		ERC/REC 70-03	Non-specific SRDs	EN 300 440	Within the band 24-24.25 GHz
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013

24.05 GHz - 24.25 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
RADIOLOCATION Amateur Earth Exploration-Satellite (active) 5.150	RADIOLOCATION Amateur Earth Exploration-Satellite (active) Fixed Mobile 5.150 ECA36		Active sensors (satellite)		Rain radars from satellites
			Amateur	EN 301 783	Within the band 24-24.25 GHz
			ISM		Within the band 24-24.25 GHz
		ERC/REC 70-03	Non-specific SRDs	EN 300 440	Within the band 24-24.25 GHz
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 24.05-27.00 GHz for TLPR application. Includes narrow band SRR. Within the band 24.05-26.50 GHz for LPR applications
			Radiolocation (military)		
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013
		ERC/REC 70-03	TTT	EN 302 858	Automotive radars

24.25 GHz - 24.45 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A 5.532AB	FIXED MOBILE 5.338A 5.532AB ECA17A	T/R 13-02	Fixed	EN 302 217 EN 302 326	Unidirectional fixed links
		ECC/DEC/(18)06 ECC/DEC/(22)01	MFCN	EN 301 908	Within 24.25-27.5 GHz
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 24.05-27.00 GHz for TLPR application. Within the band 24.05-26.50 GHz for LPR applications
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013. New SRR systems may only be introduced in CEPT countries in the frequency bands 24.25-26.65 GHz until 1 January 2018; this date is extended by 4 years for SRR equipment mounted on motor vehicles for which a type-approval application has been submitted and has been granted before 1 January 2018

24.45 GHz - 24.5 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A 5.532AB	FIXED MOBILE 5.338A 5.532AB ECA17A	T/R 13-02	Fixed	EN 302 217 EN 302 326	Unidirectional fixed links
		ECC/DEC/(18)06 ECC/DEC/(22)01	MFCN	EN 301 908	Within 24.25-27.5 GHz
		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 24.05-27.00 GHz for TLPR application. Within the band 24.05-26.50 GHz for LPR applications
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013. New SRR systems may only be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz until 1 January 2018; this date is extended by 4 years for SRR equipment mounted on motor vehicles for which a type-approval application has been submitted and has been granted before 1 January 2018

24.5 GHz - 24.65 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A 5.532AB	FIXED MOBILE 5.338A 5.532AB	ECC/REC/(11)01	FWA	EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
		T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ECC/DEC/(18)06 ECC/DEC/(22)01	MFCN	EN 301 908	Within 24.25-27.5 GHz
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 24.05-27.00 GHz for TLPR application. Within the band 24.05-26.50 GHz for LPR applications
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013. New SRR systems may only be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz until 1 January 2018; this date is extended by 4 years for SRR equipment mounted on motor vehicles for which a type-approval application has been submitted and has been granted before 1 January 2018

24.65 GHz - 24.75 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.532B INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A 5.532AB	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.532B MOBILE 5.338A 5.532AB	ECC/REC/(11)01	FWA	EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
		T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ECC/DEC/(18)06 ECC/DEC/(22)01 ECC/REC/(20)01	MFCN	EN 301 908	Within 24.25-27.5 GHz
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 24.05-27.00 GHz for TLPR application. Within the band 24.05-26.50 GHz for LPR applications
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013. New SRR systems may only be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz until 1 January 2018; this date is extended by 4 years for SRR equipment mounted on motor vehicles for which a type-approval application has been submitted and has been granted before 1 January 2018

24.75 GHz - 25.25 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.532B INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A 5.532AB	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.532B INTER-SATELLITE MOBILE 5.338A 5.532AB	ECC/REC/(11)01	FWA	EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
		T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ECC/DEC/(18)06 ECC/DEC/(22)01 ECC/REC/(20)01	MFCN	EN 301 908	Within 24.25-27.5 GHz
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 24.05-27.00 GHz for TLPR application. Within the band 24.05-26.50 GHz for LPR applications
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013. New SRR systems may only be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz until 1 January 2018; this date is extended by 4 years for SRR equipment mounted on motor vehicles for which a type-approval application has been submitted and has been granted before 1 January 2018

25.25 GHz - 25.5 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED 5.534A INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB Standard Frequency and Time Signal-Satellite (Earth-to-space)	FIXED INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB ECA36		Aeronautical military systems		
		ECC/REC/(11)01	FWA	EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
		T/R 13-02	Fixed	EN 302 217 EN 302 326	
			Land military systems		
		ECC/DEC/(18)06 ECC/DEC/(22)01	MFCN	EN 301 908	Within 24.25-27.5 GHz
			Maritime military systems		
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 24.05-27.00 GHz for TLPR application. Within the band 24.05-26.50 GHz for LPR applications
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013. New SRR systems may only be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz until 1 January 2018; this date is extended by 4 years for SRR equipment mounted on motor vehicles for which a type-approval application has been submitted and has been granted before 1 January 2018

25.5 GHz - 26.5 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) 5.536B FIXED 5.534A INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB SPACE RESEARCH (SPACE-TO-EARTH) 5.536C Standard Frequency and Time Signal-Satellite (Earth-to-space) 5.536A	FIXED INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB SPACE RESEARCH (SPACE-TO-EARTH) 5.536C Earth Exploration-Satellite (space-to-Earth) 5.536B 5.536A ECA36		Aeronautical military systems		
		ECC/REC/(11)01	FWA	EN 302 326	TS should be paired with 24.5-25.5 GHz for FDD systems
		T/R 13-02	Fixed	EN 302 217 EN 302 326	
			Land military systems		
		ECC/DEC/(18)06 ECC/DEC/(22)01 ECC/REC/(19)01	MFCN	EN 301 908	Within 24.25-27.5 GHz
			Maritime military systems		
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 24.05-27.00 GHz for TLPR application. Within the band 24.05-26.50 GHz for LPR applications
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013. New SRR systems may only be introduced in CEPT countries in the frequency bands 24.25-26.65 GHz until 1 January 2018; this date is extended by 4 years for SRR equipment mounted on motor vehicles for which a type-approval application has been submitted and has been granted before 1 January 2018
		ECC/DEC/(18)06 ECC/REC/(19)01	Space research		Satellite payload telemetry

26.5 GHz - 27 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) 5.536B FIXED 5.534A INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB SPACE RESEARCH (SPACE-TO-EARTH) 5.536C Standard Frequency and Time Signal-Satellite (Earth-to-space) 5.536A	FIXED INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB SPACE RESEARCH (SPACE-TO-EARTH) 5.536C Earth Exploration-Satellite (space-to-Earth) 5.536B 5.536A ECA36		Land military systems		
		ECC/DEC/(18)06 ECC/DEC/(22)01 ECC/REC/(19)01	MFCN	EN 301 908	Within 24.25-27.5 GHz
		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 24.05-27.00 GHz for TLPR application
		ECC/DEC/(04)10 ERC/REC 70-03	SRR	EN 302 288	New SRR systems shall not be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz as of 1 July 2013. New SRR systems may only be introduced in CEPT countries in the frequency bands 24.25-26.65 GHz until 1 January 2018; this date is extended by 4 years for SRR equipment mounted on motor vehicles for which a type approval application has been submitted and has been granted before 1 January 2018
		ECC/DEC/(18)06 ECC/REC/(19)01	Space research		Satellite payload telemetry

27 GHz - 27.5 GHz

FIXED INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB	FIXED INTER-SATELLITE 5.536 MOBILE 5.338A 5.532AB Earth Exploration-Satellite (space-to-Earth) ECA36		Land military systems		
		ECC/DEC/(18)06 ECC/DEC/(22)01 ECC/REC/(19)01	MFCN	EN 301 908	Within 24.25-27.5 GHz

27.5 GHz - 28.5 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED 5.537A FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.516B 5.539 5.517A MOBILE 5.538 5.540	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.516B 5.539 5.538 5.540	ECC/DEC/(05)01	FSS Earth stations	EN 301 360	The Earth-to-Space direction for uncoordinated Earth stations within the band 27.5-27.8285 GHz.The Space-to-Earth direction is limited to beacons for uplink power control 27.5-27.501 GHz
		ECC/DEC/(05)01 ECC/REC/(11)01	FWA	EN 302 326	CRS paired with 28.5-29.5 GHz for FDD systems. The Earth-to-Space direction for uncoordinated earth stations within the band 27.5-27.8285 GHz. The Space-to-Earth direction is limited to beacons for uplink power control 27.5-27.501 GHz
			Feeder links		Feeder links to be used for Broadcasting satellites (HDTV) 27.5-29.5 GHz
		ECC/DEC/(05)01 T/R 13-02	Fixed	EN 302 217 EN 302 326	For frequency arrangement between FS and FSS see ECC/DEC/(05)01. CRS paired with 28.5-29.5 GHz for FDD systems.The Earth-to-Space direction for uncoordinated Earth stations within the band 27.5-27.8285 GHz. The Space-to-Earth direction is limited to beacons for uplink power control 27.5-27.501 GHz
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S

28.5 GHz - 29.1 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.516B 5.523A 5.539 5.517A MOBILE Earth Exploration-Satellite (Earth-to-space) 5.541 5.540	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.516B 5.523A 5.539 Earth Exploration-Satellite (Earth-to-space) 5.541 5.540	ECC/DEC/(05)01	FSS Earth stations	EN 301 360	Uncoordinated Earth stations within the band 28.4445-28.8365 GHz
		ECC/DEC/(05)01 ECC/REC/(11)01	FWA	EN 302 326	TS paired with 27.5-28.5 GHz for FDD systems. Uncoordinated Earth stations within the band 28.4445-28.8365 GHz
			Feeder links		Feeder links to be used for Broadcasting satellites (HDTV) 27.5-29.5 GHz
		ECC/DEC/(05)01 T/R 13-02	Fixed	EN 302 217 EN 302 326	For frequency arrangement between FS and FSS see ECC/DEC/(05)01. TS paired with 27.5-28.5 GHz for FDD systems. Uncoordinated Earth stations within the band 28.4445-28.8365 GHz
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S

29.1 GHz - 29.5 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A 5.517A MOBILE Earth Exploration-Satellite (Earth-to-space) 5.541 5.540	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A Earth Exploration-Satellite (Earth-to-space) 5.541 5.540	ECC/DEC/(05)01	FSS Earth stations	EN 301 360	Uncoordinated Earth stations within the band 29.4525-29.5 GHz
		ECC/DEC/(05)01 ECC/REC/(11)01	FWA	EN 302 326	TS paired with 27.5-28.5 GHz for FDD systems. Uncoordinated Earth stations within the band 29.4525-29.5 GHz
			Feeder links		Feeder links to be used for Broadcasting satellites (HDTV) 27.5-29.5 GHz
		ECC/DEC/(05)01 T/R 13-02	Fixed	EN 302 217 EN 302 326	Within the band 29.0605-29.4525 GHz. TS paired with 27.5-28.5 GHz for FDD systems. Uncoordinated Earth stations within the band 29.4525-29.5 GHz
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	

29.5 GHz - 29.9 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.516B 5.539 5.484B 5.527A Earth Exploration-Satellite (Earth-to-space) 5.541 Mobile-Satellite (Earth-to-space) 5.540 5.542	FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.484B 5.516B 5.527A 5.539 Earth Exploration-Satellite (Earth-to-space) 5.541 Mobile-Satellite (Earth-to-space) 5.540	ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(06)03	HEST	EN 301 459	
		ECC/DEC/(06)02	LEST	EN 301 459	
			MSS Earth stations	EN 301 459	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S
		ECC/DEC/(05)08	SIT/SUT	EN 301 459	High Density FSS

29.9 GHz - 30 GHz

FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.516B 5.539 5.484B 5.527A Earth Exploration-Satellite (Earth-to-space) 5.541 5.543 5.525 5.526 5.527 5.538 5.540 5.542	EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) 5.541 5.543 FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.484B 5.516B 5.527A 5.539 MOBILE-SATELLITE (EARTH-TO-SPACE) 5.525 5.526 5.527 5.538 5.540		FSS Earth stations		Limited to beacons for uplink power control 29.999-30 GHz
		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
		ECC/DEC/(06)03	HEST	EN 301 459	
		ECC/DEC/(06)02	LEST	EN 301 459	
			MSS Earth stations	EN 301 459	
		ECC/DEC/(15)04	NGSO ESOMPs	EN 303 979	Limited to land based and maritime E/S
		ECC/DEC/(05)08	SIT/SUT	EN 301 459	High Density FSS

30 GHz - 31 GHz

FIXED-SATELLITE (EARTH-TO-SPACE) 5.338A MOBILE-SATELLITE (EARTH-TO-SPACE) Standard Frequency and Time Signal-Satellite (space-to-Earth) 5.542	FIXED-SATELLITE (EARTH-TO-SPACE) 5.338A MOBILE-SATELLITE (EARTH-TO-SPACE) ECA36		FSS Earth stations		For uncoordinated Earth stations
			MSS Earth stations		
			Satellite systems (military)		

31 GHz - 31.3 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED 5.338A 5.543B 5.543A MOBILE Space Research 5.544 5.545 Standard Frequency and Time Signal-Satellite (space-to-Earth) 5.149	FIXED 5.338A 5.543B MOBILE 5.149	ECC/REC/(02)02	Fixed	EN 302 217 EN 302 326	
			Radio astronomy		Continuum observations

31.3 GHz - 31.5 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340	ECC/DEC/(10)02	Passive sensors (satellite)		Measurement of sea ice, water vapour, oil spills, liquid water, clouds, surface temperature, emissivity and atmospheric attenuation. Reference window for the 50-60 GHz range
			Radio astronomy		Continuum observations

31.5 GHz - 31.8 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile 5.149 5.546	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile 5.149 5.546		Fixed		
			Passive sensors (satellite)		Measurement of sea ice, water vapour, oil spills, liquid water, clouds, surface temperature. Emissivity and atmospheric attenuation. Reference window for the 50-60 GHz range
			Radio astronomy		Continuum observations

31.8 GHz - 32 GHz

FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (DEEP SPACE) (SPACE-TO-EARTH) 5.547 5.547B 5.548	FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (DEEP SPACE) (SPACE-TO-EARTH) 5.547 5.548	ECC/REC/(11)01	FWA	EN 302 326	Point-to-Point and Point-to-Multipoint
		ERC/REC/(01)02	Fixed	EN 302 217	High Density FS

32 GHz - 32.3 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (DEEP SPACE) (SPACE-TO-EARTH) 5.547 5.547C 5.548	FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (DEEP SPACE) (SPACE-TO-EARTH) 5.547 5.548	ECC/REC/(11)01	FWA	EN 302 326	Point-to-Point and Point-to-Multipoint
		ERC/REC/(01)02	Fixed	EN 302 217	High Density FS

32.3 GHz - 33 GHz

FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.547D 5.548	FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.548	ECC/REC/(11)01	FWA	EN 302 326	Point-to-Point and Point-to-Multipoint
		ERC/REC/(01)02	Fixed	EN 302 217	High Density FS

33 GHz - 33.4 GHz

FIXED 5.547A RADIONAVIGATION 5.547 5.547E	FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547	ECC/REC/(11)01	FWA	EN 302 326	Point-to-Point and Point-to-Multipoint
		ERC/REC/(01)02	Fixed	EN 302 217	High Density FS

33.4 GHz - 34.2 GHz

RADIOLOCATION 5.549	RADIOLOCATION ECA36		Radiodetermination applications Radiolocation (military)		Surveying and measurement

34.2 GHz - 34.7 GHz

RADIOLOCATION SPACE RESEARCH (DEEP SPACE) (EARTH-TO-SPACE) 5.549	RADIOLOCATION SPACE RESEARCH (DEEP SPACE) (EARTH-TO-SPACE) ECA36		Radiodetermination applications Radiolocation (military)		Surveying and measurement

34.7 GHz - 35.2 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
RADIOLOCATION Space Research 5.549	RADIOLOCATION Space Research ECA36		Radiodetermination applications Radiolocation (military)		Surveying and measurement

35.2 GHz - 35.5 GHz

METEOROLOGICAL AIDS RADIOLOCATION 5.549	METEOROLOGICAL AIDS RADIOLOCATION ECA36		Active sensors (satellite) Radiolocation (military)		Rain radar from satellites

35.5 GHz - 36 GHz

EARTH EXPLORATION-SATELLITE (ACTIVE) METEOROLOGICAL AIDS RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.549 5.549A	EARTH EXPLORATION-SATELLITE (ACTIVE) METEOROLOGICAL AIDS RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.549A ECA36		Active sensors (satellite) Radiolocation (military)		

36 GHz - 37 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE SPACE RESEARCH (PASSIVE) 5.149 5.550A	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE SPACE RESEARCH (PASSIVE) Radio Astronomy 5.149 5.550A		Passive sensors (satellite) Radio astronomy		EESS surface emmissivity, snow, sea ice and precipitation Spectral line observations (Hydrogen cyanide and Hydroxil lines) 36.43-36.50 GHz

37 GHz - 37.5 GHz

FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.550B SPACE OPERATION (SPACE-TO-EARTH) 5.547	FIXED SPACE RESEARCH (SPACE-TO-EARTH) 5.547	T/R 12-01	Fixed	EN 302 217	Major use by civil Fixed Service systems. High Density fixed links

37.5 GHz - 38 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.550D 5.550C MOBILE EXCEPT AERONAUTICAL MOBILE 5.550B SPACE RESEARCH (SPACE-TO-EARTH) Earth Exploration-Satellite (space-to-Earth) 5.547	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) SPACE RESEARCH (SPACE-TO-EARTH) Earth Exploration-Satellite (space-to-Earth) 5.547	ERC/DEC/(00)02	FSS Earth stations		Uncoordinated Earth stations shall not claim protection from the Fixed Service
		T/R 12-01	Fixed	EN 302 217	Major use by civil Fixed Service systems. High Density fixed links

38 GHz - 39.5 GHz

FIXED 5.550D FIXED-SATELLITE (SPACE-TO-EARTH) 5.550D 5.550C MOBILE 5.550B Earth Exploration-Satellite (space-to-Earth) 5.547	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) Earth Exploration-Satellite (space-to-Earth) 5.547	ERC/DEC/(00)02	FSS Earth stations		Uncoordinated Earth stations shall not claim protection from the Fixed Service
		T/R 12-01	Fixed	EN 302 217	Major use by civil Fixed Service systems. High Density fixed links

39.5 GHz - 40 GHz

FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.550D 5.550C MOBILE 5.550B MOBILE-SATELLITE (SPACE-TO-EARTH) Earth Exploration-Satellite (space-to-Earth) 5.550E 5.547	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) Earth Exploration-Satellite (space-to-Earth) 5.547	ERC/DEC/(00)02	FSS Earth stations		

40 GHz - 40.5 GHz

EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.550C MOBILE 5.550B MOBILE-SATELLITE (SPACE-TO-EARTH) SPACE RESEARCH (EARTH-TO-SPACE) Earth Exploration-Satellite (space-to-Earth) 5.550E	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) SPACE RESEARCH (EARTH-TO-SPACE) Earth Exploration-Satellite (space-to-Earth)	ERC/DEC/(00)02	FSS Earth stations		

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
40.5 GHz - 41 GHz					
BROADCASTING BROADCASTING-SATELLITE FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.550C LAND MOBILE 5.550B Aeronautical Mobile Maritime Mobile 5.547	BROADCASTING BROADCASTING-SATELLITE FIXED LAND MOBILE 5.550B Aeronautical Mobile Maritime Mobile 5.547	ECC/DEC/(02)04	FSS Earth stations		
		ECC/REC/(01)04 ERC/DEC/(99)15	FWA	EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems
		ECC/REC/(01)04 ERC/DEC/(99)15	Fixed	EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems
41 GHz - 42.5 GHz					
BROADCASTING BROADCASTING-SATELLITE FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.550C LAND MOBILE 5.550B Aeronautical Mobile Maritime Mobile 5.547 5.551H 5.551I	BROADCASTING BROADCASTING-SATELLITE FIXED LAND MOBILE 5.550B Aeronautical Mobile Maritime Mobile 5.547 5.551H 5.551I	ECC/DEC/(02)04	FSS Earth stations		
		ECC/REC/(01)04 ERC/DEC/(99)15	FWA	EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems
		ECC/REC/(01)04 ERC/DEC/(99)15	Fixed	EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems
42.5 GHz - 43.5 GHz					
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 5.550C MOBILE EXCEPT AERONAUTICAL MOBILE 5.550B RADIO ASTRONOMY 5.149 5.547	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY 5.149 5.547		FSS Earth stations		Priority for civil networks
		ECC/REC/(01)04 ERC/DEC/(99)15	FWA	EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems
		ECC/REC/(01)04 ERC/DEC/(99)15	Fixed	EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems
			Radio astronomy		Continuum and spectral line observations (e.g. silicon monoxide line), VLBI
43.5 GHz - 45.5 GHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
MOBILE 5.553 5.553A MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554	MOBILE 5.553 MOBILE-SATELLITE Fixed-Satellite 5.554 ECA36		Aeronautical military systems Land military systems Maritime military systems Satellite systems (military)		

45.5 GHz - 47 GHz

MOBILE 5.553 5.553A MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554	MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554		-		

47 GHz - 47.2 GHz

AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLITE		Amateur Amateur-satellite		

47.2 GHz - 47.5 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 5.550C MOBILE 5.553B 5.552A	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 MOBILE 5.552A	ECC/DEC/(21)01	FSS Earth stations		For fixed applications. Priority for civil networks
			Feeder links		For 40 GHz Broadcasting satellites
			HAPS		
		ERC/REC 25-10	PMSE	EN 302 064	Cordless cameras

47.5 GHz - 47.9 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 5.550C FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A MOBILE 5.553A	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A MOBILE	ECC/DEC/(05)08 ECC/DEC/(21)01	FSS Earth stations		High Density FSS
			Feeder links		For 40 GHz Broadcasting satellites
		ERC/REC 25-10	PMSE	EN 302 064	Cordless cameras

47.9 GHz - 48.2 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 5.550C MOBILE 5.553B 5.552A	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 MOBILE 5.552A	ECC/DEC/(21)01	FSS Earth stations		For fixed applications. Priority for civil networks
			Feeder links		For 40 GHz Broadcasting satellites
			HAPS		
		ERC/REC 25-10	PMSE	EN 302 064	Cordless cameras

48.2 GHz - 48.54 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 5.550C FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A 5.555B MOBILE	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A 5.555B MOBILE	ECC/DEC/(05)08 ECC/DEC/(21)01	FSS Earth stations		High Density FSS
			Feeder links		For 40 GHz Broadcasting satellites
		ERC/REC 12-11	Fixed	EN 302 217	Within the band 48.5-50.2 GHz and 50.9-52.6 GHz
		ERC/REC 25-10	PMSE	EN 302 064	Cordless cameras

48.54 GHz - 49.44 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 5.550C MOBILE 5.149 5.340 5.555	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 MOBILE RADIO ASTRONOMY 5.149 ECA17A 5.340 5.555	ECC/DEC/(21)01	FSS Earth stations		For fixed applications. Priority for civil networks
			Feeder links		48.5-49.2 GHz for 40 GHz Broadcasting satellites
		ERC/REC 12-11	Fixed	EN 302 217	Within the band 48.5-50.2 GHz and 50.9-52.6 GHz
		ERC/REC 25-10	PMSE	EN 302 064	Cordless cameras
			Radio astronomy		Spectral line observations (e.g. carbon monosulphide line)

49.44 GHz - 50.2 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 5.338A 5.550C FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A 5.555B MOBILE	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.338A 5.552 FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A 5.555B MOBILE ECA17A	ECC/DEC/(05)08 ECC/DEC/(21)01	FSS Earth stations		High Density FSS
		ERC/REC 12-11	Fixed	EN 302 217	Within the band 48.5-50.2 GHz and 50.9-52.6 GHz
		ERC/REC 25-10	PMSE	EN 302 064	Cordless cameras

50.2 GHz - 50.4 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite)		Atmospheric temperature sounding. Terrestrial passive radiometers. Reference window for the 52.6-59.3 GHz band
			Radio astronomy		Continuum and spectral line observations

50.4 GHz - 51.4 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.338A 5.550C MOBILE Mobile-Satellite (Earth-to-space)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.338A Mobile-Satellite (Earth-to-space)		-		Future satellite and terrestrial applications. Shared civil and non civil allocation
		ERC/REC 12-11	Fixed	EN 302 217	Within the band 48.5-50.2 GHz and 50.9-52.6 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
51.4 GHz - 52.4 GHz					
FIXED 5.338A FIXED-SATELLITE (EARTH-TO-SPACE) 5.555C MOBILE 5.547 5.556	FIXED 5.338A FIXED-SATELLITE (EARTH-TO-SPACE) 5.555C MOBILE RADIO ASTRONOMY 5.547 5.556	ERC/REC 12-11	Fixed Radio astronomy	EN 302 217	Within the band 48.5-50.2 GHz and 50.9-52.6 GHz Continuum and spectral line observations
52.4 GHz - 52.6 GHz					
FIXED 5.338A MOBILE 5.547 5.556	FIXED 5.338A MOBILE RADIO ASTRONOMY 5.547 5.556	ERC/REC 12-11	Fixed Radio astronomy	EN 302 217	Within the band 48.5-50.2 GHz and 50.9-52.6 GHz Continuum and spectral line observations
52.6 GHz - 54.25 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) 5.340 5.556	EARTH EXPLORATION-SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) 5.340 5.556		Passive sensors (satellite) Radio astronomy		Atmospheric temperature sounding. Terrestrial passive radiometers Continuum and spectral line observations
54.25 GHz - 55.78 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.556A SPACE RESEARCH (PASSIVE) 5.556B	EARTH EXPLORATION-SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE)		Passive sensors (satellite)		Atmospheric temperature sounding. Terrestrial passive radiometers
55.78 GHz - 56.9 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED 5.557A INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (PASSIVE) 5.547 5.557	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED 5.557A INTER-SATELLITE 5.556A SPACE RESEARCH (PASSIVE) 5.547 5.558	ERC/REC 12-12	Fixed Passive sensors (satellite)	EN 302 217	High density fixed links Atmospheric temperature sounding

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
56.9 GHz - 57 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED INTER-SATELLITE 5.558A MOBILE 5.558 SPACE RESEARCH (PASSIVE) 5.547 5.557	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED INTER-SATELLITE 5.558A MOBILE 5.558 SPACE RESEARCH (PASSIVE) 5.547	ERC/REC 12-12	Fixed	EN 302 217	High density fixed links
			Passive sensors (satellite)		Atmospheric temperature sounding
57 GHz - 58.2 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (PASSIVE) 5.547 5.557	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (PASSIVE) 5.547		Fixed	EN 302 217	Un-coordinated deployment. High density fixed links
		ERC/REC 70-03	Non-specific SRDs	EN 305 550	Within the band 57-64 GHz
			Passive sensors (satellite)		Atmospheric temperature sounding
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 57-64 GHz for TLPR and LPR applications
		ERC/REC 70-03	Wideband data transmission systems	EN 302 567	
58.2 GHz - 59 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE SPACE RESEARCH (PASSIVE) 5.547 5.556	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.547 ECA6 5.556 ECA19		Fixed	EN 302 217	Un-coordinated deployment. High density fixed links
		ERC/REC 70-03	Non-specific SRDs	EN 305 550	Within the band 57-64 GHz
			Passive sensors (satellite)		Atmospheric temperature sounding. Terrestrial passive radiometers
			Radio astronomy		Continuum and spectral line observations
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 57-64 GHz for TLPR and LPR applications
		ERC/REC 70-03	Wideband data transmission systems	EN 302 567	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
59 GHz - 59.3 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559 SPACE RESEARCH (PASSIVE)	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559 SPACE RESEARCH (PASSIVE)		Fixed	EN 302 217	High density fixed links
		ERC/REC 70-03	Non-specific SRDs	EN 305 550	Within the band 57-64 GHz
			Passive sensors (satellite)		Atmospheric temperature sounding. Terrestrial passive radiometers
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 57-64 GHz for TLPR and LPR applications
		ERC/REC 70-03	Wideband data transmission systems	EN 302 567	
59.3 GHz - 64 GHz					
FIXED INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 5.138	FIXED INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 5.138		Fixed	EN 302 217	High density fixed links
			ISM		Within the band 61.0-61.5 GHz
		ECC/DEC/(09)01	ITS	EN 302 686	Within the band 63.72 - 65.88 GHz
		ERC/REC 70-03	Non-specific SRDs	EN 305 550	Within the band 57-64 GHz
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 57-64 GHz for TLPR and LPR applications
		ERC/REC 70-03	Wideband data transmission systems	EN 302 567	
64 GHz - 65 GHz					
FIXED INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE 5.547 5.556	FIXED INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE 5.547 5.556		Fixed	EN 302 217	High density fixed links
		ECC/DEC/(09)01	ITS	EN 302 686	Within the band 63.72 - 65.88 GHz
			Radio astronomy		Continuum and spectral line observations
		ERC/REC 70-03	Wideband data transmission systems	EN 302 567	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
65 GHz - 66 GHz					
EARTH EXPLORATION-SATELLITE FIXED INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE SPACE RESEARCH 5.547	EARTH EXPLORATION-SATELLITE FIXED INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE SPACE RESEARCH 5.547		Fixed	EN 302 217	High density fixed links
		ECC/DEC/(09)01	ITS	EN 302 686	Within the band 63.72 - 65.88 GHz
			Land mobile		Broadband mobile systems for connection to IBCN paired with 62-63 GHz
		ERC/REC 70-03	Wideband data transmission systems	EN 302 567	
66 GHz - 71 GHz					
INTER-SATELLITE MOBILE 5.553 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554 5.559AA	INTER-SATELLITE MOBILE 5.553 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554		-		Future civil systems
			Wideband data transmission systems		
71 GHz - 74 GHz					
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH)	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH)	ECC/REC/(05)07	Fixed	EN 302 217	
74 GHz - 75.5 GHz					
BROADCASTING BROADCASTING-SATELLITE FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE Space Research (space-to-Earth) 5.561	BROADCASTING BROADCASTING-SATELLITE FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE Space Research (space-to-Earth) 5.561	ECC/REC/(05)07	Fixed	EN 302 217	
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
			Space research		VLBI measurements within the band 74-84 GHz
75.5 GHz - 76 GHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
BROADCASTING BROADCASTING-SATELLITE FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE Space Research (space-to-Earth) 5.561	BROADCASTING BROADCASTING-SATELLITE FIXED FIXED-SATELLITE (SPACE-TO-EARTH) Amateur Amateur-Satellite 5.561 ECA35		Amateur		Within the band 75.5-81.5 GHz
			Amateur-satellite		Within the band 75.5-81.5 GHz
		ECC/REC/(05)07	Fixed	EN 302 217	
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
			Space research		VLBI

76 GHz - 77.5 GHz

RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite Space Research (space-to-Earth) 5.149	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite Space Research (space-to-Earth) 5.149		Amateur		Within the band 75.5-81.5 GHz
			Amateur-satellite		Within the band 75.5-81.5 GHz
			Radio astronomy		Continuum and spectral line observations
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
			Radiolocation (civil)		
		ERC/REC 70-03	Railway applications	EN 301 091	Obstruction/vehicle detection at level crossings
		ECC/DEC/(04)03	SRR	EN 302 264	
		ECC/DEC/(16)01 ERC/REC 70-03	TTT	EN 301 091 EN 303 360	Within the band 76-77 GHz. Ground based vehicle and infrastructure radars. Within the band 76-77 GHz obstacle detection radars for rotorcraft use

77.5 GHz - 78 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
AMATEUR AMATEUR-SATELLITE RADIOLOCATION 5.559B Radio Astronomy Space Research (space-to-Earth) 5.149	AMATEUR AMATEUR-SATELLITE RADIOLOCATION 5.559B Space Research (space-to-Earth) 5.149		Amateur		Within the band 75.5-81.5 GHz
			Amateur-satellite		Within the band 75.5-81.5 GHz
			Radio astronomy		Continuum and spectral line observations
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
		ECC/DEC/(04)03	SRR	EN 302 264	

78 GHz - 79 GHz

RADIOLOCATION Amateur Amateur-Satellite Radio Astronomy Space Research (space-to-Earth) 5.149 5.560	RADIOLOCATION Amateur Amateur-Satellite Radio Astronomy Space Research (space-to-Earth) 5.149 5.560		Amateur		Within the band 75.5-81.5 GHz
			Amateur-satellite		Within the band 75.5-81.5 GHz
			Radio astronomy		Continuum and spectral line observations
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
			Radiolocation (civil)		
		ECC/DEC/(04)03	SRR	EN 302 264	

79 GHz - 81 GHz

RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite Space Research (space-to-Earth) 5.149	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite 5.149		Amateur		Within the band 75.5-81.5 GHz
			Amateur-satellite		Within the band 75.5-81.5 GHz
			Radio astronomy		Continuum and spectral line observations
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
			Radiolocation (civil)		
		ECC/DEC/(04)03	SRR	EN 302 264	

81 GHz - 84 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED 5.338A FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) RADIO ASTRONOMY Space Research (space-to-Earth) 5.149 5.561A	FIXED 5.338A FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) RADIO ASTRONOMY Space Research (space-to-Earth) 5.149 5.561A		Amateur		Within the band 75.5-81.5 GHz
			Amateur-satellite		Within the band 75.5-81.5 GHz
		ECC/REC/(05)07	Fixed	EN 302 217	
			Radio astronomy		Continuum and spectral line observations
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications

84 GHz - 86 GHz

FIXED 5.338A FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE RADIO ASTRONOMY 5.149	FIXED 5.338A FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE RADIO ASTRONOMY 5.149	ECC/REC/(05)07	Fixed	EN 302 217	
			Radio astronomy		Continuum and spectral line observations
		ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications	EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications

86 GHz - 92 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite)		Measurement of clouds, oil spills, ice, snow, rain, reference window for the temperature sounding near 118 GHz
			Radio astronomy		Continuum and spectral line observations. VLBI

92 GHz - 94 GHz

FIXED 5.338A MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	FIXED 5.338A MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	ECC/REC/(14)01 ECC/REC/(18)02	Fixed		
			Radio astronomy		Continuum and spectral line observations

94 GHz - 94.1 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION SPACE RESEARCH (ACTIVE) Radio Astronomy 5.562 5.562A	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION SPACE RESEARCH (ACTIVE) Radio Astronomy 5.562 5.562A		Active sensors (satellite) Radio astronomy Space research		Cloud radars Continuum and spectral line observations

94.1 GHz - 95 GHz

FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	ECC/REC/(14)01 ECC/REC/(18)02	Fixed Radio astronomy		Continuum and spectral line observations

95 GHz - 100 GHz

FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554	ECC/REC/(18)02	Fixed Radio astronomy		Continuum and spectral line observations

100 GHz - 102 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341		Passive sensors (satellite) Radio astronomy		Limb sounding of atmospheric constituents Continuum and spectral line observations

102 GHz - 105 GHz

FIXED MOBILE RADIO ASTRONOMY 5.149 5.341	FIXED MOBILE RADIO ASTRONOMY 5.149 5.341	ECC/REC/(18)02	Fixed Radio astronomy		Continuum and spectral line observations

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
105 GHz - 109.5 GHz					
FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.562B 5.149 5.341	FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.562B 5.149 5.341	ECC/REC/(18)02	Fixed Radio astronomy		Continuum and spectral line observations
109.5 GHz - 111.8 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341		Radio astronomy		Continuum and spectral line observations
111.8 GHz - 114.25 GHz					
FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.562B 5.149 5.341	FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.562B 5.149 5.341	ECC/REC/(18)02	Fixed Radio astronomy		Continuum and spectral line observations
114.25 GHz - 116 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341		Radio astronomy		Continuum and spectral line observations
116 GHz - 119.98 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562C SPACE RESEARCH (PASSIVE) 5.341	EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562C 5.341		Passive sensors (satellite)		Passive sensing as part of the oxygen absorption band with peak at 118.75 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
119.98 GHz - 120.02 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562C SPACE RESEARCH (PASSIVE) 5.341	EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562C 5.341		Passive sensors (satellite)		Passive sensing as part of the oxygen absorption band with peak at 118.75 GHz
120.02 GHz - 122.25 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562C SPACE RESEARCH (PASSIVE) 5.138	EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562C SPACE RESEARCH (PASSIVE) 5.138	ERC/REC 70-03	Non-specific SRDs Passive sensors (satellite)	EN 305 550	Within the band 122-123 GHz Passive sensing as part of the oxygen absorption band with peak at 118.75 GHz
122.25 GHz - 123 GHz					
FIXED INTER-SATELLITE MOBILE 5.558 Amateur 5.138	FIXED INTER-SATELLITE MOBILE 5.558 Amateur Amateur-Satellite 5.138	ERC/REC 70-03	Amateur Amateur-satellite Non-specific SRDs	EN 305 550	Within the band 122-123 GHz
123 GHz - 130 GHz					
FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio Astronomy 5.149 5.554	FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio Astronomy 5.149 5.554		Radio astronomy		Continuum and spectral line observations
130 GHz - 134 GHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
EARTH EXPLORATION-SATELLITE (ACTIVE) 5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149 5.562A	EARTH EXPLORATION-SATELLITE (ACTIVE) 5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149 5.562A	ECC/REC/(18)01	Fixed Radio astronomy		 Continuum and spectral line observations
134 GHz - 136 GHz					
AMATEUR AMATEUR-SATELLITE Radio Astronomy	AMATEUR AMATEUR-SATELLITE Radio Astronomy		Amateur Amateur-satellite Radio astronomy		Within the band 134-141 GHz Within the band 134-141 GHz Continuum and spectral line observations
136 GHz - 141 GHz					
RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite 5.149	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite 5.149		Amateur Amateur-satellite Radio astronomy		Within the band 134-141 GHz Within the band 134-141 GHz Continuum and spectral line observations
141 GHz - 148.5 GHz					
FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	ECC/REC/(18)01	Fixed Radio astronomy		 Continuum and spectral line observations
148.5 GHz - 151.5 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite) Radio astronomy		Harmonised reference window for passive sensor observations Continuum and spectral line observations

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
151.5 GHz - 155.5 GHz					
FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	ECC/REC/(18)01	Fixed Radio astronomy		 Continuum and spectral line observations
155.5 GHz - 158.5 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.562B 5.149	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.562B 5.149	ECC/REC/(18)01	Fixed Passive sensors (satellite) Radio astronomy		 Protection until 1.1.2018 Spectral line and wide band continuum observations
158.5 GHz - 164 GHz					
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH)	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH)	ECC/REC/(18)01	Fixed		
164 GHz - 167 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite) Radio astronomy		Passive sensing of the water vapour absorption line whose peak is at 183.31 GHz. Atmospheric limb sounding of the 164.38 GHz CO line Continuum and spectral line observations
167 GHz - 174.5 GHz					
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) INTER-SATELLITE MOBILE 5.558 5.149	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) INTER-SATELLITE MOBILE 5.558 5.149	ECC/REC/(18)01	Fixed Radio astronomy		 Within the band 168-174.5 GHz. Continuum and spectral line observations

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
174.5 GHz - 174.8 GHz					
FIXED INTER-SATELLITE MOBILE 5.558	FIXED INTER-SATELLITE MOBILE 5.558	ECC/REC/(18)01	Fixed		
174.8 GHz - 182 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562H SPACE RESEARCH (PASSIVE)	EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562H SPACE RESEARCH (PASSIVE)		Passive sensors (satellite)		Passive sensing of the water vapour absorption line whose peak is at 183.31 GHz
182 GHz - 185 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite) Radio astronomy		Passive sensing of the water vapour absorption line whose peak is at 183.31 GHz Continuum and spectral line observations
185 GHz - 190 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562H SPACE RESEARCH (PASSIVE)	EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562H SPACE RESEARCH (PASSIVE)		Passive sensors (satellite)		Passive sensing of the water vapour absorption line whose peak is at 183.31 GHz
190 GHz - 191.8 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite) Radio astronomy		Passive sensing of the water vapour absorption line whose peak is at 183.31 GHz Continuum and spectral line observations
191.8 GHz - 200 GHz					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.341 5.554	FIXED INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.341 5.554		Radio astronomy		Continuum and spectral line observations

200 GHz - 202 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341 5.563A	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341 5.563A		Earth exploration-satellite Radio astronomy		(EESS) Atmospheric limb sounding and atmospheric remote sensing of nitrous oxide at 201 GHz Continuum and spectral line observations

202 GHz - 209 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341 5.563A	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.341 5.563A		Earth exploration-satellite Radio astronomy		(EESS) Atmospheric limb sounding and atmospheric remote sensing of water vapour at 203.4 GHz and ozone at 208.5 GHz Continuum and spectral line observations

209 GHz - 217 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE RADIO ASTRONOMY 5.149 5.341	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE RADIO ASTRONOMY 5.149 5.341		Radio astronomy		Continuum and spectral line observations

217 GHz - 226 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.562B 5.149 5.341	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.562B 5.149 5.341		Radio astronomy		Continuum and spectral line observations

226 GHz - 231.5 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Passive sensors (satellite)		Atmospheric limb sounding. Reference window for higher frequency water vapour measurements
			Radio astronomy		Continuum and spectral line observations (e.g. CO line), VLBI

231.5 GHz - 232 GHz

FIXED MOBILE Radiolocation	FIXED MOBILE Radiolocation				

232 GHz - 235 GHz

FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE Radiolocation	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE Radiolocation				

235 GHz - 238 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED-SATELLITE (SPACE-TO-EARTH) SPACE RESEARCH (PASSIVE) 5.563A 5.563B	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED-SATELLITE (SPACE-TO-EARTH) SPACE RESEARCH (PASSIVE) 5.563A 5.563B		Passive sensors (satellite)		Passive sensing limited to microwave sounding
			Radio astronomy		Continuum and spectral line observations

238 GHz - 240 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE				

240 GHz - 241 GHz

FIXED MOBILE RADIOLOCATION	FIXED MOBILE RADIOLOCATION				

241 GHz - 248 GHz

RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite 5.138 5.149	RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite 5.138 5.149	ERC/REC 70-03	Amateur Amateur-satellite Non-specific SRDs Radio astronomy	EN 305 550	Within the band 241-250 GHz Within the band 241-250GHz Within the band 244-246 GHz Continuum and spectral line observations

248 GHz - 250 GHz

AMATEUR AMATEUR-SATELLITE Radio Astronomy 5.149	AMATEUR AMATEUR-SATELLITE Radio Astronomy 5.149		Amateur Amateur-satellite Radio astronomy		Within the band 241-250 GHz Within the band 241-250 GHz Continuum and spectral line observations

250 GHz - 252 GHz

EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.563A	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.563A		Earth exploration-satellite Radio astronomy		(EESS) Limb sounding of nitrous oxide near 251 GHz Continuum and spectral line observations

252 GHz - 265 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation and ECA Footnotes*	*ECC/ERC harmonisation measure*	*Applications*	*Standard*	*Notes*
FIXED MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) RADIO ASTRONOMY RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554	FIXED MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE) RADIO ASTRONOMY RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554		Radio astronomy		Continuum and spectral line observations

265 GHz - 275 GHz

FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE RADIO ASTRONOMY 5.149 5.563A	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) MOBILE RADIO ASTRONOMY 5.149 5.563A		Radio astronomy		Continuum and spectral line observations

275 GHz - 3000 GHz

Not allocated 5.564A 5.565	Not allocated 5.564A 5.565		-		May be used by both active and passive service

Annex 1 - ECA footnotes included in ECA Table

ECA1	Not used.
ECA2	Not used.
ECA3	Not used.
ECA4	Not used.
ECA5	In parts of this band aeronautical stations and aircraft stations utilise the preferred 8.33 kHz channel spacing for non secure communications requirements.
ECA6	The mobile-satellite service is limited to low earth orbiting satellites.
ECA7	This band can also be used by low capacity fixed links in rural areas on a national basis. These links need to be coordinated with mobile service and require full protection.
ECA8	Any use of low capacity fixed links shall be avoided in areas where such use might cause harmful interference to the maritime mobile VHF radiocommunication service.
ECA9	CEPT administrations may authorise all or parts of the band 69.9-70.5 MHz to the amateur service on a secondary basis.
ECA10	The range 225-399.9 MHz is essential to NATO and is in military use for land mobile, mobile-satellite, Air/Ground/Air and specific maritime and terrestrial communications, including ITU Region 2. This NATO UHF band 225-400 MHz is the only harmonised and commonly available resource managed by NATO on a daily basis in and for NATO nations. It is recognised that 380-385 MHz and 390-395 MHz are currently shared with narrowband Public Protection and Disaster Relief (PPDR) applications.
ECA11	Not used.
ECA12	The applicable RR 5 footnotes in column 1 remain in force. Administrations are however urged to aim for the fullest possible harmonisation with the ITU Table of Allocations and ECA.
ECA13	CEPT administrations are urged to take all practical steps to clear the band 645-960 MHz of the assignments to the aeronautical radionavigation service.
ECA14	Radiolocation limited to military requirements for naval ship borne radars.
ECA15	Not used.
ECA15A	Not used.
ECA16	Use of the band by the mobile service is limited to tactical radio relay and Video links applications.
ECA16A	Use of the band by the mobile service is limited to tactical radio relay and SAP/SAB applications.
ECA17	In the sub-bands 5755-5765 MHz, 10.36-10.37 GHz, 10.45-10.46 GHz the amateur service operates on a secondary basis. In making assignments to other services, CEPT administrations are requested wherever possible to maintain these sub-bands in such a way as to facilitate the reception of amateur emissions with minimal power flux densities.
ECA17A	Use of the band by the mobile service is limited to Video links.
ECA18	Not used.

Annex 1 - ECA footnotes included in ECA Table

ECA19	This band is allocated to the radio astronomy service. CEPT administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from space or airborne stations in this and adjacent bands can cause serious harmful interference.
ECA20	This fixed service band is designated for common use by civil and non civil users. Any user priorities in respect of preferred channels or sub-bands are to be determined after discussions between interested parties.
ECA21	Not used.
ECA22	The band 5250-5850 MHz is utilised for a variety of radiodetermination applications falling within the radionavigation and radiolocation services. This band will be subject to further detailed consideration.
ECA23	In the sub-bands 5660-5670 MHz (earth to space), 5830-5850 MHz (space to earth) and 10.45-10.50 GHz the amateur-satellite additionally operates on a secondary and non interference basis to other services. In making assignments to other services, CEPT administrations are requested wherever possible to maintain these allocations in such a way as to facilitate the reception of amateur emissions with minimal power flux densities.
ECA24	The band 8500-10000 MHz is utilised for a variety of radiodetermination applications falling within the radionavigation and radiolocation services. This band will be subject to further detailed consideration in conjunction with the band 5250-5850 MHz (see ECA22).
ECA25	Not used.
ECA26	The band 13.25-14.0 GHz is utilised for a variety of radiodetermination applications falling within the radionavigation and radiolocation services. This band will be subject to further detailed consideration.
ECA27	Not used.
ECA28	CEPT administrations shall not deploy new fixed service systems in the band 11.7-12.5 GHz (ERC/DEC(00)08).
ECA29	The frequency bands 890-915 / 935-960 MHz, 880-890 / 925-935 MHz, 1710-1785 / 1805-1880 MHz, 1920-1980 MHz and 2110-2170 MHz are reserved for public cellular mobile use only. Other services such as the fixed service should only be allowed in the above bands where coexistence with public mobile systems is possible i.e. in sparsely populated or rural areas where the frequency band is not needed for mobile cellular systems.
ECA30	National administrations should consider co-ordination zones around the EISCAT sites when using the band 925-935 MHz for mobile services including international planning for military services. Short Range Devices should not use this band.
ECA31	Not used.
ECA32	The bands 880-915 MHz and 925-960 MHz are currently used for GSM (2nd generation terrestrial mobile system) in most CEPT member countries and by IMT, depending on the market demands and national licensing schemes.
ECA33	Not used.
ECA34	Parts of the bands 450-457.5/460-467.5 MHz may also be used for existing and evolving public cellular networks on a national basis.
ECA35	In Europe the band 75.5-76 GHz is also allocated to the Amateur and Amateur Satellite services.

Annex 1 - ECA footnotes included in ECA Table

ECA36	A frequency band, which has been harmonised by NATO and NATO member nations for military use as defined in the NATO Joint Civil/Military Frequency Agreement (NJFA) 2014. Note: NATO Joint Civil/Military Frequency Agreement (NJFA) - Extract for Public Disclosure – 14 February 2017
ECA37	In Europe the allocation to the mobile service is limited to the band 3400-3800 MHz.
ECA38	Administrations may choose at national level to allow MFCN for the command and control and payload links of UAS within the current MFCN bands. Administrations are requested to ensure protection of other existing systems and services in these frequency bands
ECA39	Administrations shall avoid deployment of high-density mobile systems incl. high-density fixed wireless access in the 22.0-23.6 GHz frequency band (ECC/DEC/(18)06)

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5.53 Administrations authorizing the use of frequencies below 8.3 kHz shall ensure that no harmful interference is caused to the services to which the bands above 8.3 kHz are allocated. (WRC-12)

5.54 Administrations conducting scientific research using frequencies below 8.3 kHz are urged to advise other administrations that may be concerned in order that such research may be afforded all practicable protection from harmful interference. (WRC-12)

5.54A Use of the 8.3-11.3 kHz frequency band by stations in the meteorological aids service is limited to passive use only. In the band 9-11.3 kHz, meteorological aids stations shall not claim protection from stations of the radionavigation service submitted for notification to the Bureau prior to 1 January 2013. For sharing between stations of the meteorological aids service and stations in the radionavigation service submitted for notification after this date, the most recent version of Recommendation ITU-R RS.1881 should be applied. (WRC-12)

5.54B Additional allocation: in Algeria, Saudi Arabia, Bahrain, Egypt, the United Arab Emirates, the Russian Federation, Iran (Islamic Republic of), Iraq, Kuwait, Lebanon, Morocco, Qatar, the Syrian Arab Republic, Sudan and Tunisia, the frequency band 8.3-9 kHz is also allocated to the radionavigation, fixed and mobile services on a primary basis. (WRC-15)

5.54C Additional allocation: in China, the frequency band 8.3-9 kHz is also allocated to the maritime radionavigation and maritime mobile services on a primary basis.

5.55 Additional allocation: in Armenia, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the frequency band 14-17 kHz is also allocated to the radionavigation service on a primary basis. (WRC-15)

5.56 The stations of services to which the bands 14-19.95 kHz and 20.05-70 kHz and in Region 1 also the bands 72-84 kHz and 86-90 kHz are allocated may transmit standard frequency and time signals. Such stations shall be afforded protection from harmful interference. In Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakstan, Kyrgyzstan, Tajikistan and Turkmenistan, the frequencies 25 kHz and 50 kHz will be used for this purpose under the same conditions. (WRC-12)

5.57 The use of the bands 14-19.95 kHz, 20.05-70 kHz and 70-90 kHz (72-84 kHz and 86-90 kHz in Region 1) by the maritime mobile service is limited to coast radiotelegraph stations (A1A and F1B only). Exceptionally, the use of class J2B or J7B emissions is authorized subject to the necessary bandwidth not exceeding that normally used for class A1A or F1B emissions in the band concerned.

5.58 Additional allocation: in Armenia, Azerbaijan, the Russian Federation, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, the band 67-70 kHz is also allocated to the radionavigation service on a primary basis. (WRC-2000)

5.60 In the bands 70-90 kHz (70-86 kHz in Region 1) and 110-130 kHz (112-130 kHz in Region 1), pulsed radionavigation systems may be used on condition that they do not cause harmful interference to other services to which these bands are allocated.

5.62 Administrations which operate stations in the radionavigation service in the band 90-110 kHz are urged to coordinate technical and operating characteristics in such a way as to avoid harmful interference to the services provided by these stations.

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5.64 Only classes A1A or F1B, A2C, A3C, F1C or F3C emissions are authorized for stations of the fixed service in the bands allocated to this service between 90 kHz and 160 kHz (148.5 kHz in Region 1) and for stations of the maritime mobile service in the bands allocated to this service between 110 kHz and 160 kHz (148.5 kHz in Region 1). Exceptionally, class J2B or J7B emissions are also authorized in the bands between 110 kHz and 160 kHz (148.5 kHz in Region 1) for stations of the maritime mobile service.

5.66 Different category of service: in Germany, the allocation of the band 115-117.6 kHz to the fixed and maritime mobile services is on a primary basis (see No. 5.33) and to the radionavigation service on a secondary basis (se No. 5.32).

5.67 Additional allocation: in Kyrgyzstan and Turkmenistan, the frequency band 130-148.5 kHz is also allocated to the radionavigation service on a secondary basis. Within and between these countries this service shall have an equal right to operate. (WRC-19)

5.67A Stations in the amateur service using frequencies in the band 135.7-137.8 kHz shall not exceed a maximum radiated power of 1 W (e.i.r.p.) and shall not cause harmful interference to stations of the radionavigation service operating in countries listed in No. 5.67. WRC-07)

5.67B The use of the frequency band 135.7-137.8 kHz in Algeria, Egypt, Iraq, Lebanon, Syrian Arab Republic, Sudan, South Sudan and Tunisia is limited to the fixed and maritime mobile services. The amateur service shall not be used in the above-mentioned countries in the frequency band 135.7-137.8 kHz, and this should be taken into account by the countries authorizing such use. (WRC-19)

5.68 Alternative allocation: in Congo (Rep of the), the Dem. Rep. of the Congo and South Africa, the frequency band 160-200 kHz is allocated to the fixed service on a primary basis. (WRC-15)

5.69 Additional allocation: in Somalia, the band 200-255 kHz is also allocated to the aeronautical radionavigation service on a primary basis.

5.70 Alternative allocation: in Angola, Botswana, Burundi, the Central African Rep., Congo (Rep. of the), Eswatini, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Oman, the Dem. Rep. of the Congo, South Africa, Tanzania, Chad, Zambia and Zimbabwe, the frequency band 200-283.5 kHz is allocated to the aeronautical radionavigation service on a primary basis. (WRC-19)

5.73 The band 285-325 kHz (283.5-325 kHz in Region 1) in the maritime radionavigation service may be used to transmit supplementary navigational information using narrow-band techniques, on condition that no harmful interference is caused to radiobeacon stations operating in the radionavigation service. (WRC-97)

5.74 Additional allocation: in Region 1, the frequency band 285.3-285.7 kHz is also allocated to the maritime radionavigation service (other than radiobeacons) on a primary basis.

5.75 Different category of service: in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Moldova, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine and the Black Sea areas of Romania, the allocation of the band 315-325 kHz to the maritime radionavigation service is on a primary basis under the condition that in the Baltic Sea area, the assignment of frequencies in this band to new stations in the maritime or aeronautical radionavigation services shall be subject to prior consultation between the administrations concerned. (WRC-07)

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5.76 The frequency 410 kHz is designated for radio direction-finding in the maritime radionavigation service. The other radionavigation services to which the band 405-415 kHz is allocated shall not cause harmful interference to radio direction-finding in the band 406.5-413.5 kHz

5.77 Different category of service: in Australia, China, the French overseas communities of Region 3, Korea (Rep. of), India, Iran (Islamic Republic of), Japan, Pakistan, Papua New Guinea, the Dem. People's Rep. of Korea and Sri Lanka, the allocation of the frequency band 415-495 kHz to the aeronautical radionavigation service is on a primary basis. In Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Latvia, Uzbekistan and Kyrgyzstan, the allocation of the frequency band 435-495 kHz to the aeronautical radionavigation service is on a primary basis. Administrations in all the aforementioned countries shall take all practical steps necessary to ensure that aeronautical radionavigation stations in the frequency band 435-495 kHz do not cause interference to reception by coast stations of transmissions from ship stations on frequencies designated for ship stations on a worldwide basis. (WRC-19)

5.79 In the maritime mobile service, the frequency bands 415-495 kHz and 505-526.5 kHz are limited to radiotelegraphy and may also be used for the NAVDAT system in accordance with the most recent version of Recommendation ITU-R M.2010, subject to agreement between interested and affected administrations. NAVDAT transmitting stations are limited to coast stations. (WRC-19)

5.79A When establishing coast stations in the NAVTEX service on the frequencies 490 kHz, 518 kHz and 4209.5 kHz, administrations are strongly recommended to coordinate the operating characteristics in accordance with the procedures of the International Maritime Organization (IMO) (see Resolution 339 (Rev.WRC-07). (WRC-07)

5.80 In Region 2, the use of the band 435-495 kHz by the aeronautical radionavigation service is limited to non-directional beacons not employing voice transmission

5.80A The maximum equivalent isotropically radiated power (e.i.r.p.) of stations in the amateur service using frequencies in the band 472-479 kHz shall not exceed 1 W. Administrations may increase this limit of e.i.r.p. to 5 W in portions of their territory which are at a distance of over 800 km from the borders of Algeria, Saudi Arabia, Azerbaijan, Bahrain, Belarus, China, Comoros, Djibouti, Egypt, United Arab Emirates, the Russian Federation, Iran (Islamic Republic of), Iraq, Jordan, Kazakhstan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Oman, Uzbekistan, Qatar, Syrian Arab Republic, Kyrgyzstan, Somalia, Sudan, Tunisia, Ukraine and Yemen. In this frequency band, stations in the amateur service shall not cause harmful interference to, or claim protection from, stations of the aeronautical radionavigation service. (WRC-12)

5.80B The use of the frequency band 472-479 kHz in Algeria, Saudi Arabia, Azerbaijan, Bahrain, Belarus, China, Comoros, Djibouti, Egypt, United Arab Emirates, the Russian Federation, Iraq, Jordan, Kazakhstan, Kuwait, Lebanon, Libya, Mauritania, Oman, Uzbekistan, Qatar, Syrian Arab Republic, Kyrgyzstan, Somalia, Sudan, Tunisia and Yemen is limited to the maritime mobile and aeronautical radionavigation services. The amateur service shall not be used in the above-mentioned countries in this frequency band, and this should be taken into account by the countries authorizing such use. (WRC-12)

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5.82	In the maritime mobile service, the frequency 490 kHz is to be used exclusively for the transmission by coast stations of navigational and meteorological warnings and urgent information to ships, by means of narrow-band direct-printing telegraphy. The conditions for use of the frequency 490 kHz are prescribed in Articles 31 and 52. In using the band 415-495 kHz for the aeronautical radionavigation service, administrations are requested to ensure that no harmful interference is caused to the frequency 490 kHz. (WRC-12)
5.82C	The frequency band 495-505 kHz is used for the international NAVDAT system as described in the most recent version of Recommendation ITU-R M.2010. NAVDAT transmitting stations are limited to coast stations. (WRC-19)
5.84	The conditions for the use of the frequency 518 kHz by the maritime mobile service are prescribed in Articles 31 and 52. (WRC-07)
5.87	Additional allocation: in Angola, Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia and Niger, the frequency band 526.5-535 kHz is also allocated to the mobile service on a secondary basis. (WRC-19)
5.87A	Additional allocation: in Uzbekistan, the band 526.5-1606.5 kHz is also allocated to the radionavigation service on a primary basis. Such use is subject to agreement obtained under No. 9.21 with administrations concerned and limited to ground-based radiobeacons in operation on 27 October 1997 until the end of their lifetime. (WRC-97)
5.90	In the band 1605-1705 kHz, in cases where a broadcasting station of Region 2 is concerned, the service area of the maritime mobile stations in Region 1 shall be limited to that provided by ground-wave propagation
5.92	Some countries of Region 1 use radiodetermination systems in the bands 1606.5-1625 kHz, 1635-1800 kHz, 1850-2160 kHz, 2194-2300 kHz, 2502-2850 kHz and 3500-3800 kHz, subject to agreement obtained under No. 9.21. The radiated mean power of these stations shall not exceed 50 W.
5.93	Additional allocation: in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Mongolia, Nigeria, Uzbekistan, Poland, Kyrgyzstan, Slovakia, Tajikistan, Chad, Turkmenistan and Ukraine, the frequency bands 1625-1635 kHz, 1800-1810 kHz and 2160-2170 kHz are also allocated to the fixed and land mobile services on a primary basis, subject to agreement obtained under No. 9.21. (WRC-15)
5.96	In Germany, Armenia, Austria, Azerbaijan, Belarus, Croatia, Denmark, Estonia, the Russian Federation, Finland, Georgia, Hungary, Iceland, Ireland, Israel, Kazakhstan, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Rep., the United Kingdom, Sweden, Switzerland, Tajikistan, Turkmenistan and Ukraine, administrations may allocate up to 200 kHz to their amateur service in the frequency bands 1715-1800 kHz and 1850-2000 kHz. However, when allocating the frequency bands within this range to their amateur service, administrations shall, after prior consultation with administrations of neighbouring countries, take such steps as may be necessary to prevent harmful interference from their amateur service to the fixed and mobile services of other countries. The mean power of any amateur station shall not exceed 10 W. (WRC-15)
5.98	Alternative allocation: in Armenia, Azerbaijan, Belarus, Belgium, Cameroon, Congo (Rep. of the), Denmark, Egypt, Eritrea, Spain, Ethiopia, the Russian Federation, Georgia, Greece, Italy, Kazakhstan, Lebanon, Lithuania, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tunisia, Turkmenistan and Turkey , the frequency band 1810-1830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-15)

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5.99 Additional allocation: in Saudi Arabia, Austria, Iraq, Libya,Uzbekistan, Slovakia, Romania, Slovenia, Chad, and Togo, the band 1810-1830 kHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.100 In Region 1, the authorization to use the band 1810-1830 kHz by the amateur service in countries situated totally or partially north of 40° N shall be given only after consultation with the countries mentioned in Nos. 5.98 and 5.99 to define the necessary steps to be taken to prevent harmful interference between amateur stations and stations of other services operating in accordance with Nos. 5.98 and 5.99.

5.103 In Region 1, in making assignments to stations in the fixed and mobile services in the bands 1850-2045 kHz, 2194-2498 kHz, 2502-2625 kHz and 2650-2850 kHz, administrations should bear in mind the special requirements of the maritime mobile service.

5.104 In Region 1, the use of the band 2025-2045 kHz by the meteorological aids service is limited to oceanographic buoy stations.

5.107 Additional allocation: in Saudi Arabia, Eritrea, Eswatini, Ethiopia, Iraq, Libya and Somalia, the frequency band 2 160-2 170 kHz is also allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. The mean power of stations in these services shall not exceed 50 W. (WRC-19)

5.108 The carrier frequency 2182 kHz is an international distress and calling frequency for radiotelephony. The conditions for the use of the band 2173.5-2190.5 kHz are prescribed in Articles 31 and 52. (WRC-07)

5.109 The frequencies 2187.5 kHz, 4207.5 kHz, 6312 kHz, 8414.5 kHz, 12577 kHz and 16804.5 kHz are international distress frequencies for digital selective calling. The conditions for the use of these frequencies are prescribed in Article 31.

5.110 The frequencies 2174.5 kHz, 4177.5 kHz, 6268 kHz, 8376.5 kHz, 12520 kHz and 16695 kHz are international distress frequencies for narrow-band direct-printing telegraphy. The conditions for the use of these frequencies are prescribed in Article 31.

5.111 The carrier frequencies 2182 kHz, 3023 kHz, 5680 kHz, 8364 kHz and the frequencies 121.5 MHz, 156.525 MHz, 156.8 MHz and 243 MHz may also be used, in accordance with the procedures in force for terrestrial radiocommunication services, for search and rescue operations concerning manned space vehicles. The conditions for the use of the frequencies are prescribed in Article 31. The same applies to the frequencies 10003 kHz, 14993 kHz and 19993 kHz, but in each of these cases emissions must be confined in a band of ±3 kHz about the frequency. (WRC-07)

5.112 Alternative allocation: in Sri Lanka, the frequency band 2 194-2 300 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-19)

5.113 For the conditions for the use of the bands 2300-2495 kHz (2498 kHz in Region 1), 3200-3400 kHz, 4750-4995 kHz and 5005-5060 kHz by the broadcasting service, see Nos. 5.16 to 5.20, 5.21 and 23.3 to 23.10.

5.114 Alternative allocation: in Iraq, the frequency band 2 502-2 625 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-19)

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5.115 The carrier (reference) frequencies 3023 kHz and 5680 kHz may also be used, in accordance with Article 31 by stations of the maritime mobile service engaged in coordinated search and rescue operations. (WRC-07)

5.116 Administrations are urged to authorize the use of the band 3155-3195 kHz to provide a common worldwide channel for low power wireless hearing aids. Additional channels for these devices may be assigned by administrations in the bands between 3155 kHz and 3400 kHz to suit local needs. It should be noted that frequencies in the range 3000 kHz to 4000 kHz are suitable for hearing aid devices which are designed to operate over short distances within the induction field.

5.117 Alternative allocation: in Ivory Coast, Egypt, Liberia, Sri Lanka and Togo, the frequency band 3 155-3 200 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-19)

5.123 Additional allocation: in Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia, South Africa, Zambia and Zimbabwe, the frequency band 3 900-3 950 kHz is also allocated to the broadcasting service on a primary basis, subject to agreement obtained under No. 9.21. (WRC-19)

5.125 Additional allocation: in Greenland, the band 3950-4000 kHz is also allocated to the broadcasting service on a primary basis. The power of the broadcasting stations operating in this band shall not exceed that necessary for a national service and shall in no case exceed 5 kW

5.127 The use of the band 4000-4063 kHz by the maritime mobile service is limited to ship stations using radiotelephony (see No. 52.220 and Appendix 17).

5.128 Frequencies in the bands 4 063-4 123 kHz and 4 130-4 438 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W, on condition that harmful interference is not caused to the maritime mobile service. In addition, in Afghanistan, Argentina, Armenia, Belarus, Botswana, Burkina Faso, the Central African Rep., China, the Russian Federation, Georgia, India, Kazakhstan, Mali, Niger, Pakistan, Kyrgyzstan, Tajikistan, Chad, Turkmenistan and Ukraine, in the frequency bands 4 063-4 123 kHz, 4 130-4 133 kHz and 4 408-4 438 kHz, stations in the fixed service, with a mean power not exceeding 1 kW, can e operated on condition that they are situated at least 600 km from the coast and that harmful interference is not caused to the maritime mobile service. (WRC-19)

5.130 The conditions for the use of the carrier frequencies 4125 kHz and 6215 kHz are prescribed in Articles 31 and 52. (WRC-07)

5.131 The frequency 4209.5 kHz is used exclusively for the transmission by coast stations of meteorological and navigational warnings and urgent information to ships by means of narrow-band direct-printing techniques. (WRC-97)

5.132 The frequencies 4210 kHz, 6314 kHz, 8416.5 kHz, 12579 kHz, 16806.5 kHz, 19680.5 kHz, 22376 kHz and 26100.5 kHz are the international frequencies for the transmission of maritime safety information (MSI) (see Appendix 17).

5.132A Stations in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the fixed or mobile services. Applications of the radiolocation service are limited to oceanographic radars operating in accordance with Resolution 612 (Rev.WRC-12) (WRC-12)

5.132B Alternative allocation: in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency band 4 438- 4 488 kHz is allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. (WRC-19)

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5.133 Different category of service: in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Latvia, Lithuania, Niger, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 5130-5250 kHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 5.33). (WRC-12)

5.133A Alternative allocation: in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency bands 5 250-5 275 kHz and 26 200-26 350 kHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-19)

5.133B Stations in the amateur service using the frequency band 5 351.5-5 366.5 kHz shall not exceed a maximum radiated power of 15 W (e.i.r.p.). However, in Region 2 in Mexico, stations in the amateur service using the frequency band 5 351.5-5 366.5 kHz shall not exceed a maximum radiated power of 20 W (e.i.r.p.). In the following Region 2 countries: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Dominica, El Salvador, Ecuador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela, as well as the overseas countries and territories within the Kingdom of the Netherlands in Region 2, stations in the amateur service using the frequency band 5 351.5-5 366.5 kHz shall not exceed a maximum radiated power of 25 W (e.i.r.p.). (WRC-19)

5.134 The use of the frequency bands 5 900-5 950 kHz, 7 300-7 350 kHz, 9 400-9 500 kHz, 11 600-11 650 kHz, 12 050-12 100 kHz, 13 570-13 600 kHz, 13 800-13 870 kHz, 15 600-15 800 kHz, 17 480-17 550 kHz and 18 900-19 020 kHz by the broadcasting service is subject to the application of the procedure of Article 12. Administrations are encouraged to use these frequency bands to facilitate the introduction of digitally modulated emissions in accordance with the provisions of Resolution 517 (Rev.WRC-19). (WRC-19)

5.136 Additional allocation: Frequencies in the band 5900-5950 kHz may be used by stations in the following services, communicating only within the boundary of the country in which they are located: fixed service (in all three Regions), land mobile service (in Region 1), mobile except aeronautical mobile (R) service (in Regions 2 and 3), on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

5.137 On condition that harmful interference is not caused to the maritime mobile service, the bands 6200-6213.5 kHz and 6220.5-6525 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W. At the time of notification of these frequencies, the attention of the Bureau will be drawn to the above conditions.

5.138 The following bands: 6765-6795 kHz (centre frequency 6780 kHz), 433.05-434.79 MHz (centre frequency 433.92 MHz) in Region 1 except in the countries mentioned in No. 5.280, 61-61.5 GHz (centre frequency 61.25 GHz), 122-123 GHz (centre frequency 122.5 GHz), and 244-246 GHz (centre frequency 245 GHz) are designated for industrial, scientific and medical (ISM) applications. The use of these frequency bands for ISM applications shall be subject to special authorisation by the administration concerned, in agreement with other administrations whose radiocommunication services might be affected. In applying this provision, administrations shall have due regard to the latest relevant ITU-R Recommendations.

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5.140	Additional allocation: in Angola, Iraq, Somalia and Togo, the frequency band 7000-7050 kHz is also allocated to the fixed service on a primary basis. (WRC-15)
5.141	Alternative allocation: in Egypt, Eritrea, Ethiopia, Guinea, Libya, Madagascar and Niger, the band 7000-7050 kHz is allocated to the fixed service on a primary basis. (WRC-12)
5.141A	Additional allocation: in Uzbekistan and Kyrgyzstan, the bands 7000-7100 kHz and 7100-7200 kHz are also allocated to the fixed and land mobile services on a secondary basis. (WRC-03)
5.141B	Additional allocation: in Algeria, Saudi Arabia, Australia, Bahrain, Botswana, Brunei Darussalam, China, Comoros, Korea (Rep. of), Diego Garcia, Djibouti, Egypt, United Arab Emirates, Eritrea, Guinea, Indonesia, Iran (Islamic Republic of), Japan, Jordan, Kuwait, Libya, Mali, Morocco, Mauritania, Niger, New Zealand, Oman, Papua New Guinea, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Sudan, South Sudan, Tunisia, Viet Nam and Yemen, the frequency band 7 100-7 200 kHz is also allocated to the fixed and the mobile, except aeronautical mobile (R), services on a primary basis. (WRC-19)
5.142	Until 29 March 2009, the use of the band 7100-7300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3. After 29 March 2009 the use of the band 7200-7300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3.(WRC-03)
5.143	Additional allocation: frequencies in the band 7300-7350 kHz may be used by stations in the fixed service and in the land mobile service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)
5.143B	In Region 1, frequencies in the band 7350-7450 kHz may be used by stations in the fixed and land mobile services communicating only within the boundary of the country in which they are located on condition that harmful interference is not caused to the broadcasting service. The total radiated power of each station shall not exceed 24 dBW. (WRC-12)
5.143C	Additional allocation: in Algeria, Saudi Arabia, Bahrain, Comoros, Djibouti, Egypt, United Arab Emirates, Iran (Islamic Republic of), Jordan, Kuwait, Libya, Morocco, Mauritania, Niger, Oman, Qatar, the Syrian Arab Republic, Sudan, South Sudan,Tunisia and Yemen, the bands 7350-7400 kHz and 7400-7450 kHz are also allocated to the fixed service on a primary basis. (WRC-12)
5.145	The conditions for the use of the carrier frequencies 8291 kHz, 12290 kHz and 16420 kHz are prescribed in Articles 31 and 52. (WRC-07)
5.145A	Stations in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the fixed service. Applications of the radiolocation service are limited to oceanographic radars operating in accordance with Resolution 612 (Rev.WRC-12) (WRC-12)
5.145B	Alternative allocation: in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency bands 9 305- 9 355 kHz and 16 100-16 200 kHz are allocated to the fixed service on a primary basis. (WRC-19)

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5.146 Additional allocation: Frequencies in the bands 9400-9500 kHz, 11600-11650 kHz, 12050-12100 kHz, 15600-15800 kHz, 17480-17550 kHz and 18900-19020 kHz may be used by stations in the fixed service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies in the fixed service, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

5.147 On condition that harmful interference is not caused to the broadcasting service, frequencies in the bands 9775-9900 kHz, 11650-11700 kHz and 11975-12050 kHz may be used by stations in the fixed service communicating only within the boundary of the country in which they are located, each station using a total radiated power not exceeding 24 dBW.

5.149 In making assignments to stations of other services to which the bands: 13360-13410 kHz, 25550-25670 kHz, 37.5-38.25 MHz, 73-74.6 MHz in Regions 1 and 3, 150.05-153 MHz in Region 1, 322-328.6 MHz, 406.1-410 MHz, 608-614 MHz in Regions 1 and 3, 1330-1400 MHz, 1610.6-1613.8 MHz, 1660-1670 MHz, 1718.8-1722.2 MHz, 2655-2690 MHz, 3260-3267 MHz, 3332-3339 MHz, 3345.8-3352.5 MHz, 4825-4835 MHz, 4950-4990 MHz, 4990-5000 MHz, 6650-6675.2 MHz, 10.6-10.68 GHz, 14.47-14.5 GHz, 22.01-22.21 GHz, 22.21-22.5 GHz, 22.81-22.86 GHz, 23.07-23.12 GHz, 31.2-31.3 GHz, 31.5-31.8 GHz in Regions 1 and 3, 36.43-36.5 GHz, 42.5-43.5 GHz, 48.94-49.04 GHz, 76-86 GHz, 92-94 GHz, 94.1-100 GHz, 102-109.5 GHz, 111.8-114.25 GHz, 128.33-128.59 GHz, 129.23-129.49 GHz, 130-134 GHz, 136-148.5 GHz, 151.5-158.5 GHz, 168.59-168.93 GHz, 171.11-171.45 GHz, 172.31-172.65 GHz, 173.52-173.85 GHz, 195.75-196.15 GHz, 209-226 GHz, 241-250 GHz, 252-275 GHz are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from spaceborne or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 4.5 and 4.6 and Article 29). (WRC-07)

5.149A Alternative allocation: in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency band 13 450-13 550 kHz is allocated to the fixed service on a primary basis and to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-19)

5.150 The following bands: 13553-13567 kHz (centre frequency 13560 kHz), 26957-27283 kHz (centre frequency 27120 kHz), 40.66-40.70 MHz (centre frequency 40.68 MHz), 902-928 MHz in Region 2 (centre frequency 915 MHz), 2400-2500 MHz (centre frequency 2450 MHz), 5725-5875 MHz (centre frequency 5800 MHz), and 24-24.25 GHz (centre frequency 24.125 GHz) are also designated for industrial, scientific and medical (ISM) applications. Radiocommunication services operating within these bands must accept harmful interference which may be caused by these applications. ISM equipment operating in these bands is subject to the provisions of No. 15.13.

5.151 Additional allocation: Frequencies in the bands 13570-13600 kHz and 13800-13870 kHz may be used by stations in the fixed service and in the mobile except aeronautical mobile (R) service , communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not caused to the broadcasting service. When using frequencies in these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations.(WRC-07)

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5.152	Additional allocation: in Armenia, Azerbaijan, China, Ivory Coast, Georgia, Iran (Islamic Republic of), Kazakhstan, Uzbekistan, Kyrgyzstan, the Russian Federation, Tajikistan, Turkmenistan and Ukraine, the band 14250-14350 kHz is also allocated to the fixed service on a primary basis. Stations of the fixed service shall not use a radiated power exceeding 24 dBW. (WRC-03)
5.154	Additional allocation: in Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, the Russian Federation, Tajikistan, Turkmenistan and Ukraine, the band 18068-18168 kHz is also allocated to the fixed service on a primary basis for use within their boundaries, with a peak envelope power not exceeding 1 kW. (WRC-03)
5.155	Additional allocation: in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the band 21850-21870 kHz is also allocated to the aeronautical mobile (R) service on a primary basis. (WRC-07)
5.155A	In Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the use of the band 21850-21870 kHz by the fixed service is limited to provision of services related to aircraft flight safety.(WRC 07)
5.155B	The band 21870-21924 kHz is used by the fixed service for provision of services related to aircraft flight safety.
5.156	Additional allocation: in Nigeria, the band 22720-23200 kHz is also allocated to the meteorological aids service (radiosondes) on a primary basis.
5.156A	The use of the band 23200-23350 kHz by the fixed service is limited to provision of services related to aircraft flight safety.
5.157	The use of the band 23350-24000 kHz by the maritime mobile service is limited to inter-ship radiotelegraphy.
5.158	Alternative allocation: in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency band 24 450-24 600 kHz is allocated to the fixed and land mobile services on a primary basis. (WRC-19)
5.159	Alternative allocation: in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency band 39-39.5 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-19)
5.160	Additional allocation: in Botswana, Burundi, the Dem. Rep. of the Congo and Rwanda, the band 41-44 MHz is also allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)
5.161A	Additional allocation: in Korea (Rep. of), the United States and Mexico, the frequency bands 41.015-41.665 MHz and 43.35-44 MHz are also allocated to the radiolocation service on a primary basis. Stations in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the fixed or mobile services. Applications of the radiolocation service are limited to oceanographic radars operating in accordance with Resolution 612 (Rev.WRC-12). (WRC-19)
5.161B	Alternative allocation: in Albania, Germany, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Cyprus, Vatican, Croatia, Denmark, Spain, Estonia, Finland, France, Greece, Hungary, Ireland, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malta, Moldova, Monaco, Montenegro, Norway, Uzbekistan, Netherlands, Portugal, Kyrgyzstan, Slovakia, Czech Rep., Romania, United Kingdom, San Marino, Slovenia, Sweden, Switzerland, Turkey and Ukraine, the frequency band 42-42.5 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-19)

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5.162A Additional allocation: in Germany, Austria, Belgium, Bosnia and Herzegovina, China, Vatican, Denmark, Spain, Estonia, the Russian Federation, Finland, France, Ireland, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Monaco, Montenegro, Norway, the Netherlands, Poland, Portugal, the Czech Rep., the United Kingdom, Serbia, Slovenia, Sweden and Switzerland the frequency band 46-68 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with Resolution 217 (WRC-97). (WRC-19)

5.163 Additional allocation: in Armenia, Belarus, the Russian Federation, Georgia, Kazakhstan, Latvia, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the frequency bands 47-48.5 MHz and 56.5-58 MHz are also allocated to the fixed and land mobile services on a secondary basis. (WRC-19)

5.164 Additional allocation: in Albania, Algeria, Germany, Austria, Belgium, Bosnia and Herzegovina, Botswana, Bulgaria, Ivory Coast, Croatia, Denmark, Spain, Estonia, Eswatini, Finland, France, Gabon, Greece, Hungary, Ireland, Israel, Italy, Jordan, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Madagascar, Mali, Malta, Morocco, Mauritania, Monaco, Montenegro, Nigeria, Norway, the Netherlands, Poland, Syrian Arab Republic, Slovakia, Czech Rep., Romania, the United Kingdom, Serbia, Slovenia, Sweden, Switzerland, Chad, Togo, Tunisia and Turkey, the frequency band 47-68 MHz, in South Africa the frequency band 47-50 MHz, and in Latvia the frequency bands 48.5-56.5 MHz and 58-68 MHz, are also allocated to the land mobile service on a primary basis. However, stations of the land mobile service in the countries mentioned in connection with each frequency band referred to in this footnote shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations of countries other than those mentioned in connection with the frequency band. (WRC-19)

5.165 Additional allocation: in Angola, Cameroon, Congo (Rep. of the), Egypt, Madagascar, Mozambique, Niger, Somalia, Sudan, South Sudan, Tanzania and Chad, the frequency band 47- 68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-19)

5.166A Different category of service: in Austria, Cyprus, the Vatican, Croatia, Denmark, Spain, Finland, Hungary, Latvia, the Netherlands, the Czech Republic, the United Kingdom, Slovakia and Slovenia, the frequency band 50.0-50.5 MHz is allocated to the amateur service on a primary basis. Stations in the amateur service in these countries shall not cause harmful interference to, or claim protection from, stations of the broadcasting, fixed and mobile services operating in accordance with the Radio Regulations in the frequency band 50.0-50.5 MHz in the countries not listed in this provision. For a station of these services, the protection criteria in No. 5.169B shall also apply. In Region 1, with the exception of those countries listed in No. 5.169, wind profiler radars operating in the radiolocation service under No. 5.162A are authorized to operate on the basis of equality with stations in the amateur service in the frequency band 50.0-50.5 MHz. (WRC-19)

5.166B In Region 1, stations in the amateur service operating on a secondary basis shall not cause harmful interference to, or claim protection from, stations of the broadcasting service. The field strength generated by an amateur station in Region 1 in the frequency band 50-52 MHz shall not exceed a calculated value of +6 dB(μV/m) at a height of 10 m above ground for more than 10% of time along the border of a country with operational analogue broadcasting stations in Region 1 and of neighbouring countries with broadcasting stations in Region 3 listed in Nos. 5.167 and 5.168. (WRC-19)

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5.166C In Region 1, stations in the amateur service in the frequency band 50-52 MHz, with the exception of those countries listed in No. 5.169, shall not cause harmful interference to, or claim protection from, wind profiler radars operating in the radiolocation service under No. 5.162A. (WRC-19)

5.166D Different category of service: in Lebanon, the frequency band 50-52 MHz is allocated to the amateur service on a primary basis. Stations in the amateur service in Lebanon shall not cause harmful interference to, or claim protection from, stations of the broadcasting, fixed and mobile services operating in accordance with the Radio Regulations in the frequency band 50-52 MHz in the countries not listed in this provision. (WRC-19)

5.166E In the Russian Federation, only the frequency band 50.080-50.280 MHz is allocated to the amateur service on a secondary basis. The protection criteria for the other services in the countries not listed in this provision are specified in Nos. 5.166B and 5.169B. (WRC-19)

5.169A Alternative allocation: in the following countries in Region 1: Angola, Saudi Arabia, Bahrain, Burkina Faso, Burundi, the United Arab Emirates, Gambia, Jordan, Kenya, Kuwait, Mauritius, Mozambique, Oman, Uganda, Qatar, South Sudan and Tanzania, the frequency band 50- 54 MHz is allocated to the amateur service on a primary basis. In Guinea-Bissau, the frequency band 50.0-50.5 MHz is allocated to the amateur service on a primary basis. In Djibouti, the frequency band 50-52 MHz is allocated to the amateur service on a primary basis. With the exception of those countries listed in No. 5.169, stations in the amateur service operating in Region 1 under this footnote, in all or part of the frequency band 50-54 MHz, shall not cause harmful interference to, or claim protection from, stations of other services operating in accordance with the Radio Regulations in Algeria, Egypt, Iran (Islamic Republic of), Iraq, Israel, Libya, Palestine*, the Syrian Arab Republic, the Dem. People's Republic of Korea, Sudan and Tunisia. The field strength generated by an amateur station in the frequency band 50-54 MHz shall not exceed a value of +6 dB(μV/m) at a height of 10 m above ground for more than 10% of time along the borders of listed countries requiring protection. (WRC-19)

5.169B Except countries listed under No. 5.169, stations in the amateur service used in Region 1, in all or part of the 50-54 MHz frequency band, shall not cause harmful interference to, or claim protection from, stations of other services used in accordance with the Radio Regulations in Algeria, Armenia, Azerbaijan, Belarus, Egypt, Russian Federation, Iran (Islamic Republic of), Iraq, Kazakhstan, Kyrgyzstan, Libya, Uzbekistan, Palestine*, the Syrian Arab Republic, Sudan, Tunisia and Ukraine. The field strength generated by an amateur station in the frequency band 50-54 MHz shall not exceed a value of +6 dB(μV/m) at a height of 10 m above ground for more than 10% of time along the borders of the countries listed in this provision. (WRC-19)

5.175 Alternative allocation: in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting service on a primary basis. In Latvia and Lithuania, the bands 68-73 MHz and 76 87.5 MHz are allocated to the broadcasting and mobile, except aeronautical mobile, services on a primary basis. The services to which these bands are allocated in other countries and the broadcasting service in the countries listed above are subject to agreements with the neighbouring countries concerned. (WRC-07)

5.177 Additional allocation: in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 73-74 MHz is also allocated to the broadcasting service on a primary basis, subject to agreement obtained under No. 9.21. (WRC-07)

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5.178 Additional allocation: in Colombia, Cuba, El Salvador, Guatemala, Guyana, Honduras and Nicaragua, the band 73-74.6 MHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-12)

5.179 Additional allocation: in Armenia, Azerbaijan, Belarus, China, the Russian Federation, Georgia, Kazakhstan, Lithuania, Mongolia, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the bands 74.6-74.8 MHz and 75.2-75.4 MHz are also allocated to the aeronautical radionavigation service, on a primary basis, for ground-based transmitters only. (WRC-12)

5.180 The frequency 75 MHz is assigned to marker beacons. Administrations shall refrain from assigning frequencies close to the limits of the guardband to stations of other services which, because of their power or geographical position, might cause harmful interference or otherwise place a constraint on marker beacons. Every effort should be made to improve further the characteristics of airborne receivers and to limit the power of transmitting stations close to the limits 74.8 MHz and 75.2 MHz.

5.181 Additional allocation: in Egypt, Israel and the Syrian Arab Republic, the band 74.8-75.2 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. 9.21. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedure invoked under No. 9.21. (WRC-03)

5.187 Alternative allocation: in Albania, the band 81-87.5 MHz is allocated to the broadcasting service on a primary basis and used in accordance with the decisions contained in the Final Acts of the Special Regional Conference (Geneva, 1960).

5.190 Additional allocation: in Monaco, the band 87.5-88 MHz is also allocated to the land mobile service on a primary basis, subject to agreement obtained under No. 9.21. (WRC-97)

5.194 Additional allocation: in Kyrgyzstan, Somalia and Turkmenistan, the frequency band 104-108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-19)

5.197 Additional allocation: in the Syrian Arab Republic, the band 108-111.975 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. 9.21. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedures invoked under No. 9.21 (WRC-12)

5.197A Additional allocation: the band 108-117.975 MHz is also allocated on a primary basis to the aeronautical mobile (R) service, limited to systems operating in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution 413 (Rev.WRC 07). The use of the band 108-112 MHz by the aeronautical mobile (R) service shall be limited to systems composed of ground-based transmitters and associated receivers that provide navigational information in support of air navigation functions in accordance with recognized international aeronautical standards. (WRC-07)

5.200 In the band 117.975-137 MHz, the frequency 121.5 MHz is the aeronautical emergency frequency and, where required, the frequency 123.1 MHz is the aeronautical frequency auxiliary to 121.5 MHz. Mobile stations of the maritime mobile service may communicate on these frequencies under the conditions laid down in Article 31 for distress and safety purposes with stations of the aeronautical mobile service. (WRC 07)

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5.201 Additional allocation: in Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Iraq (Republic of), Japan, Kazakhstan, Mali, Mongolia, Mozambique, Uzbekistan, Papua New Guinea, Poland, Kyrgyzstan, Romania, Senegal, Tajikistan, Turkmenistan and Ukraine, the frequency band 132-136 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-19)

5.202 Additional allocation: in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Bulgaria, the United Arab Emirates, the Russian Federation, Georgia, Iran (Islamic Republic of), Jordan, Mali, Oman, Uzbekistan, Poland, the Syrian Arab Republic, Kyrgyzstan, Romania, Senegal, Tajikistan, Turkmenistan and Ukraine, the frequency band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-19)

5.203C The use of the space operation service (space-to-Earth) with non-geostationary satellite short-duration mission systems in the frequency band 137-138 MHz is subject to Resolution 660 (WRC-19). Resolution 32 (WRC-19) applies. These systems shall not cause harmful interference to, or claim protection from, the existing services to which the frequency band is allocated on a primary basis. (WRC-19)

5.204 Different category of service: in Afghanistan, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, China, Cuba, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Kuwait, Montenegro, Oman, Pakistan, the Philippines, Qatar, Singapore, Thailand and Yemen, the frequency band 137-138 MHz is allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis (see No. 5.33). (WRC-19)

5.205 Different category of service: in Israel and Jordan, the allocation of the band 137-138 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. 5.33).

5.206 Different category of service: in Armenia, Azerbaijan, Belarus, Bulgaria, Egypt, the Russian Federation, Finland, France, Georgia, Greece, Kazakhstan, Lebanon, Moldova, Mongolia, Uzbekistan, Poland, Kyrgyzstan, the Syrian Arab Republic, Slovakia, the Czech Republic, Romania, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 137-138 MHz to the aeronautical mobile (OR) service is on a primary basis (see No. 5.33). (WRC-2000)

5.208 The use of the band 137-138 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. (WRC-97)

5.208A In making assignments to space stations in the mobile-satellite service in the frequency bands 137-138 MHz, 387-390 MHz and 400.15-401 MHz and in the maritime mobile-satellite service (space-to-Earth) in the frequency bands 157.1875-157.3375 MHz and 161.7875-161.9375 MHz, administrations shall take all practicable steps to protect the radio astronomy service in the frequency bands 150.05-153 MHz, 322-328.6 MHz, 406.1-410 MHz and 608-614 MHz from harmful interference from unwanted emissions as shown in the most recent version of Recommendation ITU-R RA.769. (WRC-19)

5.208B In the frequency bands: 137-138 MHz, 157.1875-157.3375 MHz, 161.7875-161.9375 MHz, 387-390 MHz, 400.15-401 MHz, 1 452-1 492 MHz, 1 525-1 610 MHz, 1 613.8-1 626.5 MHz, 2 655-2 690 MHz, 21.4-22 GHz, Resolution 739 (Rev.WRC-19) applies. (WRC-19) *This provision was previously numbered as No. 5.347A. It was renumbered to preserve the sequential order.

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5.209 The use of the bands 137-138 MHz, 148-150.05 MHz, 399.9-400.05 MHz, 400.15-401 MHz, 454-456 MHz and 459-460 MHz by the mobile-satellite service is limited to non-geostationary-satellite systems. (WRC-97)

5.209A The use of the frequency band 137.175-137.825 MHz by non-geostationary satellite systems in the space operation service identified as short-duration mission in accordance with Appendix 4 is not subject to No. 9.11A. (WRC-19)

5.210 Additional allocation: in Italy, the Czech Rep. and the United Kingdom, the bands 138-143.6 MHz and 143.65-144 MHz are also allocated to the space research service (space to-Earth) on a secondary basis. (WRC-07)

5.211 Additional allocation: in Germany, Saudi Arabia, Austria, Bahrain, Belgium, Denmark, the United Arab Emirates, Spain, Finland, Greece, Guinea, Ireland, Israel, Kenya, Kuwait, Lebanon, Liechtenstein, Luxembourg, North Macedonia, Mali, Malta, Montenegro, Norway, the Netherlands, Qatar, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sweden, Switzerland, Tanzania, Tunisia and Turkey, the frequency band 138-144 MHz is also allocated to the maritime mobile and land mobile services on a primary basis. (WRC-19)

5.212 Alternative allocation: in Angola, Botswana, Cameroon, the Central African Rep., Congo (Rep. of the), Eswatini, Gabon, Gambia, Ghana, Guinea, Iraq, Jordan, Lesotho, Liberia, Libya, Malawi, Mozambique, Namibia, Niger, Oman, Uganda, Syrian Arab Republic, the Dem. Rep. of the Congo, Rwanda, Sierra Leone, South Africa, Chad, Togo, Zambia and Zimbabwe, the frequency band 138-144 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-19)

5.214 Additional allocation: in Eritrea, Ethiopia, Kenya, North Macedonia, Montenegro, Serbia, Somalia, Sudan, South Sudan and Tanzania, the frequency band 138-144 MHz is also allocated to the fixed service on a primary basis. (WRC-19)

5.218 Additional allocation: the band 148-149.9 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under No. 9.21. The bandwidth of any individual transmission shall not exceed ± 25 kHz.

5.218A The frequency band 148-149.9 MHz in the space operation service (Earth-to-space) may be used by non-geostationary satellite systems with short-duration missions. Non-geostationary satellite systems in the space operation service used for a short-duration mission in accordance with Resolution COM5/5 (WRC-19) of the Radio Regulations are not subject to agreement under No. 9.21. At the stage of coordination, the provisions of Nos. 9.17 and 9.18 also apply. In the frequency band 148-149.9 MHz, non-geostationary satellite systems with short-duration missions shall not cause unacceptable interference to, or claim protection from, existing primary services within this frequency band, or impose additional constraints on the space operation and mobilesatellite services. In addition, earth stations in non-geostationary satellite systems in the space operation service with short-duration missions in the frequency band 148-149.9 MHz shall ensure that the power flux-density does not exceed −149 dB(W/(m2 # 4 kHz)) for more than 1% of time at the border of the territory of the following countries: Armenia, Azerbaijan, Belarus, China, Korea (Rep. of), Cuba, Russian Federation, India, Iran (Islamic Republic of), Japan, Kazakhstan, Malaysia, Uzbekistan, Kyrgyzstan, Thailand and Viet Nam. In case this power flux-density limit is exceeded, agreement under No. 9.21 is required to be obtained from countries mentioned in this footnote. (WRC-19)

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5.219 The use of the frequency band 148-149.9 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. The mobile-satellite service shall not constrain the development and use of the fixed, mobile and space operation services in the frequency band 148-149.9 MHz. The use of the frequency band 148-149.9 MHz by non-geostationary-satellite systems in the space operation service identified as short-duration mission is not subject to No. 9.11A. (WRC-19)

5.220 The use of the bands 149.9-150.05 MHz and 399.9-400.05 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. (WRC-15)

5.221 Stations of the mobile-satellite service in the frequency band 148-149.9 MHz shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations in the following countries: Albania, Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Brunei Darussalam, Bulgaria, Cameroon, China, Cyprus, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Croatia, Cuba, Denmark, Djibouti, Egypt, the United Arab Emirates, Eritrea, Spain, Estonia, Eswatini, Ethiopia, the Russian Federation, Finland, France, Gabon, Georgia, Ghana, Greece, Guinea, Guinea Bissau, Hungary, India, Iran (Islamic Republic of), Ireland, Iceland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malaysia, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Mozambique, Namibia, Norway, New Zealand, Oman, Uganda, Uzbekistan, Pakistan, Panama, Papua New Guinea, Paraguay, the Netherlands, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Kyrgyzstan, Dem. People’s Rep. of Korea, Slovakia, Romania, the United Kingdom, Senegal, Serbia, Sierra Leone, Singapore, Slovenia, Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Tanzania, Chad, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Viet Nam, Yemen, Zambia and Zimbabwe. (WRC-19)

5.225A Additional allocation: in Algeria, Armenia, Azerbaijan, Belarus, China, France, Iran (Islamic Republic of), Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine and Viet Nam, the frequency band 154-156 MHz is also allocated to the radiolocation service on a primary basis. The usage of the frequency band 154-156 MHz by the radiolocation service shall be limited to space-object detection systems operating from terrestrial locations. The operation of stations in the radiolocation service in the frequency band 154-156 MHz shall be subject to agreement obtained under No. 9.21. For the identification of potentially affected administrations in Region 1, the instantaneous field-strength value of 12 dB(μV/m) for 10% of the time produced at 10 m above ground level in the 25 kHz reference frequency band at the border of the territory of any other administration shall be used. For the identification of potentially affected administrations in Region 3, the interference-to-noise ratio (I/N) value of -6 dB (N = -161 dBW/4 kHz), or -10 dB for applications with greater protection requirements, such as public protection and disaster relief (PPDR (N = -161 dBW/4 kHz)), for 1% of the time produced at 60 m above ground level at the border of the territory of any other administration shall be used. In the frequency bands 156.7625-156.8375 MHz, 156.5125-156.5375 MHz, 161.9625-161.9875 MHz, 162.0125-162.0375 MHz, out-of-band e.i.r.p. of space surveillance radars shall not exceed -16 dBW. Frequency assignments to the radiolocation service under this allocation in Ukraine shall not be used without the agreement of Moldova. (WRC-12)

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5.226	The frequency 156.8 MHz is the international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service. The conditions for the use of this frequency and the band 156.7625-156.8375 MHz are contained in Article 31 and Appendix 18. The frequency 156.525 MHz is the international distress, safety and calling frequency for the maritime mobile VHF radiotelephone service using digital selective calling (DSC). The conditions for the use of this frequency and the band 156.4875-156.5625 MHz are contained in Articles 31 and 52, and in Appendix 18. In the bands 156-156.4875 MHz, 156.5625-156.7625 MHz, 156.8375-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz, each administration shall give priority to the maritime mobile service on only such frequencies as are assigned to stations of the maritime mobile service by the administration (see Articles 31 and 52, and Appendix 18). Any use of frequencies in these bands by stations of other services to which they are allocated should be avoided in areas where such use might cause harmful interference to the maritime mobile VHF radiocommunication service. However, the frequencies 156.8 MHz and 156.525 MHz and the frequency bands in which priority is given to the maritime mobile service may be used for radiocommunications on inland waterways subject to agreement between interested and affected administrations and taking into account current frequency usage and existing agreements. (WRC-07)
5.227	Additional allocation: 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. (WRC-07)
5.228	The use of the frequency bands 156.7625-156.7875 MHz and 156.8125-156.8375 MHz by the mobile-satellite service (Earth-to-space) is limited to the reception of automatic identification system (AIS) emissions of long-range AIS broadcast messages (Message 27, see the most recent version of Recommendation ITU R M.1371). With the exception of AIS emissions, emissions in these frequency bands by systems operating in the maritime mobile service for communications shall not exceed 1 W. (WRC-12)
5.228A	The frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz may be used by aircraft stations for the purpose of search and rescue operations and other safety-related communications. (WRC-12)
5.228AA	The use of the frequency bands 161.9375-161.9625 MHz and 161.9875-162.0125 MHz by the maritime mobile-satellite (Earth-to-space) service is limited to the systems which operate in accordance with Appendix 18. (WRC-15)
5.228AB	The use of the frequency bands 157.1875-157.3375 MHz and 161.7875-161.9375 MHz by the maritime mobile-satellite service (Earth-to-space) is limited to non-GSO satellite systems operating in accordance with Appendix 18. (WRC-19)
5.228AC	The use of the frequency bands 157.1875-157.3375 MHz and 161.7875-161.9375 MHz by the maritime mobile-satellite service (space-to-Earth) is limited to non-GSO satellite systems operating in accordance with Appendix 18. Such use is subject to agreement obtained under No. 9.21 with respect to the terrestrial services in Azerbaijan, Belarus, China, Korea (Rep. of), Cuba, the Russian Federation, the Syrian Arab Republic, the Dem. People's Rep. of Korea, South Africa and Viet Nam. (WRC-19)
5.228B	The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the fixed and land mobile services shall not cause harmful interference to, or claim protection from, the maritime mobile service. (WRC-12)

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5.228C	The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the maritime mobile service and the mobile-satellite (Earth-to-space) service is limited to the automatic identification system (AIS). The use of these frequency bands by the aeronautical mobile(OR) service is limited to AIS emissions from search and rescue aircraft operations. The AIS operations in these frequency bands shall not constrain the development and use of the fixed and mobile services operating in the adjacent frequency bands.
5.228D	The frequency bands 161.9625-161.9875 MHz (AIS 1) and 162.0125-162.0375 MHz (AIS 2) may continue to be used by the fixed and mobile services on a primary basis until 1 January 2025, at which time this allocation shall no longer be valid. Administrations are encouraged to make all practicable efforts to discontinue the use of these bands by the fixed and mobile services prior to the transition date. During this transition period, the maritime mobile service in these frequency bands has priority over the fixed, land mobile and aeronautical mobile services.
5.228E	The use of the automatic identification system in the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the aeronautical mobile (OR) service is limited to aircraft stations for the purpose of search and rescue operations and other safety-related communications.
5.228F	The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the mobile-satellite service (Earth-to-space) is limited to the reception of automatic identification system emissions from stations operating in the maritime mobile service. (WRC-12)
5.229	Alternative allocation: in Morocco, the band 162-174 MHz is allocated to the broadcasting service on a primary basis. The use of this band shall be subject to agreement with administrations having services, operating or planned, in accordance with the Table which are likely to be affected. Stations in existence on 1 January 1981, with their technical characteristics as of that date, are not affected by such agreement.
5.231	Additional allocation: in Afghanistan and China, the band 167-174 MHz is also allocated to the broadcasting service on a primary basis. The introduction of the broadcasting service into this band shall be subject to agreement with the neighbouring countries in Region 3 whose services are likely to be affected. (WRC-12)
5.235	Additional allocation: in Germany, Austria, Belgium, Denmark, Spain, Finland, France, Israel, Italy, Liechtenstein, Malta, Monaco, Norway, the Netherlands, the United Kingdom, Sweden and Switzerland, the band 174 - 223 MHz is also allocated to the land mobile service on a primary basis. However, the stations of the land mobile service shall not cause harmful interference to, or claim protection from, broadcasting stations, existing or planned, in countries other than those listed in this footnote.
5.246	Alternative allocation: in Spain, France, Israel and Monaco, the band 223-230 MHz is allocated to the broadcasting and land mobile services on a primary basis (see No. 5.33) on the basis that, in the preparation of frequency plans, the broadcasting service shall have prior choice of frequencies; and allocated to the fixed and mobile, except land mobile, services on a secondary basis. However, the stations of the land mobile service shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations in Morocco and Algeria.
5.247	Additional allocation: in Saudi Arabia, Bahrain, the United Arab Emirates, Jordan, Oman, Qatar and Syrian Arab Republic, the band 223-235 MHz is also allocated to the aeronautical radionavigation service on a primary basis.

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5.251 Additional allocation: in Nigeria, the band 230-235 MHz is also allocated to the aeronautical radionavigation service on a primary basis, subject to agreement obtained under No. 9.21.

5.252 Alternative allocation: in Botswana, Eswatini, Lesotho, Malawi, Mozambique, Namibia, South Africa, Zambia and Zimbabwe, the frequency bands 230-238 MHz and 246-254 MHz are allocated to the broadcasting service on a primary basis, subject to agreement obtained under No. 9.21. (WRC-19)

5.254 The bands 235-322 MHz and 335.4-399.9 MHz may be used by the mobile-satellite service, subject to agreement obtained under No. 9.21, on condition that stations in this service do not cause harmful interference to those of other services operating or planned to be operated in accordance with the Table of Frequency Allocations except for the additional allocation made in footnote No. 5.256A. (WRC-03)

5.255 The bands 312-315 MHz (Earth-to-space) and 387-390 MHz (space-to-Earth) in the mobile-satellite service may also be used by non-geostationary-satellite systems. Such use is subject to coordination under No. 9.11A.

5.256 The frequency 243 MHz is the frequency in this band for use by survival craft stations and equipment used for survival purposes. (WRC-07)

5.256A Additional allocation: in China, the Russian Federation and Kazakhstan, the frequency band 258-261 MHz is also allocated to the space research service (Earth-to-space) and space operation service (Earth-to-space) on a primary basis. Stations in the space research service (Earth-to-space) and space operation service (Earth-to-space) shall not cause harmful interference to, or claim protection from, or constrain the use and development of the mobile service systems and mobile-satellite service systems operating in the frequency band. Stations in space research service (Earth-to-space) and space operation service (Earth-to-space) shall not constrain the future development of fixed service systems of other countries. (WRC-15)

5.257 The band 267-272 MHz may be used by administrations for space telemetry in their countries on a primary basis, subject to agreement obtained under No. 9.21.

5.258 The use of the band 328.6-335.4 MHz by the aeronautical radionavigation service is limited to Instrument Landing Systems (glide path).

5.259 Additional allocation: in Egypt and the Syrian Arab Republic, the band 328.6-335.4 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. 9.21. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedure invoked under No. 9.21. (WRC-12)

5.260A In the frequency band 399.9-400.05 MHz, the maximum e.i.r.p. of any emission of earth stations in the mobile-satellite service shall not exceed 5 dBW in any 4 kHz band and the maximum e.i.r.p. of each earth station in the mobile-satellite service shall not exceed 5 dBW in the whole 399.9-400.05 MHz frequency band. Until 22 November 2022, this limit shall not apply to satellite systems for which complete notification information has been received by the Radiocommunication Bureau by 22 November 2019 and that have been brought into use by that date. After 22 November 2022, these limits shall apply to all systems within the mobile-satellite service operating in this frequency band. In the frequency band 399.99-400.02 MHz, the e.i.r.p. limits as specified above shall apply after 22 November 2022 to all systems within the mobile-satellite service. Administrations are requested that their mobile-satellite service satellite links in the 399.99-400.02 MHz frequency band comply with the e.i.r.p. limits as specified above, after 22 November 2019. (WRC-19)

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5.260B In the frequency band 400.02-400.05 MHz, the provisions of No. 5.260A are not applicable for telecommand uplinks within the mobile-satellite service. (WRC-19)

5.261 Emissions shall be confined in a band of ± 25 kHz about the standard frequency 400.1 MHz.

5.262 Additional allocation: in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Botswana, Colombia, Cuba, Egypt, the United Arab Emirates, Ecuador, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Liberia, Malaysia, Moldova, Oman, Uzbekistan, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, Kyrgyzstan, Singapore, Somalia, Tajikistan, Chad, Turkmenistan and Ukraine, the band 400.05-401 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.263 The band 400.15-401 MHz is also allocated to the space research service in the space-to-space direction for communications with manned space vehicles. In this application, the space research service will not be regarded as a safety service.

5.264 The use of the band 400.15-401 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. The power flux-density limit indicated in Annex 1 of Appendix 5 shall apply until such time as a competent world radiocommunication conference revises it.

5.264A In the frequency band 401-403 MHz, the maximum e.i.r.p. of any emission of each earth station in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 22 dBW in any 4 kHz band for geostationary systems and non-geostationary systems with an orbit of apogee equal or greater than 35 786 km. The maximum e.i.r.p. of any emission of each earth station in the meteorological satellite service and the Earth exploration-satellite service shall not exceed 7 dBW in any 4 kHz band for non-geostationary systems with an orbit of apogee lower than 35 786 km. The maximum e.i.r.p. of each earth station in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 22 dBW for geostationary systems and nongeostationary systems with an orbit of apogee equal or greater than 35 786 km in the whole 401-403 MHz frequency band. The maximum e.i.r.p. of each earth station in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 7 dBW for non-geostationary systems with an orbit of apogee lower than 35 786 km in the whole 401-403 MHz frequency band. Until 22 November 2029, these limits shall not apply to satellite systems for which complete notification information has been received by the Radiocommunication Bureau by 22 November 2019 and that have been brought into use by that date. After 22 November 2029, these limits shall apply to all systems within the meteorological-satellite service and the Earth exploration-satellite service operating in this frequency band. (WRC-19)

5.264B Non-geostationary satellite systems in the meteorological-satellite service and the Earth exploration-satellite service for which complete notification information has been received by the Radiocommunication Bureau before 28 April 2007 are exempt from provisions of No. 5.264A and may continue to operate in the frequency band 401.898-402.522 MHz on a primary basis without exceeding a maximum e.i.r.p. level of 12 dBW. (WRC-19)

5.265 In the frequency band 403-410 MHz, Resolution 205 (Rev.WRC-19) applies. (WRC-19)

5.266 The use of the band 406-406.1 MHz by the mobile-satellite service is limited to low power satellite emergency position-indicating radiobeacons (see also Article 31). (WRC-07)

5.267 Any emission capable of causing harmful interference to the authorised uses of the band 406-406.1 MHz is prohibited.

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5.268 Use of the frequency band 410-420 MHz by the space research service is limited to space-to-space communications links with an orbiting, manned space vehicle. The power flux-density at the surface of the Earth produced by emissions from transmitting stations of the space research service (space-to-space) in the frequency band 410-420 MHz shall not exceed -153 dB(W/m²) for $0° \le \delta \le 5°$, $-153 + 0.077 (\delta - 5)$ dB(W/m²) for $5° \le \delta \le 70°$ and -148 dB(W/m²) for $70° \le \delta \le 90°$, where δ is the angle of arrival of the radio-frequency wave and the reference bandwidth is 4 kHz. In this frequency band, stations of the space research service (space-to-space) service shall not claim protection from, nor constrain the use and development of, stations of the fixed and mobile services. No. 4.10 does not apply. (WRC-15)

5.269 Different category of service: in Australia, the United States, India, Japan and the United Kingdom, the allocation of the bands 420-430 MHz and 440-450 MHz to the radiolocation service is on a primary basis (see No. 5.33).

5.271 Additional allocation: in Belarus, China, India, Kyrgyzstan and Turkmenistan, the band 420-460 MHz is also allocated to the aeronautical radionavigation service (radio altimeters) on a secondary basis. (WRC-07)

5.274 Alternative allocation: in Denmark, Norway, Sweden and Chad, the bands 430-432 MHz and 438-440 MHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.275 Additional allocation: in Croatia, Estonia, Finland, Libya, North Macedonia, Montenegro and Serbia, the frequency bands 430-432 MHz and 438-440 MHz are also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-19)

5.276 Additional allocation: in Afghanistan, Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Burkina Faso, Djibouti, Egypt, the United Arab Emirates, Ecuador, Eritrea, Ethiopia, Greece, Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Libya, Malaysia, Niger, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, Switzerland, Thailand, Togo, Turkey and Yemen, the frequency band 430-440 MHz is also allocated to the fixed service on a primary basis and the frequency bands 430-435 MHz and 438-440 MHz are also allocated, except in Equador, to the mobile, except aeronautical mobile, service on a primary basis. (WRC-15)

5.277 Additional allocation: in Angola, Armenia, Azerbaijan, Belarus, Cameroon, Congo (Rep. of the), Djibouti, the Russian Federation, Georgia, Hungary, Israel, Kazakhstan, Mali, Uzbekistan, Poland, the Dem. Rep. of the Congo, Kyrgyzstan, Slovakia, Romania, Rwanda, Tajikistan, Chad, Turkmenistan and Ukraine, the frequency band 430-440 MHz is also allocated to the fixed service on a primary basis. (WRC-19)

5.279A The use of the frequency band 432-438 MHz by sensors in the Earth exploration-satellite service (active) shall be in accordance with Recommendation ITU-R RS.1260-2. Additionally, the Earth exploration-satellite service (active) in the frequency band 432-438 MHz shall not cause harmful interference to the aeronautical radionavigation service in China. The provisions of this footnote in no way diminish the obligation of the Earth exploration-satellite service (active) to operate as a secondary service in accordance with Nos. 5.29 and 5.30. (WRC-19)

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5.280	In Germany, Austria, Bosnia and Herzegovina, Croatia, Liechtenstein, North Macedonia, Montenegro, Portugal, Serbia, Slovenia and Switzerland, the frequency band 433.05-434.79 MHz (centre frequency 433.92 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services of these countries operating within this frequency band must accept harmful interference which may be caused by these applications. ISM equipment operating in this frequency band is subject to the provisions of No. 15.13. (WRC-19)
5.281	Additional allocation: in the French Overseas Departments in Region 2 and India, the band 433.75-434.25 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis. In France and in Brazil, the band is allocated to the same service on a secondary basis.
5.282	In the bands 435-438 MHz, 1260-1270 MHz, 2400-2450 MHz, 3400-3410 MHz (in Regions 2 and 3 only) and 5650-5670 MHz, the amateur-satellite service may operate subject to not causing harmful interference to other services operating in accordance with the Table (see No. 5.43). Administrations authorising such use shall ensure that any harmful interference caused by emissions from a station in the amateur-satellite service is immediately eliminated in accordance with the provisions of No. 25.11. The use of the bands 1260-1270 MHz and 5650-5670 MHz by the amateur-satellite service is limited to the Earth-to-space direction.
5.283	Additional allocation: in Austria, the band 438-440 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
5.286	The band 449.75-450.25 MHz may be used for the space operation service (Earth-to-space) and the space research service (Earth-to-space), subject to agreement obtained under No. 9.21.
5.286A	The use of the bands 454-456 MHz and 459-460 MHz by the mobile-satellite service is subject to coordination under 9.11A. (WRC-97)
5.286AA	The frequency band 450-470 MHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) - see Resolution 224 (Rev.WRC-19).This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-19)
5.286B	The use of the band 454-455 MHz in the countries listed in No. 5.286D, 455-456 MHz and 459-460 MHz in Region 2, and 454-456 MHz and 459-460 MHz in the countries listed in No. 5.286E, by stations in the mobile-satellite service, shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations. (WRC-97)
5.287	Use of the frequency bands 457.5125-457.5875 MHz and 467.5125-467.5875 MHz by the maritime mobile service is limited to on-board communication stations. The characteristics of the equipment and the channelling arrangement shall be in accordance with Recommendation ITU-R M.1174-4. The use of these frequency bands in territorial waters is subject to the national regulations of the administration concerned. (WRC-19)
5.289	Earth exploration-satellite service applications, other than the meteorological-satellite service, may also be used in the bands 460-470 MHz and 1690-1710 MHz for space-to-Earth transmissions subject to not causing harmful interference to stations operating in accordance with the Table.
5.290	Different category of service: in Afghanistan, Azerbaijan, Belarus, China, the Russian Federation, Kyrgyzstan, Tajikistan, and Turkmenistan, the allocation of the band 460-470 MHz to the meteorological-satellite service (space-to Earth) is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21. (WRC-12)

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5.291A	Additional allocation: in Germany, Austria, Denmark, Estonia, Liechtenstein, the Czech Republic, Serbia and Switzerland, the band 470-494 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with Resolution 217 (WRC-97). (WRC-15)
5.294	Additional allocation: in Saudi Arabia, Cameroon, Ivory Coast, Egypt, Ethiopia, Israel, Libya, the Syrian Arab Republic, Chad and Yemen, the frequency band 470-582 MHz is also allocated to the fixed service on a secondary basis. (WRC-15)
5.296	Additional allocation: in Albania, Germany, Angola, Saudi Arabia, Austria, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cameroon, Vatican, Congo (Rep. of the), Côte d'Ivoire, Croatia, Denmark, Djibouti, Egypt, United Arab Emirates, Spain, Estonia, Eswatini. Finland, France, Gabon, Georgia, Ghana, Hungary, Iraq, Ireland, Iceland, Israel, Italy, Jordan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malawi, Mali, Malta, Morocco, Mauritius, Mauritania, Moldova, Monaco, Mozambique, Namibia, Niger, Nigeria, Norway, Oman, Uganda, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Slovakia, the Czech Republic, Romania, the United Kingdom, Rwanda, San Marino, Serbia, Sudan, South Africa, Sweden, Switzerland, Tanzania, Chad, Togo, Tunisia, Turkey, Ukraine, Zambia and Zimbabwe, the frequency band 470-694 MHz is also allocated on a secondary basis to the land mobile service, intended for applications ancillary to broadcasting and programme-making. Stations of the land mobile service in the countries listed in this footnote shall not cause harmful interference to existing or planned stations operating in accordance with the Table in countries other than those listed in this footnote. (WRC-19)
5.300	Additional allocation: in Saudi Arabia, Cameroon, Egypt, United Arab Emirates, Israel, Jordan, Libya, Oman, Qatar, the Syrian Arab Republic and Sudan, the frequency band 582-790 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-15)
5.304	Additional allocation: in the African Broadcasting Area (see Nos. 5.10 to 5.13), the band 606-614 MHz is also allocated to the radio astronomy service on a primary basis.
5.306	Additional allocation: in Region 1, except in the African Broadcasting Area (see Nos. 5.10 to 5.13), and in Region 3, the band 608-614 MHz is also allocated to the radio astronomy service on a secondary basis.
5.312	Additional allocation: in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the frequency band 645-862 MHz, and in Bulgaria the frequency bands 646-686 MHz, 726-753 MHz, 778-811 MHz and 822-852 MHz, are also allocated to the aeronautical radionavigation service on a primary basis. (WRC-19)
5.312A	In Region 1, the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service is subject to the provisions of Resolution 760 (Rev.WRC-19). See also Resolution 224 (Rev.WRC-19). (WRC-19)
5.316B	In Region 1, the allocation to the mobile, except aeronautical mobile, service in the frequency band 790-862 MHz is subject to agreement obtained under No. 9.21 with respect to the aeronautical radionavigation service in countries mentioned in No. 5.312. For countries party to the GE06 Agreement, the use of stations of the mobile service is also subject to the successful application of the procedures of that Agreement. Resolutions 224 (Rev.WRC-19) and 749 (Rev.WRC-19) shall apply, as appropriate. (WRC-19)

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5.317A	The parts of the frequency band 698-960 MHz in Region 2 and the frequency bands 694-790 MHz in Region 1 and 790-960 MHz in Regions 1 and 3 which are allocated to the mobile service on a primary basis are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) – see Resolutions 224 (Rev.WRC-19), 760 (Rev.WRC-19) and 749 (Rev.WRC-19), where applicable. This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-19)
5.319	Additional Allocation: In Belarus, the Russian Federation and Ukraine, the bands 806-840 MHz (Earth-to-space) and 856-890 MHz (space-to-Earth) are also allocated to the mobile-satellite, except aeronautical mobile satellite (R), service. The use of these bands by this service shal not cause harmful interference to, or claim protection from, services in other countries operating in accordance with the Table of Frequency Allocations and is subjec to special agreements between the administrations concerned.
5.322	In Region 1, in the band 862-960 MHz, stations of the broadcasting service shall be operated only in the African Broadcasting Area (See Nos 5.10 to 5.13) excluding Algeria, Burundi, Egypt, Spain, Lesotho, Libya, Morocco, Malawi, Namibia, Nigeria, South Africa, Tanzania, Zimbabwe and Zambia, subject to agreement obtained under No 9.21. (WRC-12)
5.323	Additional allocation: in Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the frequency band 862-960 MHz, in Bulgaria the frequency bands 862-880 MHz and 915-925 MHz, and in Romania the frequency bands 862-880 MHz and 915-925 MHz, are also allocated to the aeronautical radionavigation service on a primary basis. Such use is subject to agreement obtained under No. 9.21 with administrations concerned and limited to ground-based radiobeacons in operation on 27 October 1997 until the end of their lifetime. (WRC-19)
5.327A	The use of the frequency band 960-1164 MHz by the aeronautical mobile (R) service is limited to systems that operate in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution 417 (Rev. WRC-15). (WRC-15)
5.328	The use of the band 960-1215 MHz by the aeronautical radionavigation service is reserved on a worldwide basis for the operation and development of airborne electronic aids to air navigation and any directly associated ground-based facilities. (WRC-2000)
5.328A	Stations in the radionavigation-satellite service in the band 1164-1215 MHz shall operate in accordance with the provisions of Resolution 609 (Rev.WRC-07) and shall not claim protection from stations in the aeronautical radionavigation service in the band 960-1215 MHz. No. 5.43A does not apply. The provisions of No. 21.18 shall apply. (WRC-07)
5.328AA	The frequency band 1 087.7-1 092.3 MHz is also allocated to the aeronautical mobilesatellite (R) service (Earth-to-space) on a primary basis, limited to the space station reception of Automatic Dependent Surveillance-Broadcast (ADS-B) emissions from aircraft transmitters that operate in accordance with recognized international aeronautical standards. Stations operating in the aeronautical mobile-satellite (R) service shall not claim protection from stations operating in the aeronautical radionavigation service. Resolution 425 (Rev.WRC-19) shall apply. (WRC-19)

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5.328B The use of the bands 1164-1300 MHz, 1559-1610 MHz and 5010-5030 MHz by systems and networks in the radionavigation-satellite service for which complete coordination or notification information, as appropriate, is received by the Radiocommunication Bureau after 1 January 2005 is subject to the application of the provisions of Nos. 9.12, 9.12A and 9.13. Resolution 610 (WRC-03) shall also apply; however, in the case of radionavigation-satellite service (space-to-space) networks and systems, Resolution 610 (WRC-03) shall only apply to transmitting space stations. In accordance with No. 5.329A, for systems and networks in the radionavigation-satellite service (space-to-space) in the bands 1215-1300 MHz and 1559-1610 MHz, the provisions of Nos. 9.7, 9.12, 9.12A and 9.13 shall only apply with respect to other systems and networks in the radionavigation-satellite service (space-to-space). (WRC-07)

5.329 Use of the radionavigation-satellite service in the frequency band 1 215-1 300 MHz shall be subject to the condition that no harmful interference is caused to, and no protection is claimed from, the radionavigation service authorized under No. 5.331. Furthermore, the use of the radionavigation-satellite service in the frequency band 1 215- 1 300 MHz shall be subject to the condition that no harmful interference is caused to the radiolocation service. No. 5.43 shall not apply in respect of the radiolocation service. Resolution 608 (Rev.WRC-19) shall apply. (WRC-19)

5.329A Use of systems in the radionavigation-satellite service (space-to-space) operating in the bands 1215-1300 MHz and 1559-1610 MHz is not intended to provide safety service applications, and shall not impose any additional constraints on radionavigation-satellite service (space-to-Earth) systems or on other services operating in accordance with the Table of Frequency Allocations. (WRC-07)

5.330 Additional allocation: in Angola, Saudi Arabia, Bahrain, Bangladesh, Cameroon, China, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guyana, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Nepal, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the band 1215-1300 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.331 Additional allocation: in Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Belarus, Belgium, Benin, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cameroon, China, Korea (Rep. of), Croatia, Denmark, Egypt, the United Arab Emirates, Estonia, the Russian Federation, Finland, France, Ghana, Greece, Guinea, Equatorial Guinea, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Israel, Jordan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Madagascar, Mali, Mauritania, Montenegro, Nigeria, Norway, Oman, Pakistan, the Kingdom of the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sudan, South Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Thailand, Togo, Turkey, Venezuela and Viet Nam, the frequency band 1 215-1 300 MHz is also allocated to the radionavigation service on a primary basis. In Canada and the United States, the frequency band 1 240-1 300 MHz is also allocated to the radionavigation service, and use of the radionavigation service shall be limited to the aeronautical radionavigation service. (WRC-19)

5.332 In the band 1215-1260 MHz, active spaceborne sensors in the earth exploration-satellite and space research services shall not cause harmful interference to, claim protection from, or otherwise impose constraints on operation or development of the radiolocation service, the radionavigation-satellite service and other services allocated on a primary basis. (WRC-2000)

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5.335A In the band 1260-1300 MHz, active spaceborne sensors in the Earth exploration-satellite and space research services shall not cause harmful interference to, claim protection from, or otherwise impose constraints on operation or development of the radiolocation service and other services allocated by footnotes on a primary basis. (WRC-2000)

5.337 The use of the bands 1300-1350 MHz, 2700-2900 MHz and 9000-9200 MHz by the aeronautical radionavigation service is restricted to ground-based radars and to associated airborne transponders which transmit only on frequencies in these bands and only when actuated by radars operating in the same band.

5.337A The use of the band 1300-1350 MHz by earth stations in the radionavigation-satellite service and by stations in the radiolocation service shall not cause harmful interference to, nor constrain the operation and development of, the aeronautical-radionavigation service. (WRC-2000)

5.338 In Kyrgyzstan, Slovakia and Turkmenistan, existing installations of the radionavigation service may continue to operate in the band 1350-1400 MHz. (WRC-12)

5.338A In the frequency bands 1 350-1 400 MHz, 1 427-1 452 MHz, 22.55-23.55 GHz, 24.25-27.5 GHz, 30-31.3 GHz, 49.7-50.2 GHz, 50.4-50.9 GHz, 51.4-52.6 GHz, 81-86 GHz and 92-94 GHz, Resolution 750 (Rev.WRC-19) applies. (WRC-19)

5.339 The bands 1370-1400 MHz, 2640-2655 MHz, 4950-4990 MHz and 15.20-15.35 GHz are also allocated to the space research (passive) and earth exploration-satellite (passive) services on a secondary basis.

5.340 All emissions are prohibited in the following bands: 1400-1427 MHz 2690-2700 MHz, except those provided for by No. 5.422 10.68-10.7 GHz, except those provided for by No. 5.483 15.35-15.4 GHz, except those provided for by No. 5.511 23.6-24 GHz 31.3-31.5 GHz 31.5-31.8 GHz, in Region 2 48.94-49.04 GHz, from airborne stations 50.2-50.4 GHz (1) 52.6-54.25 GHz 86-92 GHz 100-102 GHz 109.5-111.8 GHz 114.25-116 GHz 148.5-151.5 GHz 164-167 GHz 182-185 GHz 190-191.8 GHz 200-209 GHz, 226-231.5 GHz 250-252 GHz. (WRC-03) / (1) 5.340 The allocation to the Earth exploration-satellite service (passive) and the space research service (passive) in the band 50.2-50.4 GHz should not impose undue constraints on the use of the adjacent bands by the primary allocated services in those bands. (WRC-97)

5.341 In the bands 1400-1727 MHz, 101-120 GHz and 197-220 GHz, passive research is being conducted by some countries in a programme for the search for intentional emissions of extraterrestrial origin.

5.341A In Region 1, the frequency bands 1427-1452 MHz and 1492-1518 MHz are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution 223 (Rev.WRC-15). This identification does not preclude the use of these frequency bands by any other application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of IMT stations is subject to agreement obtained under No. 9.21 with respect to the aeronautical mobile service used for aeronautical telemetry in accordance with No. 5.342. (WRC-15)

5.342 Additional allocation: in Armenia, Azerbaijan, Belarus, the Russian Federation, Uzbekistan, Kyrgystan and Ukraine, the frequency band 1429-1535 MHz also allocated to the aeronautical mobile service on a primary basis exclusively for the purposes of aeronautical telemetry within the national territory. As of 1 April 2007, the use of the band 1452-1492 MHz is subject to agreement between the administrations concerned. (WRC-15)

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5.345 Use of the frequency band 1 452-1 492 MHz by the broadcasting-satellite service, and by the broadcasting service, is limited to digital audio broadcasting and is subject to the provisions of Resolution 528 (Rev.WRC-19). (WRC-19)

5.346 In Algeria, Angola, Saudi Arabia, Bahrain, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Congo (Rep. of the), Ivory Coast, Djibouti, Egypt, United Arab Emirates, Eswatini, Gabon, Gambia, Ghana, Guinea, Iraq, Jordan, Kenya, Kuwait, Lesotho, Lebanon, Liberia, Madagascar, Malawi, Mali, Morocco, Mauritius, Mauritania, Mozambique, Namibia, Niger, Nigeria, Oman, Uganda, Palestine**, Qatar, Dem. Rep. of the Congo, Rwanda, Senegal, Seychelles, Sudan, South Sudan, South Africa, Tanzania, Chad, Togo, Tunisia, Zambia, and Zimbabwe, the frequency band 1 452-1 492 MHz is identified for use by administrations listed above wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution 223 (Rev.WRC-15). This identification does not preclude the use of this frequency band by any other application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of this frequency band for the implementation of IMT is subject to agreement obtained under No. 9.21 with respect to the aeronautical mobile service used for aeronautical telemetry in accordance with No. 5.342. See also Resolution 761 (WRC-19). (WRC-19)

5.348 The use of the band 1518-1525 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. In the band 1518-1525 MHz stations in the mobile-satellite service shall not claim protection from the stations in the fixed service. No. 5.43A does not apply. (WRC-03)

5.348A In the band 1518-1525 MHz, the coordination threshold in terms of the power flux-density levels at the surface of the Earth in application of No. 9.11A for space stations in the mobile-satellite (space-to-Earth) service, with respect to the land mobile service use for specialized mobile radios or used in conjunction with public switched telecommunication networks (PSTN) operating within the territory of Japan, shall be -150 dB(W/m2) in any 4 kHz band for all angles of arrival, instead of those given in Table 52 of Appendix 5. In the band 1518-1525 MHz stations in the mobile-satellite service shall not claim protection from stations in the mobile service in the territory of Japan. No. 5.43A does not apply. (WRC-03)

5.348B In the band 1518-1525 MHz, stations in the mobile-satellite service shall not claim protection from aeronautical mobile telemetry stations in the mobile service in the territory of the United States (see Nos. 5.343 and 5.344) and in the countries listed in No. 5.342. No. 5.43A does not apply. (WRC-03)

5.349 Different category of service: in Saudi Arabia, Azerbaijan, Bahrain, Cameroon, Egypt, Iran (Islamic Republic of), Iraq, Israel, Kazakhstan, Kuwait, Lebanon, North Macedonia, Morocco, Qatar, Syrian Arab Republic, Kyrgyzstan, Turkmenistan and Yemen, the allocation of the frequency band 1 525-1 530 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 5.33). (WRC-19)

5.350 Additional allocation: in Kyrgyzstan and Turkmenistan, the frequency band 1 525-1 530 MHz is also allocated to the aeronautical mobile service on a primary basis. (WRC-19)

5.351 The bands 1525-1544 MHz, 1545-1559 MHz, 1626.5-1645.5 MHz and 1646.5-1660.5 MHz shall not be used for feeder links of any service. In exceptional circumstances, however, an earth station at a specified fixed point in any of the mobile-satellite services may be authorised by an administration to communicate via space stations using these bands.

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5.351A For the use of the bands 1518-1544 MHz, 1545-1559 MHz, 1610-1626.5 MHz, 1626.5-1645.5 MHz, 1646.5-1660.5 MHz, 1668-1675 MHz, 1980-2010 MHz, 2170-2200 MHz, 2483.5-2500 MHz, 2500-2520 MHz and 2670-2690 MHz by the mobile-satellite service, see Resolutions 212 (Rev.WRC-07) and 225 (Rev.WRC-07). (WRC-07)

5.352A In the frequency band 1 525-1 530 MHz, stations in the mobile-satellite service, except stations in the maritime mobile-satellite service, shall not cause harmful interference to, or claim protection from, stations of the fixed service in Algeria, Saudi Arabia, Egypt, Guinea, India, Israel, Italy, Jordan, Kuwait, Mali, Morocco, Mauritania, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syrian Arab Republic, Viet Nam and Yemen notified prior to 1 April 1998. (WRC-19)

5.353A In applying the procedures of Section II of Article 9 to the mobile-satellite service in the bands 1530-1544 MHz and 1626.5-1645.5 MHz, priority shall be given to accommodating the spectrum requirements for distress, urgency and safety communications of the Global Maritime Distress and Safety System (GMDSS). Maritime mobile-satellite distress, urgency and safety communications shall have priority access and immediate availability over all other mobile satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, distress, urgency and safety communications of the GMDSS. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (The provisions of Resolution 222 (WRC-2000)* shall apply.) (WRC-2000) *Note by the Secretariat: This Resolution was revised by WRC-07

5.354 The use of the bands 1525-1559 MHz and 1626.5-1660.5 MHz by the mobile-satellite services is subject to coordination under No. 9.11A.

5.355 Additional allocation: in Bahrain, Bangladesh, the Dem. Rep. of the Congo, Djibouti, Egypt, Eritrea, Iraq, Israel, Kuwait, Qatar, Syrian Arab Republic, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the bands 1540-1559 MHz, 1610-1645.5 MHz and 1646.5-1660 MHz are also allocated to the fixed service on a secondary basis. (WRC-12)

5.356 The use of the band 1544-1545 MHz by the mobile-satellite service (space-to-Earth) is limited to distress and safety communications (see Article 31).

5.357 Transmissions in the band 1545-1555 MHz from terrestrial aeronautical stations directly to aircraft stations, or between aircraft stations, in the aeronautical mobile (R) service are also authorised when such transmissions are used to extend or supplement the satellite-to-aircraft links.

5.357A In applying the procedures of Section II of Article 9 to the mobile-satellite service in the bands 1545-1555 MHz and 1646.5-1656.5 MHz, priority shall be given to accommodating the spectrum requirements of the aeronautical mobile-satellite(R)service providing transmission of messages with priority 1 to 6 in Article 44. Aeronautical mobile-satellite (R) service communications with priority 1 to 6 in Article 44 shall have priority access and immediate availability, by pre-emption if necessary, over all other mobile-satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, aeronautical mobile-satellite(R)service communications with priority 1 to 6 in Article 44. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (The provisions of Resolution 222 (Rev. WRC-12) shall apply.) (WRC-12)

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5.359 Additional allocation: in Germany, Saudi Arabia, Armenia, Azerbaijan, Belarus, Cameroon, the Russian Federation, Georgia, Guinea, Guinea-Bissau, Jordan, Kazakhstan, Kuwait, Lithuania, Mauritania, Uganda, Uzbekistan, Pakistan, Poland, the Syrian Arab Republic, Kyrgyzstan, the Dem. People's Rep. of Korea, Romania, Tajikistan, Tunisia, Turkmenistan and Ukraine, the frequency bands 1 550-1 559 MHz, 1 610-1 645.5 MHz and 1 646.5-1 660 MHz are also allocated to the fixed service on a primary basis. Administrations are urged to make all practicable efforts to avoid the implementation of new fixed-service stations in these frequency bands. (WRC-19)

5.364 The use of the band 1610-1626.5 MHz by the mobile-satellite service (Earth-to-space) and by the radiodetermination-satellite service (Earth-to-space) is subject to coordination under No. 9.11A. A mobile earth station operating in either of the services in this band shall not produce a peak e.i.r.p. density in excess of -15 dB(W/4 kHz) in the part of the band used by systems operating in accordance with the provisions of No. 5.366 (to which No. 4.10 applies), unless otherwise agreed by the affected administrations. In the part of the band where such systems are not operating, the mean e.i.r.p. density of a mobile earth station shall not exceed -3 dB(W/4 kHz). Stations of the mobile-satellite service shall not claim protection from stations in the aeronautical radionavigation service, stations operating in accordance with the provisions of No. 5.366 and stations in the fixed service operating in accordance with the provisions of No. 5.359. Administrations responsible for the coordination of mobile-satellite networks shall make all practicable efforts to ensure protection of stations operating in accordance with the provisions of No. 5.366.

5.365 The use of the band 1613.8-1626.5 MHz by the mobile-satellite service (space-to-Earth) is subject to coordination under No. 9.11A.

5.366 The band 1610-1626.5 MHz is reserved on a worldwide basis for the use and development of airborne electronic aids to air navigation and any directly associated ground-based or satellite-borne facilities. Such satellite use is subject to agreement obtained under No. 9.21.

5.367 Additional allocation: the bands 1610-1626.5 MHz is also allocated to the aeronautical mobile-satellite (R) service on a primary basis, subject to agreement obtained under No. 9.21.

5.368 The provisions of No. 4.10 do not apply with respect to the radiodetermination-satellite and mobile-satellite services in the frequency band 1 610-1 626.5 MHz. However, No. 4.10 applies in the frequency band 1 610-1 626.5 MHz with respect to the aeronautical radionavigation-satellite service when operating in accordance with No. 5.366, the aeronautical mobile satellite (R) service when operating in accordance with No. 5.367, and in the frequency band 1 621.35-1 626.5 MHz with respect to the maritime mobile-satellite service when used for GMDSS. (WRC-19)

5.369 Different category of service: in Angola, Australia, China, Eritrea, Ethiopia, India, Iran (Islamic Republic of), Israel, Lebanon, Liberia, Madagascar, Mali, Pakistan, Papua New Guinea, Syrian Arab Republic, the Dem. Rep. of the Congo, Sudan, South Sudan, Togo and Zambia, the allocation of the band 1610-1626.5 MHz to the radiodetermination-satellite service (Earth-to-space) is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21 from countries not listed in this provision. (WRC-12)

5.371 Additional allocation: in Region 1, the bands 1610-1626.5 MHz (Earth-to-space)is also allocated to the radiodetermination-satellite service on a secondary basis, subject to agreement obtained under No. 9.21. (WRC-12)

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5.372 Harmful interference shall not be caused to stations of the radio astronomy service using the frequency band 1 610.6-1 613.8 MHz by stations of the radiodetermination-satellite and mobilesatellite services (No. 29.13 applies). The equivalent power flux-density (epfd) produced in the frequency band 1 610.6-1 613.8 MHz by all space stations of a non-geostationary-satellite system in the mobile-satellite service (space-to-Earth) operating in frequency band 1 613.8-1 626.5 MHz shall be in compliance with the protection criteria provided in Recommendations ITU-R RA.769-2 and ITU-R RA.1513-2, using the methodology given in Recommendation ITU-R M.1583-1, and the radio astronomy antenna pattern described in Recommendation ITU-R RA.1631-0. (WRC-19)

5.373 Maritime mobile earth stations receiving in the frequency band 1 621.35-1 626.5 MHz shall not impose additional constraints on earth stations operating in the maritime mobile-satellite service or maritime earth stations of the radiodetermination-satellite service operating in accordance with the Radio Regulations in the frequency band 1 610-1 621.35 MHz or on earth stations operating in the maritime mobile-satellite service operating in accordance with the Radio Regulations in the frequency band 1 626.5-1 660.5 MHz, unless otherwise agreed between the notifying administrations. (WRC-19)

5.373A Maritime mobile earth stations receiving in the frequency band 1 621.35-1 626.5 MHz shall not impose constraints on the assignments of earth stations of the mobilesatellite service (Earth-to-space) and the radiodetermination-satellite service (Earth-to-space) in the frequency band 1 621.35-1 626.5 MHz in networks for which complete coordination information has been received by the Radiocommunication Bureau before 28 October 2019. (WRC-19)

5.374 Mobile earth stations in the mobile-satellite service operating in the bands 1631.5-1634.5 MHz and 1656.5-1660 MHz shall not cause harmful interference to the stations in the fixed service operating in the countries listed in No. 5.359. (WRC-97)

5.375 The use of the band 1645.5-1646.5 MHz by the mobile-satellite service (Earth-to-space) and for inter-satellite links is limited to distress and safety communications (see Article 31).

5.376 Transmissions in the band 1646.5-1656.5 MHz from aircraft stations in the aeronautical mobile (R) service directly to terrestrial aeronautical stations, or between aircraft stations, are also authorised when such transmissions are used to extend or supplement the aircraft-to-satellite links.

5.376A Mobile earth stations operating in the band 1660-1660.5 MHz shall not cause harmful interference to stations in the radio astronomy service. (WRC-97)

5.379A Administrations are urged to give all practicable protection in the band 1660.5-1668.4 MHz for future research in radio astronomy, particularly by eliminating air-to-ground transmissions in the meteorological aids service in the band 1664.4-1668.4 MHz as soon as practicable.

5.379B The use of the band 1668-1675 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. In the band 1668-1668.4 MHz, Resolution 904 (WRC-07) shall apply. (WRC-07)

5.379C In order to protect the radio astronomy service in the band 1668-1670 MHz, the aggregate power flux-density values produced by mobile earth stations in a network of the mobile-satellite service operating in this band shall not exceed -181 dB(W/m²) in 10 MHz and -194 dB(W/m²) in any 20 kHz at any radio astronomy station recorded in the Master International Frequency Register, for more than 2% of integration periods of 2 000 s. (WRC-03)

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5.379D	For sharing of the band 1668.4-1675 MHz between the mobile-satellite service and the fixed and mobile services, Resolution 744 (Rev.WRC-07) shall apply. (WRC-07)
5.379E	In the band 1668.4-1675 MHz, stations in the mobile-satellite service shall not cause harmful interference to stations in the meteorological aids service in China, Iran (Islamic Republic of), Japan and Uzbekistan. In the band 1668.4-1675 MHz, administrations are urged not to implement new systems in the meteorological aids service and are encouraged to migrate existing meteorological aids service operations to other bands as soon as practicable. (WRC-03)
5.380A	In the band 1670-1675 MHz, stations in the mobile-satellite service shall not cause harmful interference to, nor constrain the development of, existing earth stations in the meteorological-satellite service notified before 1 January 2004. Any new assignment to these earth stations in this band shall also be protected from harmful interference from stations in the mobile-satellite service. (WRC-07)
5.381	Additional allocation: in Afghanistan, Cuba, India, Iran (Islamic Republic of) and Pakistan, the band 1690-1700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)
5.382	Different category of service: in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Congo (Rep. of the), Egypt, the United Arab Emirates, Eritrea, Ethiopia, the Russian Federation, Guinea, Iraq, Israel, Jordan, Kazakhstan, Kuwait, Lebanon, North Macedonia, Mauritania, Moldova, Mongolia, Oman, Uzbekistan, Poland, Qatar, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Turkmenistan, Ukraine and Yemen, the allocation of the frequency band 1 690-1 700 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. 5.33), and in the Dem. People's Rep. of Korea, the allocation of the frequency band 1 690-1 700 MHz to the fixed service is on a primary basis (see No. 5.33) and to the mobile, except aeronautical mobile, service on a secondary basis. (WRC-19)
5.384A	The frequency bands 1710-1885 MHz, 2300-2400 MHz or 2500-2690 MHz, and portion thereof, are identified for use by administrations wishing to implement International Mobile Telecommunications(IMT)in accordance with Resolution 223 (Rev.WRC-15). This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-15)
5.385	Additional allocation: the band 1718.8-1722.2 MHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. (WRC-2000)
5.386	Additional allocation: the band 1750-1850 MHz is also allocated to the space operation (Earth-to-space) and space research (Earth-to-space) services in Region 2, (except in Mexico) in Australia, Guam, India, Indonesia and Japan on a primary basis, subject to agreement obtained under No. 9.21, having particular regard to troposcatter systems. (WRC-15)
5.387	Additional allocation: in Belarus, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan and Turkmenistan, the band 1770-1790 MHz is also allocated to the meteorological-satellite service on a primary basis, subject to agreement obtained under No. 9.21. (WRC-12)
5.388	The frequency bands 1885-2025 MHz and 2110-2200 MHz are intended for use, on a worldwide basis, by administrations wishing to implement International Mobile Telecommunications (IMT). Such use does not preclude the use of these frequency bands by other services to which they are allocated. The frequency bands should be made available for IMT in accordance with Resolution 212 (Rev.WRC-15). (see also Resolution 223 (Rev.WRC-15). (WRC-15)

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5.388A	In Regions 1 and 3, the bands 1885-1980 MHz, 2010-2025 MHz and 2110-2170 MHz and, in Region 2, the bands 1885-1980 MHz and 2110-2160 MHz may be used by high altitude platform stations as base stations to provide International Mobile Telecommunications (IMT), in accordance with Resolution 221 (Rev.WRC 07). Their use by IMT applications using high altitude platform stations as base stations does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-12)
5.388B	In Algeria, Saudi Arabia, Bahrain, Benin, Burkina Faso, Cameroon, Comoros, Ivory Coast, China, Cuba, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Gabon, Ghana, India, Iran (Islamic Republic of), Israel, Jordan, Kenya, Kuwait, Lebanon, Libya, Mali, Morocco, Mauritania, Nigeria, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, Senegal, Singapore, Sudan, South Sudan, Tanzania, Chad, Togo, Tunisia, Yemen, Zambia and Zimbabwe, for the purpose of protecting fixed and mobile services, including IMT mobile stations, in their territories from co-channel interference, a high altitude platform station (HAPS) operating as an IMT base station in neighbouring countries, in the frequency bands referred to in No. 5.388A, shall not exceed a co-channel power flux-density of −127 dB(W/(m2 · MHz)) at the Earth's surface outside a country's borders unless explicit agreement of the affected administration is provided at the time of the notification of HAPS. (WRC-19)
5.389A	The use of the bands 1980-2010 MHz and 2170-2200 MHz by the mobile-satellite service is subject to coordination under No. 9.11A and to the provisions of Resolution 716 (Rev.WRC-2000). (WRC-07)
5.389E	The use of the bands 2010-2025 MHz and 2160-2170 MHz by the mobile-satellite service in Region 2 shall not cause harmful interference to or constrain the development of the fixed and mobile services in Regions 1 and 3.
5.389F	In Algeria, Cape Verde, Egypt, Iran (Islamic Republic of), Mali, Syrian Arab Republic and Tunisia, the use of the frequency bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobilesatellite service shall neither cause harmful interference to the fixed and mobile services, nor hamper the development of those services prior to 1 January 2005, nor shall the former service request protection from the latter services. (WRC-19)
5.391	In making assignments to the mobile service in the frequency bands 2025-2110 MHz and 2200-2290 MHz, administrations shall not introduce high-density mobile systems, as described in Recommendation ITU-R SA.1154-0, and shall take that Recommendation into account for the introduction of any other type of mobile system. (WRC-15)
5.392	Administrations are urged to take all practicable measures to ensure that space-to-space transmissions between two or more non-geostationary satellites, in the space research, space operations and Earth exploration-satellite services in the bands 2025-2110 MHz and 2200-2290 MHz, shall not impose any constraints on Earth-to-space, space-to-Earth and other space-to-space transmissions of those services and in those bands between geostationary and non-geostationary satellites.
5.395	In France and Turkey, the use of the band 2310-2360 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service. (WRC-03)
5.396	Space stations of the broadcasting-satellite service in the band 2310-2360 MHz operating in accordance with No. 5.393 that may affect the services to which this band is allocated in other countries shall be coordinated and notified in accordance with Resolution 33 (Rev.WRC-97)*. Complementary terrestrial broadcasting stations shall be subject to bilateral coordination with neighbouring countries prior to their bringing into use. * Note by the Secretariat: This Resolution was revised by WRC-03

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5.398 In respect of the radiodetermination-satellite service in the band 2483.5-2500 MHz, the provisions of No. 4.10 do not apply.

5.398A Different category of service: In Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Ukraine, the band 2483.5-2500 MHz is allocated on a primary basis to the radiolocation service. The radiolocation stations in these countries shall not cause harmful interference to, or claim protection from, stations of the fixed, mobile and mobile-satellite services operating in accordance with the Radio Regulations in the frequency band 2483.5-2500 MHz. (WRC-12)

5.399 Except for cases referred to in No. 5.401, stations of the radiodetermination-satellite service operating in the frequency band 2483.5-2500 MHz for which notification information is received by the Bureau after 17 February 2012, and the service area of which includes Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Ukraine, shall not cause harmful interference to, and shall not claim protection from stations of the radiolocation service operating in these countries in accordance with No.5.398A. (WRC-12)

5.401 In Angola, Australia, Bangladesh, China, Eritrea, Eswatini, Ethiopia, India, Lebanon, Liberia, Libya, Madagascar, Mali, Pakistan, Papua New Guinea, Syrian Arab Republic, Dem. Rep. of the Congo, Sudan, Togo and Zambia, the frequency band 2 483.5-2 500 MHz was already allocated on a primary basis to the radiodetermination-satellite service before WRC-12, subject to agreement obtained under No. 9.21 from countries not listed in this provision. Systems in the radiodetermination-satellite service for which complete coordination information has been received by the Radiocommunication Bureau before 18 February 2012 will retain their regulatory status, as of the date of receipt of the coordination request information. (WRC-19)

5.402 The use of the band 2483.5-2500 MHz by the mobile-satellite and the radiodetermination-satellite services is subject to the coordination under No. 9.11A. Administrations are urged to take all practicable steps to prevent harmful interference to the radio astronomy service from emissions in the 2483.5-2500 MHz band, especially those caused by second-harmonic radiation that would fall into the 4990-5000 MHz band allocated to the radio astronomy service worldwide.

5.403 Subject to agreement obtained under No. 9.21, the band 2520-2535 MHz may also be used for the mobile-satellite (space-to-Earth), except aeronautical mobile-satellite, service for operation limited to within national boundaries. The provisions No. 9.11A apply. (WRC-07)

5.410 The band 2500-2690 MHz may be used for tropospheric scatter systems in Region 1, subject to agreement obtained under No. 9.21. No. 9.21 does not apply to tropospheric scatter links situated entirely outside Region 1. Administrations shall make all practicable efforts to avoid developing new tropospheric scatter systems in this band. When planning new tropospheric scatter radio-relay links in this band, all possible measures shall be taken to avoid directing the antennas of these links towards the geostationary-satellite orbit.(WRC-12)

5.412 Alternative allocation:in Kyrgyzstan and Turkmenistan, the band 2 500-2 690 MHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.413 In the design of systems in the broadcasting-satellite service in the bands between 2500 MHz and 2690 MHz, administrations are urged to take all necessary steps to protect the radio astronomy service in the band 2690-2700 MHz.

5.414 The allocation of the frequency band 2500-2520 MHz to the mobile-satellite service (space-to-Earth) is subject to coordination under No. 9.11A. (WRC-07)

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5.416 The use of the band 2520-2670 MHz by the broadcasting-satellite service is limited to national and regional systems for community reception, subject to agreement obtained under No. 9.21. The provisions of No. 9.19 shall be applied by administrations in this band in their bilateral and multilateral negotiations. (WRC-07)

5.418 AAdditional allocation: in India, the frequency band 2 535-2 655 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution 528 (Rev.WRC-19). The provisions of No. 5.416 and Table 21-4 of Article 21 do not apply to this additional allocation. Use of non-geostationary-satellite systems in the broadcastingsatellite service (sound) is subject to Resolution 539 (Rev.WRC-19). Geostationary broadcastingsatellite service (sound) systems for which complete Appendix 4 coordination information has been received after 1 June 2005 are limited to systems intended for national coverage. The power fluxdensity at the Earth's surface produced by emissions from a geostationary broadcasting-satellite service (sound) space station operating in the frequency band 2 630-2 655 MHz, and for which complete Appendix 4 coordination information has been received after 1 June 2005, shall not exceed the following limits, for all conditions and for all methods of modulation: −130 dB(W/(m2 · MHz)) for 0° ≤ θ ≤ 5° −130 + 0.4 (θ − 5) dB(W/(m2 · MHz)) for 5° < θ ≤ 25° –122 dB(W/(m2 · MHz)) for 25° < θ ≤ 90° where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees. These limits may be exceeded on the territory of any country whose administration has so agreed. As an exception to the limits above, the pfd value of −122 dB(W/(m2 · MHz)) shall be used as a threshold for coordination under No. 9.11 in an area of 1 500 km around the territory of the administration notifying the broadcasting-satellite service (sound) system. In addition, an administration listed in this provision shall not have simultaneously two overlapping frequency assignments, one under this provision and the other under No. 5.416 for systems for which complete Appendix 4 coordination information has been received after 1 June 2005. (WRC-19)

5.418B Use of the band 2630-2655 MHz by non geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. 5.418, for which complete Appendix 4 coordination information, or notification information, has been received after 2 June 2000, is subject to the application of the provisions of No. 9.12. (WRC-03)

5.418C Use of the band 2630-2655 MHz by geostationary-satellite networks for which complete Appendix 4 coordination information, or notification information, has been received after 2 June 2000 is subject to the application of the provisions of No. 9.13 with respect to non geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. 5.418 and No. 22.2 does not apply. (WRC-03)

5.419 When introducing systems of the mobile-satellite service in the band 2670-2690 MHz, administrations shall take all necessary steps to protect the satellite systems operating in this band prior to 3 March 1992. The coordination of mobile-satellite systems in the band shall be in accordance with No. 9.11A. (WRC-07)

5.420 The band 2655-2670 MHz may also be used for the mobile-satellite (Earth-to-space), except aeronautical mobile-satellite, service for operation limited to within national boundaries, subject to agreement obtained under No. 9.21. The coordination under No. 9.11A applies. (WRC-07)

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5.422	Additional allocation: in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Brunei Darussalam, Congo (Rep. of the), Ivory Coast, Cuba, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Gabon, Georgia, Guinea, Guinea-Bissau, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Mauritania, Mongolia, Montenegro, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syrian Arab Republic, Kyrgyzstan, the Dem. Rep. of the Congo, Romania, Somalia, Tajikistan, Tunisia, Turkmenistan, Ukraine and Yemen, the band 2690-2700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985. (WRC-12)
5.423	In the band 2700-2900 MHz, ground-based radars used for meteorological purposes are authorised to operate on a basis of equality with stations of the aeronautical radionavigation service.
5.424A	In the band 2900-3100 MHz, stations in the radiolocation service shall not cause harmful interference to, nor claim protection from, radar systems in the radionavigation service. (WRC-03)
5.425	In the band 2900-3100 MHz, the use of the shipborne interrogator-transponder system (SIT) shall be confined to the sub-band 2930-2950 MHz.
5.426	The use of the band 2900-3100 MHz by the aeronautical radionavigation service is limited to ground-based radars.
5.427	In the bands 2900-3100 MHz and 9300-9500 MHz, the response from radar transponders shall not be capable of being confused with the response from radar beacons (racons) and shall not cause interference to ship or aeronautical radars in the radionavigation service, having regard, however, to No. 4.9.
5.428	Additional allocation: in Kyrgyzstan and Turkmenistan, the frequency band 3 100-3 300 MHz is also allocated to the radionavigation service on a primary basis. (WRC-19)
5.429	Additional allocation: in Saudi Arabia, Bahrain, Bangladesh, Benin, Brunei Darussalam, Cambodia, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Ivory Coast, Egypt, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, New Zealand, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, the Dem. People's Rep. of Korea, Sudan and Yemen, the frequency band 3 300-3 400 MHz is also allocated to the fixed and mobile services on a primary basis. New Zealand and the countries bordering the Mediterranean shall not claim protection for their fixed and mobile services from the radiolocation service. (WRC-19)
5.429A	Additional allocation: in Angola, Benin, Botswana, Burkina Faso, Burundi, Djibouti, Eswatini, Ghana, Guinea, Guinea-Bissau, Lesotho, Liberia, Malawi, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sudan, South Sudan, South Africa, Tanzania, Chad, Togo, Zambia and Zimbabwe, the frequency band 3 300-3 400 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis. Stations in the mobile service operating in the frequency band 3 300-3 400 MHz shall not cause harmful interference to, or claim protection from, stations operating in the radiolocation service. (WRC-19)

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5.429B In the following countries of Region 1 south of 30° parallel north: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Congo (Rep. of the), Ivory Coast, Egypt, Eswatini, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Malawi, Mauritania, Mozambique, Namibia, Niger, Nigeria, Uganda, the Dem. Rep. of the Congo, Rwanda, Sudan, South Sudan, South Africa, Tanzania, Chad, Togo, Zambia and Zimbabwe, the frequency band 3 300-3 400 MHz is identified for the implementation of International Mobile Telecommunications (IMT). The use of this frequency band shall be in accordance with Resolution 223 (Rev.WRC-15). The use of the frequency band 3 300-3 400 MHz by IMT stations in the mobile service shall not cause harmful interference to, or claim protection from, systems in the radiolocation service, and administrations wishing to implement IMT shall obtain the agreement of neighbouring countries to protect operations within the radiolocation service. This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-19)

5.430 Additional allocation: in Kyrgyzstan and Turkmenistan, the frequency band 3 300-3 400 MHz is also allocated to the radionavigation service on a primary basis. (WRC-19)

5.430A The allocation of the frequency band 3400-3600 MHz to the mobile, except aeronautical mobile, service subject to agreement obtained under No. 9.21. This frequency band is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. The provisions of Nos. 9.17 and 9.18 shall also apply in the coordination phase. Before an administration brings into use a (base or mobile) station of the mobile service in this frequency band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed -154.5 dBW/(m² · 4 kHz) for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), and with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the frequency band 3400-3600 MHz shall not claim more protection from space stations than that provided in Table 21-4 of the Radio Regulations (Edition of 2004). (WRC-15)

5.431 Additional allocation: in Germany, the frequency band 3 400-3 475 MHz is also allocated to the amateur service on a secondary basis. (WRC-19)

5.436 Use of the frequency band 4200-4400 MHz by stations in the aeronautical mobile (R) service is reserved exclusively for wireless avionics intra-communication systems that operate in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution 424 (WRC-15). (WRC-15)

5.437 Passive sensing in the Earth exploration-satellite and space research services may be authorized in the frequency band 4200-4400 MHz on a secondary basis. (WRC-15)

5.438 Use of the frequency band 4200-4400 MHz by the aeronautical radionavigation service is reserved exclusively for radio altimeters installed on board aircraft and for the associated transponders on the ground. (WRC-15)

5.439 Additional allocation: in Iran (Islamic Republic of), the band 4200-4400 MHz is also allocated to the fixed service on a secondary basis. (WRC-12)

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5.440 The standard frequency and time signal-satellite service may be authorised to use the frequency 4202 MHz for space-to-Earth transmissions and the frequency 6427 MHz for Earth-to-space transmissions. Such transmissions shall be confined within the limits of -±2 MHz of these frequencies, subject to agreement obtained under No. 9.21.

5.440A In Region 2 (except Brazil, Cuba, French overseas departments and communities, Guatemala, Paraguay, Uruguay and Venezuela), and in Australia, the band 4400-4940 MHz may be used for aeronautical mobile telemetry for flight testing by aircraft stations (see No. 1.83). Such use shall be in accordance with Resolution 416 (WRC-07) and shall not cause harmful interference to, nor claim protection from, the fixed-satellite and fixed service. Any such use does not preclude the use of this band by other mobile service applications or by other services to which this band is allocated on a co-primary basis and does not establish priority in the Radio Regulations. (WRC-07)

5.441 The use of the bands 4500-4800 MHz (space-to-Earth), 6725-7025 MHz (Earth-to-space) by the fixed-satellite service shall be in accordance with the provisions of Appendix 30B. The use of the bands 10.7-10.95 GHz (space-to-Earth), 11.2-11.45 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) by geostationary-satellite systems in the fixed-satellite service shall be in accordance with the provisions of Appendix 30B. The use of the bands 10.7-10.95 GHz (space-to Earth), 11.2-11.45 GHz (space-to-Earth) and 12.75-13.25 GHz (Earth-to-space) by a non-geostationary-satellite system in the fixed-satellite service is subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite system in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite system in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. 5.43A does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)

5.441A In Brazil, Paraguay and Uruguay, the frequency band 4 800-4 900 MHz, or portions thereof, is identified for the implementation of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of this frequency band for the implementation of IMT is subject to agreement obtained with neighbouring countries, and IMT stations shall not claim protection from stations of other applications of the mobile service. Such use shall be in accordance with Resolution 223 (Rev.WRC-19). (WRC-19)

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5.441B In Angola, Armenia, Azerbaijan, Benin, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, China, Ivory Coast, Djibouti, Eswatini, Russian Federation, Gambia, Guinea, Iran (Islamic Republic of), Kazakhstan, Kenya, Lao P.D.R., Lesotho, Liberia, Malawi, Mauritius, Mongolia, Mozambique, Nigeria, Uganda, Uzbekistan, the Dem. Rep. of the Congo, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, South Africa, Tanzania, Togo, Viet Nam, Zambia and Zimbabwe, the frequency band 4 800-4 990 MHz, or portions thereof, is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of IMT stations is subject to agreement obtained under No. 9.21 with concerned administrations, and IMT stations shall not claim protection from stations of other applications of the mobile service. In addition, before an administration brings into use an IMT station in the mobile service, it shall ensure that the power flux-density (pfd) produced by this station does not exceed −155 dB(W/(m2 · 1 MHz)) produced up to 19 km above sea level at 20 km from the coast, defined as the low-water mark, as officially recognized by the coastal State. This pfd criterion is subject to review at WRC-23. Resolution 223 (Rev.WRC-19) applies. This identification shall be effective after WRC-19. (WRC-19)

5.442 In the bands 4825-4835 MHz and 4950-4990 MHz, the allocation to the mobile service is restricted to the mobile, except aeronautical mobile, service. In Region 2 (except Brazil, Cuba, Guatemala, Mexico, Paraguay, Uruguay and Venezuela), and in Australia, the band 4825-4835 MHz is also allocated to the aeronautical mobile service, limited to aeronautical mobile telemetry for flight testing by aircraft stations. Such use shall be in accordance with Resolution 416 (WRC-07) and shall not cause harmful interference to the fixed service. (WRC-07)

5.443AA In the frequency bands 5000-5030 MHz and 5091-5150 MHz, the aeronautical mobile-satellite (R) service is subject to agreement obtained under No. 9.21. The use of these bands by the aeronautical mobile-satellite (R) service is limited to internationally standardized aeronautical systems. (WRC-12)

5.443B In order not to cause harmful interference to the microwave landing system operating above 5030 MHz, the aggregate power flux-density produced at the Earth’s surface in the frequency band 5030-5150 MHz by all the space stations within any radionavigation-satellite service system (space-to-Earth) operating in the frequency band 5 010-5 030 MHz shall not exceed −124.5 dB(W/m²) in a 150 kHz band. In order not to cause harmful interference to the radio astronomy service in the frequency band 4990-5000 MHz, radionavigation-satellite service systems operating in the frequency band 5 010-5 030 MHz shall comply with the limits in the frequency band 4990-5000 MHz defined in Resolution 741 (Rev.WRC-15). (WRC-15)

5.443C The use of the frequency band 5030-5091 MHz by the aeronautical mobile (R) service is limited to internationally standardized aeronautical systems. Unwanted emissions from the aeronautical mobile (R) service in the frequency band 5030-5091 MHz shall be limited to protect RNSS system downlinks in the adjacent 5010-5030 MHz band. Until such time that an appropriate value is established in a relevant ITU-R Recommendation, the e.i.r.p. density limit of −75 dBW/MHz in the frequency band 5010-5030 MHz for any AM(R)S station unwanted emission should be used. (WRC-12)

5.443D In the frequency band 5030-5091 MHz, the aeronautical mobile-satellite (R) service is subject to coordination under No. 9.11A. The use of this frequency band by the aeronautical mobile-satellite (R) service is limited to internationally standardized aeronautical systems.

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5.444 The frequency band 5030-5150 MHz is to be used for the operation of the international standard system (microwave landing system) for precision approach and landing. In the frequency band 5030-5091 MHz, the requirements of this system shall take precedence over other uses of this frequency band. For the use of the frequency band 5091-5150 MHz, No. 5.444A and Resolution 114 (Rev.WRC-15) apply. (WRC-15)

5.444A The use of allocation to the fixed-satellite service (Earth-to-space) in the frequency band 5091-5150 MHz is limited to feeder links of non-geostationary satellite systems in the mobile-satellite service and is subject to coordination under No. 9.11A. The use of the frequency band 5091-5150 MHz by feeder links of non-geostationary satellite systems in the mobile-satellite service shall be subject to application of Resolution 114 (Rev. WRC-15). Moreover, to ensure that the aeronautical radionavigation service is protected from harmful interference, coordination is required for feeder-link earth stations of the non geostationary satellite systems in the mobile-satellite service which are separated by less than 450 km from the territory of an administration operating ground stations in the aeronautical radionavigation service. (WRC-15)

5.444B The use of the frequency band 5 091-5 150 MHz by the aeronautical mobile service is limited to: – systems operating in the aeronautical mobile (R) service and in accordance with international aeronautical standards, limited to surface applications at airports. Such use shall be in accordance with Resolution 748 (Rev.WRC-19); – aeronautical telemetry transmissions from aircraft stations (see No. 1.83) in accordance with Resolution 418 (Rev.WRC-19). (WRC-19)

5.446 Additional allocation: in the countries listed in No. 5.369, the frequency band 5150-5216 MHz is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis, subject to agreement obtained under No. 9.21. In Region 2 (except in Mexico), the frequency band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis. In Regions 1 and 3, except those countries listed in No. 5.369 and Bangladesh, the frequency band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a secondary basis. The use by the radiodetermination-satellite service is limited to feeder links in conjunction with the radiodeterminationsatellite service operating in the frequency bands 1610-1626.5 MHz and/or 2483.5-2500 MHz. The total power flux-density at the Earth's surface shall in no case exceed −159 dB(W/m²) in any 4 kHz band for all angles of arrival. (WRC-15)

5.446A The use of the frequency bands 5 150-5 350 MHz and 5 470-5 725 MHz by the stations in the mobile, except aeronautical mobile, service shall be in accordance with Resolution 229 (Rev.WRC-19). (WRC-19)

5.446B In the band 5150-5250 MHz, stations in the mobile service shall not claim protection from earth stations in the fixed-satellite service. No. 5.43A does not apply to the mobile service with respect to fixed-satellite service earth stations. (WRC-03)

5.446C Additional allocation: in Region 1 (except in Algeria, Saudi Arabia, Bahrain, Egypt, United Arab Emirates, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Syrian Arab Republic, Sudan, South Sudan and Tunisia), the frequency band 5 150-5 250 MHz is also allocated to the aeronautical mobile service on a primary basis, limited to aeronautical telemetry transmissions from aircraft stations (see No. 1.83), in accordance with Resolution 418 (Rev.WRC-19). These stations shall not claim protection from other stations operating in accordance with Article 5. No. 5.43A does not apply. (WRC-19)

5.446D Additional allocation: in Brazil, the band 5 150-5 250 MHz is also allocated to the aeronautical mobile service on a primary basis, limited to aeronautical telemetry transmissions from aircraft stations (see No. 1.83), in accordance with Resolution 418 (Rev.WRC-19). (WRC-19)

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5.447	Additional allocation: in Ivory Coast, Egypt, Lebanon, the Syrian Arab Republic and Tunisia, the frequency band 5 150-5 250 MHz is also allocated to the mobile service, on a primary basis, subject to agreement obtained under No. 9.21. In this case, the provisions of Resolution 229 (Rev.WRC-19) do not apply. (WRC-19)
5.447A	The allocation to the fixed-satellite service (Earth-to-space) is limited to feeder links of non-geostationary-satellite systems in the mobile-satellite service and is subject to coordination under No. 9.11A.
5.447B	Additional allocation: the band 5150-5216 MHz is also allocated to the fixed-satellite service (space-to-Earth) on a primary basis. This allocation is limited to feeder links of non-geostationary-satellite systems in the mobile-satellite service and is subject to provisions of No. 9.11A. The power flux-density at the Earth's surface produced by space stations of the fixed-satellite service operating in the space-to-Earth direction in the band 5150-5216 MHz shall in no case exceed -164 dB(W/m²) in any 4 kHz band for all angles of arrival.
5.447C	Administrations responsible for fixed-satellite service networks in the band 5150-5250 MHz operated under Nos. 5.447A and 5.447B shall coordinate on an equal basis in accordance with No. 9.11A with administrations responsible for non-geostationary-satellite networks operated under No. 5.446 and brought into use prior to 17 November 1995. Satellite networks operated under No. 5.446 brought into use after 17 November 1995 shall not claim protection from, and shall not cause harmful interference to, stations of the fixed-satellite service operated under Nos. 5.447A and 5.447B.
5.447D	The allocation of the band 5250-5255 MHz to the space research service on a primary basis is limited to active spaceborne sensors. Other uses of the band by the space research service are on a secondary basis. (WRC-97)
5.447F	In the frequency band 5 250-5 350 MHz, stations in the mobile service shall not claim protection from the radiolocation service, the Earth exploration-satellite service (active) and the space research service (active). The radiolocation service, the Earth exploration-satellite service (active) and the space research service (active) shall not impose more stringent conditions upon the mobile service than those stipulated in Resolution 229 (Rev.WRC-19). (WRC-19)
5.448	Additional allocation: in Kyrgyzstan, Romania and Turkmenistan, the frequency band 5 250-5 350 MHz is also allocated to the radionavigation service on a primary basis. (WRC-19)
5.448A	The Earth exploration-satellite (active) and space research (active) services in the frequency band 5 250-5 350 MHz shall not claim protection from the radiolocation service. No. 5.43A does not apply. (WRC-03)
5.448B	The Earth exploration-satellite service (active) operating in the band 5350-5570 MHz and space research service (active) operating in the band 5460-5570 MHz shall not cause harmful interference to the aeronautical radionavigation service in the band 5350-5460 MHz, the radionavigation service in the band 5460-5470 MHz and the maritime radionavigation service in the band 5470-5570 MHz. (WRC-03)
5.448C	The space research service (active) operating in the band 5350-5460 MHz shall not cause harmful interference to nor claim protection from other services to which this band is allocated. (WRC-03)
5.448D	In the frequency band 5350-5470 MHz, stations in the radiolocation service shall not cause harmful interference to, nor claim protection from, radar systems in the aeronautical radionavigation service operating in accordance with No. 5.449. (WRC-03)

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5.449	The use of the band 5350-5470 MHz by the aeronautical radionavigation service is limited to airborne radars and associated airborne beacons.
5.450	Additional allocation: in Austria, Azerbaijan, Iran (Islamic Republic of), Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 5470-5650 MHz is also allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)
5.450A	In the frequency band 5 470-5 725 MHz, stations in the mobile service shall not claim protection from radiodetermination services. The radiodetermination services shall not impose more stringent conditions upon the mobile service than those stipulated in Resolution 229 (Rev.WRC-19). (WRC-19)
5.450B	In the frequency band 5470-5650 MHz, stations in the radiolocation service, except ground-based radars used for meteorological purposes in the band 5 600-5 650 MHz, shall not cause harmful interference to, nor claim protection from, radar systems in the maritime radionavigation service. (WRC-03)
5.451	Additional allocation: in the United Kingdom, the band 5470-5850 MHz is also allocated to the land mobile service on a secondary basis. The power limits specified in Nos. 21.2, 21.3, 21.4 and 21.5 shall apply in the band 5725-5850 MHz.
5.452	Between 5600 MHz and 5650 MHz, ground-based radars used for meteorological purposes are authorised to operate on a basis of equality with stations of the maritime radionavigation service.
5.453	Additional allocation: in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Ivory Coast, Djibouti, Egypt, the United Arab Emirates, Eswatini, Gabon, Guinea, Equatorial Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Jordan, Kenya, Kuwait, Lebanon, Libya, Madagascar, Malaysia, Niger, Nigeria, Oman, Uganda, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Sri Lanka, Tanzania, Chad, Thailand, Togo, Viet Nam and Yemen, the frequency band 5 650-5 850 MHz is also allocated to the fixed and mobile services on a primary basis. In this case, the provisions of Resolution 229 (Rev.WRC-19) do not apply. In addition, in Afghanistan, Angola, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Dem. Rep. of the Congo, Fiji, Ghana, Kiribati, Lesotho, Malawi, Maldives, Mauritius, Micronesia, Mongolia, Mozambique, Myanmar, Namibia, Nauru, New Zealand, Papua New Guinea, Rwanda, Solomon Islands, South Sudan, South Africa, Tonga, Vanuatu, Zambia and Zimbabwe, the frequency band 5 725-5 850 MHz is allocated to the fixed service on a primary basis, and stations operating in the fixed service shall not cause harmful interference to and shall not claim protection from other primary services in the frequency band. (WRC-19)
5.454	Different category of service: in Azerbaijan, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 5670-5725 MHz to the space research service is on a primary basis (see No. 5.33). (WRC-12)
5.455	Additional allocation: in Armenia, Azerbaijan, Belarus, Cuba, the Russian Federation, Georgia, Hungary, Kazakhstan, Moldova, Uzbekistan, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the frequency band 5 670-5 850 MHz is also allocated to the fixed service on a primary basis. (WRC-19)

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5.457 In Australia, Burkina Faso, Ivory Coast, Mali and Nigeria, the allocation to the fixed service in the bands 6440-6520 MHz (HAPS-to-ground direction) and 6560-6640 MHz (ground-to-HAPS direction) may also be used by gateway links for high-altitude platform stations (HAPS) within the territory of these countries. Such use is limited to operation in HAPS gateway links and shall not cause harmful interference to, and shall not claim protection from, existing services, and shall be in compliance with Resolution 150 (WRC-12). Existing services shall not be constrained in future development by HAPS gateway links. The use of HAPS gateway links in these bands requires explicit agreement with other administrations whose territories are located within 1000 kilometres from the border of an administration intending to use the HAPS gateway links. (WRC-12)

5.457A In the frequency bands 5925-6425 MHz and 14-14.5 GHz, earth stations located on board vessels may communicate with space stations of the fixed-satellite service. Such use shall be in accordance with Resolution 902 (WRC-03). In the frequency band 5925-6425 MHz, earth stations located on board vessels and communicating with space stations of the fixed-satellite service may employ transmit antennas with minimum diameter of 1.2 m and operate without prior agreement of any administration if located at least 330 km away from the low-water mark as officially recognized by the coastal State. All other provisions of Resolution 902 (WRC-03) shall apply. (WRC-15)

5.457B In the frequency bands 5925-6425 MHz and 14-14.5 GHz, earth stations located on board vessels may operate with the characteristics and under the conditions contained in Resolution 902 (WRC-03) in Algeria, Saudi Arabia, Bahrain, Comoros, Djibouti, Egypt, United Arab Emirates, Jordan, Kuwait, Libya, Morocco, Mauritania, Oman, Qatar, the Syrian Arab Republic, Sudan, Tunisia and Yemen, in the maritime mobile-satellite service on a secondary basis. Such use shall be in accordance with Resolution 902 (WRC-03). (WRC-15)

5.457C In Region 2 (except Brazil, Cuba, French overseas departments and communities, Guatemala, Mexico, Paraguay, Uruguay and Venezuela), the frequency band 5925-6700 MHz may be used for aeronautical mobile telemetry for flight testing by aircraft stations (see No. 1.83). Such use shall be in accordance with Resolution 416 (WRC-07) and shall not cause harmful interference to, or claim protection from, the fixed-satellite and fixed services. Any such use does not preclude the use of this frequency band by other mobile service applications or by other services to which this frequency band is allocated on a co-primary basis and does not establish priority in the Radio Regulations. (WRC-15)

5.458 In the band 6425-7075 MHz, passive microwave sensor measurements are carried out over the oceans. In the band 7075-7250 MHz, passive microwave sensor measurements are carried out. Administrations should bear in mind the needs of the Earth exploration-satellite (passive) and space research (passive) services in their future planning of the bands 6425-7025 MHz and 7075-7250 MHz.

5.458A In making assignments in the band 6700-7075 MHz to space stations of the fixed-satellite service, administrations are urged to take all practicable steps to protect spectral line observations of the radio astronomy service in the band 6650-6675.2 MHz from harmful interference from unwanted emissions.

5.458B The space-to-Earth allocation to the fixed-satellite service in the band 6700-7075 MHz is limited to feeder links for non-geostationary satellite systems of the mobile-satellite service and is subject to coordination under No. 9.11A. The use of the band 6700-7075 MHz (space-to-Earth) by feeder links for non-geostationary satellite systems in the mobile-satellite service is not subject to No. 22.2.

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5.459	Additional allocation: in Russian Federation, the frequency bands 7100-7155 MHz and 7190-7235 MHz are also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under No. 9.21. In the frequency band 7190-7235 MHz, with respect to the Earth exploration-satellite service (Earth-to-space), No. 9.21 does not apply. (WRC-15)
5.460	No emissions from space research service (Earth-to-space) systems intended for deep space shall be effected in the frequency band 7190-7235 MHz. Geostationary satellites in the space research service operating in the frequency band 7190-7235 MHz shall not claim protection from existing and future stations of the fixed and mobile services and No. 5.43A does not apply. (WRC-15)
5.460A	The use of the frequency band 7190-7250 MHz (Earth-to-space) by the Earth exploration-satellite service shall be limited to tracking, telemetry and command for the operation of spacecraft. Space stations operating in the Earth exploration-satellite service (Earth-to-space) in the frequency band 7190-7250 MHz shall not claim protection from existing and future stations in the fixed and mobile services, and No. 5.43A does not apply. No. 9.17 applies. Additionally, to ensure protection of the existing and future deployment of fixed and mobile services, the location of earth stations supporting spacecraft in the Earth exploration-satellite service in non-geostationary orbits or geostationary orbit shall maintain a separation distance of at least 10 km and 50 km, respectively, from the respective border(s) of neighbouring countries, unless a shorter distance is otherwise agreed between the corresponding administrations. (WRC-15)
5.460B	Space stations on the geostationary orbit operating in the Earth exploration-satellite service (Earth-to-space) in the frequency band 7190-7235 MHz shall not claim protection from existing and future stations of the space research service, and No. 5.43A does not apply. (WRC-15)
5.461	Additional allocation: the bands 7250-7375 MHz (space-to-Earth) and 7900-8025 MHz (Earth-to-space) are also allocated to the mobile-satellite service on a primary basis, subject to agreement obtained under No. 9.21.
5.461A	The use of the band 7450-7550 MHz by the meteorological-satellite service (space-to-Earth) is limited to geostationary-satellite systems. Non-geostationary meteorological-satellite systems in this band notified before 30 November 1997 may continue to operate on a primary basis until the end of their lifetime. (WRC-97)
5.461AA	The use of the frequency band 7375-7750 MHz by the maritime mobile-satellite service is limited to geostationary-satellite networks. (WRC-15)
5.461AB	In the frequency band 7375-7750 MHz, earth stations in the maritime mobile-satellite service shall not claim protection from, nor constrain the use and development of, stations in the fixed and mobile, except aeronautical mobile, services. No. 5.43A does not apply. (WRC-15)
5.461B	The use of the band 7750-7900 MHz by the meteorological-satellite service (space-to-Earth) is limited to non-geostationary satellite systems. (WRC-12)
5.462A	In Regions 1 and 3 (except for Japan), in the band 8025-8400 MHz, the Earth exploration-satellite service using geostationary satellites shall not produce a power flux-density in excess of the following provisional values for angles of arrival (θ), without the consent of the affected administration: - 135 dB(W/m²) in a 1 MHz band for 0° ≤ θ < 5° - 135 + 0.5 (θ - 5) dB(W/m²) in a 1 MHz band for 5° ≤ θ < 25° - 125 dB(W/m²) in a 1 MHz band for 25° ≤ θ < 90° (WRC-12)
5.463	Aircraft stations are not permitted to transmit in the band 8025-8400 MHz. (WRC-97)
5.465	In the space research service, the use of the band 8400-8450 MHz is limited to deep space.

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5.466	Different category of service: in Singapore and Sri Lanka, the allocation of the band 8400-8500 MHz to the space research service is on a secondary basis (see No. 5.32). (WRC-12)
5.468	Additional allocation: in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Burundi, Cameroon, China, Congo (Rep. of the), Djibouti, Egypt, the United Arab Emirates, Eswatini, Gabon, Guyana, Indonesia, Iran (Islamic Republic of), Iraq, Jamaica, Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Uganda, Pakistan, Qatar, Syrian Arab Republic, the Dem. People's Rep. of Korea, Senegal, Singapore, Somalia, Sudan, Chad, Togo, Tunisia and Yemen, the frequency band 8 500-8 750 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-19)
5.469	Additional allocation: in Armenia, Azerbaijan, Belarus, Georgia, Hungary, Lithuania, Mongolia, Uzbekistan, Poland, Kyrgyzstan, the Czech Rep., Romania, the Russian Federation, Tajikistan, Turkmenistan and Ukraine, the band 8500-8750 MHz is also allocated to the land mobile and radionavigation services on a primary basis. (WRC-12)
5.469A	In the band 8550-8650 MHz, stations in the earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, or constrain the use and development of, stations of the radiolocation service. (WRC-97)
5.470	The use of the band 8750-8850 MHz by the aeronautical radionavigation service is limited to airborne Doppler navigation aids on a centre frequency of 8800 MHz.
5.471	Additional allocation: in Algeria, Germany, Bahrain, Belgium, China, Egypt, the United Arab Emirates, France, Greece, Indonesia, Iran (Islamic Republic of), Libya, the Netherlands, Qatar, and Sudan, the frequency bands 8825-8850 MHz and 9000-9200 MHz are also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars only. (WRC-15)
5.472	In the bands 8850-9000 MHz and 9200-9225 MHz, the maritime radionavigation service is limited to shore-based radars.
5.473	Additional allocation: in Armenia, Austria, Azerbaijan, Belarus, Cuba, the Russian Federation, Georgia, Hungary, Uzbekistan, Poland, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the frequency bands 8 850-9 000 MHz and 9 200-9 300 MHz are also allocated to the radionavigation service on a primary basis. (WRC-19)
5.473A	In the band 9000-9200 MHz, stations operating in the radiolocation service shall not cause harmful interference to, nor claim protection from, systems identified in No. 5.337 operating in the aeronautical radionavigation service, or radar systems in the maritime radionavigation service operating in this band on a primary basis in the countries listed in No. 5.471. (WRC-07)
5.474	In the band 9200-9500 MHz, search and rescue transponders (SART) may be used, having due regard to the appropriate ITU-R Recommendation (see also Article 31).
5.474A	The use of the frequency bands 9 200-9 300 MHz and 9 900-10 400 MHz by the Earth exploration-satellite service (active) is limited to systems requiring necessary bandwith greater than 600 MHz that cannot be fully accommodated within the frequency band 9 300-9 900 MHz. Such use is subject to agreement to be obtained under No. 9.21 from Algeria, Saudi Arabia, Bahrain, Egypt, Indonesia, Iran (Islamic Republic of), Lebanon and Tunisia. An administration that has not replied under No. 9.52 is considered as not having agreed to the coordination request. In this case, the notifying administration of the satellite system operating in the Earth exploration-satellite service (active) may request the assistance of the Bureau under Sub-Section IID of Article 9. (WRC-15)

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5.474B	Stations operating in the Earth exploration-satellite (active) service shall comply with Recommendation ITU-R RS.2066-0. (WRC-15)
5.474C	Stations operating in the Earth exploration-satellite (active) service shall comply with Recommendation ITU-R RS.2065-0. (WRC-15)
5.474D	Stations operating in the Earth exploration-satellite service (active) shall not cause harmful interference to, or claim protection from, stations of the maritime radionavigation and radiolocation services in the frequency band 9 200-9 300 MHz, the radionavigation and radiolocation services in the frequency band 9 900-10 000 MHz and the radiolocation service in the frequency band 10.0-10.4 GHz. (WRC-15)
5.475	The use of the band 9300-9500 MHz by the aeronautical radionavigation service is limited to airborne weather radars and ground-based radars. In addition, ground-based radar beacons in the aeronautical radionavigation service are permitted in the band 9300-9320 MHz on condition that harmful interference is not caused to the maritime radionavigation service. (WRC-07)
5.475A	The use of the band 9300-9500 MHz by the Earth exploration-satellite service (active) and the space research service (active) is limited to systems requiring necessary bandwidth greater than 300 MHz that cannot be fully accommodated within the 9500-9800 MHz band. (WRC-07)
5.475B	In the band 9300-9500 MHz, stations operating in the radiolocation service shall not cause harmful interference to, nor claim protection from, radars operating in the radionavigation service in conformity with the Radio Regulations. Ground-based radars used for meteorological purposes have priority over other radiolocation uses. (WRC-07)
5.476A	In the band 9300-9800 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, nor claim protection from, stations of the radionavigation and radiolocation services. (WRC-07)
5.477	Different category of service: in Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guyana, India, Indonesia, Iran (Islamic Republic of), Iraq, Jamaica, Japan, Jordan, Kuwait, Lebanon, Liberia, Malaysia, Nigeria, Oman, Pakistan, Qatar, Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, South Sudan, Trinidad and Tobago, Uganda and Yemen, the allocation of the band 9800-10000 MHz to the fixed service is on a primary basis (see No. 5.33). (WRC-15)
5.478	Additional allocation: in Azerbaijan, Kyrgyzstan, Romania, Turkmenistan and Ukraine, the frequency band 9 800-10 000 MHz is also allocated to the radionavigation service on a primary basis. (WRC-19)
5.478A	The use of the band 9800-9900 MHz by the Earth exploration-satellite service (active) and space research service (active) is limited to systems requiring necessary bandwith greater than 500 MHz that cannot be fully accommodated within the 9300-9800 MHz band. (WRC-07)
5.478B	In the band 9800-9900 MHz, stations in the Earth exploration-satellite service (active) and the space research service (active) shall not cause harmful interference to, nor claim protection from stations of the fixed service to which this band is allocated on a secondary basis. (WRC-12)
5.479	The band 9975-10025 MHz is also allocated to the meteorological-satellite service on a secondary basis for use by weather radars.

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5.481 Additional allocation: in Algeria, Germany, Angola, Brazil, China, Ivory Coast, Egypt, El Salvador, Ecuador, Spain, Guatemala, Hungary, Japan, Kenya, Morocco, Nigeria, Oman, Uzbekistan, Pakistan, Paraguay, Peru, the Dem. People's Rep. of Korea, Romania, Tunisia and Uruguay, the frequency band 10.45-10.5 GHz is also allocated to the fixed and mobile services on a primary basis. In Costa Rica, the frequency band 10.45-10.5 GHz is also allocated to the fixed service on a primary basis. (WRC-19)

5.482 In the band 10.6-10.68 GHz, the power delivered to the antenna of stations of the fixed and mobile, except aeronautical mobile, services shall not exceed −3 dBW. This limit may be exceeded, subject to agreement obtained under No. 9.21. However, in Algeria, Saudi Arabia, Armenia, Azerbaijan, Bahrain, Bangladesh, Belarus, Egypt, United Arab Emirates, Georgia, India, Indonesia, Iran (Islamic Republic of), Iraq, Jordan, Libyan Arab Jamahiriya, Kazakhstan, Kuwait, Lebanon, Morocco, Mauritania, Moldova, Nigeria, Oman, Uzbekistan, Pakistan, Philippines, Qatar, Syrian Arab Republic, Kyrgyzstan, Singapore, Tajikistan, Tunisia, Turkmenistan and Viet Nam, this restriction on the fixed and mobile, except aeronautical mobile, service is not applicable. (WRC-07)

5.482A For sharing of the band 10.6-10.68 GHz between the Earth exploration-satellite (passive) service and the fixed and mobile, except aeronautical mobile, services, Resolution 751 (WRC-07) applies. (WRC-07)

5.483 Additional allocation: in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, China, Colombia, Korea (Rep. of), Egypt, the United Arab Emirates, Georgia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Lebanon, Mongolia, Qatar, Kyrgyzstan, the Dem. People's Rep. of Korea, Tajikistan, Turkmenistan and Yemen, the frequency band 10.68-10.7 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985. (WRC-19)

5.484 In Region 1, the use of the band 10.7-11.7 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service.

5.484A The use of the bands 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 11.7-12.2 GHz (space-to-Earth) in Region 2, 12.2-12.75 GHz (space-to-Earth) in Region 3, 12.5-12.75 GHz (space-to-Earth) in Region 1, 13.75-14.5 GHz (Earth-to-space), 17.8-18.6 GHz (space-to-Earth), 19.7-20.2 GHz (space-to-Earth), 27.5-28.6 GHz (Earth-to-space), 29.5-30 GHz (Earth-to-space) by a non-geostationary-satellite system in the fixed-satellite service is subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. 5.43A does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)

5.484B Resolution 155 (WRC-15) shall apply. (WRC-15)

5.487 In the band 11.7-12.5 GHz in Regions 1 and 3, the fixed, fixed-satellite, mobile, except aeronautical mobile, and broadcasting services, in accordance with their respective allocations, shall not cause harmful interference to, or claim protection from, broadcasting-satellite stations operating in accordance with the Regions 1 and 3 Plan in Appendix 30. (WRC-03)

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5.487A Additional allocation: in Region 1, the band 11.7-12.5 GHz, in Region 2, the band 12.2-12.7 GHz and, in Region 3, the band 11.7-12.2 GHz, are also allocated to the fixed-satellite service (space-to-Earth) on a primary basis, limited to non geostationary systems and subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed satellite service shall not claim protection from geostationary-satellite networks in the broadcasting-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. 5.43A does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-03)

5.488 The use of the band 11.7-12.2 GHz by geostationary-satellite networks in the fixed-satellite service in Region 2 is subject to application of the provisions of No. 9.14 for coordination with stations of terrestrial services in Regions 1, 2 and 3. For the use of the band 12.2-12.7 GHz by the broadcasting-satellite service in Region 2, see Appendix 30. (WRC-03)

5.492 Assignments to stations of the broadcasting-satellite service which are in conformity with the appropriate regional Plan or included in the Regions 1 and 3 List in Appendix 30 may also be used for transmissions in the fixed-satellite service (space-to-Earth), provided that such transmissions do not cause more interference, or require more protection from interference, than the broadcasting-satellite service transmissions operating in conformity with the Plan or the List, as appropriate. (WRC-2000)

5.494 Additional allocation: in Algeria, Saudi Arabia, Bahrain, Cameroon, the Central African Rep., Congo (Rep of the), Ivory Coast, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Madagascar, Mali, Morocco, Mongolia, Nigeria, Oman, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the frequency band 12.5-12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-15)

5.495 Additional allocation: in Greece, Monaco, Montenegro, Uganda and Tunisia, the frequency band 12.5- 12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-19)

5.496 Additional allocation: in Austria, Azerbaijan, Kyrgyzstan and Turkmenistan, the band 12.5-12.75 GHz is also allocated to the fixed service and the mobile, except aeronautical mobile, service on a primary basis. However, stations in these services shall not cause harmful interference to fixed-satellite service earth stations of countries in Region 1 other than those listed in this footnote. Coordination of these earth stations is not required with stations of the fixed and mobile services of the countries listed in this footnote. The power flux-density limit at the Earth's surface given in Table 21-4 of Article 21, for the fixed-satellite service shall apply on the territory of the countries listed in this footnote. (WRC-2000)

5.497 The use of the band 13.25-13.4 GHz by the aeronautical radionavigation service is limited to Doppler navigation aids.

5.498A The Earth exploration-satellite (active) and space research (active) services operating in the band 13.25-13.4 GHz shall not cause harmful interference to, or constrain the use and development of, the aeronautical radionavigation service. (WRC-97)

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5.499	Additional allocation: in Bangladesh and India, the band 13.25-14 GHz is also allocated to the fixed service on a primary basis. In Pakistan, the band 13.25-13.75 GHz is allocated to the fixed service on a primary basis. (WRC-12)
5.499A	The use of the frequency band 13.4-13.65 GHz by the fixed-satellite service (space-to-Earth) is limited to geostationary-satellite systems and is subject to agreement obtained under No. 9.21 with respect to satellite systems operating in the space research service (space-to-space) to relay data from space stations in the geostationary-satellite orbit to associated space stations in non-geostationary satellite orbits for which advance publication information has been received by the Bureau by 27 November 2015. (WRC-15)
5.499B	Administrations shall not preclude the deployment and operation of transmitting earth stations in the standard frequency and time signal-satellite service (Earth-to-space) allocated on a secondary basis in the frequency band 13.4-13.65 GHz due to the primary allocation to FSS (space-to-Earth). (WRC-15)
5.499C	The allocation of the frequency band 13.4-13.65 GHz to the space research service on a primary basis is limited to: - satellite systems operating in the space research service (space-to-space) to relay data from space stations in the geostationary-satellite orbit to associated space stations in non-geostationary satellite orbits for which advance publication information has been received by the Bureau by 27 November 2015, - active spaceborne sensors, - satellite systems operating in the space research service (space-to-Earth) to relay data from space stations in the geostationary-satellite orbit to associated earth stations. Other uses of the band by the space research service are on a secondary basis. (WRC-15)
5.499D	In the frequency band 13.4-13.65 GHz, satellite systems in the space research service (space-to-Earth) and/or the space research service (space-to-space) shall not cause harmful interference to, nor claim protection from, stations in the fixed, mobile, radiolocation and Earth exploration-satellite (active) services. (WRC-15)
5.499E	In the frequency band 13.4-13.65 GHz, geostationary-satellite networks in the fixed-satellite service (space-to-Earth) shall not claim protection from space stations in the Earth exploration-satellite service (active) operating in accordance with these Regulations, and No. 5.43A does not apply. The provisions of No. 22.2 do not apply to the Earth exploration-satellite service (active) with respect to the fixed-satellite service (space-to-Earth) in this band. (WRC-15)
5.500	Additional allocation: in Algeria, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, Egypt, the United Arab Emirates, Gabon, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Madagascar, Malaysia, Mali, Morocco, Mauritania, Niger, Nigeria, Oman, Qatar, the Syrian Arab Republic, Singapore, Sudan, South Sudan, Chad and Tunisia, the band 13.4-14 GHz is also allocated to the fixed and mobile services on a primary basis. In Pakistan, the frequency band 13.4-13.75 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)
5.501	Additional allocation: in Azerbaijan, Hungary, Japan, Kyrgyzstan, Romania, and Turkmenistan, the band 13.4-14 GHz is also allocated to the radionavigation service on a primary basis. (WRC-12)
5.501A	The allocation of the frequency band 13.65-13.75 GHz to the space research service on a primary basis is limited to active spaceborne sensors. Other uses of the frequency band by the space research service are on a secondary basis. (WRC-15)
5.501B	In the band 13.4-13.75 GHz, the earth exploration-satellite (active) and space research (active) services shall not cause harmful interference to, or constrain the use and development of, the radiolocation service. (WRC-97)

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5.502 In the band 13.75-14 GHz, an earth station of a geostationary fixed-satellite service network shall have a minimum antenna diameter of 1.2 m and an earth station of a non-geostationary fixed-satellite service system shall have a minimum antenna diameter of 4.5 m. In addition, the e.i.r.p., averaged over one second, radiated by a station in the radiolocation or radionavigation services shall not exceed 59 dBW for elevation angles above 2° and 65 dBW at lower angles. Before an administration brings into use an earth station in a geostationary-satellite network in the fixed-satellite service in this band with an antenna size smaller than 4.5 m, it shall ensure that the power flux-density produced by this earth station does not exceed: - 115 dB(W/(m² · 10 MHz)) for more than 1% of the time produced at 36 m above sea level at the low water mark, as officially recognized by the coastal state; - 115 dB(W/(m² · 10 MHz)) for more than 1% of the time produced 3 m above ground at the border of the territory of an administration deploying or planning to deploy land mobile radars in this band, unless prior agreement has been obtained. For earth stations within the fixed-satellite service having an antenna diameter greater than or equal to 4.5 m, the e.i.r.p. of any emission should be at least 68 dBW and should not exceed 85 dBW. (WRC-03)

5.503 In the band 13.75-14 GHz, geostationary space stations in the space research service for which information for advance publication has been received by the Bureau prior to 31 January 1992 shall operate on an equal basis with stations in the fixed-satellite service; after that date, new geostationary space stations in the space research service will operate on a secondary basis. Until those geostationary space stations in the space research service for which information for advance publication has been received by the Bureau prior to 31 January 1992 cease to operate in this band: - in the band 13.77-13.78 GHz, the e.i.r.p. density of emissions from any earth station in the fixed-satellite service operating with a space station in geostationary-satellite orbit shall not exceed: i) 4.7D + 28 dB(W/40 kHz), where D is the fixed-satellite service earth station antenna diameter (m) for antenna diameters equal to or greater than 1.2 m and less than 4.5 m; ii) 49.2 + 20 log(D/4.5) dB(W/40 kHz), where D is the fixed-satellite service earth station antenna diameter (m) for antenna diameters equal to or greater than 4.5 m and less than 31.9 m; iii) 66.2 dB(W/40 kHz) for any fixed-satellite service earth station for antenna diameters (m) equal to or greater than 31.9 m; iv) 56.2 dB(W/4 kHz) for narrow-band (less than 40 kHz of necessary bandwidth) fixed-satellite service earth station emissions from any fixed-satellite service earth station having an antenna diameter of 4.5 m or greater; - the e.i.r.p. density of emissions from any earth station in the fixed-satellite service operating with a space station in non-geostationary-satellite orbit shall not exceed 51 dBW in the 6 MHz band from 13.772 to 13.778 GHz. Automatic power control may be used to increase the e.i.r.p. density in these frequency ranges to compensate for rain attenuation, to the extent that the power flux-density at the fixed-satellite service space station does not exceed the value resulting from use by an earth station of an e.i.r.p. meeting the above limits in clear-sky conditions. (WRC-03)

5.504 The use of the band 14-14.3 GHz by the radionavigation service shall be such as to provide sufficient protection to space stations of the fixed-satellite service.

5.504A In the band 14-14.5 GHz, aircraft earth stations in the secondary aeronautical mobile-satellite service may also communicate with space stations in the fixed-satellite service. The provisions of Nos. 5.29, 5.30 and 5.31 apply. (WRC-03)

5.504B Aircraft earth stations operating in the aeronautical mobile-satellite service in the frequency band 14-14.5 GHz shall comply with the provisions of Annex 1, Part C of Recommendation ITU-R M.1643-0, with respect to any radio astronomy station performing observations in the 14.47-14.5 GHz frequency band located on the territory of Spain, France, India, Italy, the United Kingdom and South Africa. (WRC-15)

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5.504C	In the frequency band 14-14.25 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, Bahrain, Botswana, Ivory Coast, Egypt, Guinea, India, Iran (Islamic Republic of), Kuwait, Nigeria, Oman, the Syrian Arab Republic and Tunisia by any aircraft earth station in the aeronautical mobile-satellite service shall not exceed the limits given in Annex 1, Part B of Recommendation ITU-R M.1643-0, unless otherwise specifically agreed by the affected administration(s). The provisions of this footnote in no way derogate the obligations of the aeronautical mobile-satellite service to operate as a secondary service in accordance with No. 5.29. (WRC-15)
5.505	Additional allocation: in Algeria, Saudi Arabia, Bahrain, Botswana, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Djibouti, Egypt, the United Arab Emirates, Eswatini, Gabon, Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Oman, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, South Sudan, Chad, Viet Nam and Yemen, the frequency band 14-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-19)
5.506	The band 14-14.5 GHz may be used, within the fixed-satellite service (Earth-to-space), for feeder links for the broadcasting-satellite service, subject to coordination with other networks in the fixed-satellite service. Such use of feeder links is reserved for countries outside Europe.
5.506A	In the band 14-14.5 GHz, ship earth stations with an e.i.r.p. greater than 21 dBW shall operate under the same conditions as earth stations located on board vessels, as provided in Resolution 902 (WRC 03). This footnote shall not apply to ship earth stations for which the complete Appendix 4 information has been received by the Bureau prior to 5 July 2003. (WRC-03)
5.506B	Earth stations located on board vessels communicating with space stations in the fixed-satellite service may operate in the frequency band 14-14.5 GHz without the need for prior agreement from Cyprus and Malta, within the minimum distance given in Resolution 902 (Rev.WRC-03) from these countries. (WRC-15)
5.508	Additional allocation: in Germany, France, Italy, Libya, North Macedonia and the United Kingdom, the frequency band 14.25-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-19)
5.508A	In the frequency band 14.25-14.3 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, Bahrain, Botswana, China, Ivory Coast, Egypt, France, Guinea, India, Iran (Islamic Republic of), Italy, Kuwait, Nigeria, Oman, the Syrian Arab Republic, the United Kingdom and Tunisia by any aircraft earth station in the aeronautical mobile-satellite service shall not exceed the limits given in Annex 1, Part B of Recommendation ITU-R M.1643-0, unless otherwise specifically agreed by the affected administration(s). The provisions of this footnote in no way derogate the obligations of the aeronautical mobile-satellite service to operate as a secondary service in accordance with No. 5.29. (WRC-15)
5.509A	In the band 14.3-14.5 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, Botswana, Cameroon, China, Ivory Coast, Egypt, France, Gabon, Guinea, India, Iran (Islamic Republic of), Italy, Kuwait, Morocco, Nigeria, Oman, the Syrian Arab Republic, the United Kingdom, Sri Lanka, Tunisia and Viet Nam by any aircraft earth station in the aeronautical mobile-satellite service shall not exceed the limits given in Annex 1, Part B of Recommendation ITU-R M.1643, unless otherwise specifically agreed by the affected administration(s). The provisions of this footnote in no way derogate the obligations of the aeronautical mobile-satellite service to operate as a secondary service in accordance with No. 5.29. (WRC-12)

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5.509B	The use of the frequency bands 14.5-14.75 GHz in countries listed in Resolution 163 (WRC-15) and 14.5-14.8 GHz in countries listed in Resolution 164 (WRC-15) by the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service is limited to geostationary-satellites. (WRC-15)
5.509C	For the use of the frequency bands 14.5-14.75 GHz in countries listed in Resolution 163 (WRC-15) and 14.5-14.8 GHz in countries listed in Resolution 164 (WRC-15) by the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service, the fixed-satellite service earth stations shall have a minimum antenna diameter of 6 m and a maximum power spectral density of -44.5 dBW/Hz at the input of the antenna. The earth stations shall be notified at known locations on land. (WRC-15)
5.509D	Before an administration brings into use an earth station in the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service in the frequency bands 14.5-14.75 GHz (in countries listed in Resolution 163 (WRC-15)) and 14.5-14.8 GHz (in countries listed in Resolution 164 (WRC-15)), it shall ensure that the power flux-density produced by this earth station does not exceed -151.5 dB(W/(m2 · 4 kHz)) produced at all altitudes from 0 m to 19 000 m above sea level at 22 km seaward from all coasts, defined as the low-water mark, as officially recognized by each coastal State. (WRC-15)
5.509E	In the frequency bands 14.50-14.75 GHz in countries listed in Resolution 163 (WRC-15) and 14.50-14.8 GHz in countries listed in Resolution 164 (WRC-15), the location of earth stations in the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service shall maintain a separation distance of at least 500 km from the border(s) of other countries unless shorter distances are explicitly agreed by those administrations. No. 9.17 does not apply. When applying this provision, administrations should consider the relevant parts of these Regulations and the latest relevant ITU-R Recommendations. (WRC-15)
5.509F	In the frequency bands 14.50-14.75 GHz in countries listed in Resolution 163 (WRC-15) and 14.50-14.8 GHz in countries listed in Resolution 164 (WRC-15), earth stations in the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service shall not constrain the future deployment of the fixed and mobile services. (WRC-15)
5.509G	The frequency band 14.5-14.8 GHz is also allocated to the space research service on a primary basis. However, such use is limited to the satellite systems operating in the space research service (Earth-to-space) to relay data to space stations in the geostationary-satellite orbit from associated earth stations. Stations in the space research service shall not cause harmful interference to, or claim protection from, stations in the fixed and mobile services and in the fixed-satellite service limited to feeder links for the broadcasting-satellite service and associated space operations functions using the guardbands under Appendix 30A and feeder links for the broadcasting-satellite service in Region 2. Other uses of this frequency band by the space research service are on a secondary basis. (WRC-15)
5.510	Except for use in accordance with Resolution 163 (WRC-15) and Resolution 164 (WRC-15), the use of the frequency band 14.5-14.8 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. This use is reserved for countries outside Europe. Uses other than feeder links for the broadcasting-satellite service are not authorized in Regions 1 and 2 in the frequency band 14.75-14.8 GHz. (WRC-15)
5.511	Additional allocation: in Saudi Arabia, Bahrain, Cameroon, Egypt, the United Arab Emirates, Guinea, Iran (Islamic Republic of), Iraq, Israel, Kuwait, Lebanon, Pakistan, Oman, Qatar, the Syrian Arab Republic and Somalia, the band 15.35-15.4 GHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-12)

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5.511A	Use of the band 15.43-15.63 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links of non-geostationary systems in the mobile-satellite service, subject to coordination under No. 9.11A. (WRC-15)
5.511C	Stations operating in the aeronautical radionavigation service shall limit the effective e.i.r.p. in accordance with Recommendation ITU-R S.1340-0. The minimum coordination distance required to protect the aeronautical radionavigation stations (No. 4.10 applies) from harmful interference from feeder link earth stations and the maximum e.i.r.p. transmitted towards the local horizontal plane by a feeder link earth station shall be in accordance with Recommendation ITU-R S.1340-0. (WRC-15)
5.511E	In the frequency band 15.4-15.7 GHz, stations operating in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the aeronautical radionavigation service. (WRC-12)
5.511F	In order to protect the radio astronomy service in the frequency band 15.35-15.4 GHz, radiolocation stations operating in the frequency band 15.4 15.7 GHz shall not exceed the power flux-density level of -156 dB(W/m²) in a 50 MHz bandwidth in the frequency band 15.35-15.4 GHz, at any radio astronomy observatory site for more than 2 per cent of the time. (WRC-12)
5.512	Additional allocation: in Algeria, Saudi Arabia, Austria, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Congo (Rep. of the), Egypt, El Salvador, the United Arab Emirates, Eritrea, Finland, Guatemala, India, Indonesia, Iran (Islamic Republic of), Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Mali, Morocco, Mauritania, Montenegro, Nepal, Nicaragua, Niger, Oman, Pakistan, Qatar, Syrian Arab Republic, the Dem. Rep. of the Congo, Singapore, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the frequency band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-15)
5.513	Additional allocation: in Israel, the band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis. These services shall not claim protection from or cause harmful interference to services operating in accordance with the Table in countries other than those included in No. 5512.
5.513A	Spaceborne active sensors operating in the band 17.2-17.3 GHz shall not cause harmful interference to, or constrain the development of, the radiolocation and other services allocated on a primary basis. (WRC-97)
5.514	Additional allocation: in Algeria, Saudi Arabia, Bahrain, Bangladesh, Cameroon, El Salvador, the United Arab Emirates, Guatemala, India, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Jordan, Kuwait, Libya, Lithuania, Nepal, Nicaragua, Nigeria, Oman, Uzbekistan, Pakistan, Qatar, Kyrgyzstan Sudan and South Sudan, the frequency band 17.3-17.7 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits given in Nos. 21.3 and 21.5 shall apply. (WRC-15)
5.515	In the band 17.3-17.8 GHz, sharing between the fixed-satellite service (Earth-to-space) and the broadcasting-satellite service shall also be in accordance with the provisions of § 1 of Annex 4 of Appendix 30A.

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5.516 The use of the band 17.3-18.1 GHz by geostationary-satellite systems in the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. The use of the band 17.3-17.8 GHz in Region 2 by systems in the fixed-satellite service (Earth-to-space) is limited to geostationary satellites. For the use of the band 17.3-17.8 GHz in Region 2 by feeder links for the broadcasting satellite service in the band 12.2-12.7 GHz, see Article 11. The use of the bands 17.3-18.1 GHz (Earth-to-space) in Regions 1 and 3 and 17.8-18.1 GHz (Earth-to-space) in Region 2 by non geostationary-satellite systems in the fixed-satellite service is subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non geostationary-satellite systems in the fixed satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. 5.43A does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)

5.516A In the band 17.3-17.7 GHz, earth stations of the fixed-satellite service (space-to-Earth) in Region 1 shall not claim protection from the broadcasting-satellite service feeder-link earth stations operating under Appendix 30A, nor put any limitations or restrictions on the locations of the broadcasting-satellite service feeder-link earth stations anywhere within the service area of the feeder link. (WRC-03)

5.516B The following bands are identified for use by high-density applications in the fixed-satellite service: 17.3-17.7 GHz (space-to-Earth) in Region 1, 18.3-19.3 GHz (space-to-Earth) in Region 2, 19.7-20.2 GHz (space-to-Earth) in all Regions, 39.5-40 GHz (space-to-Earth) in Region 1, 40-40.5 GHz (space-to-Earth) in all Regions, 40.5-42 GHz (space-to-Earth) in Region 2, 47.5-47.9 GHz (space-to-Earth) in Region 1, 48.2-48.54 GHz (space-to-Earth) in Region 1, 49.44-50.2 GHz (space-to-Earth) in Region 1, and 27.5-27.82 GHz (Earth-to-space) in Region 1, 28.35-28.45 GHz (Earth-to-space) in Region 2, 28.45-28.94 GHz (Earth-to-space) in all Regions, 28.94-29.1 GHz (Earth-to-space) in Region 2 and 3, 29.25-29.46 GHz (Earth-to-space) in Region 2, 29.46-30 GHz (Earth-to-space) in all Regions, 48.2-50.2 GHz (Earth-to-space) in Region 2. ART5 – 37 – This identification does not preclude the use of these frequency bands by other fixed-satellite service applications or by other services to which these frequency bands are allocated on a co-primary basis and does not establish priority in these Radio Regulations among users of the frequency bands. Administrations should take this into account when considering regulatory provisions in relation to these frequency bands. See Resolution 143 (Rev.WRC-19). (WRC-19)

5.517A The operation of earth stations in motion communicating with geostationary fixed-satellite service space stations within the frequency bands 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) shall be subject to the application of Resolution 169 (WRC-19). (WRC-19)

5.519 Additional allocation: the bands 18.0-18.3 GHz in Region 2 and 18.1-18.4 GHz in Regions 1 and 3 are also allocated to the meteorological-satellite service (space-to-Earth) on a primary basis. Their use is limited to geostationary satellites. (WRC-07)

5.520 The use of the band 18.1-18.4 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links of geostationary-satellite systems in the broadcasting-satellite service. (WRC-2000)

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5.521 Alternative allocation: in the United Arab Emirates and Greece, the frequency band 18.1-18.4 GHz is allocated to the fixed, fixed-satellite (space-to-Earth) and mobile services on a primary basis (see No. 5.33). The provisions of No. 5.519 also apply. (WRC-15)

5.522A The emissions of the fixed service and the fixed-satellite service in the band 18.6-18.8 GHz are limited to the values given in Nos. 21.5A and 21.16.2, respectively. (WRC-2000)

5.522B The use of the band 18.6-18.8 GHz by the fixed-satellite service is limited to geostationary systems and systems with an orbit of apogee greater than 20 000 km. (WRC-2000)

5.522C In the band 18.6-18.8 GHz, in Algeria, Saudi Arabia, Bahrain, Egypt, the United Arab Emirates, the Libyan Arab Jamahiriya, Jordan, Lebanon, Morocco, Oman, Qatar, the Syrian Arab Republic, Tunisia and Yemen, fixed-service systems in operation at the date of entry into force of the Final Acts of WRC-2000 are not subject to the limits of No. 21.5A. (WRC-2000)

5.523A The use of the bands 18.8-19.3 GHz (space-to-Earth) and 28.6-29.1 GHz (Earth-to-space) by geostationary and non-geostationary fixed-satellite service networks is subject to the application of the provisions of No. 9.11A and No. 22.2 does not apply. Administrations having geostationary-satellite networks under coordination prior to 18 November 1995 shall cooperate to the maximum extent possible to coordinate pursuant to No. 9.11A with non-geostationary-satellite networks for which notification information has been received by the Bureau prior to that date, with a view to reaching results acceptable to all the parties concerned. Non-geostationary-satellite networks shall not cause unacceptable interference to geostationary fixed-satellite service networks for which complete Appendix 4 notification information is considered as having been received by the Bureau prior to 18 November 1995. (WRC-97)

5.523B The use of the band 19.3-19.6 GHz (Earth-to-space) by the Fixed-satellite service is limited to feeder links for non-geostationary-satellite systems in the mobile-satellite service. Such use is subject to the application of the provisions of No. 9.11A, and No. 22.2 does not apply.

5.523C No. 22.2 of the Radio Regulations shall continue to apply in the bands 19.3-19.6 GHz and 29.1-29.4 GHz, between feeder links of non-geostationary mobile-satellite service networks and those fixed-satellite service networks for which complete Appendix 4 coordination information, or notification information, is considered as having been received by the Bureau prior to 18 November 1995. (WRC-97)

5.523D The use of the band 19.3-19.7 GHz (space-to-Earth) by geostationary fixed-satellite service systems and by feeder links for non-geostationary-satellite systems in the mobile-satellite service is subject to the application of the provisions of No. 9.11A, but not subject to the provisions of No. 22.2. The use of this band for other non-geostationary fixed-satellite service systems, or for the cases indicated in Nos. 5.523C and 5.523E, is not subject to the provisions of No. 9.11A and shall continue to be subject to Articles 9 (except No. 9.11A) and 11 procedures, and to the provisions of No. 22.2. (WRC-97)

5.523E No. 22.2 shall continue to apply in the bands 19.6-19.7 GHz and 29.4-29.5 GHz, between feeder links of non-geostationary mobile-satellite service networks and those fixed-satellite service networks for which complete Appendix 4 coordination information, or notification information, is considered as having been received by the Bureau by 21 November 1997. (WRC-97)

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5.524	Additional allocation: in Afghanistan, Algeria, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Costa Rica, Egypt, the United Arab Emirates, Gabon, Guatemala, Guinea, India, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, South Sudan, Chad, Togo and Tunisia, the frequency band 19.7-21.2 GHz is also allocated to the fixed and mobile services on a primary basis. This additional use shall not impose any limitation on the power flux-density of space stations in the fixed-satellite service in the frequency band 19.7-21.2 GHz and of space stations in the mobile-satellite service in the band 19.7-20.2 GHz where the allocation to the mobile-satellite service is on a primary basis in the latter frequency band. (WRC-15)
5.525	In order to facilitate interregional coordination between networks in the mobile-satellite and fixed-satellite services, carriers in the mobile-satellite service that are most susceptible to interference shall, to the extent practicable, be located in the higher parts of the bands 19.7-20.2 GHz and 29.5-30 GHz.
5.526	In the bands 19.7-20.2 GHz and 29.5-30 GHz in Region 2, and in the bands 20.1-20.2 GHz and 29.9-30 GHz in Regions 1 and 3, networks which are both in the fixed-satellite service and in the mobile-satellite service may include links between earth stations at specified or unspecified points or while in motion, through one or more satellites for point-to-point and point-to-multipoint communications.
5.527	In the bands 19.7-20.2 GHz and 29.5-30 GHz, the provisions of No 4.10 do not apply with respect to the mobile-satellite service.
5.527A	The operation of earth stations in motion communicating with the FSS is subject to Resolution 156 (WRC-15) (WRC-15)
5.528	The allocation to the mobile-satellite service is intended for use by networks which use narrow spot-beam antennas and other advanced technology at the space stations. Administrations operating systems in the mobile-satellite service in the band 19.7 - 20.1 GHz in Region 2 and in the band 20.1 - 20.2 GHz shall take all practicable steps to ensure the continued availability of these bands for administrations operating fixed and mobile systems in accordance with the provisions of No. 5.524.
5.530A	Unless otherwise agreed between the administrations concerned, any station in the fixed or mobile services of an administration shall not produce a power flux-density in excess of -120.4 dB(W/(m² · MHz)) at 3 m above the ground of any point of the territory of any other administration in Regions 1 and 3 for more than 20% of the time. In conducting the calculations, administrations should use the most recent version of Recommendation ITU-R P.452 (see also the most recent version of Recommendation ITU-R BO.1898). (WRC-15)
5.530B	In the band 21.4-22 GHz, in order to facilitate the development of the broadcasting-satellite service, administrations in Regions 1 and 3 are encouraged not to deploy stations in the mobile service and are encouraged to limit the deployment of stations in the fixed service to point-to-point links. (WRC-12)
5.530D	See Resolution 555 (WRC-12). (WRC-12)
5.530E	The allocation to the fixed service in the frequency band 21.4-22 GHz is identified for use in Region 2 by high-altitude platform stations (HAPS). This identification does not preclude the use of this frequency band by other fixed-service applications or by other services to which it is allocated on a co-primary basis, and does not establish priority in the Radio Regulations. Such use of the fixed-service allocation by HAPS is limited to the HAPS-to-ground direction, and shall be in accordance with the provisions of Resolution 165 (WRC-19). (WRC-19)

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5.532	The use of the band 22.21-22.5 GHz by the earth exploration-satellite (passive) and space research (passive) services shall not impose constraints upon the fixed and mobile, except aeronautical mobile, services.
5.532A	The location of earth stations in the space research service shall maintain a separation distance of at least 54 km from the respective border(s) of neighbouring countries to protect the existing and future deployment of fixed and mobile services unless a shorter distance is otherwise agreed between the corresponding administrations. Nos. 9.17 and 9.18 do not apply. (WRC-12)
5.532AA	The allocation to the fixed service in the frequency band 24.25-25.25 GHz is identified for use in Region 2 by high-altitude platform stations (HAPS). This identification does not preclude the use of this frequency band by other fixed-service applications or by other services to which this frequency band is allocated on a co-primary basis, and does not establish priority in the Radio Regulations. Such use of the fixed-service allocation by HAPS is limited to the HAPSto-ground direction and shall be in accordance with the provisions of Resolution 166 (WRC-19). (WRC-19)
5.532AB	The frequency band 24.25-27.5 GHz is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Resolution 242 (WRC-19) applies. (WRC-19)
5.532B	Use of the band 24.65-25.25 GHz in Region 1 and the band 24.65-24.75 GHz in Region 3 by the fixed-satellite service (Earth-to-space) is limited to earth stations using a minimum antenna diameter of 4.5 m. (WRC-12)
5.533	The inter-satellite service shall not claim protection from harmful interference from airport surface detection equipment stations of the radionavigation service.
5.534A	The allocation to the fixed service in the frequency band 25.25-27.5 GHz is identified in Region 2 for use by high-altitude platform stations (HAPS) in accordance with the provisions of Resolution 166 (WRC-19). Such use of the fixed-service allocation by HAPS shall be limited to the ground-to-HAPS direction in the frequency band 25.25-27.0 GHz and to the HAPS-to-ground direction in the frequency band 27.0-27.5 GHz. Furthermore, the use of the frequency band 25.5-27.0 GHz by HAPS shall be limited to gateway links. This identification does not preclude the use of this frequency band by other fixed-service applications or by other services to which this band is allocated on a coprimary basis, and does not establish priority in the Radio Regulations. (WRC-19)
5.535	In the band 24.75-25.25 GHz, feeder links to stations of the broadcasting-satellite service shall have priority over other uses in the fixed-satellite service (Earth-to-space). Such other uses shall protect and shall not claim protection from existing and future operating feeder-link networks to such broadcasting satellite stations.
5.535A	The use of the band 29.1-29.5 GHz (Earth-to-space) by the fixed-satellite service is limited to geostationary-satellite systems and feeder links to non-geostationary-satellite systems in the mobile-satellite service. Such use is subject to the application of the provisions of No. 9.11A, but not subject to the provisions of No. 22.2, except as indicated in Nos. 5.523C and 5.523E where such use is not subject to the provisions of No. 9.11A and shall continue to be subject to Articles 9 (except No. 9.11A) and 11 procedures, and to the provisions of No. 22.2. (WRC-97)
5.536	Use of the 25.25-27.5 GHz band by the inter-satellite service is limited to space research and Earth exploration-satellite applications, and also transmissions of data originating from industrial and medical activities in space.

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5.536A Administrations operating earth stations in the Earth exploration-satellite service or the space research service shall not claim protection from stations in the fixed and mobile services operated by other administrations. In addition, earth stations in the Earth exploration-satellite service or in the space research service should be operated taking into account the most recent version of Recommendation ITU-R SA.1862. Resolution 242 (WRC-19) applies. (WRC-19)

5.536B In Algeria, Saudi Arabia, Austria, Bahrain, Belgium, Brazil, China, Korea (Rep. of), Denmark, Egypt, United Arab Emirates, Estonia, Finland, Hungary, India, Iran (Islamic Republic of), Iraq, Ireland, Israel, Italy, Jordan, Kenya, Kuwait, Lebanon, Libya, Lithuania, Moldova, Norway, Oman, Uganda, Pakistan, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the Czech Rep., Romania, the United Kingdom, Singapore, Slovenia, Sudan, Sweden, Tanzania, Turkey, Viet Nam and Zimbabwe, earth stations operating in the Earth exploration-satellite service in the frequency band 25.5-27 GHz shall not claim protection from, or constrain the use and deployment of, stations of the fixed and mobile services. Resolution 242 (WRC-19) applies. (WRC-19)

5.536C In Algeria, Saudi Arabia, Bahrain, Botswana, Brazil, Cameroon, Comoros, Cuba, Djibouti, Egypt, United Arab Emirates, Estonia, Finland, Iran (Islamic Rep. of), Israel, Jordan, Kenya, Kuwait, Lithuania, Malaysia, Morocco, Nigeria, Oman, Qatar, Syrian Arab Republic, Somalia, Sudan, South Sudan, Tanzania, Tunisia, Uruguay, Zambia and Zimbabwe, earth stations operating in the space research service in the band 25.5-27 GHz shall not claim protection from, or constrain the use and deployment of, stations of the fixed and mobile services. (WRC-12)

5.537 Space services using non-geostationary satellites operating in the inter-satellite service in the band 27-27.5 GHz are exempt from the provisions of No. 22.2

5.537A In Bhutan, Cameroon, China, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the frequency band 27.9-28.2 GHz may also be used by high altitude platform stations (HAPS) within the territory of these countries. Such use of 300 MHz of the fixed-service allocation by HAPS in the above countries is further limited to operation in the HAPS-to-ground direction and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems or other co-primary services. Furthermore, the development of these other services shall not be constrained by HAPS. See Resolution 145 (Rev.WRC-19). (WRC-19)

5.538 Additional allocation: the bands 27.500-27.501 GHz and 29.999-30.000 GHz are also allocated to the fixed-satellite service (space to Earth) on a primary basis for the beacon transmissions intended for up-link power control. Such space-to-Earth transmissions shall not exceed an equivalent isotropically radiated power (e.i.r.p.) of +10 dBW in the direction of adjacent satellites on the geostationary-satellite orbit. (WRC-07)

5.539 The band 27.5-30 GHz may be used by the fixed-satellite service (Earth-to-space) for the provision of feeder links for the broadcasting-satellite service.

5.540 Additional allocation: the band 27.501-29.999 GHz is also allocated to the fixed-satellite service (space-to-Earth) on a secondary basis for beacon transmissions intended for up-link power control.

5.541 In the band 28.5-30 GHz, the earth exploration-satellite service is limited to the transfer of data between stations and not to the primary collection of information by means of active or passive sensors.

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5.541A Feeder links of non-geostationary networks in the mobile-satellite service and geostationary networks in the fixed-satellite service operating in the band 29.1-29.5 GHz (Earth-to-space) shall employ uplink adaptive power control or other methods of fade compensation, such that the earth station transmissions shall be conducted at the power level required to meet the desired link performance while reducing the level of mutual interference between both networks. These methods shall apply to networks for which Appendix 4 coordination information is considered as having been received by the Bureau after 17 May 1996 and until they are changed by a future competent world radiocommunication conference. Administrations submitting Appendix 4 information for coordination before this date are encouraged to utilize these techniques to the extent practicable. (WRC-2000)

5.542 Additional allocation: in Algeria, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, China, the Dem. Rep. of the Congo, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guinea, India, Iran (Islamic Republic of), Iraq, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Oman, Pakistan, Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Somalia, Sudan, South Sudan, Sri Lanka and Chad, the band 29.5-31 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits specified in Nos. 21.3 and 21.5 shall apply. (WRC-12)

5.543 The band 29.95-30 GHz may be used for space-to-space links in the earth exploration-satellite service for telemetry, tracking, and control purposes, on a secondary basis.

5.543A In Bhutan, Cameroon, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Irac, Japan, Kazakhstan, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the frequency band 31-31.3 GHz may also be used by systems using high altitude platform stations (HAPS) in the ground-to-HAPS direction. The use of the frequency band 31-31.3 GHz by systems using HAPS is limited to the territory of the countries listed above and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems, systems in the mobile service and systems operated under No. 5.545. Furthermore, the development of these services shall not be constrained by HAPS. Systems using HAPS in the frequency band 31-31.3 GHz shall not cause harmful interference to the radio astronomy service having a primary allocation in the frequency band 31.3-31.8 GHz, taking into account the protection criterion as given in the most recent version of Recommendation ITU-R RA.769. In order to ensure the protection of satellite passive services, the level of unwanted power density into a HAPS ground station antenna in the frequency band 31.3-31.8 GHz shall be limited to -106 dB(W/MHz) under clear-sky conditions, and may be increased up to -100 dB(W/MHz) under rainy conditions to mitigate fading due to rain, provided the effective impact on the passive satellite does not exceed the impact under clear-sky conditions. See Resolution 145 (Rev.WRC-12). (WRC-15)

5.543B The allocation to the fixed service in the frequency band 31-31.3 GHz is identified for worldwide use by high-altitude platform stations (HAPS). This identification does not preclude the use of this frequency band by other fixed-service applications or by other services to which this frequency band is allocated on a co-primary basis, and does not establish priority in the Radio Regulations. Such use of the fixed-service allocation by HAPS shall be in accordance with the provisions of Resolution 167 (WRC-19). (WRC-19)

5.544 In the band 31-31.3 GHz the power flux-density limits specified in Article 21, Table 21-4 shall apply to the space research service.

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5.545 Different category of service: in Armenia, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 31-31.3 GHz to the space research service is on a primary basis (see No. 5.33). (WRC-12)

5.546 Different category of service: in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Egypt, the United Arab Emirates, Spain, Estonia, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Israel, Jordan, Lebanon, Moldova, Mongolia, Oman, Uzbekistan, Poland, the Syrian Arab Republic, Kyrgyzstan, Romania, the United Kingdom, South Africa, Tajikistan, Turkmenistan and Turkey, the allocation of the frequency band 31.5-31.8 GHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. 5.33). (WRC-19)

5.547 The bands 31.8-33.4 GHz, 37-40 GHz, 40.5-43.5 GHz, 51.4-52.6 GHz, 55.78-59 GHz and 64-66 GHz are available for high-density applications in the fixed service (see Resolution 75 (WRC-2000)). Administrations should take this into account when considering regulatory provisions in relation to these bands. Because of the potential deployment of high-density applications in the fixed-satellite service in the bands 39.5-40 GHz and 40.5-42 GHz (see No. 5.516B), administrations should further take into account potential constraints to high-density applications in the fixed service, as appropriate. (WRC-07)

5.547A Administrations should take practical measures to minimize the potential interference between stations in the fixed service and airborne stations in the radionavigation service in the 31.8-33.4 GHz band, taking into account the operational needs of the airborne radar systems. (WRC-2000)

5.548 In designing systems for the inter-satellite service in the band 32.3-33 GHz, for the radionavigation service in the band 32-33 GHz, and for the space research service (deep space) in the band 31.8-32.3 GHz, administrations shall take all necessary measures to prevent harmful interference between these services, bearing in mind the safety aspects of the radionavigation service (see Recommendation 707). (WRC-03)

5.549 Additional allocation: in Saudi Arabia, Bahrain, Bangladesh, Egypt, the United Arab Emirates, Gabon, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, Singapore, Somalia, Sudan, South Sudan, Sri Lanka, Togo, Tunisia and Yemen, the band 33.4-36 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.549A In the band 35.5-36.0 GHz, the mean power flux-density at the Earth's surface, generated by any spaceborne sensor in the Earth exploration-satellite service (active) or space research service (active), for any angle greater than 0.8° from the beam centre shall no exceed -73.3 dB(W/m²) in this band. (WRC-03)

5.550 Different category of service: in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 34.7-35.2 GHz to the space research service is on a primary basis (see No. 5.33). (WRC-12)

5.550A For sharing of the band 36-37 GHz between the Earth exploration-satellite (passive) service and the fixed and mobile services, Resolution 752 (WRC-07) shall apply. (WRC-07)

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5.550B The frequency band 37-43.5 GHz, or portions thereof, is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Because of the potential deployment of FSS earth stations within the frequency range 37.5-42.5 GHz and high-density applications in the fixed-satellite service in the frequency bands 39.5-40 GHz in Region 1, 40-40.5 GHz in all Regions and 40.5-42 GHz in Region 2 (see No. 5.516B), administrations should further take into account potential constraints to IMT in these frequency bands, as appropriate. Resolution 243 (WRC-19) applies. (WRC-19)

5.550C The use of the frequency bands 37.5-39.5 GHz (space-to-Earth), 39.5-42.5 GHz (space-to-Earth), 47.2- 50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space) by a non-geostationary-satellite system in the fixedsatellite service is subject to the application of the provisions of No. 9.12 for coordination with other non-geostationarysatellite systems in the fixed-satellite service but not with non-geostationary-satellite systems in other services. Resolution 770 (WRC-19) shall also apply, and No. 22.2 shall continue to apply. (WRC-19)

5.550D The allocation to the fixed service in the frequency band 38-39.5 GHz is identified for worldwide use by administrations wishing to implement high-altitude platform stations (HAPS). In the HAPS-to-ground direction, the HAPS ground station shall not claim protection from stations in the fixed, mobile and fixed-satellite services; and No. 5.43A does not apply. This identification does not preclude the use of this frequency band by other fixed-service applications or by other services to which this frequency band is allocated on a co-primary basis and does not establish priority in the Radio Regulations. Furthermore, the development of the fixed-satellite, fixed and mobile services shall not be unduly constrained by HAPS. Such use of the fixed-service allocation by HAPS shall be in accordance with the provisions of Resolution 168 (WRC-19). (WRC-19)

5.550E The use of the frequency bands 39.5-40 GHz and 40-40.5 GHz by non-geostationary-satellite systems in the mobile-satellite service (space-to-Earth) and by non-geostationary-satellite systems in the fixed-satellite service (space-to-Earth) is subject to the application of the provisions of No. 9.12 for coordination with other non-geostationarysatellite systems in the fixed-satellite and mobile-satellite services but not with non-geostationary-satellite systems in other services. No. 22.2 shall continue to apply for non-geostationary-satellite-systems. (WRC-19)

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5.551H The equivalent power flux-density (epfd) produced in the frequency band 42.5-43.5 GHz by all space stations in any non-geostationary-satellite system in the fixed-satellite service, or in the broadcasting-satellite service operating in the frequency band 42-42.5 GHz, shall not exceed the following values at the site of any radio astronomy station for more than 2% of the time: -230 dB(W/m²) in 1 GHz and -246 dB(W/m²) in any 500 kHz of the frequency band 42.5-43.5 GHz at the site of any radio astronomy station registered as a single-dish telescope; and -209 dB(W/m²) in any 500 kHz of the frequency band 42.5-43.5 GHz at the site of any radio astronomy station registered as a very long baseline interferometry station. These epfd values shall be evaluated using the methodology given in Recommendation ITU-R S.1586-1 and the reference antenna pattern and the maximum gain of an antenna in the radio astronomy service given in Recommendation ITU-R RA.1631-0 and shall apply over the whole sky and for elevation angles higher than the minimum operating angle θmin of the radiotelescope (for which a default value of 5° should be adopted in the absence of notified information). These values shall apply at any radio astronomy station that either: - was in operation prior to 5 July 2003 and has been notified to the Bureau before 4 January 2004; or - was notified before the date of receipt of the complete Appendix 4 information for coordination or notification, as appropriate, for the space station to which the limits apply. Other radio astronomy stations notified after these dates may seek an agreement with administrations that have authorized the space stations. In Region 2, Resolution 743 (WRC-03) shall apply. The limits in this footnote may be exceeded at the site of a radio astronomy station of any country whose administration so agreed. (WRC-15)

5.551I The power flux-density in the band 42.5-43.5 GHz produced by any geostationary space station in the fixed-satellite service (space-to-Earth), or the broadcasting-satellite service (space-to-Earth) operating in the 42-42.5 GHz band, shall not exceed the following values at the site of any radio astronomy station: -137 dB(W/m²) in 1 GHz and -153 dB(W/m²) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a single-dish telescope; and -116 dB(W/m²) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a very long baseline interferometry station. These values shall apply at the site of any radio astronomy station that either: - was in operation prior to 5 July 2003 and has been notified to the Bureau before 4 January 2004; or - was notified before the date of receipt of the complete Appendix 4 information for coordination or notification, as appropriate, for the space station to which the limits apply. Other radio astronomy stations notified after these dates may seek an agreement with administrations that have authorized the space stations. In Region 2, Resolution 743 (WRC-03) shall apply. The limits in this footnote may be exceeded at the site of a radio astronomy station of any country whose administration so agreed. (WRC-03)

5.552 The allocation of the spectrum for the fixed-satellite service in the bands 42.5-43.5 GHz and 47.2-50.2 GHz for Earth-to-space transmission is greater than that in the band 37.5-39.5 GHz for space-to-Earth transmission in order to accommodate feeder links to broadcasting satellites. Administrations are urged to take all practicable steps to reserve the band 47.2-49.2 GHz for feeder links for the broadcasting-satellite service operating in the band 40.5-42.5 GHz.

5.552A The allocation to the fixed service in the frequency bands 47.2-47.5 GHz and 47.9-48.2 GHz is identified for use by high-altitude platform stations (HAPS). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated on a co-primary basis, and does not establish priority in the Radio Regulations. Such use of the fixed-service allocation in the frequency bands 47.2-47.5 GHz and 47.9-48.2 GHz by HAPS shall be in accordance with the provisions of Resolution 122 (Rev.WRC-19). (WRC-19)

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5.553 In the bands 43.5-47 GHz and 66-71 GHz, stations in the land mobile service may be operated subject to not causing harmful interference to the space radiocommunication services to which these bands are allocated (see No. 5.43). (WRC-2000)

5.553A In Algeria, Angola, Bahrain, Belarus, Benin, Botswana, Brazil, Burkina Faso, Cabo Verde, Korea (Rep. of), Ivory Coast, Croatia, United Arab Emirates, Estonia, Eswatini, Gabon, Gambia, Ghana, Greece, Guinea, GuineaBissau, Hungary, Iran (Islamic Republic of), Iraq, Jordan, Kuwait, Lesotho, Latvia, Liberia, Lithuania, Madagascar, Malawi, Mali, Morocco, Mauritius, Mauritania, Mozambique, Namibia, Niger, Nigeria, Oman, Qatar, Senegal, Seychelles, Sierra Leone, Slovenia, Sudan, South Africa, Sweden, Tanzania, Togo, Tunisia, Zambia and Zimbabwe, the frequency band 45.5-47 GHz is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT), taking into account No. 5.553. With respect to the aeronautical mobile service and radionavigation service, the use of this frequency band for the implementation of IMT is subject to agreement obtained under No. 9.21 with concerned administrations and shall not cause harmful interference to, or claim protection from these services. This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Resolution 244 (WRC-19) applies. (WRC-19)

5.553B In Region 2 and Algeria, Angola, Saudi Arabia, Australia, Bahrain, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Rep., Comoros, Congo (Rep. of the), Korea (Rep. of), Ivory Coast, Djibouti, Egypt, United Arab Emirates, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Equatorial Guinea, India, Iran (Islamic Republic of), Iraq, Japan, Jordan, Kenya, Kuwait, Lesotho, Liberia, Libya, Lithuania, Madagascar, Malaysia, Malawi, Mali, Morocco, Mauritius, Mauritania, Mozambique, Namibia, Niger, Nigeria, Oman, Uganda, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Singapore, Slovenia, Somalia, Sudan, South Sudan, South Africa, Sweden, Tanzania, Chad, Togo, Tunisia, Zambia and Zimbabwe, the frequency band 47.2-48.2 GHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated, and does not establish any priority in the Radio Regulations. Resolution 243 (WRC-19) applies. (WRC-19)

5.554 In the bands 43.5-47 GHz, 66-71 GHz, 95-100 GHz, 123-130 GHz, 191.8-200 GHz and 252-265 GHz, satellite links connecting land stations at specified fixed points are also authorized when used in conjunction with the mobile-satellite service or the radionavigation-satellite service. (WRC-2000)

5.554A The use of the bands 47.5-47.9 GHz, 48.2-48.54 GHz and 49.44-50.2 GHz by the fixed-satellite service (space-to-Earth) is limited to geostationary satellites. (WRC-03)

5.555 Additional allocation: the band 48.94-49.04 GHz is also allocated to the radio astronomy service on a primary basis. (WRC-2000)

5.555B The power flux-density in the band 48.94-49.04 GHz produced by any geostationary space station in the fixed-satellite service (space-to-Earth) operating in the bands 48.2-48.54 GHz and 49.44-50.2 GHz shall not exceed -151.8 dB(W/m²) in any 500 kHz band at the site of any radio astronomy station. (WRC-03)

5.555C The use of the frequency band 51.4-52.4 GHz by the fixed-satellite service (Earth-to-space) is limited to geostationary-satellite networks. The earth stations shall be limited to gateway earth stations with a minimum antenna diameter of 2.4 metres. (WRC-19)

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5.556	In the bands 51.4-54.25 GHz, 58.2-59 GHz and 64-65 GHz, radio astronomy observations may be carried out under national arrangements. (WRC-2000)
5.556A	Use of the bands 54.25-56.9 GHz, 57-58.2 GHz and 59-59.3 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density at all altitudes from 0 km to 1 000 km above the Earth's surface produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, shall not exceed -147 dB(W/m² /100 MHz) for all angles of arrival. (WRC-97)
5.557A	In the band 55.78-56.26 GHz, in order to protect stations in the Earth exploration-satellite service (passive), the maximum power density delivered by a transmitter to the antenna of a fixed service station is limited to -26 dB(W/MHz). (WRC-2000)
5.558	In the bands 55.78-58.2 GHz, 59-64 GHz, 66-71 GHz, 122.25-123 GHz, 130-134 GHz, 167-174.8 GHz and 191.8-200 GHz, stations in the aeronautical mobile service may be operated subject to not causing harmful interference to the inter-satellite service (see No. 5.43). (WRC-2000)
5.558A	Use of the band 56.9-57 GHz by inter-satellite systems is limited to links between satellites in geostationary-satellite orbit and to transmissions from non-geostationary satellites in high-Earth orbit to those in low Earth orbit. For links between satellites in the geostationary-satellite orbit, the single entry power flux-density at all altitudes from 0 km to 1 000 km above the Earth's surface, for all conditions and for all methods of modulation, shall not exceed –147 dB(W/(m² # 100 MHz)) for all angles of arrival. (WRC-97)
5.559	In the band 59-64 GHz, airborne radars in the radiolocation service may be operated subject to not causing harmful interference to the inter-satellite service (see No. 5.43). (WRC-2000)
5.559AA	The frequency band 66-71 GHz is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which this frequency band is allocated and does not establish priority in the Radio Regulations. Resolution 241 (WRC-19) applies. (WRC-19)
5.559B	The use of the frequency band 77.5-78 GHz by the radiolocation service shall be limited to short-range radar for ground-based applications, including automotive radars. The technical characteristics of these radars are provided in the most recent version of Recommendation ITU-R.M.2057. The provisions of No. 4.10 do not apply. (WRC-15)
5.560	In the band 78-79 GHz radars located on space stations may be operated on a primary basis in the earth exploration-satellite service and in the space research service.
5.561	In the band 74-76 GHz, stations in the fixed, mobile and broadcasting services shall not cause harmful interference to stations of the fixed-satellite service or stations of the broadcasting-satellite service operating in accordance with the decisions of the appropriate frequency assignment planning conference for the broadcasting-satellite service. (WRC-2000)
5.561A	The 81-81.5 GHz band is also allocated to the amateur and amateur-satellite services on a secondary basis. (WRC-2000)
5.562	The use of the band 94-94.1 GHz by the Earth exploration-satellite (active) and space research (active) services is limited to spaceborne cloud radars. (WRC-97)

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5.562A	In the bands 94-94.1 GHz and 130-134 GHz, transmissions from space stations of the Earth exploration-satellite service (active) that are directed into the main beam of a radio astronomy antenna have the potential to damage some radio astronomy receivers. Space agencies operating the transmitters and the radio astronomy stations concerned should mutually plan their operations so as to avoid such occurrences to the maximum extent possible. (WRC-2000)
5.562B	In the frequency bands 105-109.5 GHz, 111.8-114.25 GHz and 217-226 GHz, the use of this allocation is limited to space-based radio astronomy only. (WRC-19)
5.562C	Use of the band 116-122.25 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, at all altitudes from 0 km to 1 000 km above the Earth's surface and in the vicinity of all geostationary orbital positions occupied by passive sensors, shall not exceed -148 dB(W/(m² · MHz)) for all angles of arrival. (WRC-2000)
5.562E	The allocation to the Earth exploration-satellite service (active) is limited to the band 133.5-134 GHz. (WRC-2000)
5.562F	In the band 155.5-158.5 GHz, the allocation to the Earth exploration-satellite (passive) and space research (passive) services shall terminate on 1 January 2018. (WRC-2000)
5.562H	Use of the bands 174.8-182 GHz and 185-190 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, at all altitudes from 0 km to 1000 km above the Earth's surface and in the vicinity of all geostationary orbital positions occupied by passive sensors, shall not exceed -144 dB(W/(m² · MHz)) for all angles of arrival. (WRC-2000)
5.563A	In the bands 200-209 GHz, 235-238 GHz, 250-252 GHz and 265-275 GHz, ground-based passive atmospheric sensing is carried out to monitor atmospheric constituents. (WRC-2000)
5.563B	The band 237.9-238 GHz is also allocated to the Earth exploration-satellite service (active) and the space research service (active) for spaceborne cloud radars only. (WRC-2000)
5.564A	For the operation of fixed and land mobile service applications in frequency bands in the range 275- 450 GHz: The frequency bands 275-296 GHz, 306-313 GHz, 318-333 GHz and 356-450 GHz are identified for use by administrations for the implementation of land mobile and fixed service applications, where no specific conditions are necessary to protect Earth exploration-satellite service (passive) applications. The frequency bands 296-306 GHz, 313-318 GHz and 333-356 GHz may only be used by fixed and land mobile service applications when specific conditions to ensure the protection of Earth exploration-satellite service (passive) applications are determined in accordance with Resolution 731 (Rev.WRC-19). In those portions of the frequency range 275-450 GHz where radio astronomy applications are used, specific conditions (e.g. minimum separation distances and/ or avoidance angles) may be necessary to ensure protection of radio astronomy sites from land mobile and/or fixed service applications, on a case-by-case basis in accordance with Resolution 731 (Rev.WRC-19). The use of the above-mentioned frequency bands by land mobile and fixed service applications does not preclude use by, and does not establish priority over, any other applications of radio services in the range of 275-450 GHz. (WRC-19)

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5.565 The following frequency bands in the range 275-1000 GHz are identified for use by administrations for passive services applications: - radio astronomy service: 275-323 GHz, 327-371 GHz, 388-424 GHz, 426-442 GHz, 453-510 GHz, 623-711 GHz, 795-909 GHz and 926-945 GHz; - Earth exploration-satellite service (passive) and space research service (passive): 275-286 GHz, 296-306 GHz, 313-356 GHz, 361-365 GHz, 369-392 GHz, 397-399 GHz, 409-411 GHz, 416-434 GHz, 439-467 GHz, 477-502 GHz, 523-527 GHz, 538-581 GHz, 611-630 GHz, 634-654 GHz, 657-692 GHz, 713-718 GHz, 729-733 GHz, 750-754 GHz, 771-776 GHz, 823-846 GHz, 850-854 GHz, 857-862 GHz, 866-882 GHz, 905-928 GHz, 951-956 GHz, 968-973 GHz and 985-990 GHz. The use of the range 275-1000 GHz by the passive services does not preclude use of this range by active services. Administrations wishing to make frequencies in the 275-1000 GHz range available for active service applications are urged to take all practicable steps to protect these passive services from harmful interference until the date when the Table of Frequency Allocations is established in the above-mentioned 275-1000 GHz frequency range. All frequencies in the range 1000-3000 GHz may be used by both active and passive services. (WRC-12)

Annex 3 - Relevant ERC/ECC Decisions and Recommendations

ECC/DEC/(22)01	Free circulation and use of Mobile/Fixed Communication Networks (MFCN) terminals operating under the control of terrestrial networks
ECC/DEC/(21)01	The use of the bands 47.2-50.2 GHz and 50.4-52.4 GHz by the fixed-satellite service (Earth-to-space)
ECC/DEC/(20)02	Harmonised use of the paired frequency bands 874.4-880.0 MHz and 919.4-925.0 MHz and of the unpaired frequency band 1900-1910 MHz for Railway Mobile Radio (RMR)
ECC/DEC/(20)01	On the harmonised use of the frequency band 5945-6425 MHz for Wireless Access Systems including Radio Local Area Networks (WAS/RLAN)
ECC/DEC/(19)04	The harmonised use of spectrum, free circulation and use of earth stations on-board aircraft operating with GSO FSS networks and NGSO FSS systems in the frequency bands 12.75-13.25 GHz (Earth-to-space) and 10.7-12.75 GHz (space-to-Earth)
ECC/DEC/(19)03	harmonised usage of the channels of the radio regulations appendix 18 (transmitting frequencies in the vhf maritime mobile band)
ECC/DEC/(19)02	Land mobile systems in the frequency ranges 68-87.5 MHz, 146-174 MHz, 406.1-410 MHz, 410-430 MHz, 440-450 MHz and 450-470 MHz
ECC/DEC/(18)06	The harmonised technical conditions for Mobile/Fixed Communications Networks (MFCN) in the band 24.25-27.5 GHz
ECC/DEC/(18)05	The harmonised use, exemption from individual licensing and free circulation and use of Earth Stations In-Motion (ESIM) operating with NGSO FSS satellite systems in the frequency bands 10.7-12.75 GHz and 14.0-14.5 GHz
ECC/DEC/(18)04	The harmonised use, exemption from individual licensing and free circulation and use of land based Earth Stations In-Motion (ESIM) operating with GSO FSS satellite systems in the frequency bands 10.7-12.75 GHz and 14.0-14.5 GHz
ECC/DEC/(17)06	The harmonised use of the frequency bands 1427-1452 MHz and 1492-1518 MHz for Mobile/Fixed Communications Networks Supplemental Downlink (MFCN SDL)
ECC/DEC/(17)04	The harmonised use and exemption from individual licensing of fixed earth stations operating with NGSO FSS satellite systems in the frequency bands 10.7-12.75 GHz and 14.0-14.5 GHz
ECC/DEC/(16)02	Harmonised technical conditions and frequency bands for the implementation of Broadband Public Protection and Disaster Relief (BB-PPDR) systems
ECC/DEC/(16)01	The harmonised frequency band 76-77 GHz, technical characteristics, exemption from individual licensing and free carriage and use of obstacle detection radars for rotorcraft use
ECC/DEC/(15)05	The harmonised frequency range 446.0-446.2 MHz, technical characteristics, exemption from individual licensing and free carriage and use of analogue and digital PMR 446 applications
ECC/DEC/(15)04	The harmonised use, free circulation and exemption from individual licensing of Land, Maritime and Aeronautical Earth Stations On Mobile Platforms (ESOMPs) operating with NGSO FSS satellite systems in the frequency ranges 17.3-20.2 GHz, 27.5-29.1 GHz and 29.5-30.0 GHz
ECC/DEC/(15)03	The harmonised use of broadband Direct Air-to-Ground Communications (DA2GC) systems in the frequency band 5855-5875 MHz

Annex 3 - Relevant ERC/ECC Decisions and Recommendations

ECC/DEC/(15)01	The harmonised technical conditions for mobile/fixed communications networks (MFCN) in the band 694-790 MHz including a paired frequency arrangement (Frequency Division Duplex 2x30 MHz) and an optional unpaired frequency arrangement (Supplemental Downlink)
ECC/DEC/(14)02	The harmonised technical and regulatory conditions for the use of the band 2300-2400 MHz for Mobile/Fixed Communications Networks (MFCN)
ECC/DEC/(13)03	The harmonised use of the frequency band 1452-1492 MHz for Mobile/Fixed Communications Networks Supplemental Downlink (MFCN SDL)
ECC/DEC/(13)01	The use, free circulation, and exemption from individual licensing of Earth stations on mobile platforms (ESOMPs) in the frequency bands available for use by uncoordinated FSS Earth stations within the ranges 17.3-20.2 GHz and 27.5-30.0 GHz
ECC/DEC/(12)03	The harmonised conditions for UWB applications onboard aircraft
ECC/DEC/(12)01	Exemption from individual licensing and free circulation and use of satellite mobile terminals operating under the control of networks in the range 1 to 3 GHz
ECC/DEC/(11)06	The harmonised frequency arrangements and Least Restrictive Technical Conditions (LRTCs) for Mobile/Fixed Communications Networks (MFCN) operating in the band 3400-3800 MHz
ECC/DEC/(11)03	The harmonised use of frequencies for Citizen' Band (CB) radio equipment
ECC/DEC/(11)02	Industrial Level Probing Radars (LPR) operating in frequency bands 6 - 8.5 GHz, 24.05 - 26.5 GHz, 57 - 64 GHz and 75 - 85 GHz
ECC/DEC/(11)01	The protection of the Earth exploration satellite service (passive) in the 1400-1427 MHz band
ECC/DEC/(10)02	Compatibility between the fixed satellite service in the 30-31 GHz band and the Earth exploration satellite service (passive) in the 31.3-31.5 GHz band
ECC/DEC/(10)01	Sharing conditions in the 10.6-10.68 GHz band between the fixed service, mobile service and Earth exploration satellite service (passive)
ECC/DEC/(09)04	Exemption from individual licensing and the free circulation and use of transmit-only mobile satellite terminals operating in the Mobile-Satellite Service allocations in the 1613.8-1626.5 MHz band
ECC/DEC/(09)03	Harmonised conditions for Mobile/Fixed Communications Networks (MFCN) operating in the band 790-862 MHz
ECC/DEC/(09)02	The harmonisation of the bands 1610-1626.5 MHz and 2483.5-2500 MHz for use by systems in the Mobile-Satellite Service
ECC/DEC/(09)01	Harmonised use of the 63.72-65.88 GHz frequency band for Intelligent Transport Systems (ITS)
ECC/DEC/(08)08	The harmonised use of GSM systems in the 900 MHz and 1800 MHz bands, UMTS systems in the 2 GHz band and LTE and 5G NR non-AAS systems in the 1800 MHz and 2.6 GHz (FDD) bands on board vessels
ECC/DEC/(08)05	The harmonisation of frequency bands for the implementation of digital Public Protection and Disaster Relief (PPDR) narrow band and wide band radio applications in bands within the 380-470 MHz range
ECC/DEC/(08)01	The harmonised use of Safety-Related Intelligent Transport Systems (ITS) in the 5875-5935 MHz frequency band

Annex 3 - Relevant ERC/ECC Decisions and Recommendations

ECC/DEC/(06)13	Harmonised technical conditions for mobile/fixed communications networks (MFCN) including terrestrial IMT systems, other than GSM and EC-GSM IoT, in the bands 880-915/925-960 MHz and 1710-1785/1805-1880 MHz
ECC/DEC/(06)10	Transitional arrangements for the Fixed Service and tactical radio relay systems in the bands 1980-2010 MHz and 2170-2200 MHz in order to facilitate the harmonised introduction and development of systems in the Mobile Satellite Service including those supplemented by a Complementary Ground Component
ECC/DEC/(06)09	The designation of the bands 1980-2010 MHz and 2170-2200 MHz for use by systems in the Mobile-Satellite Service including those supplemented by a Complementary Ground Component (CGC)
ECC/DEC/(06)07	The harmonised use of airborne GSM and LTE systems in the frequency bands 1710-1785 and 1805-1880 MHz, and airborne UMTS systems in the frequency bands 1920-1980 MHz and 2110-2170 MHz
ECC/DEC/(06)05	The harmonised frequency bands to be designated for Air-Ground-Air operation (AGA) of the Digital Land Mobile Systems for the Emergency Services
ECC/DEC/(06)04	The harmonised use, exemption from individual licensing and free circulation of devices using Ultra-Wideband (UWB) technology in bands below 10.6 GHz
ECC/DEC/(06)03	Exemption from Individual Licensing of High e.i.r.p. Satellite Terminals (HEST) with e.i.r.p. above 34 dBW operating within the frequency bands 10.70 - 12.75 GHz or 19.70 - 20.20 GHz space-to-Earth and 14.00 - 14.25 GHz or 29.50 - 30.00 GHz Earth-to-space
ECC/DEC/(06)02	Exemption from Individual Licensing of Low e.i.r.p. Satellite Terminals (LEST) operating within the frequency bands 10.70–12.75 GHz or 19.70–20.20 GHz space-to-Earth and 14.00–14.25 GHz or 29.50–30.00 GHz Earth-to-Space
ECC/DEC/(06)01	The harmonised utilisation of the bands1920-1980 MHz and 2110-2170 MHz for mobile/fixed communications networks (MFCN) including terrestrial IMT systems
ECC/DEC/(05)11	The free circulation and use of Aircraft Earth Stations (AES) in the frequency bands 14-14.5 GHz (Earth-to-space), 10.7-11.7GHz (space-to-Earth) and 12.5-12.75 GHz (space-to-Earth)
ECC/DEC/(05)10	The free circulation and use of Earth Stations on board Vessels operating in fixed satellite service networks in the frequency bands 14-14.5 GHz (Earth-to-space), 10.7-11.7 GHz (space-to-Earth) and 12.5-12.75 GHz (space-to-Earth)
ECC/DEC/(05)09	The free circulation and use of Earth Stations on board Vessels operating in Fixed Satellite service networks in the frequency bands 5925-6425 MHz (Earth-to-space) and 3700-4200 MHz (space-to-Earth)
ECC/DEC/(05)08	The availability of frequency bands for high density applications in the Fixed-Satellite Service (space-to-Earth and Earth-to-space)
ECC/DEC/(05)05	Harmonised utilisation of spectrum for Mobile/Fixed Communications Networks (MFCN) operating within the band 2500-2690 MHz
ECC/DEC/(05)02	A harmonised frequency plan for the use of the band 169.4-169.8125 MHz
ECC/DEC/(05)01	The use of the band 27.5-29.5 GHz by the Fixed Service and uncoordinated Earth stations of the Fixed-Satellite Service (Earth-to-space)
ECC/DEC/(04)10	The frequency bands to be designated for the temporary introduction of Automotive Short Range Radars (SRR)
ECC/DEC/(04)09	Designation of the bands 1518-1525 MHz and 1670-1675 MHz for the Mobile Satellitte Service

Annex 3 - Relevant ERC/ECC Decisions and Recommendations

ECC/DEC/(04)08	On the harmonised use of the 5 GHz frequency bands for Wireless Access Systems including Radio Local Area Networks (WAS/RLAN)
ECC/DEC/(04)03	The frequency band 77-81 GHz to be designated for the use of Automotive Short Range Radars
ECC/DEC/(02)05	The designation and availability of frequency bands for railway purposes in the 876-880 MHz and 921-925 MHz bands
ECC/DEC/(02)04	The use of the band 40.5 – 42.5 GHz by terrestrial (fixed service/ broadcasting service) systems and uncoordinated Earth stations in the fixed satellite service and broadcasting-satellite service (space to Earth)
ERC/DEC/(99)15	The designation of the harmonised frequency band 40.5 to 43.5 GHz for the introduction of Multimedia Wireless Systems (MWS) and Point-to-Point (P-P) Fixed Wireless Systems
ERC/DEC/(99)06	The harmonised introduction of satellite personal communication systems operating in the bands below 1 GHz (S-PCS<1GHz)
ERC/DEC/(99)05	Free Circulation, Use and Exemption from Individual Licensing of Mobile Earth Stations.(S-PCS < 1GHz)
ERC/DEC/(98)22	exemption from individual licensing and free circulation and use of DECT equipment
ERC/DEC/(97)02	The extended frequency bands to be used for the GSM Digital Pan-European Communications system
ERC/DEC/(95)03	The frequency bands to be designated for the introduction of DCS 1800
ERC/DEC/(94)03	The frequency band to be designated for the coordinated introduction of the Digital European Cordless Telecommunications system
ERC/DEC/(94)01	The frequency bands to be designated for the coordinated introduction of the GSM digital pan-European communications system
ERC/DEC/(01)19	Harmonised frequency bands to be designated for the Direct Mode Operation (DMO) of the Digital Land Mobile Systems for the Emergency Services
ERC/DEC/(01)17	Harmonised frequencies, technical characteristics and exemption from individual licensing of Ultra Low Power Active Medical Implant (ULP-AMI) communication systems operating in the frequency band 401 - 406 MHz on a secondary basis
ERC/DEC/(01)12	Harmonised frequencies, technical characteristics and exemption from individual licensing of Short Range Devices used for Model control operating in the frequencies 40.665, 40.675, 40.685 and 40.695 MHz
ERC/DEC/(01)11	Harmonised frequencies, technical characteristics and exemption from individual licensing of Short Range Devices used for Flying Model control operating in the frequency band 34.995 - 35.225 MHz
ERC/DEC/(00)08	The use of the band 10.7 - 12.5 GHz by the fixed service and Earth stations of the broadcasting-satellite and fixed-satellite Service (space-to-Earth)
ERC/DEC/(00)07	The shared use of the band 17.7 - 19.7 GHz by the fixed service and Earth stations of the fixed-satellite service (space-to-Earth)
ERC/DEC/(00)02	Use of the band 37.5-39.5 GHz by the fixed service and by earth stations of the fixed-satellite service (space-to-Earth) and use of the band 39.5-40.5 GHz by earth stations of the fixed-satellite service and the mobile-satellite service (space-to-Earth)

Annex 3 - Relevant ERC/ECC Decisions and Recommendations

ECC/REC/(21)02	Guidance on the application of the least restrictive technical conditions (LRTC) in ECC Decision (11)06 (amended 26 October 2018) to ensure protection of the military radiolocation systems operating below 3400 MHz from indoor non-AAS small cells operating in the band 3400-3800 MHz
ECC/REC/(20)03	Frame structures to facilitate cross-border coordination of TDD MFCN in the frequency band 3400-3800 MHz
ECC/REC/(20)01	Guidelines to support the introduction of 5G while ensuring, in a proportionate way, the use of existing and planned FSS transmitting earth stations in the frequency band 24.65-25.25 GHz and the possibility for future deployment of these earth stations
ECC/REC/(19)01	Technical toolkit to support the introduction of 5G while ensuring, in a proportionate way, the use of existing and planned EESS/SRS receiving earth stations in the 26 GHz band and the possibility for future deployment of these earth stations
ECC/REC/(18)02	Radio frequency channel/block arrangements for fixed service systems operating in the bands 92-94 GHz, 94.1-100 GHz, 102-109.5 GHz and 111.8-114.25 GHz
ECC/REC/(18)01	Radio frequency channel/block arrangements for Fixed Service systems operating in the bands 130 - 134 GHz, 141-148.5 GHz, 151.5-164 GHz and 167 - 174.8 GHz
ECC/REC/(17)03	Guidance for the harmonised use and coordination of Maritime Broadband Radio (MBR) systems on board ships and off-shore platforms operating within the frequency bands 5852-5872 MHz and 5880-5900 MHz
ECC/REC/(16)03	Cross-border coordination for Broadband Public Protection and Disaster Relief (BB-PPDR) systems in the frequency band 698 to 791 MHz
ECC/REC/(15)04	The guidance for the implementation of a sharing framework between MFCN and PMSE within 2300-2400 MHz
ECC/REC/(15)01	Cross-border coordination for mobile/fixed communications networks (MFCN) in the frequency bands: 694-790 MHz, 1452-1492 MHz, 3400-3600 MHz and 3600-3800 MHz
ECC/REC/(14)06	Implementation of Fixed Service Point-to-Point narrow channels (3.5 MHz, 1.75 MHz, 0.5 MHz, 0.25 MHz, 0.025 MHz) in the guard bands and center gaps of the lower 6 GHz (5925-6425 MHz) and upper 6 GHz (6425-7125 MHz) bands
ECC/REC/(14)04	Cross-border coordination for mobile/fixed communications networks (MFCN) and between MFCN and other systems in the frequency band 2300-2400 MHz
ECC/REC/(14)01	Radio frequency channel arrangements for fixed service systems operating in the band 92-95 GHz
ECC/REC/(11)10	Location Tracking Application for emergency and disaster situations
ECC/REC/(11)09	UWB Location Tracking Systems Type 2 (LT2)
ECC/REC/(11)08	Framework for authorisation regime of indoor global navigation satellite system (GNSS) pseudolites in the band 1559-1610 MHz
ECC/REC/(11)05	Cross-border Coordination for Mobile/Fixed Communications Networks (MFCN) in the frequency band 2500-2690 MHz
ECC/REC/(11)04	Cross-border Coordination for Mobile/Fixed Communications Networks (MFCN) in the frequency band 790-862 MHz
ECC/REC/(11)01	Guidelines for assignment of frequency blocks for Fixed Wireless Systems in the bands 24.5-26.5 GHz, 27.5-29.5 GHz and 31.8-33.4 GHz

Annex 3 - Relevant ERC/ECC Decisions and Recommendations

ECC/REC/(10)02	A framework for authorisation regime of Global Navigation Satellite System (GNSS) repeaters
ECC/REC/(10)01	Guidelines for compatibility between Complementary Ground Components (CGC) operating in the band 2170-2200 MHz and EESS/SOS/SRS earth stations operating in the band 2200-2290 MHz
ECC/REC/(08)04	The identification of frequency bands for the implementation of Broad Band Disaster Relief (BBDR) radio applications in the 5 GHz frequency range
ECC/REC/(08)02	Frequency planning and frequency coordination for GSM / UMTS / LTE / WiMAX Land Mobile systems operating within the 900 and 1800 MHz bands
ECC/REC/(08)01	Use of the band 5855-5875 MHz for Intelligent Transport Systems (ITS)
ECC/REC/(06)04	Use of the band 5725-5875 MHz for Broadband Fixed Wireless Access (BFWA)
ECC/REC/(05)08	Frequency planning and cross-border coordination between GSM Land Mobile Systems (GSM 900, GSM 1800 and GSM-R)
ECC/REC/(05)07	Radio frequency channel arrangements for Fixed Service Systems operating in the bands 71-76 GHz and 81-86 GHz
ECC/REC/(02)09	Protection of Aeronautical Radio Navigation Service in the band 2700-2900 MHz from interference caused by the operation of Digital Cordless Cameras
ECC/REC/(02)06	Preferred channel arrangements for digital Fixed Service Systems operating in the frequency range 7125-8500 MHz
ECC/REC/(02)02	Preferred channel arrangements for fixed service systems (point-to-point and point-to-multipoint) operating in the frequency band 31.0-31.3 GHz
ECC/REC/(01)04	Recommended guidelines for the accommodation and assignment of multimedia wireless systems (MWS) and point-to-point (P-P) fixed wireless systems in the frequency band 40.5 - 43.5 GHz
ERC/REC/(01)02	Preferred channel arrangement for digital FS systems operating in the band 31.8-33.4 GHz
ERC/REC/(01)01	Cross-border coordination for mobile/fixed communications networks (MFCN) in the frequency bands: 1920-1980 MHz and 2110-2170 MHz
ERC/REC/(00)04	Harmonised frequencies and free circulation and use for meteor scatter applications
ERC/REC 70-03	Relating to the Use of Short Range Devices (SRD)
ERC/REC 62-02	Harmonised frequency band for civil and military airborne telemetry applications
ERC/REC 25-10	Frequency ranges for the use of terrestrial audio and video Programme Making and Special Events (PMSE) applications
ERC/REC 14-02	Radio-frequency channel arrangements for high, medium and low capacity digital Fixed Service systems operating in the band 6425-7125 MHz
ERC/REC 14-01	Radio-frequency channel arrangements for high capacity analogue and digital radio-relay systems operating in the band 5925 to 6425 MHz
ERC/REC 13-03	The use of the band 14.0 - 14.5 GHz for Very Small Aperture Terminals (VSAT) and Satellite News Gathering (SNG)
ERC/REC 12-12	Radio frequency channel arrangement for fixed service systems operating in the band 55.78-57.0 GHz (as amended in 2015)
ERC/REC 12-11	Radio frequency channel arrangements for Fixed Service systems operating in the bands 48.5-50.2 / 50.9-52.6 GHz

Annex 3 - Relevant ERC/ECC Decisions and Recommendations

ERC/REC 12-08	Harmonised radio frequency channel arrangements and block allocations for low, medium and high capacity systems in the band 3600 MHz to 4200 MHz
ERC/REC 12-07	Harmonised radio frequency channel arrangements for digital terrestrial fixed systems operating in the band 14.5 - 14.62 GHz paired with 15.23 - 15.35 GHz
ERC/REC 12-06	Preferred channel arrangements for fixed service systems operating in the frequency band 10.7-11.7 GHz
ERC/REC 12-05	Harmonised radio frequency channel arrangements for digital terrestrial fixed systems operating in the band 10.0 - 10.68 GHz
ERC/REC 12-03	Harmonised radio frequency channel arrangements for digital terrestrial fixed systems operating in the band 17.7 GHz to 19.7 GHz
ERC/REC 12-02	Harmonised radio frequency channel arrangements for analogue and digital terrestrial fixed systems operating in the band 12.75 GHz to 13.25 GHz
T/R 25-08	Planning criteria and cross-border coordination of frequencies for land mobile systems in the range 29.7-470 MHz
T/R 13-02	Preferred channel arrangements for fixed service systems in the frequency range 22.0-29.5 GHz
T/R 13-01	Preferred channel arrangements for fixed service systems operating in the frequency range 1-2-3 GHz
T/R 12-01	Harmonised radio frequency channel arrangements for analogue/digital terrestrial FS operating in 37-39.5 GHz

Annex 4 - European Standards included in the ECA Table

EN 300 065	Narrow-band direct-printing telegraph equipment for receiving meteorological or navigational information (NAVTEX)
EN 300 066	Float-free maritime satellite Emergency Position Indicating Radio Beacons (EPIRBs) operating in the 406,0 MHz to 406,1 MHz frequency band
EN 300 086	Land Mobile Service; Radio equipment with an internal or external RF connector intended primarily for analogue speech
EN 300 113	Land Mobile Service; Radio equipment intended for the transmission of data (and speech) and having an antenna connector
EN 300 152	Maritime Emergency Position Indicating Radio Beacons (EPIRBs) intended for use on the frequency 121.5 MHz or the frequencies 121.5 MHz and 243 MHz for homing purposes only
EN 300 162	Radiotelephone transmitters and receivers for the maritime mobile service operating in VHF bands
EN 300 219	Land Mobile Service; Radio equipment transmitting signals to initiate a specific response in the receiver
EN 300 220	Short Range Devices (SRD) operating in the frequency range 25 MHz to 1 000 MHz; Part 2: Harmonised Standard for access to radio spectrum for non specific radio equipment
EN 300 224	On-site paging service
EN 300 296	Land Mobile Service; Radio equipment using integral antennas intended primarily for analogue speech
EN 300 328	Wideband Transmission systems; Data transmission equipment operating in the 2.4 GHz ISM band and using spread spectrum modulation techniques
EN 300 330	SRD; Radio equipment in the frequency range 9 kHz to 25 MHz and inductive loop systems in the frequency range 9 kHz to 30 MHz
EN 300 338	Radio equipment for generation, transmission and reception of Digital Selective Calling (DSC) in the maritime MF, MF/HF and/or VHF mobile service
EN 300 341	Land Mobile Service; Radio equipment using an integral antenna transmitting signals to initiate a specific response in the receiver
EN 300 390	Land Mobile Service; Radio equipment intended for the transmission of data (and speech) and using an integral antenna
EN 300 422	Wireless microphones in the 25 MHz to 3 GHz frequency range
EN 300 433	Citizens' Band (CB) radio equipment
EN 300 440	Radio equipment to be used in the 1 to 40 GHz frequency range
EN 300 454	Wide band audio links
EN 300 471	Rules for Access and the Sharing of common used channels by equipment complying with EN 300 113
EN 300 674	Road Transport and Traffic Telematics (RTTT); Dedicated Short Range Communications (DSRC)
EN 300 676	Ground-based VHF hand-held, mobile and fixed radio transmitters, receivers and transceivers for the VHF aeronautical mobile service using amplitude modulation
EN 300 698	Radio telephone transmitters and receivers for the maritime mobile service operating in the VHF bands used on inland waterways

Annex 4 - European Standards included in the ECA Table

EN 300 700	Digital Enhanced Cordless Telecommunications (DECT); Wireless Relay Station (WRS)
EN 300 718	Avalanche Beacons; Transmitter-receiver systems
EN 300 720	Ultra-High Frequency (UHF) on-board vessels communications systems and equipment
EN 301 025	VHF radiotelephone equipment for general communications and associated equipment for Class "D" Digital Selective Calling (DSC)
EN 301 091	Radar equipment operating in the 76 GHz to 77 GHz range
EN 301 166	Land Mobile Service; Radio equipment for analogue and/or digital communication (speech and/or data) and operating on narrow band channels and having an antenna connector
EN 301 178	Portable Very High Frequency (VHF) radiotelephone equipment for the maritime mobile service operating in the VHF bands (for non-GMDSS applications only)
EN 301 357	Cordless audio devices in the range 25 MHz to 2000 MHz
EN 301 360	SIT and SUT transmitting towards geostationary satellites in the 27.5-29.5 GHz frequency bands
EN 301 406	Digital Enhanced Cordless Telecommunications (DECT)
EN 301 426	Low data rate Land Mobile satellite Earth Stations (LMES) and Maritime Mobile satellite Earth Stations (MMES) not intended for distress and safety communications operating in the 1.5/1.6 GHz frequency bands
EN 301 427	Low data rate Mobile satellite Earth Stations (MESs) except aeronautical mobile satellite earth stations, operating in the 11/12/14 GHz frequency bands
EN 301 428	Transmit-only, transmit/receive or receive-only satellite earth stations operating in the 11/12/14 GHz frequency bands
EN 301 430	Satellite News Gathering Transportable Earth Stations (SNG TES) operating in the 11-12/13-14 GHz frequency bands
EN 301 441	Handheld earth stations, for Satellite Personal Communications Networks (S-PCN) in the 1,6/2,4 GHz bands under the Mobile Satellite Service (MSS)
EN 301 442	Handheld earth stations, for Satellite Personal Communications Networks (S-PCN) in the 2.0 GHz bands under the Mobile Satellite Service (MSS)
EN 301 443	Transmit-only, transmit-and-receive, receive-only satellite earth stations operating in the 4 GHz and 6 GHz frequency bands
EN 301 444	LMES operating in the 1.5 GHz and 1.6 GHz bands providing voice and/or data communications
EN 301 447	Satellite Earth Stations on board Vessels (ESVs) operating in the 4/6 GHz frequency bands allocated to FSS
EN 301 459	SIT and SUT transmitting towards satellites in geostationary orbit in the 29.5 to 30.0 GHz frequency bands
EN 301 473	Aircraft Earth Stations (AES) operating below 3 GHz under the Aeronautical Mobile Satellite Service (AMSS)/Mobile Satellite Service (MSS) and/or the Aeronautical Mobile Satellite on Route Service (AMS(R)S)/Mobile Satellite Service (MSS)
EN 301 502	Global System for Mobile communications (GSM); Base Station and Repeater equipment

Annex 4 - European Standards included in the ECA Table

EN 301 511	Mobile stations in the GSM 900 and GSM 1800 bands
EN 301 559	Low Power Active Medical Implants (LP-AMI) operating in the frequency range 2 483,5 MHz to 2 500 MHz
EN 301 681	Geostationary mobile satellite systems, including handheld earth stations, for Satellite Personal Communications Networks (S-PCN) in the 1.5/1.6 GHz bands under the Mobile Satellite Service (MSS)
EN 301 721	Providing Low Bit Rate Data Communications (LBRDC) using Low Earth Orbiting (LEO) satellites operating below 1 GHz
EN 301 783	Land Mobile Service; Commercially available amateur radio equipment
EN 301 839	Ultra Low Power Active Medical Implants (ULP-AMI) and Peripherals (ULP-AMI-P) operating in the frequency range 402 MHz to 405 MHz
EN 301 841	(EN 301 841-3) VHF air-ground Digital Link (VDL) Mode 2
EN 301 842	VHF air-ground Digital Link (VDL) Mode 4 radio equipment
EN 301 893	5 GHz high performance RLAN
EN 301 908	IMT cellular networks
EN 301 929	VHF transmitters and receivers as Coast Stations for GMDSS and other appls in the maritime mobile service
EN 302 017	Transmitting equipment for the Amplitude Modulated (AM) sound broadcasting service
EN 302 018	Transmitting equipment for the Frequency Modulated (FM) sound broadcasting service
EN 302 054	Meteorological Aids (Met Aids); Radiosondes to be used in the 400.15 to 406 MHz frequency range with power levels ranging up to 200 mW
EN 302 064	Wireless Video Links (WVL) operating in the 1.3 GHz to 50 GHz frequency band
EN 302 065	Ultra Wide Band (UWB) technologies (multiple parts)
EN 302 077	Transmitting equipment for the Terrestrial - Digital Audio Broadcasting (T-DAB) service
EN 302 152	Satellite Personal Locator Beacons (PLBs) operating in the 406.0 MHz to 406.1 MHz frequency band
EN 302 186	Satellite mobile Aircraft Earth Stations (AESs) operating in the 11/12/14 GHz frequency bands
EN 302 194	Electromagnetic compatibility and Radio spectrum Matters (ERM); Navigation radar used on inland waterways
EN 302 195	Radio equipment in the frequency range 9 kHz to 315 kHz for ULP-AMI and accessories
EN 302 208	Radio Frequency Identification Equipment operating in the band 865 to 868 MHz with power levels up to 2 W and in the band 915 MHz to 921 MHz with power levels up to 4 W
EN 302 217	Characteristics and requirements for point-to-point equipment and antennas
EN 302 245	Transmitting equipment for the Digital Radio Mondiale (DRM) broadcasting service
EN 302 248	Navigation radar for use on non-SOLAS vessels

Annex 4 - European Standards included in the ECA Table

EN 302 264	Short Range Radar equipment operating in the 77 GHz to 81 GHz band
EN 302 288	Short range radar equipment operating in the 24 GHz range
EN 302 296	Transmitting equipment for the digital television broadcast service, Terrestrial (DVB-T)
EN 302 326	Multipoint Equipment and Antennas
EN 302 340	Satellite Earth Stations on board Vessels (ESVs) operating in the 11/12/14 GHz bands allocated to the Fixed Satellite Service (FSS)
EN 302 372	Tank Level Probing Radar (TLPR) operating in the frequency bands 5.8 GHz, 10 GHz, 25 GHz, 61 GHz and 77 GHz
EN 302 448	Earth Stations on Trains (ESTs) operating in the 14/12 GHz frequency bands
EN 302 454	Radiosondes to be used in the 1 668.4 MHz to 1 690 MHz frequency range
EN 302 480	GSM onboard aircraft system
EN 302 502	5800 MHz fixed broadband data transmitting systems
EN 302 510	Radio equipment in the range 30-37.5 MHz for Ultra Low Power Active Medical Membrane Implants and Accessories
EN 302 536	Radio equipment operating in the frequency range 315 kHz to 600 kHz for Ultra Low Power Animal Implantable Devices (ULP-AID) and associated peripherals
EN 302 537	Ultra Low Power Medical Data Service Systems operating in the frequency range 401-402 MHz and 405-406 MHz
EN 302 561	Radio equipment using constant or non-constant envelope modulation operating in a channel bandwidth of 25 kHz, 50 kHz, 100 kHz or 150 kHz
EN 302 567	60 GHz Multiple-Gigabit WAS/RLAN Systems
EN 302 571	Intelligent Transport Systems (ITS); Radiocommunications equipment operating in the 5855 MHz to 5925 MHz frequency band
EN 302 574	Satellite earth station for MSS operating in 1980-2010 MHz (E/s) and 2170-2200 MHz (s/E) frequency bands
EN 302 608	Radio equipment for Eurobalise railway systems
EN 302 609	Radio equipment for Euroloop railway systems
EN 302 617	Ground-based UHF radio transmitters, receivers and transceivers for the UHF aeronautical mobile service using amplitude modulation
EN 302 625	5 GHz BroadBand Disaster Relief applications (BBDR)
EN 302 636	on Intelligent Transport Systems (ITS); Vehicular Communications; GeoNetworking; Part 5: Transport Protocols; Sub-part 1: Basic Transport Protocol
EN 302 637	on Intelligent Transport Systems (ITS); Vehicular Communications; Basic Set of Applications; Part 3: Specifications of Decentralized Environmental Notification Basic Service
EN 302 645	Global Navigation Satellite Systems (GNSS) Repeaters
EN 302 686	Intelligent Transport Systems (ITS); Radiocommunications equipment operating in the 63 GHz to 64 GHz frequency band
EN 302 729	LPR equipment operating in the frequency ranges 6.0 GHz to 8.5 GHz, 24.05 GHz to 26.5 GHz, 57 GHz to 64 GHz, 75 GHz to 85 GHz

Annex 4 - European Standards included in the ECA Table

EN 302 752	Active Radar Target Enchancers
EN 302 858	Automotive radar equipment operating in the 24.05 GHz up to 24.25 GHz or 24.50 GHz frequency range
EN 302 885	VHF radiotelephone equipment for the maritime mobile service
EN 302 961	Maritime Personal Homing Beacon for search and rescue purposes intended for use on the frequency 121.5 MHz for search and rescue purposes only
EN 302 977	Vehicle-Mounted Earth stations (VMES) operating 14/12 GHz frequency bands
EN 303 039	Land Mobile Service; Multichannel transmitter specification for the PMR Service
EN 303 064	Primary Surveillance Radar (PSR);
EN 303 084	Technical characteristics and methods of measurement for ground-based equipment
EN 303 098	Maritime low power personal locating devices employing AIS
EN 303 132	Maritime low power VHF personal locating beacons employing Digital Selective Calling (DSC)
EN 303 135	Coastal Survelliance, Vessel Traffic Systems and Harbour Radars (CS/VTS/HR)
EN 303 203	Medical Body Area Network Systems (MBANS) operating in the 2483.5 MHz to 2500 MHz range
EN 303 204	Fixed Short Range Devices (SRD) in data networks; Radio equipment to be used in the 870 MHz to 876 MHz frequency range with power levels ranging up to 500 mW e.r.p.; Harmonised Standard for access to the radio spectrum
EN 303 213	Advanced Surface Movement Guidance and Control System (A-SMGCS)
EN 303 258	Wireless Industrial Applications (WIA); Equipment operating in the 5 725 MHz to 5 875 MHz frequency range with power levels ranging up to 400 mW
EN 303 276	Maritime Broadband Radio (MBR) links for ships and fixed installations engaged in off-shore activities
EN 303 316	Broadband Direct Air-to-Ground Communications; Equipment with beamforming antennas
EN 303 339	Broadband Direct Air-to-Ground Communications; Equipment with fixed pattern antennas
EN 303 340	Digital Terrestrial TV Broadcast Receivers; Harmonised Standard for access to radio spectrum
EN 303 345	Broadcast Sound Receivers; Part 4: DAB broadcast sound service; Harmonised Standard for access to radio spectrum
EN 303 347	Meteorological Radars; Harmonised Standard for access to radio spectrum; Part 1: Meteorological Radar Sensor operating in the frequency band 2 700 MHz to 2 900 MHz (S band)
EN 303 360	Transport and Traffic Telematics (TTT); for heliborne obstacle detection radars operating in the 76-77 GHz range
EN 303 402	Maritime mobile transmitters and receivers for use in the MF and HF bands
EN 303 405	Analogue and Digital PMR446 Equipment

Annex 4 - European Standards included in the ECA Table

EN 303 413	Global Navigation Satellite System (GNSS) receivers; Radio equipment operating in the 1 164 MHz to 1 300 MHz and 1 559 MHz to 1 610 MHz frequency bands
EN 303 447	Short Range Devices (SRD); Inductive loop systems for robotic mowers in the frequency range 0 Hz to 148,5 kHz
EN 303 454	Short Range Devices (SRD); Metal and object detection sensors in the frequency range 1 kHz to 148,5 kHz
EN 303 505	Broadband radio equipment used for Public Protection and Disaster Relief below 1 GHz
EN 303 520	Ultra Low Power (ULP) wireless medical capsule endoscopy devices operating in the band 430 MHz to 440 MHz
EN 303 609	GSM Repeaters
EN 303 978	Earth Stations on Mobile Platforms ESOMP transmitting towards satellites in geostationary orbit in the 27.5-30.0 GHz frequency bands
EN 303 979	Fixed Earth Stations and Earth Stations on Mobile Platforms (ESOMPs) transmitting towards satellites in non-geostationary orbit in the 27.5 GHz to 29.1 GHz and 29.5 GHz to 30.0 GHz bands
EN 303 980	Fixed and in-motion Earth Stations communicating with non-geostationary satellite systems in the 11 GHz to 14 GHz frequency bands
EN 303 981	Satellite Earth Stations and Systems (SES); Fixed and in-motion Wide Band Earth Stations communicating with non-geostationary satellite systems (WBES) in the 11 GHz to 14 GHz frequency bands; Harmonised Standard for access to radio spectrum
EN 305 550	Short Range Devices (SRD); Radio equipment to be used in the 40 GHz to 246 GHz frequency range

Annex 5 - Receive only European Standards included in the ECA Table

EN 300 487	Satellite Earth Stations and Systems (SES); Harmonised Standard for Receive-Only Mobile Earth Stations (ROMES) providing data communications operating in the 1,5 GHz frequency band
EN 303 372	Satellite Earth Stations and Systems (SES); Satellite broadcast reception equipment. Part 1: Outdoor unit receiving in the 10,7 GHz to 12,75 GHz frequency band
EN 303 345	Broadcast Sound Receivers

Annex 6 - List of abbreviations used in the ECA Table

(OR)	Off-Route
(R)	Route
1800	Global System for Mobile Communications using 1800 MHz band
ADS	Automatic Dependant Surveillance (Aeronautical)
AES	Aircraft Earth Stations
AGA	Air Ground Air
AIS	Automatic Identification System
ALS	Assistive Listening Systems
AM	Amplitude Modulation
AMRD	Autonomous Maritime Radio Device
AMS(R)S	Aeronautical Mobile Satellite (Route) Services
APP	Appendix of the ITU Radio Regulations
ASDE	Airport Surface Detection Equipment
AVI	Automatic Vehicle Idenfication
BBDR	Broad Band Disaster Relief
BFWA	Broadband Fixed Wireless Access
BMA	Building Material Analysis
BSS	Broadcasting Satellite Service
CB	Citizen Band
CEPT	European Conference of Postal and Telecommunications Administrations
CGC	Complementary Ground Component
CRS	Central Radio Station
CT	Cordless Telephone
DA2GC	Direct Air-to-Ground Communications
DEC	Decision
DECT	Digital Enhanced Cordless Telecommunication
D-GPS	Differential Global Positioning System
DME	Distance Measuring Equipment
DMO	Direct Mode Operation
DRM	Digital Radio Mondiale
DSC	Digital Selective Calling
DSI	Detailed Spectrum Investigation
DVB-T	Terrestrial Digital Video Broadcasting
E/s	Earth-to-space direction

Annex 6 - List of abbreviations used in the ECA Table

ECA	European Common Allocation
ECC	Electronic Communications Committee
ECM	Electronic Countermeasures
ECP	European Common Proposal
EESS	Earth Exploration-Satellite Service
EFIS	European Frequency Information System
EGSM	Extended GSM
EISCAT	European Incoherent SCATter facility
ELT	Emergency locator transmitter
ENG	Electronic News Gathering
EPIRB	Emergency Position-Indicating Radiobeacon
ERC	European Radiocommunications Committee
ERO	European Radiocommunications Office
ESIM	Earth Stations In Motion
ESOMPs	Earth Stations On Mobile Platforms
EST	Earth Stations on Trains
ESV	Earth Stations on-board Vessels
EU	European footnote
FDD	Frequency Division Duplex
FM	Frequency Modulation
FSS	Fixed-Satellite Service
FWA	Fixed Wireless Access
GALILEO	European Global Navigation Satellite System
GBAS	Ground Based Augmentation System
GBSAR	Ground Based Synthetic Aperture Radar
GE06	Geneva 2006 Agreement
GE75	Geneva 1975 Agreement
GE85	Geneva 1985 Agreement
GLONASS	Global Navigation Satellite System
GMDSS	Global Maritime Distress and Safety System
GNSS	Global Navigation Satellite System
GPR/WPR	Ground Probing Radar / Wall Probing Radar
GPS	Global Positioning System
GSM	Global System for Mobile Communications
GSM 1800	Global System for Mobile Communications using 1800 MHz band

Annex 6 - List of abbreviations used in the ECA Table

GSM-R	GSM for Railways
GSO	GeoStationary Orbit
HAPS	High Altitude Platform Systems
HDFS	High Density Fixed Service
HDFSS	High Density Fixed-Satellite Service
HDTV	High Definition Television
HEST	High E.i.r.p. Satellite Terminals
HF	High Frequency
HIPERLAN	High Performance Radio Local Area Network
IALA	International Association of Lighthouse Authorities
IBCN	Integrated Broadband Communications Network
IFF	Identification Friend or Foe
ILS	Instrument Landing System
IMO	International Maritime Organisation
IMT	International Mobile Telecommunications
IMT-2000	International Mobile Telecommunications-2000
IMT-Advanced	Systems beyond IMT-2000
IoT	Internet of Things
ISM	Industrial, Scientific and Medical
ITS	Intelligent Transport Systems
ITU	International Telecommunication Union
JTIDS	Joint Tactical Information Distribution System
LAES	Location Application for Emergency Services
LANs	Local Area Networks
LDC	Low Duty Cycle
LEST	Low E.i.r.p. Satellite Terminals
LP-AMI	Low Power Active Medical Implants
LPR	Level Probing Radar
LT2	Location Tracking Type 2
MBANS	Medical Body Area Network Systems
MBR	Maritime Broadband Radio Links
MCA	Mobile Communications Services on Board Aircraft
MCV	Mobile Communication Services on Board Vessels
MES	Mobile Earth Stations
MFCN	Mobile/Fixed Communications Networks

Annex 6 - List of abbreviations used in the ECA Table

MIDS	Multifunctional Information Distribution System
MLS	Microwave Landing System
MSI	Maritime Safety Information
MSS	Mobile-Satellite Service
MWS	Multimedia Wireless System
NATO	North Atlantic Treaty Organisation
NAVTEX	Narrow-band direct-printing telegraphy system for transmission of navigational and meteorological warnings and urgent information to ships
NDB	Non-Directional Beacon
NGSO	Non-GeoStationary Orbit
NJFA	NATO Joint Civil/Military Frequency Agreement
NMR	Nuclear Magnetic Resonance
OB	Outside Broadcasting
PAMR	Public Access Mobile Radio
PKO	Peace Keeping Operations
PLB	Personal Locator Beacons
PMR	Professional Mobile Radio, Private Mobile Radio
PMSE	Programme Making and Special Events
POCSAG	Post Office Code Standards Advisory Group
PPDR	Public Protection and Disaster Relief
PWAP	Private Wide Area Paging
RA	Radio Astronomy
REC	Recommendation
RFID	Radio Frequency Identification
RLAN	Radio Local Area Network System
RR	ITU Radio Regulations
RTE	Radar Target Enhancer
RTTT	Road Transport & Traffic Telematics
s/E	space-to-Earth direction
SAB	Services Ancillary to Broadcasting
SAP	Services Ancillary to Programming
SAR(communications)	Search and Rescue
SIT	Satellite Interactive Terminal
SNG	Satellite News Gathering
S-PCS	Satellite Personal Communication System

Annex 6 - List of abbreviations used in the ECA Table

SRD	Short Range Device
SRR	Short Range Radar
SRS	Space Research Service
SSR	Secondary Surveillance Radar
SUT	Satellite User Terminal
TACAN	Tactical Air Navigation
T-DAB	Terrestrial Digital Audio Broadcasting
TDD	Time Division Duplex
TETRA	Terrestrial Trunked Radio
TLPR	Tank Level Probing Radar
TRR	Tactical Radio Relays
TS	Terminal Station
TTT	Transport and Traffic Telematics
TV	Television
UIC	International Union for Railways
ULP-AID	Ultra Low Power Animal Implants Devices
ULP-AMI	Ultra Low Power Active Medical Implants
ULP-MMI	Ultra Low Power Medical Membrane Implants
ULP-WMCE	Ultra-Low Power Wireless Medical Capsule Endoscopy
UMTS	Universal Mobile Telecommunications System
UWB	Ultra – Wideband
VDB	VHF ground-air Data Broadcast
VLBI	Very Long Baseline Interferometry (Radio Astronomy)
VOR	VHF Omni-directional Range
VSAT	Very Small Aperture Terminal
VTS	Vessel Traffic System (radar)
WAIC	Wireless Avionics Intra-Communication systems
WARC	World Administrative Radio Conference
WAS	Wireless Access System
WIA	Wireless Industrial Applications