

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



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

Approved November 2020

TABLE OF CONTENTS

ECA		3					
1 INTRODU	CTION	3					
2 EUROPE	AN TABLE OF FREQUENCY ALLOCATIONS AND APPLICATIONS	3					
3 ITU RADIOCOMMUNICATION CONFERENCES							
4 ECC/ERC	DECISIONS AND RECOMMENDATIONS	3					
5 MILITARY	' REQUIREMENTS	4					
6 UPDATES	S PROCESS	5					
7 THE EU	ROPEAN TABLE OF FREQUENCY ALLOCATIONS AND APPLICATIONS IN	THE					
FREQUENC	CY RANGE 8.3 kHz to 3000 GHz (ECA TABLE)	5					
7 THE EU	ROPEAN TABLE OF FREQUENCY ALLOCATIONS AND APPLICATIONS IN	THE					
FREQUENC	CY RANGE 8.3 kHz TO 3000 GHz (ECA TABLE)						
Annex 1	ECA footnotes included in ECA Table						
Annex 2	ITU Radio Regulations Footnotes for Region 1	206					
Annex 3	Relevant ERC/ECC Decisions and Recommendations						
Annex 4	European Standards included in the ECA Table						
Annex 5	Receive only European Standards included in the ECA Table	284					
Annex 6	List of abbreviations used in the ECA Table						

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 49th meeting of the ECC Plenary on 23 - 26 October 2018.

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:

- 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	A 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		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
			ISM		
		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	FIXED	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
MARITIME MOBILE 5.57 5.55 5.56	MARITIME MOBILE 5.57 5.56 ECA36	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 Footnotes	Allocation and EC	A ECC/ERC harmonisation measure	Applications	Standard	Notes
STANDARD FREQUENCY AND TIME SIGNAL (20 KHZ)	STANDARD FREQUE (20 KHZ)	ENCY AND TIME SIGNAL	L 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	FIXED MARITIME MOBILE 5	5.57	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
5.56 5.58	5.56	ECA36	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
		25,00	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 Footnotes	n Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MARITIME MOBILE 5.57	FIXED MARITIME MOBILE	5 57			ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
RADIONAVIGATION 5.60 5.56	ADIONAVIGATION 5.60 RADIONAVIGATION 5.				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
		20,100			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	FIXED MARITIME MOBILE	5 57			ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
RADIONAVIGATION	RADIONAVIGATION 5.56	ECA36			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 Footnotes	Allocation	and E	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
RADIONAVIGATION 5.62 Fixed	RADIONAVIGATION Fixed	5.62			ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
5.64	5.64	ECA36			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	FIXED MARITIME MOBILE				ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
RADIONAVIGATION 5.64	RADIONAVIGATION 5.64	ECA36		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 Footnotes	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
RADIONAVIGATION 5.60 Fixed	RADIONAVIGATION Fixed Maritime Mobile 5.64	5.60			ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
Maritime Mobile 5.64 5.66		ECA36			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	FIXED MARITIME MOBILE				ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
RADIONAVIGATION 5.60 5.64	RADIONAVIGATION 5.64	5.60 ECA36			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 Footnotes	n Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MARITIME MOBILE	FIXED MARITIME MOBILE				ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
RADIONAVIGATION 5.60 RADIONAVIGATION 5.64 5.64	5.60 ECA36			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	FIXED				ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
MARITIME MOBILE 5.64 5.67 MARITIME MOBILE 5.64 5.64		ECA36			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	FIXED 5.64 MARITIME MOBILE				ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
Amateur 5.67A 5.67B	Amateur 5.67A 5.67B	ECA36				Amateur	EN 301 783	Within the band 135.7-137.8 kHz
3.075	3.075	LOAGO			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 Footnotes	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MARITIME MOBILE	FIXED MARITIME MOBILE				ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
5.64 5.67	5.64	ECA36		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	AERONAUTICAL RAD BROADCASTING	IONAVIGATIO	N		ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
5.70	2.10/12/0/10/1110	ECA36				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	AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION	ERC/REC 70-03	Active medical implants	EN 302 195	Within the band 9-315 kHz
(RADIOBEACONS) 5.73 5.74	(RADIOBEACONS) 5.73 5.74 ECA36		Aeronautical military systems	i	
5.14	5.74		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	AERONAUTICAL RADIONAVIGATION		Aeronautical military systems	;	
5.75	Maritime Radionavigation (radiobeacons) 5.73 ECA36		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	;	
	25,100		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		
	ECASO		Beacons (aeronautical)		Frequency Assignment plan GE85
					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		Aeronautical military systems		
WARTINE MODIEE 5.75	ECA36		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	MARITIME MOBILE 5.79 Aeronautical Radionavigation		Aeronautical military systems		
5.82	5.82 ECA36	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 Footnotes	n Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
MARITIME MOBILE 5.79 Aeronautical Radionavigation 5.77 5.80	MARITIME MOBILE Aeronautical Radionav			Aeronautical military systems	;	
Amateur 5.80A 5.80B	Amateur 5.80A 5.80B	ECA36		Amateur	EN 301 783	
5.82	5.82		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		
479 kHz - 495 kHz						
MARITIME MOBILE 5.79 5.79A Aeronautical Radionavigation 5.77	MARITIME MOBILE 5. Aeronautical Radionavion 5.82			Aeronautical military systems	;	
5.82			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	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 EC Footnotes	A 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		Aeronautical military systems	3	
	ECA36		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	FIXED LAND MOBILE	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
MARITIME MOBILE 5.90 5.92	MARITIME MOBILE 5.90 Radiolocation		Land military systems		
5.92	ECA36		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 Footnotes	Allocation and ECA	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
0.00	0.00	20,100		Radiodetermination applications		
				Radiolocation (military)		
1635 kHz - 1800 kHz						
FIXED LAND MOBILE	FIXED LAND MOBILE		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
MARITIME MOBILE 5.90 5.92	MARITIME MOBILE 5.96	5.90 ECA36		Land military systems		
5.96				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
5.95		LOAGO		Radiodetermination applications		
				Radiolocation (military)		
1810 kHz - 1850 kHz						
AMATEUR 5.98	AMATEUR 5.98			Amateur	EN 301 783	Within the band 1810-2000 kHz
5.99 5.100	5.100		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 Footnotes	n Allocation and EC	CA ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED	RONAUTICAL MOBILE		Amateur	EN 301 783	Within the band 1810-2000 kHz
5.92 5.96	Amateur 5.96	ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.103	5.103	LOAGO		Land military systems		
				Maritime communications	EN 303 402	
				Maritime military systems		
				Radiodetermination applications		
2000 kHz - 2025 kHz						
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	FIXED MOBILE EXCEPT AFE	RONAUTICAL MOBILE (R) ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.92 5.103	5.103 ECA36		Land military systems			
3.103				Maritime communications	EN 303 402	
				Maritime military systems		
				Radiodetermination applications		
2025 kHz - 2045 kHz						
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	FIXED	RONAUTICAL MOBILE (ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
Meteorological Aids 5.104 5.92	5.103 5.104	ECA36	N)	Land military systems		
5.92 5.103	5.104			Maritime communications	EN 303 402	
				Maritime military systems		
				Oceanographic buoys		Meteorological
				Radiodetermination applications		

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED LAND MOBILE	FIXED LAND MOBILE		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
MARITIME MOBILE 5.92	MARITIME MOBILE 5.92	ECA36		Land military systems		
5.52	5.52	LOAGO		Maritime communications	EN 303 402	Frequency Assignment plan GE85
				Maritime military systems		
2160 kHz - 2170 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
5.107	0.00	20/100		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
		20/100		Maritime communications	EN 303 402	
				Maritime military systems		
2173.5 kHz - 2190.5 kHz						
MOBILE (DISTRESS AND CALLING) 5.108 5.109	MOBILE (DISTRESS A 5.108 5.109	AND CALLING) ECA36		DSC	EN 302 885 EN 303 402	2187.5 kHz (DSC for distress and calling)
5.110 5.111	5.110 5.111		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
	20.100		Maritime communications	EN 303 402	
			Maritime military systems		
2194 kHz - 2300 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.92 5.103	5.103 ECA36		Land military systems		
5.112			Maritime communications	EN 303 402	
			Maritime military systems		
			Radiodetermination applications		
2300 kHz - 2498 kHz					
BROADCASTING 5.113	FIXED	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.103 ECA36		Land military systems		
5.103			Maritime communications	EN 303 402	
			Maritime military systems		
2498 kHz - 2501 kHz					
	STANDARD FREQUENCY AND TIME SIGNAL	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
(2 500 KHZ)	(2 500 KHZ)				
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)	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)		Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.92 5.103	5.92 ECA36 5.103		Land military systems		
5.114			Maritime military systems		
			Radiodetermination applications		
2625 kHz - 2650 kHz					
MARITIME MOBILE	MARITIME MOBILE	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
MARITIME RADIONAVIGATION 5.92	MARITIME RADIONAVIGATION 5.92 ECA36		Maritime communications	EN 303 402	
			Maritime military systems		
2650 kHz - 2850 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.92 5.103	5.92 ECA36 5.103		Land military systems		
			Maritime military systems		
			Radiodetermination applications		
2850 kHz - 3025 kHz					
AERONAUTICAL MOBILE (R) 5.111	AERONAUTICAL MOBILE-SATELLITE (R) 5.111 ECA36		Aeronautical communications	3	Appendix 27 Allotment Plan
5.115	5.115		Aeronautical military systems	3	
		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
			SAR (communications)	EN 303 402	3023 kHz (Aeronautical/Maritime radiotelephony SAR coordination)

	RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation and EC	A ECC/ERC harmonisation measure	Applications	Standard	Notes
	3025 kHz - 3155 kHz						
	AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOB	ILE (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	FIXED MOBILE EXCEPT AERO 5.116	ONAUTICAL MOBILE (F ECA36	R) ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 3155-3400 kHz; and within the band 148.5 kHz - 30 MHz
	5.117	5.110	LCASO		Land military systems		
					Maritime communications	EN 303 402	
					Maritime military systems		
	3200 kHz - 3230 kHz						
	BROADCASTING 5.113 FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	FIXED MOBILE EXCEPT AER	ONAUTICAL MOBILE (F ECA36	R) ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 3155-3400 kHz; and within the band 148.5 kHz - 30 MHz
	5.116	0.110	20/100		Land military systems		
					Maritime communications	EN 303 402	
					Maritime military systems		
	3230 kHz - 3400 kHz						
	BROADCASTING 5.113 FIXED	FIXED MOBILE EXCEPT AER	ONAUTICAL MOBILE	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 3155-3400 kHz; and within the band 148.5 kHz - 30 MHz
MOBILE EXCEPT AERONAUTICA 5.116		5.116	ECA36		Land military systems		THE STATE OF THE S
	5.118				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	AMATEUR FIXED		Amateur	EN 301 783	
MOBILE EXCEPT AERONAUTICAL MOBILE 5.92	MOBILE EXCEPT AERONAUTICAL 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	
			Maritime military systems		
3800 kHz - 3900 kHz					
AERONAUTICAL MOBILE (OR) FIXED	AERONAUTICAL MOBILE (OR) FIXED		Aeronautical communications	;	Appendix 26 Allotment Plan
LAND MOBILE	LAND MOBILE		Aeronautical military systems		
	ECA36	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)	AERONAUTICAL MOBILE (OR)		Aeronautical communications	;	Appendix 26 Allotment Plan
5.123	ECA36		Aeronautical military systems		
		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 Footnotes	n Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
BROADCASTING FIXED	BROADCASTING FIXED	ECA36		Broadcasting	EN 302 017 EN 302 245	Digital systems to be introduced
		20/100	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	FIXED MARITIME MOBILE	5 127	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.126		ECA36		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 5.130 5.131 5.132	5.109 5.110 5.79A 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

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)	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
Radiolocation 5.132A 5.132B	Radiolocation 5.132A ECA36		Land military systems		
5.1025	LOAGO		Maritime military systems		
			Radiolocation (military)		
4488 kHz - 4650 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)	FIXED	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
MODILE EXCEPT ALKONAUTICAL MODILE (K)	MOBILE EXCEPT AERONAUTICAL MOBILE (R ECA36		Land military systems		
			Maritime military systems		
4650 kHz - 4700 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
4700 kHz - 4750 kHz					
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR) ECA36		Aeronautical communications	i.	Appendix 26 Allotment Plan
	20,00		Aeronautical military systems		
		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		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) 5003 kHz - 5005 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
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	A 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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
AERONAUTICAL MOBILE (OR) FIXED	AERONAUTICAL MOI	BILE (OR)		Aeronautical communications	3	
LAND MOBILE	LAND 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		
5480 kHz - 5680 kHz						
AERONAUTICAL MOBILE (R) 5.111 5.115	AERONAUTICAL MOI 5.111 5.115	BILE-SATELLITE (R) ECA36		Aeronautical communications	5	Appendix 27 Allotment Plan.Including HF Data Links
6.110	0.110		ERC/REC 70-03	Aeronautical military systems	;	
				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	AERONAUTICAL MOI	BILE (OR) ECA36		Aeronautical communications	3	Appendix 26 Allotment Plan
5.115	5.115	20/100		Aeronautical military systems	;	
			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		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
ENTO MODILE	E 114D MODILE	ECA36		Land military systems		

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 communication	s	Appendix 26 Allotment Plan
	LOAGO		Aeronautical military systems	S	
		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)	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R)		ISM		Within the band 6765-6795 kHz
5.138	5.138 ECA36	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	AMATEUR AMATEUR-SATELLITE		Amateur	EN 301 783	Within the band 7000-7200 kHz
5.140 5.141 5.141A	AMATEUR-SATELLITE	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
7100 kHz - 7200 kHz					
AMATEUR 5.141A	AMATEUR		Amateur	EN 301 783	Within the band 7000-7200 kHz
5.141B		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	BROADCASTING 5.134 5.143 5.143B	ERC/REC 70-03	Broadcasting Inductive applications	EN 302 017 EN 302 245 EN 300 330	Article 12 planning procedure. Digital systems to be introduced Within the band 148.5 kHz - 30 MHz
5.143D					
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
5.144	LOAGU		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
	20/100		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 Footnotes	n Allocation	and EC	CA	ECC/ERC harmonisation measure	Applications	Standard	Notes
MARITIME MOBILE 5.109 5.110 5.132 5.145 5.111	MARITIME MOBILE 5.111	5.109 5.110 ECA36	5.132 5.1	45		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 MO	BILE (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 MO	BILE (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 Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz

9305 kHz - 9355 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED Radiolocation 5.145A	FIXED Radiolocation 5.145A		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.145B	radiologation 6.1107t	ECA36		Land military systems		
9355 kHz - 9400 kHz						
FIXED	FIXED	ECA36	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
				Land military systems		
9400 kHz - 9500 kHz						
BROADCASTING 5.134 5.146	BROADCASTING 5.1 5.146	34		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	EN 300 330	Within the band 148.5 kHz - 30 MHz
				Land military systems		
9995 kHz - 10003 kHz						
STANDARD FREQUENCY AND TIME SIGNAL (10 000 KHZ) 5.111	STANDARD FREQUE (10 000 KHZ) 5.111	NCY AND TIME SIGNAL	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 Footnotes	Allocation and I	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
10003 kHz - 10005 kHz							
STANDARD FREQUENCY AND TIME SIGNAL Space Research 5.111	STANDARD FREQUE Space Research 5.111	NCY AND TIME SIGN	IAL	ERC/REC 70-03	Inductive applications SAR (communications)	EN 300 330	Within the band 148.5 kHz - 30 MHz 10003 kHz (+/-3 kHz) concerning manned space vehicles
10005 kHz - 10100 kHz							
AERONAUTICAL MOBILE (R) 5.111	AERONAUTICAL MOE 5.111	BILE (R) ECA36			Aeronautical communications	3	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				Amateur	EN 301 783	
		ECA36		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 aeronau	itical 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
		207.00			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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOE	BILE (OR) ECA36		Aeronautical communications	3	Appendix 26 Allotment Plan
		257.55		Aeronautical military systems	3	
			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 MOE	BILE (R) ECA36		Aeronautical communications	3	Appendix 27 Allotment Plan. Including HF Data Links
				Aeronautical military systems	3	
			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 5.1 5.146	34		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

Approved November 2020

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and Footnotes	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
BROADCASTING 5.147	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
	LOAU			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 ECA36	5.145		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 Aeronautical military systems		Appendix 26 Allotment Plan
		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	5	Appendix 27 Allotment Plan. Including HF Data Links
			Aeronautical military systems	3	
		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	FIXED RADIO ASTRONOMY	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.149	5.149 ECA36		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)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
	ECA36		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	A 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 Land military systems Maritime military systems Railway applications	EN 300 330 EN 302 609	Within the band 148.5 kHz - 30 MHz Mainly within the band 11100-16000 kHz
13550 kHz - 13570 kHz					
FIXED Mobile except aeronautical mobile (R)	FIXED Mobile except aeronautical mobile (R)		ISM		Within the band 13553-13567 kHz
5.150	5.150 ECA36	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)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
` ,	ECA36		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		Amateur	EN 301 783	Within the band 14000-14350 kHz
AMATEUR-SATELLITE	AMATEUR-SATELLITE		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
5.102		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)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
, , ,	ECA36		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)	STANDARD FREQUENCY AND TIME SIGNAL (15 000 KHZ)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.111	5.111	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	3	Appendix 26 Allotment Plan
	20,100		Aeronautical military systems	3	
		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	FIXED Radiolocation 5.145A	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.145B	ECA36		Land military systems		

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
16200 kHz - 16360 kHz						
FIXED	FIXED	ECA36	ERC/REC 70-03	Inductive applications Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
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. 5.146	134		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 Commor Footnotes	n Allocation	and	ECA	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 MO	BILE (R) ECA36				Aeronautical communications	3	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 MO	BILE (OR) ECA36				Aeronautical communications	;	Appendix 26 Allotment Plan
		20/100				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
		20/100				Land military systems		
18052 kHz - 18068 kHz								
FIXED Space Research	FIXED Space Research				ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
•	·	ECA36				Land military systems		

18068 kHz - 18168 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	n Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLIT	=		Amateur	EN 301 783	
5.154	AWATEUR-SATELLIT	E		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 aeronal	utical mobile ECA36		DSC	EN 302 885 EN 303 402	18898.5, 18899. 18899.5 kHz (DSC calling)
		LOAGO	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
		LOAGO		Maritime communications	EN 303 402	Appendix 17 channeling plan
				Maritime military systems		
18900 kHz - 19020 kHz						
BROADCASTING 5.134 5.146	BROADCASTING 5. 5.146	134		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 Land 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 Footnotes	Allocation and E		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	50400		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		ECA36			Land military systems		
19990 kHz - 19995 kHz							
STANDARD FREQUENCY AND TIME SIGNAL Space Research	STANDARD FREQUEI	NCY AND TIME SIGNA	\L	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.111	5.111				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 FREQUE (20 000 KHZ) 5.111	NCY AND TIME SIGN	IAL	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
20010 kHz - 21000 kHz							
FIXED	FIXED						
Mobile	Mobile	ECA36		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
		LOAJU			Land military systems		
					Maritime military systems		

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation	and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
21000 kHz - 21450 kHz							
AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLITI	≣		ERC/REC 70-03	Amateur Amateur-satellite Inductive applications	EN 301 783 EN 300 330	Within the band 148.5 kHz - 30 MHz
21450 kHz - 21850 kHz BROADCASTING	BROADCASTING			ERC/REC 70-03	Broadcasting Inductive applications	EN 302 017 EN 302 245 EN 300 330	Article 12 planning procedure. Digital systems to be introduced 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 MOI	BILE (R) ECA36			Aeronautical communications		Appendix 27 Allotment Plan. Including HF Data Links
				ERC/REC 70-03	Aeronautical military systems 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 Footnotes	Allocation and ECA	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
3.130		LOAGO		Land military systems		
23000 kHz - 23200 kHz						
FIXED Mobile except aeronautical mobile (R)	FIXED Mobile except aeronau	itical mobile (R)	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.156	wiobile except defortat	ECA36		Land military systems		
				Maritime military systems		
23200 kHz - 23350 kHz						
AERONAUTICAL MOBILE (OR) FIXED 5.156A	AERONAUTICAL MOI	BILE (OR)		Aeronautical communications	3	
11VED 3.190V	11ALD 3.130A	ECA36		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 A Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED MOBILE EXCEPT AERO	ONAUTICAL MOBILE	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
5.157	5.157 E	ECA36		Land military systems		
				Maritime military systems		
24000 kHz - 24450 kHz						
FIXED LAND MOBILE	FIXED LAND MOBILE		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
LAND MOBILE		ECA36		Land military systems		
24450 kHz - 24600 kHz						
FIXED LAND MOBILE	FIXED LAND MOBILE		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
Radiolocation 5.132A 5.158	Radiolocation 5.132A E	ECA36		Land military systems		
24600 kHz - 24890 kHz						
FIXED	FIXED		ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
LAND MOBILE	LAND MOBILE E	ECA36	ENG/NES 70 00	Land military systems	211 000 000	THE INTERIOR OF THE PERSON OF
24890 kHz - 24990 kHz						
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
24990 kHz - 25005 kHz						
STANDARD FREQUENCY AND TIME SIGNAL (25 000 KHZ)	STANDARD FREQUENC (25 000 KHZ)	CY AND TIME SIGNAL	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
24890 kHz - 24990 kHz AMATEUR AMATEUR-SATELLITE 24990 kHz - 25005 kHz STANDARD FREQUENCY AND TIME SIGNAL	AMATEUR AMATEUR-SATELLITE STANDARD FREQUENC			Amateur Amateur-satellite Inductive applications	EN 300 330	

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 Space research	EN 300 330	Within the band 148.5 kHz - 30 MHz 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 Land military systems Maritime military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
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	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
	ECA36		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 Land military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime military systems		
26200 kHz - 26350 kHz					
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	ERC/REC 70-03	Inductive applications	EN 300 330	Within the band 148.5 kHz - 30 MHz
Radiolocation 5.132A 5.133A	Radiolocation 5.132A ECA36		Land military systems Maritime military systems		

26350 kHz - 27500 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and Footnotes	d ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.150	FIXED MOBILE EXCEPT AERONAUTICAL MODELS 5.150 ECA36	BILE	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		ERC/REC 70-03	Aeronautical military systems Inductive applications Land military systems Maritime military systems	EN 300 330	Within the band 148.5 kHz - 30 MHz
28 MHz - 29.7 MHz						
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

29.7 MHz - 30.005 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	MOBILE	ECA36	ERC/REC 70-03	Active medical implants	EN 302 510	Within the band 30.0-37.5 MHz
MODILE		20/100		Aeronautical military systems	i	
			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	MOBILE	ECA36	ERC/REC 70-03	Active medical implants	EN 302 510	Within the band 30.0-37.5 MHz
SPACE OPERATION (SATELLITE IDENTIFICATION)		20/100		Aeronautical military systems	i	
SPACE RESEARCH				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 Footnotes	Common	Allocation	and	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 Footnotes	Allocation	and E	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE	MOBILE Radio Astronomy				Aeronautical military systems		
Radio Astronomy 5.149	5.149	ECA36			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

ERC REPORT 25

Page 56 / 289

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Footnotes	Common	Allocation	and	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		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 Footnotes	Common	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE Radiolocation 5.132A 5.159	MOBILE Radiolocation	on 5.132A	ECA36				Aeronautical military systems	vstems	
							Maritime military syste	ms	
						ERC/REC/(00)04	Meteor communications	scatter	Within the band 39.0-39.2 MHz
						T/R 25-08	PMR	EN 300 0 EN 300 2 EN 300 2 EN 300 3 EN 300 3 EN 300 4 EN 301 1 EN 302 5 EN 303 0	13 19 96 41 90 71 66
						ERC/REC 25-10 ERC/REC 70-03	Radio microphones an	d ALD EN 300 4	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

ERC REPORT 25

Page 58 / 289

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Footnotes	Common	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Si	Standard	Notes
FIXED MOBILE	MOBILE		ECA36				Aeronautical military	systems		
							Land military systems			
							Maritime military syste	ems		
						ERC/REC/(00)04	Meteor communications	scatter		Within the band 39.0-39.2 MHz
						T/R 25-08	PMR	E E E E E	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 a	nd ALD E	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 Footnotes	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE	MOBILE Space Research					Aeronautical military systems		
Space Research		ECA36				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 Footnotes	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
40.66 MHz - 40.7 MHz								
FIXED MOBILE	MOBILE 5.150	ECA36				Aeronautical military systems		
5.150						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 300 471 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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE	MOBILE Space Research			Aeronautical military systems		
Space Research 5.160	·	ECA36		Land military systems		
5.161				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	MOBILE	ECA36		Aeronautical military systems		
5.160 5.161				Land military systems		
5.161A				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 Commo Footnotes	n Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
42 MHz - 42.5 MHz								
FIXED MOBILE	FIXED MOBILE					Aeronautical military systems	:	
Radiolocation 5.132A 5.160 5.161B	Radiolocation 5.132 5.161B	A ECA36				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 300 471 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

ERC REPORT 25

Page 63 / 289

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Commo Footnotes	n Allocation	and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes		
FIXED MOBILE	MOBILE	ECA36			Aeronautical military systems	;			
5.160 5.161					Land military systems				
5.161A					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		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 Footnotes	Common	Allocation	and	ECA	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		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 Commor Footnotes	n Allocation and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
BROADCASTING 5.162A 5.163	LAND MOBILE 5.162A 5.164	ECA36			Earth exploration-satellite		In the range 48.5-50 MHz. Space Research/ EESS
5.164 5.165					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	LAND MOBILE				Amateur	EN 301 783	
Amateur 5.166C 5.166E 5.166B 5.162A	Amateur 5.162A	ECA36			Land military systems		
5.164 5.165 5.166A 5.169A 5.169B	5.164 5.166A 5.169B			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

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
BROADCASTING 5.162A	LAND MOBILE 5.162A	ECA36				Land military systems		
.163		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	MOBILE Amateur				Amateur	EN 301 783	Within the band 69.9-70.5 MHz	
5.175		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 Footnotes	n Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes	
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	MOBILE EXCEPT AE Amateur	RONAUTICAL MOBILE		Amateur	EN 301 783	Within the band 69.9-70.5 MHz	
5.149 5.175	Radio Astronomy 5.149	ECA9		Land military systems			
5.175 5.177 5.178	5.149	ECA36		Maritime military systems			
5.179			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 RAI 5.180	DIONAVIGATION		ILS		Marker beacons	
75.2 MHz - 87.5 MHz							
FIXED Mobile except aeronautical mobile	MOBILE	ECA36		Land military systems			
5.175 5.179		LCASO		Maritime military systems			
5.179			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 300 471 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	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	BROADCASTING		FM sound analogue	EN 302 018	Geneva Agreement GE84
5.194		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	s 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-SATELLITE (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					
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

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and Footnotes	ECA ECC/ERC harmonisation measure	Applications	Standard	Notes
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)	METEOROLOGICAL-SATELLITE (SPACE EARTH) MOBILE	то-	Aeronautical military systems	3	
5.208A 5.208B 5.209 SPACE OPERATION (SPACE-TO-EARTH) 5.203C SPACE RESEARCH (SPACE-TO-EARTH)	MOBILE-SATELLITE (SPACE-TO-EARTH 5.208A 5.208B 5.209 SPACE OPERATION (SPACE-TO-EARTH) SPACE RESEARCH (SPACE-TO-EARTH)		Land mobile		Mobile restricted to Aeronautical Mobile (OR), including air sport
Fixed	5.203C	ERC/DEC/(99)06	MSS Earth stations	EN 301 721	Non-geostationary
Mobile except aeronautical mobile (R) 5.204	5.206 ECA6 5.208 ECA36		Satellite systems (military)		
5.205 5.206			Weather satellites		

137.025 MHz - 137.175 MHz

5.207 5.208

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and ECA Footnotes	ECC/ERC harmonisation measure	Applications	Standard	Notes
EARTH) SPACE OPERATION (SPACE-TO-EARTH) 5.203C SPACE RESEARCH (SPACE-TO-EARTH) Fixed	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
EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH)	METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH) MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.208A 5.208B 5.209		Aeronautical military systems Land military systems Land mobile		Mobile restricted to Aeronautical Mobile (OR),
5.209A 5.203C SPACE RESEARCH (SPACE-TO-EARTH)	SPACE OPERATION (SPACE-TO-EARTH) 5.209A	EDC/DEC//00\00	MCC Forth stations	EN 204 724	including air sport

ERC/DEC/(99)06

MSS Earth stations

Weather satellites

Satellite systems (military)

SPACE RESEARCH (SPACE-TO-EARTH)

5.206

5.208

ECA6

ECA36

137.825 MHz - 138 MHz

Mobile except aeronautical mobile (R)

Fixed

5.204

5.205

5.206 5.207 5.208 Non-geostationary

EN 301 721

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and ECA Footnotes	ECC/ERC harmonisation measure	Applications	Standard	Notes
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) 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
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	ERC/REC 70-03	Aeronautical military systems Land military systems Land mobile Maritime military systems 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	S	

Maritime military systems

143.65 MHz - 144 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
AERONAUTICAL MOBILE (OR) 5.210	AERONAUTICAL MOI	BILE (OR)				Aeronautical military systems		
5.211 5.212	5.211	ECA5 ECA36				Land military systems		
5.214		20/100				Land mobile		
						Maritime military systems		
144 MHz - 146 MHz								
AMATEUR AMATEUR-SATELLITE 5.216	AMATEUR AMATEUR-SATELLIT	≣				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 5.209 5.218A 5.218 5.219 5.221	(EARTH-TO-SPACE) 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 300 341 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 5.209 5.220	(EARTH-TO-SPACE) 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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY 5.149	MOBILE EXCEPT AERORATION ASTRONOMY 5.149	CONAUTICAL 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	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 AERO	ONAUTICAL 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 EC Footnotes	A ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE (R) 5.225A 5.226	MOBILE EXCEPT AERONAUTICAL MOBILE (F 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 CALLIN VIA DSC) 5.226 ECA7 5.227 ECA8	G 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 CALLIN VIA DSC) 5.111 5.226	G 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 CALLIN VIA DSC) MOBILE EXCEPT AERONAUTICAL MOBILE (F 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
457 4075 MUL - 457 2275 MUL		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	MOBILE EXCEPT AERONAUTICAL MOBILE 5.226 Mobile-satellite except maritime mobile satellite (space-to-Earth) 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	

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 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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MARITIME MOBILE-SATELLITE (EARTH-TO- SPACE) 5.228AA MOBILE EXCEPT AERONAUTICAL MOBILE 5.226	MOBILE EXCEPT AER Maritime Mobile-Sate 5.228AA 5.226	RONAUTICAL MOBILE ellite (Earth-to-space) 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	MOBILE EXCEPT AER			AIS	EN 303 098	161.975 MHz
5.226 Mobile-Satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B	5.226 ECA7 ECC/E	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		SATELLITE (EARTH-TO RONAUTICAL MOBILE 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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	MOBILE EXCEPT AEF 5.226	RONAUTICAL MOBILE ECA7		AIS	EN 303 098	162.025 MHz
Mobile-Satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B 5.229	S. 	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
162.0375 MHz - 169.4 MHz						
FIXED Mobile except aeronautical mobile 5.226 5.229	Mobile except aeronau	itical 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 aeronau	tical mobile	ECC/DEC/(05)02 ERC/REC 70-03	Aids for hearing impaired	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	Aids for hearing impaired	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 Footnotes	n Allocation and ECA ECC/ERC harmonisation measure	Applications	Standard	Notes
BROADCASTING Fixed Mobile 5.246 5.247	BROADCASTING Land Mobile	ECA10 ECA36	Broadcasting (terrestrial)	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
0.241			Defence systems		
230 MHz - 235 MHz					
FIXED MOBILE 5.247 5.251 5.252	MOBILE	ECA10 ECA36	Defence systems T-DAB	EN 302 077	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	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 MOS 5.111 5.254 5.256	BILE	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 Footnotes	Allocation	and	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 5.256	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 Footnotes	Allocation and ECA	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 RAD 5.258	OIONAVIGATION		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	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 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 Footnotes	Allocation and 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	MOBILE			Defense systems		
MOBILE Mobile-Satellite (space-to-Earth) 5.208A 5.254 5.255 5.208B		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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
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. 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 5.209 5.220	(EARTH-TO-SPACE)	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 FREQUE SATELLITE (400.1 MH 5.261 5.262		ECC/DEC/(08)05	PPDR		
400.15 MHz - 401 MHz						
METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-EARTH)	METEOROLOGICAL A METEOROLOGICAL -S EARTH)	AIDS SATELLITE (SPACE-TO-	ERC/DEC/(99)05 ERC/DEC/(99)06	MSS Earth stations	EN 301 721	Non-geostationary
MOBILÉ-SATELLITE (SPACE-TO-EARTH) 5.208A 5.208B 5.209 SPACE RESEARCH (SPACE-TO-EARTH)	MOBILE-SATELLITE 5.208A 5.208B 5.20 SPACE OPERATION (ERC/DEC/(99)05 ERC/DEC/(99)06	MSS Earth stations	EN 301 721	
5.263 Space Operation (space-to-Earth)	SPACE RESEARCH 5.263	(SPACE-TO-EARTH)	ECC/DEC/(08)05	PPDR		
5.262 5.264	5.262 5.264			Sondes Weather satellites	EN 302 054	

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
TO-SPACE) METEOROLOGICAL AIDS	EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE)	ERC/DEC/(01)17	Active medical implants Sondes Weather satellites	EN 302 537 EN 302 054	ULP-AMI within the band 401-406 MHz Data collection platform telemetry
TO-SPACE) METEOROLOGICAL AIDS	EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE)	ERC/DEC/(01)17	Active medical implants Sondes Weather satellites	EN 301 839 EN 302 054	ULP-AMI within the band 401-406 MHz 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 Sondes	EN 301 839 EN 302 537 EN 302 054	ULP-AMI within the band 401-406 MHz
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 Footnotes	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	LAND MOBILE RADIO ASTRONOMY					Land military systems		
RADIO ASTRONOMY 5.149	5.149 5.265	ECA36				Maritime military systems		
5.265					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	MOBILE EXCEPT AEF	ONAUTICAL MOBILE ECA36			Land military systems			
SPACE RESEARCH (SPACE-TO-SPACE) 5.268				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 300 471 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.

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 EXCEPT AERONAUTICAL MOBILE Radiolocation 5.269 5.270 5.271	MOBILE EXCEPT AEI Radiolocation	RONAUTICAL MOBILE ECA7 ECA36	ECC/DEC/(19)02 T/R 25-08	Land military systems Maritime military systems PMR/PAMR	EN 300 086 EN 300 113	Base station transmit paired with 410-420 MHz.
3.211			1/R 25-00		EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 471 EN 301 166 EN 302 561 EN 303 039	IVITIZ.
			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	AMATEUR RADIOLOCATION	ECA12 ECA36		Amateur Radiolocation (military)	EN 301 783	Within the band 430-440 MHz
5.274 5.275 5.276 5.277		LOAGO	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 Footnotes	Allocation a	and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
AMATEUR RADIOLOCATION Earth Exploration-Satellite (active) 5.279A 5.138	AMATEUR RADIOLOCATION Earth Exploration-Sate	llite (active) 5.2 ECA12	279A		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
5.271 5.276		ECA36			Amateur	EN 301 783	Within the band 430-440 MHz
5.277 5.280					Radiolocation (military)		
5.200				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	AMATEUR RADIOLOCATION Earth Exploration-Satel Land Mobile	llite (active) 5.2	279A		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
5.271 5.276	5.138 5.280	ECA12 ECA36			Amateur	EN 301 783	Within the band 430-440 MHz
5.277	5.260	ECA30			ISM		
5.280 5.281				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							
RADIOLOCATION Earth Exploration-Satellite (active) 5.279A	AMATEUR AMATEUR-SATELLITE RADIOLOCATION Earth Exploration-Satel		279A		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
		ECA12 ECA36			Amateur	EN 301 783	Within the band 430-440 MHz
5.277 5.280 5.282		_3, 100			Amateur-satellite		Amateur Satellite Service restricted to 435-438 MHz
5.252					Radiolocation (military)		
				ERC/REC 70-03	ULP-WMCE	EN 303 520	Within the band 430-440 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	n Allocation and E	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
AMATEUR RADIOLOCATION 5.271	AMATEUR RADIOLOCATION	ECA12			Amateur	EN 301 783	Within the band 430-440 MHz
5.274 5.275 5.276 5.277 5.283		ECA36		ERC/REC 70-03	Radiolocation (military) ULP-WMCE	EN 303 520	Within the band 430-440 MHz
440 MHz - 450 MHz							
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	MOBILE EXCEPT AE	RONAUTICAL MOBILE	Ē		Land military systems		
Radiolocation 5.269		ECA7 ECA36	ECA7 ECA36		Maritime military systems		
5.270 5.271					On-site paging	EN 300 224	Call-out & answer-back
5.284				ECC/DEC/(15)05	PMR 446	EN 303 405	PMR446 in 446.0-446.2 MHz
5.285 5.286				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 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
					Radiolocation (military)		
					Wind profilers		Geographical sharing with other services

450 MHz - 455 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Comm Footnotes	on Allocation a	and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE 5.286AA	MOBILE	ECA7			On-site paging	EN 300 224	Call-out & answer-back
5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E		ECA34		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	MOBILE	ECA7			Land mobile		Existing public cellular networks
5.209 5.271		ECA34			On-site paging	EN 300 224	Call-out & answer-back
5.286A 5.286B 5.286C 5.286E				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 Commo Footnotes	n Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
456 MHz - 459 MHz						
FIXED MOBILE 5.286AA	MOBILE 5.287	ECA7		Land mobile		Existing public cellular networks
5.271 5.287 5.288	0.20	ECA34		On-board communications	EN 300 720	Within 457.5125-457.5875 MHz and 467.5125-467.5875 MHz
0.200				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	MOBILE	ECA7		Land mobile		Existing public cellular networks
5.209 5.271				On-site paging	EN 300 224	Call-out & answer-back
5.286A 5.286B 5.286C 5.286E			ECC/DEC/(19)02 T/R 25-08	PMR/PAMR	EN 300 086 EN 300 113 EN 300 219 EN 300 296 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 (Footnotes	Common	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes	
460 MHz - 470 MHz										
FIXED MOBILE 5.286AA	MOBILE 5.287		ECA7				Land mobile		Existing public cellular networks	
Meteorological-Satellite (space-to-Earth)	5.289		ECA34				Meteorological aids (military)			
5.287 5.288 5.289								On-board communications	EN 300 720	Within 457.5125-457.5875 MHz and 467.5125-467.5875 MHz
5.290							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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
BROADCASTING 5.149	BROADCASTING 5.149	ECA13		Broadcasting (terrestrial)	EN 302 296	Geneva Agreement 2006. TV Broadcasting
5.291A 5.294 5.296	5.291A 5.296 5.306	LOAIS	ERC/REC 25-10	PMSE	EN 300 422 EN 300 454	Audio links
5.300 5.304	5.311A			Radio astronomy		Continuum observations, VLBI
5.306 5.311A 5.312			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
5.512				Wind profilers		Limited to the band 470-494 MHz. Geographical sharing with other services
694 MHz - 790 MHz						
BROADCASTING	BROADCASTING	CONAUTION MODILE		Broadcasting (terrestrial)	EN 302 296	Geneva Agreement 2006 TV Broadcasting
MOBILE EXCEPT AERONAUTICAL MOBILE 5.312A 5.317A 5.300 5.311A	5.312A 5.317A 5.300 5.311A 5.312	RONAUTICAL MOBILE ECA38	ECC/DEC/(15)01 ECC/REC/(15)01	MFCN		
5.312			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						
BROADCASTING FIXED		RONAUTICAL MOBILE		-		Geneva Agreement 2006
	5.312 5.316B 5.317A	ECA13 ECA38	ECC/DEC/(09)03 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

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Footnotes		Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
862 MHz - 870 MHz									
BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A	MOBILE 5 5.323	5.317A	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
5.319 5.323						ERC/REC 70-03	Alarms	EN 300 220	Within the band 868.6-869.700 MHz
0.020							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 Footnotes	Allocation	and I	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
BROADCASTING 5.322 FIXED Mobile except aeronautical mobile 5.317A	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
5.319 5.323					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	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
5.319 5.323					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		

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation and ECA	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	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
		ECA32 ECA36	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 Footnotes	Allocation	and l	ECA	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								
FIXED	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		

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
BROADCASTING 5.322 MOBILE 5.3174 FIXED Radiolocation Mobile except aeronautical mobile 5.317A Radiolocation 5.323		ECA13 ECA14 ECA29	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
		ECA30 ECA32 ECA36	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	AERONAUTICAL MOE AERONAUTICAL MOE			Aeronautical		Including DME and SSR
5.328AA	AERONAUTICAL RAD 5.328AA	DIONAVIGATION 5.328 ECA36		Aeronautical military systems	3	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 Aeronautical navigation		Military use includes JTIDS/MIDS	
	5.328A ECA36		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	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION		Active sensors (satellite)		
RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.328B 5.329	RADIONAVIGATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE) 5.328B 5.329		GLONASS	EN 303 413	Within the band 1237.8-1253.8 MHz
5.329A `	5.329A SPACE RESEARCH (ACTIVE)	ECC/REC/(10)02	GNSS Repeater	EN 302 645	Within the band 1164-1300 MHz
5.330 5.331	5.331 ECA36		GPS	EN 303 413	Within the band 1215.6-1239.6 MHz
5.331 5.332	5.332		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 . Footnotes	Allocation and ECA	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 5.335	EARTH EXPLORATION-RADIOLOCATION RADIONAVIGATION-SATE EARTH) (SPACE-TO-SP. 5.329A SPACE RESEARCH (ACAmateur Amateur-Satellite 5.282 5.331 5.332 5.335A	TELLITE (SPACE-TO- PACE) 5.228B 5.329	ECC/REC/(10)02	Active sensors (satellite) Amateur Amateur-satellite GALILEO GLONASS GNSS Repeater Radiolocation (civil) Radiolocation (military) Satellite systems (military) Wind profilers	EN 301 783 EN 303 413 EN 303 413 EN 302 645	Within the band 1260-1270 MHz Within the band 1260-1300 MHz Within the band 1237.8-1253.8 MHz Within the band 1164-1300 MHz Radar and Navigation systems Within the band 1270-1295 MHz
1300 MHz - 1350 MHz						
AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION RADIONAVIGATION-SATELLITE (EARTH-TO-	RADIOLOCATION RADIOLOCATION	DNAVIGATION 5.337 TELLITE (EARTH-TO-		Radio astronomy		Continuum and spectral line observations (e.g. neutral hydrogen line). VLBI
SPACE) 5.149	SPACE)	ECA36		Radiolocation (civil)		Radar and Navigation systems
5.337A	5.337A	EUA30		Radiolocation (military)		
			Satellite navigation systems			
				Satellite systems (military)		

1350 MHz - 1400 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	FIXED MOBILE				Aeronautical military systems		
RADIOLOCATION 5.149	RADIOLOCATION 5.149	ECA36		T/R 13-01	Fixed	EN 302 217	Low capacity fixed links
5.338 5.338A	5.338A 5.339	20/100			Land military systems		
5.339					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)	EARTH EXPLORATIO RADIO ASTRONOMY SPACE RESEARCH ((PASSIVE)	ECC/DEC/(11)01	Passive sensors (satellite)		Measurement of soil moisture, salinity, ocean surface temperature, vegetation index
5.340 5.341	5.340 5.341	,			Radio astronomy		Continuum and spectral line observations (e.g. neutral hydrogen line). VLBI
1427 MHz - 1429 MHz							
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED MOBILE EXCEPT AEI	RONALITICAL	MORII F	T/R 13-01	Fixed	EN 302 217	Low capacity fixed links
5.341A	SPACE OPERATION (N (EARTH-TO-SPACE)			Land military systems		
5.338A 5.341		ECC/DEC/(17)06	MFCN	EN 301 908	Supplemental Downlink		
J.J4 I					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	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	T/R 13-01	Fixed	EN 302 217	Low capacity fixed links
5.341A 5.338A	5.338A ECA36 5.341		Land military systems		
5.341 5.342	3.341	ECC/DEC/(17)06	MFCN	EN 301 908	Supplemental Downlink
3.342			Maritime military systems		
1452 MHz - 1492 MHz					
BROADCASTING BROADCASTING-SATELLITE 5.208B FIXED	BROADCASTING MOBILE EXCEPT AERONAUTICAL MOBILE Fixed	ECC/DEC/(13)03 ECC/REC/(15)01	MFCN	EN 301 908	Supplemental Downlink
MOBILE EXCEPT AERONAUTICAL MOBILE 5.346 5.341 5.342 5.345	5.341 5.342 5.345		T-DAB	EN 302 077	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	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE	T/R 13-01	Fixed	EN 302 217	Low capacity fixed links
5.341A 5.342	5.341 ECA36		Land military systems		
		ECC/DEC/(17)06	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	S European Common Allocation and ECA Footnotes	A 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	ECC/DEC/(04)09 ERC/REC 25-10 ERC/REC 70-03	Fixed IMT-2000 satellite componen Land military systems MSS Earth stations Maritime military systems Radio microphones and ALD	EN 301 444 EN 301 473 EN 301 681	Unidirectional fixed links 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 componen MSS Earth stations	EN 302 217 t EN 301 426 EN 301 444 EN 301 473 EN 301 681	Unidirectional fixed links
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 componen 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 5.356 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 5.3577 5.357A 5.359		IMT-2000 satellite component 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	EARTH) 5.208B	ECC/REC/(11)08 ECC/REC/(10)02	GALILEO GLONASS GNSS Pseudolites GNSS Repeater GPS	EN 303 413 EN 303 413 EN 302 645 EN 303 413	Within the band 1559.42-1591.42 MHz Within the band 1592.9-1610.5 MHz 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	ECC/DEC/(09)02	GLONASS IMT-2000 satellite component MSS Earth stations	EN 301 441 EN 301 473	Within the band 1592.9-1610.5 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and ECA Footnotes	ECC/ERC harmonisation measure	Applications	Standard	Notes
1610.6 MHz - 1613.8 MHz					
AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A	AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A	ECC/DEC/(09)02	IMT-2000 satellite component MSS Earth stations	EN 301 441	
RADIO ASTRONOMY 5.149 5.341	RADIO ASTRONOMY 5.149 5.341	200/220/(00/02	Radio astronomy	EN 301 473	Spectral line observations (e.g. hydroxyl line).
5.355 5.359 5.364	5.359 5.364 5.366		·		VLBI
5.366 5.367 5.368	5.367 5.368 5.371				
5.369 5.371 5.372	5.372				
1613.8 MHz - 1621.35 MHz					
AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE)	AERONAUTICAL RADIONAVIGATION MOBILE-SATELLITE (EARTH-TO-SPACE)		IMT-2000 satellite component		
5.351A Mobile-Satellite (space-to-Earth) 5.208B	5.351A Mobile-Satellite (space-to-Earth) 5.208B	ECC/DEC/(09)02 ECC/DEC/(09)04	MSS Earth stations	EN 301 426 EN 301 441	

1621.35 MHz - 1626.5 MHz

5.341

5.359

5.364

5.365

5.366

5.367

5.368

5.371

5.372

5.341

5.355 5.359

5.364

5.365

5.366

5.367

5.368

5.369

5.371 5.372 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
AERONAUTICAL RADIONAVIGATION MARITIME MOBILE-SATELLITE (SPACE-TO-	AERONAUTICAL RADIONAVIGATION MARITIME MOBILE-SATELLITE (SPACE-TO-		IMT-2000 satellite component	t	
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	EARTH) 5.373 5.373A MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A Mobile-Satellite (space-to-Earth) 5.208B	ECC/DEC/(09)02 ECC/DEC/(09)04	MSS Earth stations	EN 301 426 EN 301 441 EN 301 473	
1626.5 MHz - 1660 MHz					
MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.351 5.351 5.353A 5.354	MOBILE-SATELLITE (EARTH-TO-SPACE) 5.351A 5.341 5.351 5.353A 5.354	ERC/REC 70-03	ALS IMT-2000 satellite component MSS Earth stations	t EN 301 426	Within 1656.5-1660.5 MHz Priority for GMDSS Distress, urgency and safety and for AMS(R)S categories 1
5.355 5.357A 5.359 5.374 5.375 5.376	5.359				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 IMT-2000 satellite component MSS Earth stations	EN 300 422 t EN 301 426 EN 301 444 EN 301 473 EN 301 681	Within 1656.5-1660.5 MHz
			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	t EN 301 473	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	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	EN 302 454	Meteorological radiosondes

Weather satellites

1690 MHz - 1700 MHz

Data collection platform

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation a	and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (SPACE-TO-	METEOROLOGICAL A		PACE-TO-		Land military systems		
EARTH) EARTH)		SAILLIIL (SI	SI AGE-10-		Maritime military systems		
Mobile except aeronautical mobile 5.289	Mobile except aeronaution	itical mobile ECA36			Meteorological aids (military)		
5.341 5.382	5.341	LOAGO			Weather satellites		Data collection platform. Allocation to EESS is via RR 5.289
1700 MHz - 1710 MHz							
FIXED METEOROLOGICAL-SATELLITE (SPACE-TO-	FIXED METEOROLOGICAL-SATELLI EARTH) Mobile except aeronautical mobile	SATELLITE (SI	·		Land military systems		
EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE					Maritime military systems		
5.289 5.341	5.289 5.341	ECA36			Meteorological aids (military)		
					Weather satellites		Data collection platform. Allocation to EESS is via RR 5.289
1710 MHz - 1785 MHz							
MOBILE 5.384A MOE 5.149 5.341 5.34	FIXED MOBILE 5.384A 5.149	ECA29		ECC/REC/(05)08 ECC/REC/(08)02 ERC/DEC/(95)03	GSM	EN 301 502 EN 301 511 EN 303 609	
	5.385			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		
					Radio astronomy		Spectral line observations (e.g. hydroxyl line), VLBI

1785 MHz - 1800 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 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	DECT	EN 300 700 EN 301 406 EN 301 908	

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation	and ECA	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	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 EC. Fixed 5.388	A38 ECA29			-		This band can also be used by fixed service on a national basis
	0.000	20/.20		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 EC. Fixed 5.388	A38 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 Footnotes	and ECA	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)	MOBILE MOBILE-SATELLITE (EARTH-TO-S 5.351A	SPACE)		-		This band can also be used by fixed service on a national basis
5.351A 5.388 5.389A 5.389B	5.388 5.389A		ECC/DEC/(06)09 ECC/DEC/(06)10	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)
5.389F						
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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) (SPACE-TO-SPACE)	EARTH EXPLORATION TO-SPACE) (SPACE-TO	N-SATELLITE (EARTH-		Aeronautical military systems		
FIXED MOBILE 5.391	FIXED MOBILE 5.391	J-GFACL)	T/R 13-01	Fixed	EN 302 217	
SPACE OPERATION (EARTH-TO-SPACE) (SPACE-TO-SPACE)	SPACE OPERATION (SPACE-TO-SPACE)	(EARTH-TO-SPACE)		Land military systems		
SPACE RESEARCH (EARTH-TO-SPACE)	SPACE RESEARCH	(EARTH-TO-SPACE)		Maritime military systems		
(SPACE-TO-SPACE) 5.392	(SPACE-TO-SPACE) 5.392	ECA16A ECA36	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
	0.000		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 MOBILE 5.388A Fixed 5.388 Fixed 5.388 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)	MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) 5.351A		-		This band can also be used by fixed service on a national basis
5.351A 5.388 5.389A 5.389F	5.388 5.389A	ECC/DEC/(06)09 ECC/DEC/(06)10 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)	EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH) (SPACE-TO-SPACE)		Aeronautical military systems		
FIXED	FIXED	T/R 13-01	Fixed	EN 302 217	
	SPACE OPERATION (SPACE-TO-EARTH)		Land military systems		
(SPACE-TO-SPACE) SPACE RESEARCH (SPACE-TO-EARTH)			Maritime military systems		
	(SPACE-TO-SPACE) 5.392 ECA16A ECA36	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	FIXED				
MOBILE EXCEPT AERONAUTICAL MOBILE	MOBILE EXCEPT AERONAUTICAL MOBILE		Land mobile		Mobile applications
SPACE RESEARCH (DEEP SPACE) (SPACE- TO-EARTH)	SPACE RESEARCH (DEEP SPACE) (SPACE- TO-EARTH)	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 Footnotes	Allocation	and EC	CA	ECC/ERC harmonisation measure	Applications	Standard	Notes
2300 MHz - 2400 MHz								
FIXED MOBILE 5.384A Amateur	FIXED MOBILE 5.384A Amateur				ERC/REC 62-02	Aeronautical military systems Aeronautical telemetry		Parts of the band are used for aeronautical
Radiolocation 5.395	Radiolocation	ECA36				·		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	FIXED MOBILE					Amateur	EN 301 783	Within the band 2300-2450 MHz
Amateur Radiolocation	Amateur Amateur-Satellite					Amateur-satellite		
5.150	Radiolocation					ISM		
5.282	5.150 5.282				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 Footnotes	Allocation and	d ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE	FIXED MOBILE				ISM		
Radiolocation 5.150	5.150			ERC/REC 70-03	Non-specific SRDs	EN 300 440	Within the band 2400.0-2483.5 MHz
0.100				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 5.150 5.399	(SPACE-TO-EARTH)	ERC/REC 70-03	Active medical implants	EN 301 559	Low Power Active Medical Implants and associated peripherals	
5.351A RADIODETERMINATION-SATELLITE (SPACE-				IMT-2000 satellite component	t		
TO-EARTH) 5.398 Radiolocation 5.398A				ISM			
5.150	5.402				Land mobile		Mobile applications
5.399 5.401				ERC/REC 70-03	MBANS	EN 303 203	
5.402				ECC/DEC/(09)02	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 AER 5.384A	RONAUTICAL MOBILE	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	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A ECA38	ECC/DEC/(08)08	MCV		Within the bands 2500-2570 MHz and 2620-2690 MHz
5.384A 5.339 5.403 5.412 5.418B 5.418C	5.339 ECA16 5.418B 5.418C	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	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A	ECC/DEC/(08)08	MCV		Within the bands 2500-2570 MHz and 2620-2690 MHz
MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A Earth Exploration-Satellite (passive)	Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive)	ECC/DEC/(05)05 ECC/REC/(11)05	MFCN	EN 301 908	Within the band 2500-2690 MHz
Radio Astronomy Space Research (passive) 5.149 5.412 5.420	5.149 ECA16 5.208B		Radio astronomy		Continuum observations, VLBI
2670 MHz - 2690 MHz					
FIXED 5.410 MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A	FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.384A	ECC/DEC/(08)08	MCV		Within the bands 2500-2570 MHz and 2620-2690 MHz
Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive)	Radio Astronomy 5.149	ECC/DEC/(05)05 ECC/REC/(11)05	MFCN	EN 301 908	Within the band 2500-2690 MHz
5.149 5.412 5.419			Radio astronomy		Continuum observations, VLBI

2690 MHz - 2700 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and EC Footnotes	A ECC/ERC harmonisation measure	Applications	Standard	Notes
EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY	EARTH EXPLORATION-SATELLITE (PASSIVE RADIO ASTRONOMY)	Passive sensors (satellite)		
SPACE RESEARCH (PASSIVE) 5.340 5.422	SPACE RESEARCH (PASSIVE) 5.340		Radio astronomy		Continuum observations, VLBI
2700 MHz - 2900 MHz					
AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation	AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation	ECC/REC/(02)09	Aeronautical navigation		Radar and navigation systems
5.423	5.423 ECA36	ERC/REC 25-10	PMSE	EN 302 064	Portable or mobile wireless video and cordless cameras
			Radiolocation (civil)		
			Radiolocation (military)		
			Weather radar		
2900 MHz - 3100 MHz					
RADIOLOCATION 5.424A RADIONAVIGATION 5.426	RADIOLOCATION 5.424A RADIONAVIGATION 5.426		Radiolocation (civil)	EN 302 248 EN 302 752	Radar and navigation systems
5.425 5.427	5.425 ECA36 5.427		Radiolocation (military)		
3100 MHz - 3300 MHz					
RADIOLOCATION	RADIOLOCATION		Active sensors (satellite)		
Earth Exploration-Satellite (active) Space Research (active)	Earth Exploration-Satellite (active) Space Research (active)		Radio astronomy		Spectral line observations (e.g. methine line)
5.149 5.428	5.149 ECA36		Radiolocation (civil)		Radars
			Radiolocation (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)

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Commor Footnotes	n Allocation and ECA	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	ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	Radio astronomy Radiolocation (civil) Radiolocation (military) UWB applications	EN 302 065	Spectral line observations (e.g. methine line) Upper limit for airborne radars 3410 MHz Upper limit for airborne radars is 3410 MHz Generic UWB. Location Tracking Type 2 (LT2). Location Application for Emergency Services (LAES)
3400 MHz - 3600 MHz						
FIXED FIXED-SATELLITE (SPACE-TO-EARTH)	FIXED FIXED-SATELLITE (S	PACE-TO-EARTH)		Amateur	EN 301 783	Within the band 3400-3410 MHz
MOBILE EXCEPT AERONAUTICAL MOBILE 5.430A		ERONAUTICAL MOBILE		FSS Earth stations EN 301 443		
Radiolocation 5.431		ECA36	ECC/DEC/(11)06 ECC/REC/(15)01		EN 301 908	Within the band 3400-3800 MHz
		ECA30	ECC/REC/(20)03	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 Footnotes	Allocation	and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) Mobile	FIXED FIXED-SATELLITE (SI MOBILE ECA38	PACE-TO-EAR	TH)		-		In some countries the mobile service may be on secondary basis
		ECA37		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/REC/(20)03	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	AERONAUTICAL MOR	` '			Aeronautical military systems		
5.437 5.439	5.437 5.440	ECA36	N 3.430		Altimeters		
5.440	3.440				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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE	FIXED MOBILE			Aeronautical military systems	i	
WOBIEL	WOBILE	ECA20 ECA36		Land military systems		
		LOAGO		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	FIXED FIXED-SATELLITE (SI	PACE-TO-EARTH) 5.441		Aeronautical military systems	;	
MOBILE	MOBILE			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 of Footnotes	and ECA	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 Radio Astronomy 5.149 ECA20	5.442	ECC/REC/(08)04	Aeronautical military systems	EN 302 625	Within the band 4940-4990 MHz. Optinal band for BBDR within the PPDR uses
	5.339 ECA36			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	FIXED MOBILE EXCEPT AERONAUTICAL N	MOBILE		Aeronautical military systems	3	
RADIO ASTRONOMY Space Research (passive)	RADIO ASTRONOMY 5.149 ECA20			Land military systems		
5.149	ECA36			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)		

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 MOBILE-SATELLITE (R) 5.443AA		GALILEO		For future use by Galileo
AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (EARTH-TO-	AERONAUTICAL RADIONAVIGATION	R	Radio astronomy		Continuum observation, VLBI
SPACE)	RADIONAVIGATION-SATELLITE (EARTH-TO- SPACE) Radio Astronomy Space Research (passive)	ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
	Space Research (passive)		Satellite navigation systems		Aeronautical Radionavigation and FSS envisaged in some countries
5010 MHz - 5030 MHz					
AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA		GALILEO		C1
AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (SPACE-TO-	AERONAUTICAL RADIONAVIGATION		Radio astronomy		Continuum observation, VLBI
EARTH) (SPACE-TO-SPACE) 5.328B 5.443B		ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
	Space Research (passive)		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 MOBILE (R) 5.443C AERONAUTICAL MOBILE-SATELLITE (R) 5.443D		MLS		Aeronautical Radionavigation envisaged in some countries. FSS in use in some countries
AERONAUTICAL RADIONAVIGATION 5.444	AERONAUTICAL RADIONAVIGATION 5.444	ERC/REC 70-03	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)	AERONAUTICAL MOBILE 5.444B AERONAUTICAL MOBILE-SATELLITE (R)		-		FSS in use in some countries
5.443AA AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (EARTH-TO-SPACE) 5.444A 5.444	5.443AA AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (EARTH-TO-SPACE) 5.444A 5.444	ERC/REC 70-03	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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
5150 MHz - 5250 MHz						
	AERONAUTICAL RADI FIXED-SATELLITE 5.447A	IONAVIGATION (EARTH-TO-SPACE)	500/D50//00/0/	Aeronautical telemetry	=.u.o.o.o.=	
MOBILE EXCEPT AERONAUTICAL MOBILE	MOBILE EXCEPT AEI	RONAUTICAL MOBILE	ECC/REC/(08)04	BBDR	EN 302 625	Temporary use by PPDR users
5.446B 5.446A 5.446B 5.446 5.446 5.446C 5.446C 5.447 5.447		Feeder links		Feeder links for MSS. Aeronautical Radionavigation and FSS envisaged in some countries		
5.447B 5.447C	5.447B 5.447C	ECC/DEC/(04)08	Radio LANs	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		N-SATELLITE (ACTIVE) RONAUTICAL MOBILE		-		Position fixing
5.446A 5.447F RADIOLOCATION	5.446A 5.447F RADIOLOCATION			Active sensors (satellite)		
SPACE RESEARCH 5.447D	SPACE RESEARCH 5			Maritime radar		Shipborne and VTS radar
5.447E 5.448A ECA22 5.448 ECA36 5.448A ECA36		ECC/DEC/(04)08	Radio LANs	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		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
MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.447F RADIOLOCATION	EARTH EXPLORATION-SATELLITE (ACTIVE) MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.447F RADIOLOCATION SPACE RESEARCH (ACTIVE)		- Active sensors (satellite) Maritime radar		Position fixing Shipborne and VTS radar
5.447E 5.448 5.448A	5.448A ECA22 ECA36	ECC/DEC/(04)08	Radio LANs	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		Ground based and airborne
5350 MHz - 5460 MHz					
AERONAUTICAL RADIONAVIGATION 5.449 EARTH EXPLORATION-SATELLITE (ACTIVE)	AERONAUTICAL RADIONAVIGATION 5.449 EARTH EXPLORATION-SATELLITE (ACTIVE)		-		Position fixing
5.448B RADIOLOCATION 5.448D	5.448B RADIOLOCATION 5.448D		Active sensors (satellite)		
SPACE RESEARCH (ACTIVE) 5.448C	SPACE RESEARCH (ACTIVE) 5.448C ECA22		Maritime radar		Shipborne and VTS radar
	ECA36	ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
			Weather radar		Ground based and airborne

5460 MHz - 5470 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and ECA Footnotes	A ECC/ERC harmonisation measure	Applications	Standard	Notes
EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION 5.448D	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION 5.448D		-		Position fixing
RADIONAVIGATION 5.449 SPACE RESEARCH (ACTIVE)	RADIONAVIGATION 5.449 SPACE RESEARCH (ACTIVE)		Active sensors (satellite)		
5.448B	5.448B ECA22 ECA36		Maritime radar Shipborne and VTS radar	Shipborne and VTS radar	
	LOAGO	ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Radiolocation (military)		
			Weather radar		Ground based and airborne
5470 MHz - 5570 MHz					
EARTH EXPLORATION-SATELLITE (ACTIVE) MARITIME RADIONAVIGATION	EARTH EXPLORATION-SATELLITE (ACTIVE) MARITIME RADIONAVIGATION		-		Position fixing
MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A	MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A		Active sensors (satellite)		Position fixing
RADIOLOCATION 5.450B SPACE RESEARCH (ACTIVE)	RADIOLOCATION 5.450B SPACE RESEARCH (ACTIVE)		Maritime radar		Shipborne and VTS radar
,	5.448B ECA22 ECA36	ECC/DEC/(04)08	Radio LANs	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		Ground based and airborne

5570 MHz - 5650 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common . Footnotes	Allocation and ECA	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	MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A RADIOLOCATION 5.450B 5.450 5.450 5.451 MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A RADIOLOCATION 5.450B 5.452 ECA22 ECA36	RONAUTICAL MOBILE 50B ECA22	ECC/DEC/(04)08	- Maritime radar Radio LANs	EN 301 893	Position fixing Shipborne and VTS radar WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
3.732	ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application		
				Radiolocation (military)		
				Weather radar		Ground based
5650 MHz - 5725 MHz						
MOBILE EXCEPT AERONAUTICAL MOBILE 5.446A 5.450A	MOBILE EXCEPT AER 5.446A 5.450A	RONAUTICAL MOBILE		-		Position fixing
RADIOLOCATION Amateur	RADIOLOCATION Amateur			Amateur	EN 301 783	Within the band 5650-5850 MHz
Space Research (deep space)	Amateur-Satellite (Earth-	• /		Amateur-satellite		Within the band 5650-5670 MHz
5.282 5.451		ECA22 ECA23		Maritime radar		Shipborne and VTS radar
5.453 5.454 5.455	ECA36	ECC/DEC/(04)08	Radio LANs	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		Ground based and airborne

5725 MHz - 5830 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	n Allocation and EC	A ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED-SATELLITE (EARTH-TO-SPACE) RADIOLOCATION	FIXED-SATELLITE (E. RADIOLOCATION	ARTH-TO-SPACE)		Amateur	EN 301 783	Within the band 5650-5850 MHz
Amateur 5.150	Amateur Fixed		ECC/REC/(06)04	BFWA	EN 302 502	Within the band 5725-5875 MHz
5.451 5.453	Mobile 5.150	ECA17		ISM		Within the band 5725-5875 MHz
5.455 5.455	5.150	ECA22	ERC/REC 70-03	Non-specific SRDs	EN 300 440	Within the band 5725-5875 MHz
		ECA36	ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 4500-7000 MHz for TLPR application
				Radiolocation (military)		
			ERC/REC 70-03	ТТТ	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		Ground based and airborne
5830 MHz - 5850 MHz						
FIXED-SATELLITE (EARTH-TO-SPACE) RADIOLOCATION	FIXED-SATELLITE (E. RADIOLOCATION	ARTH-TO-SPACE)		Amateur	EN 301 783	Within the band 5650-5850 MHz
Amateur Amateur-Satellite (space-to-Earth)	Amateur Amateur-Satellite (spa	ace-to-Earth)		Amateur-satellite		Within the band 5830-5850 MHz
5.150 5.451	Fixed Mobile	ice-to-Lartin)	ECC/REC/(06)04	BFWA	EN 302 502	
5.453	5.150	ECA22		ISM		Within the band 5725-5875 MHz
5.455		ECA23 ECA36	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		Ground based and airborne

5850 MHz - 5925 MHz

ERC REPORT 25

Page 131 / 289

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 ECC/DEC/(15)03	BFWA DA2GC	EN 302 502 EN 303 316 EN 303 339	Within the band 5725-5875 MHz 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 footnote applicable to CEPT	s European Common Allocation and ECA Footnotes	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED 5.457 FIXED-SATELLITE (EARTH-TO-SPACE)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE)		-		
5.457A 5.457B MOBILE 5.457C	MOBILE Earth Exploration-Satellite (passive)	ECC/DEC/(05)09	ESV	EN 301 447	Within the band 5925-6425 MHz
5.149 5.440	5.149 5.440	ECC/DEC/(05)09	FSS Earth stations	EN 301 443	Priority for civil networks
5.458		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	Radio LANs		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	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) (SPACE-TO-EARTH) 5.441		FSS Earth stations	EN 301 443	Within the band 6725-7025 MHz. Priority for civil networks
MOBILE 5.458	Earth Exploration-Satellite (passive) 5.458		Feeder links		
5.458A 5.458B	5.458A 5.458B	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 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	FIXED MOBILE	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
SPACE RESEARCH (DEEP SPACE) (EARTH-TO-SPACE) 5.458 5.459	SPACE RESEARCH (DEEP SPACE) (EARTH-TO-SPACE) Space Operation (Earth-to-space) 5.458	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
0.400	0.400	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	EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) 5.460A 5.460B	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
FIXED MOBILE SPACE RESEARCH (EARTH-TO-SPACE) 5.460	FIXED MOBILE SPACE RESEARCH (EARTH-TO-SPACE) 5.460	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
5.458 5.459	5.458		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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
EARTH EXPLORATION-SATELLITE (EARTH-TO-SPACE) 5.460A	EARTH EXPLORATION TO-SPACE) 5.460A	N-SATELLITE (EARTH-	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
FIXED MOBILE 5.458	FIXED Space Research (Earth	n-to-space)	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 (SP MOBILE 5.461	PACE-TO-EARTH)	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point. FIXED and MOBILE services not to be implemented in most NATO countries
0.401	0.401	20,100		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)	FIXED FIXED-SATELLITE (SPACE-TO-EARTH)	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
MOBILE EXCEPT AERONAUTICAL MOBILE 5.461	MOBILE EXCEPT AERONAUTICAL MOBILE 5.461 ECA36		Land military systems		
	20,100		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)	FIXED FIXED-SATELLITE (SPACE-TO-EARTH)	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
MARITIME MOBILE-SATELLITE (SPÁCE-TO- EARTH) 5.461AA 5.461AB	,		Land military systems		
MOBILE EXCEPT AERONAUTICAL MOBILE	MOBILÉ EXCEPT AERONAUTICAL MOBILE ECA36		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	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MARITIME MOBILE-SATELLITE (SPACE-TO- EARTH) 5.461AA 5.461AB	ECC/REC/(02)06	Fixed Land military systems	EN 302 217	Point-to-point
METEOROLOGICAL-SATELLITE (SPACE-TO- EARTH) MOBILE EXCEPT AERONAUTICAL MOBILE 5.461A	,	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
5.40 TA	5.401A ECA30	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)	FIXED FIXED-SATELLITE (SPACE-TO-EARTH)	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
MARITIME MOBILE-SATELLITE (SPACE-TO- EARTH) 5.461AA 5.461AB	MARITIME MOBILE-SATELLITE (SPACE-TO- EARTH) 5.461AA 5.461AB		Land military systems		
MOBILE EXCEPT AERONAUTICAL MOBILE	MOBILE EXCEPT AERONAUTICAL MOBILE ECA36	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 Footnotes		ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED METEOROLOGICAL-SATELLITE (SPACE-TO-	FIXED METEOROLOGICAL-SATELLITE (SPACE	:-TO-	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
EARTH) 5.461B MOBILE EXCEPT AERONAUTICAL MOBILE	EARTH) 5.461B MOBILE EXCEPT AERONAUTICAL MOBIL		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)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE)		ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
MOBILE 5.461	MOBILE 5.461 ECA36			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 Footnotes	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH)	EARTH EXPLORATION-SATELLITE (STO-EARTH)	PACE-		Earth exploration-satellite		Satellite payload telemetry
FIXED FIXED-SATELLITE (EARTH-TO-SPACE)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE)		ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
MOBILE 5.463 5.462A	MOBILE 5.463 5.462A ECA36			Land military systems		
J.402A	3.402A EGA30			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)	EARTH EXPLORATION-SATELLITE (STO-EARTH)	PACE-		Earth exploration-satellite		Satellite payload telemetry
FIXED FIXED-SATELLITE (EARTH-TO-SPACE)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE)		ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
METEOROLOGICAL-SATELLITE (EARTH-TO-SPACE)		ГН-ТО-		Land military systems		
MOBILE 5.463 5.462A	MOBILE 5.463 5.462A ECA36		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)	EARTH EXPLORATION-SATELLITE (SPACE-TO-EARTH)		Earth exploration-satellite		Satellite payload telemetry
FIXED FIXED-SATELLITE (EARTH-TO-SPACE)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE)	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
MOBILE 5.463 5.462A	5.462A 5.463		Land military systems		
0.1027	0.130	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	FIXED SPACE RESEARCH (SPACE-TO-EARTH)	ECC/REC/(02)06	Fixed	EN 302 217	Point-to-point
SPACE RESEARCH (SPACE-TO-EARTH) 5.465 5.466	SPACE RESEARCH (SPACE-TO-EARTH) 5.465	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

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	n Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
RADIOLOCATION 5.468	RADIOLOCATION 5.469	ECA24		Aeronautical military systems	3	
5.469		ECA36		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	EARTH EXPLORATION	N-SATELLITE (ACTIVE)		Active sensors (satellite)		
SPACE RESEARCH (ACTIVE) 5.468	SPACE RESEARCH (5.469	ACTIVE) ECA24		Aeronautical military systems	3	
5.469	5.469A	ECA36		Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
5.469A			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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
RADIOLOCATION 5.468	RADIOLOCATION 5.469	ECA24		Aeronautical military systems	3	
5.469	5.409	ECA24 ECA36		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	AERONAUTICAL RAD RADIOLOCATION			Aeronautical military systems	3	
	Space Research			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	MARITIME RADIONAL RADIOLOCATION	/IGATION 5.472		Aeronautical military systems	3	
5.473	Space Research 5.473	ECA24		Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
	5.475	ECA36	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 Commor Footnotes	n Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
9000 MHz - 9200 MHz						
AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation	AERONAUTICAL RAI	DIONAVIGATION 5.337		Aeronautical military systems		
5.471 Space Research 5.473A 5.471 ECA24		Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach		
0.4161	5.473A	ECA24 ECA36	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 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	EARTH EXPLORATION 5.474A 5.474B 5.474B	ON-SATELLITE (ACTIVE)		Aeronautical military systems		
MARITIME RADIONAVIGATION 5.472 RADIOLOCATION	MARITIME RADIONA RADIOLOCATION	VIGATION 5.472		Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
5.473 5.474 5.474D	Space Research 5.473 ECA24	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	
3.4740	5.474D	LOAGO		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	A ECC/ERC harmonisation measure	Applications	Standard	Notes
EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION		Aeronautical military systems		
RADIONAVIGATION 5.475 SPACE RESEARCH (ACTIVE)	RADIONAVIGATION 5.476A SPACE RESEARCH (ACTIVE)		Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
5.427 5.474 5.475	5.427 ECA24 5.474 ECA36 5.475	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
5.475 5.475A 5.475B 5.476A 5.476A 5.476A		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		Shipborne, land and airborne serveillance
9500 MHz - 9800 MHz					
EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION	EARTH EXPLORATION-SATELLITE (ACTIVE) RADIOLOCATION		Active sensors (satellite)		
RADIONAVIGATION SPACE RESEARCH (ACTIVE)	SPACE RESEARCH (ACTIVE) 5.476A ECA24		Aeronautical military systems		
5.476A	ECA36		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 EC Footnotes	A ECC/ERC harmonisation measure	Applications	Standard	Notes
RADIOLOCATION Earth Exploration-Satellite (active)	RADIOLOCATION Earth Exploration-Satellite (active)		Aeronautical military systems	3	
Fixed Space Research (active)	Space Research (active) 5.478A ECA24		Aeronautical navigation	EN 303 064	Civil and military e.g. airfield approach
5.477 5.478B ECA36 5.478 5.478A	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	
5.478B			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	EARTH EXPLORATION-SATELLITE (ACTIVE 5.474A 5.474B 5.474C)	Aeronautical military systems	3	
RADIOLOCATION Fixed	RADIOLOCATION Fixed		Aeronautical navigation	EN 303 064	Civil and military e.g. Airfield approach
5.477 5.478 5.479	5.477 5.477 5.478 5.478	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
5.479		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 Footnotes	Allocation and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
EARTH EXPLORATION-SATELLITE (ACTIVE) 5.474A 5.474B 5.474C	EARTH EXPLORATIO 5.474A 5.474B 5.4	N-SATELLITE (ACTIVE)		Aeronautical military systems		
FIXED MOBILE	FIXED MOBILE RADIOLOCATION Amateur 5.474D	740		Amateur	EN 301 783	Within the band 10-10.5 GHz
RADIOLOCATION Amateur				FWA	EN 302 326	Including Point-to-Multipoint
5.474D		ECA17A	ERC/REC 12-05	Fixed	EN 302 217	
5.479	5.479	ECA36		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	FIXED RADIOLOCATION			Aeronautical military systems		
RADIOLOCATION	Amateur			Amateur	EN 301 783	Within the band 10-10.5 GHz
Amateur	Mobile	ECA17		Land military systems		
		ECA17A ECA36		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 Footnotes	Allocation a	and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
10450 MHz - 10.5 GHz							
RADIOLOCATION Amateur	FIXED MOBILE				Aeronautical military systems		
Amateur-Satellite 5.481	RADIOLOCATION Amateur	ECA17		Amateur	EN 301 783	Within the band 10-10.5 GHz	
	Amateur-Satellite 5.481			Amateur-satellite			
	0.401	ECA17A ECA23			Land military systems		
		ECA23 ECA36		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			ERC/REC 12-05	Fixed	EN 302 217 EN 302 326	Including Point-to-Multipoint
		ECA17A		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	ERC/REC 12-05	Fixed	EN 302 217 EN 302 326	Including Point-to-Multipoint
	ECA17A	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	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED RADIO ASTRONOMY	ECC/DEC/(10)01 ERC/REC 12-05	Fixed	EN 302 217 EN 302 326	Including Point-to-Multipoint
SPACE RESEARCH (PASSIVE) Mobile except aeronautical mobile Radiolocation	SPACE RESEARCH (PASSIVE) Mobile except aeronautical mobile Radiolocation	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
5.149 5.482 5.482A	5.149 ECA17 5.482 5.482A		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)	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE)		Passive sensors (satellite)		Surface emmissivity and precipitation measurement
5.340 5.483	5.340		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	,	ECC/DEC/(05)11	AES	EN 302 186	
FIXED-SATELLITE (SPACE-TO-EARTH) 5.441 MOBILE EXCEPT AERONAUTICAL MOBILE		ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980	
		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	
10.95 GHz - 11.2 GHz					
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484	ECC/DEC/(05)11	AES	EN 302 186	
FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE	ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980	
		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	

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 FIXED-SATELLITE (EARTH-TO-SPACE) 5.484	ECC/DEC/(05)11	AES	EN 302 186	
FIXED-SATELLITE (SPACE-TO-EARTH) 5.441 MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED-SATELLITE (SPACE-TO-EARTH) 5.441 MOBILE EXCEPT AERONAUTICAL MOBILE	ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980	
		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	
11.45 GHz - 11.7 GHz					
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484	ECC/DEC/(05)11	AES	EN 302 186	
FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE	FIXED-SATELLITE (SPACE-TO-EARTH) 5.484A 5.484B MOBILE EXCEPT AERONAUTICAL MOBILE	ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980	
		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	

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	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
5.487A		ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980	
		ECC/DEC/(06)03	HEST		
		ECC/DEC/(06)02	LEST		
		ECC/DEC/(17)04	NGSO FSS	EN 303 980	
12.5 GHz - 12.75 GHz					
FIXED-SATELLITE (EARTH-TO-SPACE) FIXED-SATELLITE (SPACE-TO-EARTH)	FIXED-SATELLITE (EARTH-TO-SPACE) FIXED-SATELLITE (SPACE-TO-EARTH)	ECC/DEC/(05)11	AES	EN 302 186	
5.484A 5.484B 5.494 5.495 5.496	5.484A 5.484B 5.496	ECC/DEC/(18)04 ECC/DEC/(18)05 ECC/DEC/(19)04	ESIM	EN 302 448 EN 302 977 EN 303 980	
0.400		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	

12.75 GHz - 13.25 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and E Footnotes	CA ECC/ERC harmonisation measure	Applications	s Si	Standard	Notes		
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.441 MOBILE Space Research (deep space) (space-to-Earth)	FIXED-SATELLITE (EARTH-TO-SPACE) 5.4	ECC/DEC/(19) ERC/REC 12-0			EN 301 430 EN 302 217			
13.25 GHz - 13.4 GHz								
AERONAUTICAL RADIONAVIGATION 5.497 EARTH EXPLORATION-SATELLITE (ACTIVE) SPACE RESEARCH (ACTIVE) AERONAUTICAL RADIONAVIGATION 5.497 EARTH EXPLORATION-SATELLITE (ACTIVE) SPACE RESEARCH (ACTIVE)		Active senso	rs (satellite)		Altimeters, radars	scatterometers,	precipitation	
5.498A 5.499	5.498A ECA26		Airborne do aids	ppler navigation				
			Maritime rad	ar		Ship berthing	g radars	
13.4 GHz - 13.65 GHz								
EARTH EXPLORATION-SATELLITE (ACTIVE) FIXED-SATELLITE (SPACE-TO-EARTH)	EARTH EXPLORATION-SATELLITE (ACTIVE FIXED-SATELLITE (SPACE-TO-EARTH))	-			Data relay sa	atellites	
5.499A 5.499B RADIOLOCATION	5.499A 5.499B RADIOLOCATION		Active senso	rs (satellite)		Altimeters, radars	scatterometers,	preciptation
Standard Frequency and Time Signal-Satellite 5.501B ECA26 (Earth-to-space) ECA36 5.499E 5.500	5.501B ECA26		Airborne do aids	ppler navigation				
		FSS Earth st	ations					
5.501 5.501B			Maritime rad	ar		Ship berthing	g radars	
		ERC/REC 70-0	Radiodeterm applications	ination E	EN 300 440	Within the ba	and 13.4-14.0 GHz	
			Radiolocatio	n (military)				

13.65 GHz - 13.75 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Commor Footnotes	n Allocation and ECA	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	RADIOLOCATION SPACE RESEARCH	ECA26		- Active sensors (satellite)		Data relay satellites Altimeters, scatterometers, precipitation radars
		ECA36		Airborne doppler navigation aids	1	
5.501 5.501B				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	FIXED-SATELLITE 5.484A	(EARTH-TO-SPACE)		-		Data relay satellites
RADIOLOCATION Earth Exploration-Satellite	RADIOLOCATION Space Research			FSS Earth stations	EN 301 430	
Space Research	5.502	ECA26		Maritime radar		Navigation radars, ship berthing radars
Standard Frequency and Time Signal-Satellite (Earth-to-space) 5.499 5.500 5.501	5.503	ECA36		Passive sensors (satellite)		Future VLBI measurements
			ERC/REC 70-03	Radiodetermination applications	EN 300 440	Within the band 13.4-14.0 GHz
5.502 5.503				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	FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.484B 5.506 5.506B	ECC/DEC/(05)11	AES	EN 302 186	
RADIONAVIGATION 5.504 Mobile-Satellite (Earth-to-space) 5.504B 5.504C 5.506A	Mobile-Satellite (Earth-to-space) 5.504B 5.504C 5.506A Space Research 5.504	ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980	
Space Research 5.504A	3.304	ECC/DEC/(05)10	ESV	EN 302 340	
5.505		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	
		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	FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.484B 5.506 5.506B	ECC/DEC/(05)11	AES	EN 302 186	
RADIONAVIGATION 5.504 Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.508A Space Research	Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.508A Space Research 5.504	ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980	
5.504A 5.505	0.00	ECC/DEC/(05)10	ESV	EN 302 340	
5.508			MSS Earth stations	EN 301 427 EN 302 977	Priority for civil networks
		ECC/DEC/(17)04	NGSO FSS	EN 303 980	
		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
MOBILE EXCEPT AERONAUTICAL MOBILE Mobile-Satellite (Earth-to-space) 5.504B	FIXED-SATELLITE (EARTH-TO-SPACE)	ECC/DEC/(05)11	AES	EN 302 186	
	Mobile-Satellite (Earth-to-space) 5.504B 5.506A 5.509A	ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980	
5.506A 5.509A Radionavigation-Satellite		ECC/DEC/(05)10	ESV	EN 302 340	
5.504A			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	
		ERC/REC 13-03	VSAT	EN 301 428 EN 301 430	SNG
14.4 GHz - 14.47 GHz					
FIXED FIXED-SATELLITE (EARTH-TO-SPACE)	FIXED-SATELLITE (EARTH-TO-SPACE) 5.457A 5.457B 5.484A 5.484B 5.506 5.506B	ECC/DEC/(05)11	AES	EN 302 186	
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		ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980	
Space Research (space-to-Earth)		ECC/DEC/(05)10	ESV	EN 302 340	
5.504A			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	
		ERC/REC 13-03	VSAT	EN 301 428 EN 301 430	SNG

14.47 GHz - 14.5 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Commor Footnotes	Allocation	and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED FIXED-SATELLITE (EARTH-TO-SPACE)	FIXED-SATELLITE 5.457A 5.484A 5.5	(EARTH-TO-S	SPACE)	ECC/DEC/(05)11	AES	EN 302 186	
5.457A 5.457B 5.484A 5.506 5.506B MOBILE EXCEPT AERONAUTICAL MOBILE Mobile-Satellite (Earth-to-space) 5.504B	Mobile-Satellite (Ear 5.506A 5.509A Radio Astronomy 5.149		5.504B	ECC/DEC/(18)04 ECC/DEC/(18)05	ESIM	EN 302 448 EN 302 977 EN 303 980	
5.506A 5.509A Radio Astronomy 5.149	5.504A			ECC/DEC/(05)10	ESV	EN 302 340	
5.149 5.504A					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	
					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	FIXED MOBILE				Aeronautical military systems	5	
5.509B 5.509C 5.509D 5.509E 5.509F MOBILE	Radio Astronomy	ECA20		ERC/REC 12-07	Fixed	EN 302 217	
Space Research 5.509G		ECA36			Land military systems		
					Maritime military systems		
					Radio astronomy		VLBI (when compatible with primary use)
14.75 GHz - 14.8 GHz							
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.510	FIXED MOBILE				Aeronautical military systems	3	
MOBILE	Radio Astronomy	ECA20			Land military systems		
Space Research 5.509G		ECA20 ECA36	ECA20 ECA36		Maritime military systems		
					Radio astronomy		VLBI (when compatible with primary use)

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation	and E	CA	ECC/ERC harmonisation measure	Applications	Standard	Notes
14.8 GHz - 15.35 GHz								
FIXED MOBILE	FIXED MOBILE					Aeronautical military systems		
Space Research 5.339	Radio Astronomy 5.339	ECA20	CA20		ERC/REC 12-07	Fixed	EN 302 217	
		ECA36				Land military systems		
						Maritime military systems		
						Radio astronomy		VLBI (when compatible with primary use)
15.35 GHz - 15.4 GHz								
EARTH EXPLORATION-SATELLITE (PASSIVE)	EARTH EXPLORATION-SATELLITE (PASSIVE)					Passive sensors (satellite)		
RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340 5.511	RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340					Radio astronomy		Continuum observations, VLBI
15.4 GHz - 15.43 GHz								
AERONAUTICAL RADIONAVIGATION RADIOLOCATION 5.511E 5.511F	AERONAUTICAL RAD RADIOLOCATION 5.9		N			Airborne doppler navigation aids		Doppler radar low power sensing
						Radiolocation (civil)		Ground movement radars
15.43 GHz - 15.63 GHz								
AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (EARTH-TO-SPACE) 5.511A	AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (EARTH-TO-SPACE) RADIOLOCATION 5.511E 5.511F					Airborne doppler navigation aids		Doppler radar low power sensing
RADIOLOCATION 5.511E 5.511F 5.511C	5.511C	3.2				FSS Earth stations		MSS feeder links
0.0110						Radiolocation (civil)		Ground movement radars

15.63 GHz - 15.7 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Allocation and EC Footnotes	A ECC/ERC harmonisation measure	Applications	Standard	Notes
AERONAUTICAL RADIONAVIGATION RADIOLOCATION 5.511E 5.511F	AERONAUTICAL RADIONAVIGATION RADIOLOCATION 5.511E 5.511F		Airborne doppler navigation	n	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	RADIOLOCATION Mobile	ERC/REC 70-03	GBSAR	EN 300 440	
5.513	ECA36		Radiolocation (military)		
17.2 GHz - 17.3 GHz					
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 Radiolocation (military)	EN 300 440	

17.3 GHz - 17.7 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) 5.516 FIXED-SATELLITE (SPACE-TO-EARTH)	FIXED-SATELLITE (EARTH-TO-SPACE) 5.516 FIXED-SATELLITE (SPACE-TO-EARTH)	ECC/DEC/(05)08	FSS Earth stations		High Density FSS
5.516A 5.516B Radiolocation 5.514	5.516A 5.516B Radiolocation ECA36		Feeder links		Feeder links for the BSS service. Appendix 30A of RR
5.514	LOAGO	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)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.516 FIXED-SATELLITE (SPACE-TO-EARTH)	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
5.484A 5.517A MOBILE	5.484A		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					
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.520 FIXED-SATELLITE (SPACE-TO-EARTH)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.520 FIXED-SATELLITE (SPACE-TO-EARTH)	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
5.484A 5.517A MOBILE	5.484A METEOROLOGICAL-SATELLITE (SPACE-TO-		Feeder links		Feeder links for the BSS service
5.519 5.521	EARTH) 5.519	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

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) 5.484A 5.517A	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
MOBILE		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)	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED FIXED-SATELLITE (SPACE-TO-EARTH)	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
5.522B 5.517A MOBILE EXCEPT AERONAUTICAL MOBILE Space Research (passive)	5.522B 5.522A	ERC/DEC/(00)07 ERC/REC 12-03	Fixed	EN 302 217	
5.522A 5.522C		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
5.5220		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					
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.523A 5.517A	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
MOBILE		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

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) (EARTH-TO-SPACE) 5.523B 5.523C 5.523D	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) (EARTH-TO-SPACE) 5.523B 5.523C 5.523D	ERC/DEC/(00)07	FSS Earth stations	EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
5.523E 5.517A MOBILE	5.523E	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)	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
5.524	,	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)	5.484A 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
5.524 5.525		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
5.526 5.527 5.528		ECC/DEC/(06)03	HEST	EN 301 360 EN 301 459	
5.526		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)	FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE-SATELLITE (SPACE-TO-EARTH)		MSS Earth stations		For uncoordinated Earth stations
Standard Frequency and Time Signal-Satellite (space-to-Earth) 5.524	ECA36		Satellite systems (military)		
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	
	0.000D	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 Footnotes	Allocation and E		ECC/ERC harmonisation measure	Applications	Standard	Notes
22 GHz - 22.21 GHz							
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.149	FIXED MOBILE EXCEPT AERO RADIO ASTRONOMY			T/R 13-02	Fixed	EN 302 217 EN 302 326	
	SPACE RESEARCH (PA 5.149			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	FIXED MOBILE EXCEPT AERO RADIO ASTRONOMY	ONAUTICAL MOBILE		T/R 13-02	Fixed	EN 302 217 EN 302 326	
RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.149 5.532	SPACE RESEARCH (PA Earth Exploration-Satellit Mobile ECA39	,		ERC/REC 25-10	PMSE	EN 302 064	Cordless Cameras; Temporary point-to- point video link
		ECA17A			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	T/R 13-02	Fixed	EN 302 217 EN 302 326	
	SPACE RESEARCH (PASSIVE) ECA17A	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	FIXED INTER-SATELLITE 5.338A MOBILE ECA39	T/R 13-02	Fixed	EN 302 217 EN 302 326	
SPACE RESEARCH (EARTH-TO-SPACE) 5.532A 5.149	RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) ECA17A	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

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)	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE)		Passive sensors (satellite)		Measurement of water vapour, liquid water, clouds for atsmospheric sounding
5.340	5.340		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 Amateur-satellite	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/(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 Footnotes	Allocation	and E	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
RADIOLOCATION Amateur	RADIOLOCATION Amateur					Active sensors (satellite)		Rain radars from satellites
Earth Exploration-Satellite (active) 5.150	Earth Exploration-Satel Fixed	lite (active)				Amateur	EN 301 783	Within the band 24-24.25 GHz
5.150	Mobile	FC426				ISM		Within the band 24-24.25 GHz
	5.150	ECA36			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	ТТТ	EN 302 858	Automotive radars

24.25 GHz - 24.45 GHz

Page 167 / 289

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation	and l	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A 5.532AB	FIXED MOBILE 5.338A 5.5	32AB ECA17A			T/R 13-02	Fixed	EN 302 217 EN 302 326	Unidirectional fixed links
					ECC/DEC/(18)06	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 typeapproval application has been submitted and has been granted before 1 January 2018

24.45 GHz - 24.5 GHz

Page 168 / 289

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation	and ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A 5.532AB	FIXED MOBILE 5.338A 5.5	32AB ECA17A		T/R 13-02	Fixed	EN 302 217 EN 302 326	Unidirectional fixed links
				ECC/DEC/(18)06	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 typeapproval application has been submitted and has been granted before 1 January 2018

24.5 GHz - 24.65 GHz

Page 169 / 289

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	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
5.338A 5.532AB		T/R 13-02	Fixed	EN 302 217 EN 302 326	
		ECC/DEC/(18)06	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 typeapproval 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	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.532B	ECC/REC/(11)01	FWA	EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
INTER-SATELLITE MOBILE 5.338A 5.532AB MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A 5.532AB	T/R 13-02	Fixed	EN 302 217 EN 302 326		
	ECC/DEC/(18)06 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 typeapproval application has been submitted and has been granted before 1 January 2018

24.75 GHz - 25.25 GHz

Page 171 / 289

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	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.532B	ECC/REC/(11)01	FWA	EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
INTER-SATELLITE INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE 5.338A 5.532AB 5.338A 5.532AB	T/R 13-02	Fixed	EN 302 217 EN 302 326		
		ECC/DEC/(18)06 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 typeapproval 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 Footnotes	Common	Allocation	and	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED 5.534A INTER-SATELLITE 5.536	FIXED INTER-SATI	ELLITE 5.5	536				Aeronautical military systems		
MOBILE 5.338A 5.532A Standard Frequency and Time Signal-Satellite	MOBILE		ECA36	ECA36		ECC/REC/(11)01	FWA	EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
(Earth-to-space)					T/R 13-02	Fixed	EN 302 217 EN 302 326		
							Land military systems		
						ECC/DEC/(18)06	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 typeapproval 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
MOBILE 5.338A 5.532A 5.536C	INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (SPACE-TO-EARTH)	ECC/REC/(11)01	Aeronautical military systems	EN 302 326	TS should be paired with 24.5-25.5 GHz for FDD systems
	Earth Exploration-Satellite (space-to-Earth) 5.536B	T/R 13-02	Fixed Land military systems	EN 302 217 EN 302 326	
		ECC/DEC/(18)06 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 typeapproval 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 INTER-SATELLITE 5.536		Land military systems		
FIXED 5.534A INTER-SATELLITE 5.536 MOBILE 5.338A 5.532A		ECC/DEC/(18)06 ECC/REC/(19)01	MFCN	EN 301 908	Within 24.25-27.5 GHz
SPACE RESEARCH (SPACE-TO-EARTH) 5.536C Standard Frequency and Time Signal-Satellite	Earth Exploration-Satellite (space-to-Earth) 5.536B	ERC/REC 70-03	Radiodetermination applications	EN 302 372	Within the band 24.05-27.00 GHz for TLPR application
(Earth-to-space) 5.536A	J.JJOA ECAJO	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 Earth Evaluation Satallite (coace to Earth)	ECC/DEC/(18)06	Land military systems MFCN	EN 301 908	Within 24.25-27.5 GHz
	Earth Exploration-Satellite (space-to-Earth) ECA36	ECC/REC/(19)01			

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	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.516B 5.523A 5.539	ECC/DEC/(05)01	FSS Earth stations	EN 301 360	Uncoordinated Earth stations within the band 28.4445-28.8365 GHz
MOBILE Earth Exploration-Satellite (Earth-to-space) 5.541 5.540	Earth Exploration-Satellite (Earth-to-space) 5.541 5.540	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
0.040			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	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.516B 5.523C 5.523E 5.535A 5.539	ECC/DEC/(05)01	FSS Earth stations	EN 301 360	Uncoordinated Earth stations within the band 29.4525-29.5 GHz
5.541A 5.517A MOBILE Earth Exploration-Satellite (Earth-to-space) 5.541 5.540	5.541A Earth Exploration-Satellite (Earth-to-space) 5.541 5.540	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	FIXED-SATELLITE (EARTH-TO-SPACE) 5.484A 5.484B 5.516B 5.527A 5.539	ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
Earth Exploration-Satellite (Earth-to-space) 5.541	Earth Exploration-Satellite (Earth-to-space) 5.541	ECC/DEC/(06)03	HEST	EN 301 459	
Mobile-Satellite (Earth-to-space)	Mobile-Satellite (Earth-to-space)	ECC/DEC/(06)02	LEST	EN 301 459	
5.540 5.542	5.540		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)	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		FSS Earth stations		Limited to beacons for uplink power control 29.999-30 GHz
5.541 5.543 5.525		ECC/DEC/(13)01	GSO ESOMPs	EN 303 978	
5.526 5.527		ECC/DEC/(06)03	HEST	EN 301 459	
5.538	5.527	ECC/DEC/(06)02	LEST	EN 301 459	
5.540 5.542	5.538 5.540		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	FIXED-SATELLITE (EARTH-TO-SPACE) 5.338A		FSS Earth stations		For uncoordinated Earth stations
MOBILE-SATELLITE (EARTH-TO-SPACE)	MOBILE-SATELLITE (EARTH-TO-SPACE)		MSS Earth stations		
Standard Frequency and Time Signal-Satellite (space-to-Earth) 5.542	ECA36		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	FIXED 5.338A 5.543B MOBILE 5.149	ECC/REC/(02)02	Fixed	EN 302 217 EN 302 326	
Standard Frequency and Time Signal-Satellite (space-to-Earth) 5.149			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	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY		Fixed		
SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile 5.149 5.546	SPACE RESEARCH (PASSIVE) Fixed Mobile except aeronautical mobile 5.149 5.546		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	FIXED 5.547A RADIONAVIGATION	ECC/REC/(11)01	FWA	EN 302 326	Point-to-Point and Point-to-Multipoint
	SPACE RESEARCH (DEEP SPACE) (SPACE- TO-EARTH) 5.547 5.548	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 EC Footnotes	A ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED 5.547A RADIONAVIGATION	FIXED 5.547A RADIONAVIGATION	ECC/REC/(11)01	FWA	EN 302 326	Point-to-Point and Point-to-Multipoint
SPACE RESEARCH (DEEP SPACE) (SPACE- TO-EARTH) 5.547 5.547C 5.548		E- ERC/REC/(01)02	Fixed	EN 302 217	High Density FS
32.3 GHz - 33 GHz					
FIXED 5.547A INTER-SATELLITE	FIXED 5.547A INTER-SATELLITE	ECC/REC/(11)01	FWA	EN 302 326	Point-to-Point and Point-to-Multipoint
RADIONAVIGATION 5.547 5.547D 5.548	RADIONAVIGATION 5.547 5.548	ERC/REC/(01)02	Fixed	EN 302 217	High Density FS
33 GHz - 33.4 GHz					
FIXED 5.547A RADIONAVIGATION	FIXED 5.547A INTER-SATELLITE	ECC/REC/(11)01	FWA	EN 302 326	Point-to-Point and Point-to-Multipoint
5.547 5.547E	RADIONAVIGATION 5.547	ERC/REC/(01)02	Fixed	EN 302 217	High Density FS
33.4 GHz - 34.2 GHz					
RADIOLOCATION 5.549	RADIOLOCATION ECA36		Radiodetermination applications		Surveying and measurement
			Radiolocation (military)		
34.2 GHz - 34.7 GHz					
RADIOLOCATION SPACE RESEARCH (DEEP SPACE) (EARTH- TO-SPACE)	RADIOLOCATION SPACE RESEARCH (DEEP SPACE) (EARTI TO-SPACE)	1 -	Radiodetermination applications		Surveying and measurement
5.549	ECA36		Radiolocation (military)		

RR Region 1 Allocation and RR footnotes applicable to CEPT	s European Common Allocation and ECA Footnotes	ECC/ERC harmonisation measure	Applications	Standard	Notes
RADIOLOCATION Space Research 5.549	RADIOLOCATION Space Research ECA36		Radiodetermination applications		Surveying and measurement
			Radiolocation (military)		
35.2 GHz - 35.5 GHz					
METEOROLOGICAL AIDS RADIOLOCATION	METEOROLOGICAL AIDS RADIOLOCATION		Active sensors (satellite)		Rain radar from satellites
5.549	ECA36		Radiolocation (military)		
35.5 GHz - 36 GHz					
EARTH EXPLORATION-SATELLITE (ACTIVE) METEOROLOGICAL AIDS	EARTH EXPLORATION-SATELLITE (ACTIVE) METEOROLOGICAL AIDS		Active sensors (satellite)		
RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.549 5.549A	RADIOLOCATION SPACE RESEARCH (ACTIVE) 5.549A ECA36		Radiolocation (military)		
36 GHz - 37 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE		Passive sensors (satellite)		EESS surface emmissivity, snow, sea ice and precipitation
SPACE RESEARCH (PASSIVE) 5.149 5.550A	SPACE RESEARCH (PASSIVE) Radio Astronomy 5.149 5.550A		Radio astronomy		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	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) SPACE RESEARCH (SPACE-TO-EARTH)	ERC/DEC/(00)02	FSS Earth stations		Uncoordinated Earth stations shall not claim protection from the Fixed Service
MOBILE EXCEPT AERONAUTICAL MOBILE 5.550B SPACE RESEARCH (SPACE-TO-EARTH) Earth Exploration-Satellite (space-to-Earth) 5.547	Earth Exploration-Satellite (space-to-Earth) 5.547	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	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) Earth Exploration-Satellite (space-to-Earth)	ERC/DEC/(00)02	FSS Earth stations		Uncoordinated Earth stations shall not claim protection from the Fixed Service
MOBILE 5.550B Earth Exploration-Satellite (space-to-Earth) 5.547	5.547	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	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B MOBILE	ERC/DEC/(00)02	FSS Earth stations		
MOBILE-SATELLITE (SPACE-TO-EARTH) Earth Exploration-Satellite (space-to-Earth) 5.550E 5.547	MOBILE-SATELLITE (SPACE-TO-EARTH) Earth Exploration-Satellite (space-to-Earth) 5.547				
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)	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B MOBILE MOBILE MOBILE-SATELLITE (SPACE-TO-EARTH) SPACE RESEARCH (EARTH-TO-SPACE) Earth Exploration-Satellite (space-to-Earth)	ERC/DEC/(00)02	FSS Earth stations		

5.550E

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 ECC/REC/(01)04 ERC/DEC/(99)15 ECC/REC/(01)04 ERC/DEC/(99)15	FSS Earth stations Fixed MWS	EN 302 217 EN 302 326 EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems 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	BROADCASTING BROADCASTING-SATELLITE FIXED LAND MOBILE 5.550B Aeronautical Mobile Maritime Mobile 5.547 5.551H 5.551I	ECC/DEC/(02)04 ECC/REC/(01)04 ERC/DEC/(99)15 ECC/REC/(01)04 ERC/DEC/(99)15	FSS Earth stations Fixed MWS	EN 302 217 EN 302 326 EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems Point-to-point and terrestrial multipoint systems
42.5 GHz - 43.5 GHz					
FIXED FIXED_SATELLITE (FARTH-TO-SPACE) 5 552	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552		FSS Earth stations		Priority for civil networks
5.550C MOBILE EXCEPT AERONAUTICAL MOBILE 5.550B RADIO ASTRONOMY 5.149	MOBILE EXCEPT AERONAUTICAL MOBILE RADIO ASTRONOMY 5.149 5.547	ECC/REC/(01)04 ERC/DEC/(99)15	Fixed	EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems
		ECC/REC/(01)04 ERC/DEC/(99)15	MWS	EN 302 217 EN 302 326	Point-to-point and terrestrial multipoint systems
5.547			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 Footnotes	Allocation	and E	ECA	ECC/ERC harmonisation measure	Applications	Standard	Notes	
MOBILE 5.553 5.553A MOBILE-SATELLITE	MOBILE 5.553 MOBILE-SATELLITE					Aeronautical military systems	3		
RADIONAVIGATION RADIONAVIGATION-SATELLITE	Fixed-Satellite 5.554	ECA36				Land military systems	Land military systems		
5.554						Maritime 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-5 5.554	SATELLITE				-			
47 GHz - 47.2 GHz									
AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLIT	=				Amateur			
AMATEUR-SATELLITE	AWATEUR-SATELLIT	=				Amateur-satellite			
47.2 GHz - 47.5 GHz									
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 5.550C	FIXED FIXED-SATELLITE (E MOBILE	ARTH-TO-SPA	.CE) 5.5	552		FSS Earth stations		For fixed applications. Priority for civil networks	
MOBILE 5.553B 5.552A	5.552A					Feeder links	ļ	For 40 GHz Broadcasting satellites	
						HAPS			

ERC/REC 25-10

PMSE

47.5 GHz - 47.9 GHz

EN 302 064 Cordless cameras

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)	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A	ECC/DEC/(05)08	FSS Earth stations Feeder links		High Density FSS For 40 GHz Broadcasting satellites
5.516B 5.554A MOBILE 5.553A	MOBILE	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	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 MOBILE		FSS Earth stations		For fixed applications. Priority for civil networks
MOBILE 5.553B 5.552A	5.552A		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	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552	ECC/DEC/(05)08	FSS Earth stations		High Density FSS
5.550C FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A 5.555B MOBILE	FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A 5.555B		Feeder links		For 40 GHz Broadcasting satellites
	5.516B 5.554A 5.555B MOBILE	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 EC Footnotes	A ECC/ERC harmonisation measure	Applications	Standard	Notes
FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.552 5.550C	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.55 MOBILE	2	FSS Earth stations		For fixed applications. Priority for civil networks
MOBILE 5.149 5.340	RADIO ASTRONOMY 5.149 ECA17A 5.340		Feeder links		48.5-49.2 GHz for 40 GHz Broadcasting satellites
5.555	5.555	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	FIXED FIXED-SATELLITE (EARTH-TO-SPACE)	ECC/DEC/(05)08	FSS Earth stations		High Density FSS
5.338A 5.550C FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A 5.555B	5.338A 5.552 FIXED-SATELLITE (SPACE-TO-EARTH) 5.516B 5.554A 5.555B	ERC/REC 12-11	Fixed	EN 302 217	Within the band 48.5-50.2 GHz and 50.9-52.6 GHz
MOBILE	MOBILE ECA17A	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	FIXED FIXED-SATELLITE (EARTH-TO-SPACE) 5.338A		-		Future satellite and terrestrial applications. Shared civil and non civil allocation
MOBILE Mobile-Satellite (Earth-to-space)	Mobile-Satellite (Earth-to-space)	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	FIXED 5.338A MOBILE RADIO ASTRONOMY 5.547 5.556	ERC/REC 12-11	Fixed	EN 302 217	Within the band 48.5-50.2 GHz and 50.9-52.6 GHz
5.556			Radio astronomy		Continuum and spectral line observations
52.6 GHz - 54.25 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
5.556	5.556		Radio astronomy		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 Passive sensors (satellite)	EN 302 217	High density fixed links Atmospheric temperature sounding
57 GHz - 58.2 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED INTER-SATELLITE 5.556A	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED INTER-SATELLITE 5.556A	ECC/REC/(09)01	Fixed	EN 302 217	Un-coordinated deployment. High density fixed links
MOBILE 5.558 SPACE RESEARCH (PASSIVE)	MOBILE 5.558 SPACE RESEARCH (PASSIVE) 5.547	ERC/REC 70-03	Non-specific SRDs	EN 305 550	Within the band 57-64 GHz
5.547 5.557			Passive sensors (satellite)		Atmospheric temperature sounding
3.331		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	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED RADIO ASTRONOMY	ECC/REC/(09)01	Fixed	EN 302 217	Un-coordinated deployment. High density fixed links
SPACE RESEARCH (PASSIVE) 5.547	SPACE RESEARCH (PASSIVE) 5.547 ECA6	ERC/REC 70-03	Non-specific SRDs	EN 305 550	Within the band 57-64 GHz
5.556	5.556 ECA19		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	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED	ECC/REC/(09)01	Fixed	EN 302 217	High density fixed links
INTER-SATELLITE 5.556A MOBILE 5.558	INTER-SATELLITE 5.556A MOBILE 5.558	ERC/REC 70-03	Non-specific SRDs	EN 305 550	Within the band 57-64 GHz
RADIOLOCATION 5.559 SPACE RESEARCH (PASSIVE)	RADIOLOCATION 5.559 SPACE RESEARCH (PASSIVE)		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	FIXED INTER-SATELLITE	ECC/REC/(09)01	Fixed	EN 302 217	High density fixed links
INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559	MOBILE 5.558 RADIOLOCATION 5.559		ISM		Within the band 61.0-61.5 GHz
5.138	5.138	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	FIXED	ECC/REC/(05)02	Fixed	EN 302 217	High density fixed links
INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE	INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE	ECC/DEC/(09)01	ITS	EN 302 686	Within the band 63.72 - 65.88 GHz
5.547 5.556	5.547 5.556		Radio astronomy	332 000	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	EARTH EXPLORATION-SATELLITE FIXED	ECC/REC/(05)02	Fixed	EN 302 217	High density fixed links
INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE	INTER-SATELLITE MOBILE EXCEPT AERONAUTICAL MOBILE	ECC/DEC/(09)01	ITS	EN 302 686	Within the band 63.72 - 65.88 GHz
SPACE RESEARCH 5.547 SPACE RESEARCH 5.547		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		- Wideband data transmissior systems	1	Future civil 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	BROADCASTING BROADCASTING-SATELLITE	ECC/REC/(05)07	Fixed	EN 302 217	
FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE	FIXED FIXED-SATELLITE (SPACE-TO-EARTH) MOBILE	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 (space-to-Earth) 5.561	Space Research (space-to-Earth) 5.561		Space research		VLBI measurements within the band 74-84 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	European Common Footnotes	Allocation	and ECA	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-SAT FIXED FIXED-SATELLITE (SI Amateur Amateur-Satellite 5.561		RTH)	ECC/REC/(05)07 ECC/DEC/(11)02 ERC/REC 70-03	Amateur Amateur-satellite Fixed Radiodetermination applications Space research	EN 302 217 EN 302 372 EN 302 729	Within the band 75.5-81.5 GHz Within the band 75.5-81.5 GHz Within the band 75-85 GHz for TLPR and LPR applications VLBI
76 GHz - 77.5 GHz							
RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite Space Research (space-to-Earth)		RADIOLOCATION Amateur Amateur-Satellite Space Research (space-to-Earth)			Amateur Amateur-satellite Radio astronomy		Within the band 75.5-81.5 GHz Within the band 75.5-81.5 GHz Continuum and spectral line observations
5.149	5.149			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	ππ	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	AMATEUR AMATEUR-SATELLITE		Amateur		Within the band 75.5-81.5 GHz
RADIOLOCATION 5.559B Radio Astronomy	RADIOLOCATION 5.559B Space Research (space-to-Earth)		Amateur-satellite		Within the band 75.5-81.5 GHz
Space Research (space-to-Earth) 5.149	5.149		Radio astronomy		Continuum and spectral line observations
3.149		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	RADIOLOCATION Amateur		Amateur		Within the band 75.5-81.5 GHz
Amateur-Satellite Radio Astronomy	Amateur-Satellite Radio Astronomy Space Research (space-to-Earth) 5.149 5.560		Amateur-satellite		Within the band 75.5-81.5 GHz
Space Research (space-to-Earth) 5.149			Radio astronomy		Continuum and spectral line observations
5.560		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	RADIO ASTRONOMY RADIOLOCATION		Amateur		Within the band 75.5-81.5 GHz
RADIOLOCATION Amateur Amateur-Satellite Space Research (space-to-Earth) 5.149	Amateur		Amateur-satellite		Within the band 75.5-81.5 GHz
	Amateur-Satellite 5.149		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	

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)	FIXED 5.338A FIXED-SATELLITE (EARTH-TO-SPACE)		Amateur		Within the band 75.5-81.5 GHz
MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE)	MOBILE MOBILE-SATELLITE (EARTH-TO-SPACE)		Amateur-satellite		Within the band 75.5-81.5 GHz
RADIO ASTRONOMY Space Research (space-to-Earth)	RADIO ASTRONOMY Space Research (space-to-Earth)	ECC/REC/(05)07	Fixed	EN 302 217	
5.149 5.561A	5.149 5.561A		Radio astronomy		Continuum and spectral line observations
5.50 TA	3.30TA	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)	FIXED 5.338A FIXED-SATELLITE (EARTH-TO-SPACE)	ECC/REC/(05)07	Fixed	EN 302 217	
MOBILE RADIO ASTRONOMY	MOBILE RADIO ASTRONOMY		Radio astronomy		Continuum and spectral line observations
5.149	5.149	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	FIXED 5.338A MOBILE	ECC/REC/(14)01 ECC/REC/(18)02	Fixed		
RADIO ASTRONOMY RADIOLOCATION 5.149	RADIO ASTRONOMY RADIOLOCATION 5.149		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	FIXED MOBILE RADIO ASTRONOMY	ECC/REC/(14)01 ECC/REC/(18)02	Fixed		
RADIOLOCATION 5.149	RADIOLOCATION 5.149		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)	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE)		Passive sensors (satellite) Radio astronomy		Limb sounding of atmospheric constituents Continuum and spectral line observations
5.340 5.341	5.340 5.341		doublishing		Samuel and Special and Special and Special Validate
102 GHz - 105 GHz					
FIXED MOBILE RADIO ASTRONOMY	FIXED MOBILE RADIO ASTRONOMY	ECC/REC/(18)02	Fixed		
5.149 5.341	5.149 5.341		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	EARTH EXPLORATION-SATELLITE (PASSIVE) INTER-SATELLITE 5.562C	ERC/REC 70-03	Non-specific SRDs	EN 305 550	Within the band 122-123 GHz
SPACE RESEARCH (PASSIVE) 5.138	SPACE RESEARCH (PASSIVE) 5.138		Passive sensors (satellite)		Passive sensing as part of the oxygen absorption band with peak at 118.75 GHz
122.25 GHz - 123 GHz					
FIXED INTER-SATELLITE	FIXED INTER-SATELLITE		Amateur		
MOBILE 5.558 Amateur	MOBILE 5.558 Amateur		Amateur-satellite		
5.138	Amateur-Satellite 5.138	ERC/REC 70-03	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

EARTH EXPLORATION-SATELLITE (ACTIVE) 5-58ZE FIXED FIXE	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 Radio Astronomy AMATEUR-SATELLITE Radio Astronomy Amateur Satellite Amateur satellite Amateur satellite Within the band 134-141 GHz Radio astronomy Continuum and spectral line observations 136 GHz - 141 GHz RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite Amateur-Satellite S-149 Amateur-Satellite Amateur-Satellite Amateur-Satellite S-149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION AMATEUR Amateur-Satellite Amateur-Satellite S-149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION S-149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION S-149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION S-149 148.5 GHz - 151.5 GHz EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY RADIO ASTRONOMY RADIOLOCATION S-149 FASSIVE SENSORS (satellite) Passive sensors (satellite) Harmonised reference window for passive sensor observations	5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149	5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149	ECC/REC/(18)01			Continuum and spectral line observations
AMATEUR-SATELLITE Radio Astronomy Amateur Radio astronomy Continuum and spectral line observations 136 GHz - 141 GHz RADIO ASTRONOMY RADIOLOCATION Amateur Amateur Amateur Amateur Amateur Amateur Amateur Amateur Amateur-Satellite 5.149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIOLOCATION ADIOLOCATION AMATEUR Amateur-Satellite Within the band 134-141 GHz Amateur-Satellite Amateur-	134 GHz - 136 GHz					
136 GHz - 141 GHz RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite 5.149 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite 5.149 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite Amateur-Satellite Radio astronomy Mithin the band 134-141 GHz Amateur-satellite Radio astronomy Continuum and spectral line observations ECC/REC/(18)01 Fixed RADIO ASTRONOMY RADIOLOCATION S.149 Fixed RADIO ASTRONOMY RADIOLOCATION S.149 Fixed RADIO ASTRONOMY RADIOLOCATION S.149 EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Fassive sensors (satellite) Harmonised reference window for passive sensor observations				Amateur		Within the band 134-141 GHz
136 GHz - 141 GHz RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite 5.149 Amateur-Satellite 5.149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION Amateur-Satellite 5.149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION SATRONOMY RADIOLOCATION S.149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION S.149 FIXED Radio astronomy Fixed Radio a	Radio Astronomy	Radio Astronomy		Amateur-satellite		Within the band 134-141 GHz
RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-Satellite 5.149 Amateur-Satellite 5.149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION AMATEUR Amateur-Satellite 5.149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION S.149 FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE)				Radio astronomy		Continuum and spectral line observations
RADIOLOCATION Amateur Amateur-Satellite 5.149 Amateur-Satellite 5.149 Amateur-Satellite Radio astronomy Continuum and spectral line observations 141 GHz - 148.5 GHz FIXED MOBILE MOBILE MOBILE MOBILE MOBILE MOBILE RADIO ASTRONOMY RADIOLOCATION S.149 148.5 GHz - 151.5 GHz EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) Passive sensors (satellite) Harmonised reference window for passive sensor observations	136 GHz - 141 GHz					
Amateur Amateur-Satellite S.149 Amateur-Satellite Radio astronomy Continuum and spectral line observations 141 GHz - 148.5 GHz FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION S.149 EARTH EXPLORATION-SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) EARTH EXPLORATION-SATELLITE (PASSIVE) SPACE RESEARCH (PASSIVE) FIXED MOBILE Radio astronomy Continuum and spectral line observations ECC/REC/(18)01 Fixed Radio astronomy Continuum and spectral line observations Fixed Radio astronomy Continuum and spectral line observations Fixed Radio astronomy Fixed Radio astronomy Fixed Radio astronomy Continuum and spectral line observations Fixed Radio astronomy Fixed Radio astronomy Fixed Radio astronomy Fixed Radio astronomy Sepace Research (PASSIVE) Fixed Radio astronomy Fixed Radio astronomy Fixed Radio astronomy Sepace Research (PASSIVE) Fixed Radio astronomy Fixed Radio astronomy Fixed Radio astronomy Sepace Research (PASSIVE) Fixed Radio astronomy Fixed Radio astronomy Sepace Research (PASSIVE) Fixed Radio astronomy Fixed Radio astronomy Fixed Radio astronomy Sepace Research (PASSIVE) Fixed Radio astronomy Fixed Radio astronomy Fixed Radio astronomy Sepace Research (PASSIVE) Fixed Radio astronomy Fixed Radio astronomy Fixed Radio astronomy Sepace Research (PASSIVE) Fixed Radio astronomy Fixe				Amateur		Within the band 134-141 GHz
5.149 141 GHz - 148.5 GHz FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149 Fixed Radio astronomy Continuum and spectral line observations Continuum and spectral line observations Radio astronomy Fixed Radio astronomy Continuum and spectral line observations Fixed Radio astronomy	Amateur	Amateur		Amateur-satellite		Within the band 134-141 GHz
FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149 Fixed Radio astronomy Continuum and spectral line observations Radio astronomy Continuum and spectral line observations Fixed Radio astronomy Fixed				Radio astronomy		Continuum and spectral line observations
MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149 148.5 GHz - 151.5 GHz EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY RADIO ASTRONOMY RADIOLOCATION 5.149 EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) SPACE RESEARCH (PASSIVE) SPACE RESEARCH (PASSIVE) Fixed Radio astronomy Continuum and spectral line observations Fixed Radio astronomy Fixed Radio ast	141 GHz - 148.5 GHz					
RADIO ASTRONOMY RADIOLOCATION 5.149 RADIO ASTRONOMY RADIOLOCATION 5.149 Radio astronomy Radio astronomy Radio astronomy Radio astronomy Continuum and spectral line observations Radio astronomy Fadio astronomy Radio astronomy Fadio astronomy Fadio astronomy Fadio astronomy Fa			ECC/REC/(18)01	Fixed		
EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY RADIO ASTRONOMY RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) EARTH EXPLORATION-SATELLITE (PASSIVE) Passive sensors (satellite) Harmonised reference window for passive sensor observations	RADIO ASTRONOMY RADIOLOCATION	RADIO ASTRONOMY RADIOLOCATION		Radio astronomy		Continuum and spectral line observations
RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) SPACE RESEARCH (PASSIVE) SPACE RESEARCH (PASSIVE) SPACE RESEARCH (PASSIVE)	148.5 GHz - 151.5 GHz					
F 0.40	RADIO ASTRONOMY	RADIO ASTRONOMY		Passive sensors (satellite)		•
				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
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 5.562G	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.562B 5.149 5.562G	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)		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
			Radio astronomy		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

Approved November 2020

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)	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE)		Passive sensors (satellite)		Passive sensing of the water vapour absorption line whose peak is at 183.31 GHz
5.340	5.340		Radio astronomy		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)		Passive sensing of the water vapour absorption line whose peak is at 183.31 GHz
			Radio astronomy		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	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Earth exploration-satellite		(EESS) Atmospheric limb sounding and atmospheric remote sensing of nitrous oxide at 201 GHz
5.341 5.563A	5.341 5.563A		Radio astronomy		Continuum and spectral line observations
202 GHz - 209 GHz					
EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340	EARTH EXPLORATION-SATELLITE (PASSIVE) RADIO ASTRONOMY SPACE RESEARCH (PASSIVE) 5.340		Earth exploration-satellite		(EESS) Atmospheric limb sounding and atmospheric remote sensing of water vapour at 203.4 GHz and ozone at 208.5 GHz
5.341 5.563A	5.341 5.563A		Radio astronomy		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)	EARTH EXPLORATION-SATELLITE (PASSIVE) FIXED-SATELLITE (SPACE-TO-EARTH) SPACE RESEARCH (PASSIVE)		Passive sensors (satellite)		Passive sensing limited to microwave sounding
5.563A 5.563B	5.563A 5.563B		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)	RADIO ASTRONOMY SPACE RESEARCH (PASSIVE)		Earth exploration-satellite		(EESS) Limb sounding of nitrous oxide near 251 GHz
5.340 5.563A	5.340 5.563A		Radio astronomy		Continuum and spectral line observations

252 GHz - 265 GHz

ERC REPORT 25

Page 202 / 289

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 5.565		-		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 subbands 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 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. Parts of the bands 450-457.5/460-467.5 MHz may also be used for existing and ECA34 evolving public cellular networks on a national basis.

In Europe the band 75.5-76 GHz is also allocated to the Amateur and Amateur

ECA35

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)

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.

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 abovementioned 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)

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 abovementioned countries in this frequency band, and this should be taken into account by the countries authorizing such use. (WRC-12)

	, amon 2 110 than o thoganations to another thogas in the
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, Kyroyzstan, Somalia, Tajikistan, Turking, Turkmenistan and Turkey, the frequency

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)

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)

The carrier (reference) frequencies 3023 kHz and 5680 kHz may also be used, in 5.115 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. Alternative allocation: in Côte d'Ivoire, Egypt, Liberia, Sri Lanka and Togo, the 5.117 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) Additional allocation: in Greenland, the band 3950-4000 kHz is also allocated to the 5.125 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). Frequencies in the bands 4 063-4 123 kHz and 4 130-4 438 kHz may be used 5.128 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) The conditions for the use of the carrier frequencies 4125 kHz and 6215 kHz are 5.130 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)

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)

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: Antiqua 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,

> band 5 351.5-5 366.5 kHz shall not exceed a maximum radiated power of 25 W (e.i.r.p.). (WRC-19)

> 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

> 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

Resolution 517 (Rev.WRC-19). (WRC-19)

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)

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.

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.

5.134

5.133B

5.136

5.137

5.138

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) Alternative allocation: in Egypt, Eritrea, Ethiopia, Guinea, Libya, Madagascar and 5.141 Niger, the band 7000-7050 kHz is allocated to the fixed service on a primary basis. (WRC-12) Additional allocation: in Uzbekistan and Kyrgyzstan, the bands 7000-7100 kHz 5.141A and 7100-7200 kHz are also allocated to the fixed and land mobile services on a secondary basis. (WRC-03) Additional allocation: in Algeria, Saudi Arabia, Australia, Bahrain, Botswana, Brunei 5.141B 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) Additional allocation: frequencies in the band 7300-7350 kHz may be used by 5.143 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) The conditions for the use of the carrier frequencies 8291 kHz, 12290 kHz and 16420 5.145 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)

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)

5.152	Additional allocation: in Armenia, Azerbaijan, China, Côte d'Ivoire, 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)

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, Côte d'Ivoire, 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(μ V/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)

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(μ V/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)

Additional allocation: in Colombia, Cuba, El Salvador, Guatemala, Guyana, 5.178 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 groundbased 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) Additional allocation: in the Syrian Arab Republic, the band 108-111.975 MHz is 5.197 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)

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 COM5/9 (WRC-19). Resolution COM5/5 (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.

- 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)
- 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)
 - 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)
 - 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.
 - 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 nongeostationary satellite systems in the space operation service with short-duration missions in the frequency band 148-149.9 MHz shall ensure that the power fluxdensity 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)

- 5.214
- 5.218
- 5.218A

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)

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)

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.

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)

	7 illiox 2 110 Table Togalatione Foundation for Region F
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 \pm 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

band 406-406.1 MHz is prohibited.

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 $0^{\circ} \le \delta \le 5^{\circ}$, -153 + 0.077 ($\delta - 5$) dB(W/m²) for $5^{\circ} \le \delta \le 70^{\circ}$ and -148 dB(W/m²) for $70^{\circ} \le \delta \le 90^{\circ}$, 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)

	Annex 2 - 110 Radio Regulations Footnotes for Region 1
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 (Earthto-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

a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21.

(WRC-12)

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, Côte d'Ivoire, 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	.311A	For the frequency band 620-790 MHz, see also Resolution 549 (WRC-07).
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)

appropriate. (WRC-19)

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)

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, Australia, 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)

	Author 2 110 Madio Regulations Foundation In Region 1
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)

administrations concerned. (WRC-15)

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)

In Algeria, Angola, Saudi Arabia, Bahrain, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Central African Republic, Congo (Rep. of the), Côte d'Ivoire, 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)

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)

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)

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)

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)

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)

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.

5.348

5.346

5.348A

5.348B

5.349

5.350

5.351

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)

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)

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. (WPC 03)

periods of 2 000 s. (WRC-03)

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)

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, Côte d'Ivoire, 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

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.
- The allocation of the frequency band 2500-2520 MHz to the mobile-satellite service 5.414 (space-to-Earth) is subject to coordination under No. 9.11A. (WRC-07)
 - 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: $-130 \text{ dB}(\text{W}/(\text{m2} \cdot \text{MHz}))$ for $0^{\circ} \le \theta \le 5^{\circ} -130 + 0.4 (\theta - 5) \text{ dB}(\text{W}/(\text{m2} \cdot \text{MHz}))$ · MHz)) for $5^{\circ} < \theta \le 25^{\circ} - 122 \text{ dB}(\text{W}/(\text{m2} \cdot \text{MHz}))$ for $25^{\circ} < \theta \le 90^{\circ}$ 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)
 - 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)
 - 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)
 - 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)

5.416

5.418B

5.418C

5.419

	7 illiox 2 Tro Tauto Taguationo Formato Tar Tagion T
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)
5.422	Additional allocation: in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Brunei Darussalam, Congo (Rep. of the), Côte d'Ivoire, 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), Côte d'Ivoire, 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)

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), Côte d'Ivoire, 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)

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-tospace) 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 geostationarysatellite 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 nongeostationary-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)

5.441B

In Angola, Armenia, Azerbaijan, Benin, Botswana, Brazil, Burkina Faso, Burundi, Cambodia, Cameroon, China, Côte d'Ivoire, 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.

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)

5.447	Additional allocation: in Côte d'Ivoire, 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)

5.449 The use of the band 5350-5470 MHz by the aeronautical radionavigation service is limited to airborne radars and associated airborne beacons. Additional allocation: in Austria, Azerbaijan, Iran (Islamic Republic of), Kyrgyzstan, 5.450 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) In the frequency band 5470-5650 MHz, stations in the radiolocation service, except 5.450B 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. Between 5600 MHz and 5650 MHz, ground-based radars used for meteorological 5.452 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), Côte d'Ivoire, 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)

5.457

In Australia, Burkina Faso, Cote d'Ivoire, 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.

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 (Earthto-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 $0^{\circ} \le \theta < 5^{\circ}$ - 135 + 0.5 (θ - 5) dB(W/m²) in a 1 MHz band for $5^{\circ} \le \theta < 25^{\circ}$ - 125 dB(W/m²) in a 1 MHz band for $25^{\circ} \le \theta < 90^{\circ}$ (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.

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. Additional allocation: in Algeria, Germany, Bahrain, Belgium, China, Egypt, the 5.471 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) In the band 9200-9500 MHz, search and rescue transponders (SART) may be used, 5.474 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)

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, groundbased 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.

5.481

Additional allocation: in Algeria, Germany, Angola, Brazil, China, Côte d'Ivoire, 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 (spaceto-Earth), 11.7-12.2 GHz (space-to-Earth) in Region 2, 12.2-12.75 GHz (spaceto-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 nongeostationary-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)

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), Côte d'Ivoire, 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)

	Annex 2 - ITU Radio Regulations Footnotes for Region 1
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

research (active) services shall not cause harmful interference to, or constrain the use and development of, the radiolocation service. (WRC-97)

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)

In the band 13.4-13.75 GHz, the earth exploration-satellite (active) and space

5.501B

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 fixedsatellite 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 geostationarysatellite orbit shall not exceed: i) 4.7D + 28 dB(W/40 kHz), where D is the fixedsatellite 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 fixedsatellite 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)

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, Côte d'Ivoire, 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, Côte d'Ivoire, 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, Côte d'Ivoire, 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)

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)

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.

5.516

The use of the band 17.3-18.1 GHz by geostationary-satellite systems in the fixedsatellite service (Earth-to-space) is limited to feeder links for the broadcastingsatellite 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-geostationarysatellite 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)

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 (Earthto-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-geostationarysatellite networks shall not cause unacceptable interference to geostationary fixedsatellite 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 nongeostationary 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)

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/($m^2 \cdot MHz$)) 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 broadcastingsatellite 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).

Annex 2 - ITU Radio Regulations Footnotes for Region 1 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 coprimary 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 and future operating feeder-link networks to such broadcasting satellite stations.

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-tospace). Such other uses shall protect and shall not claim protection from existing

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-geostationarysatellite 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)

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.

5.535A

5.536

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.

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).

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.

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)

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-geostationary-satellite 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-geostationary-satellite 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)

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 fixedsatellite 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)

5.5511

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 broadcastingsatellite 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/ m^2) in 1 GHz and -153 dB(W/ m^2) 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)

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), Côte d'Ivoire, 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), Côte d'Ivoire, 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)

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 intersatellite 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 intersatellite 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)

In the bands 94-94.1 GHz and 130-134 GHz, transmissions from space stations 5.562A 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) The allocation to the Earth exploration-satellite service (active) is limited to the band 5.562E 133.5-134 GHz. (WRC-2000) In the band 155.5-158.5 GHz, the allocation to the Earth exploration-satellite 5.562F (passive) and space research (passive) services shall terminate on 1 January 2018. (WRC-2000) 5.562G The date of entry into force of the allocation to the fixed and mobile services in the band 155.5-158.5 GHz shall be 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 fluxdensity 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)

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)

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 and Maritime Earth Stations On Mobile Platforms (ESOMPs) operating with NGSO FSS satellite systems in the frequency range 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
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/(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	The harmonised use of the 63-64 GHz frequency band for Intelelligent Transport Systems (ITS)
ECC/DEC/(08)08	on the harmonised use of GSM systems in the 900 MHz and 1800 MHz bands, UMTS systems in the 2 GHz band and LTE systems in the 1800 MHz and 2.6 GHz 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
ECC/DEC/(06)13	Designation of the bands 880-915 MHz, 925-960 MHz, 1710-1785 MHz and 1805-1880 MHz for terrestrial UMTS, LTE, WiMAX and IoT cellular systems
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 spaceto-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
ECC/DEC/(04)08	The harmonised use of the 5 GHz frequency bands for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs)
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/(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	The use of the band 37.5 - 40.5 GHz by the fixed service and Earth stations of the fixed - satellite service (space to Earth)
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
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/(09)01	Use of the 57-64 GHz frequency band for point-to-point Fixed Wireless Systems
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/(05)02	Use of the 64-66 GHz frequency band for Fixed Service
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
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

EN 300 065	Narrow-band direct-printing telegraph equipment for receiving meteorological or
EN 000 000	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

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

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

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

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	Radio equipment to be used in the 870 MHz to 876 MHz frequency range with power levels ranging up to 500 mW $$
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 303 360	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
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 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

(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

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

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

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

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

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

RLANS 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

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-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

WRC World Radiocommunication Conference