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)

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The European Table of Frequency Allocations and Applications in the frequency range 8.3 kHz to 3000 GHz (ECA Table)

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, and to forward plan and harmonise within Europe the efficient use of the radio spectrum and satellite orbits so as to satisfy the requirements of users and industry.

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, ...).

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, e. g. after every ECC meeting or after the publication of harmonised standards in the Official Journal of the European Union (OJEU). 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).

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. CEPT member countries are expected to implement as many parts of the ECA Table as they are able. The Table should be used as a source document by CEPT member countries for the development of Decisions, Recommendations, 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, and WRC-12 as well as the Regional Radiocommunication Conference Geneva-06 and of strategies developed by other international fora concerning, in particular, the introduction and development of mobile and mobile-satellite services.

4 ECC/ERC DECISIONS AND RECOMMENDATIONS

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

Understanding of the term “to designate”

ECC/ERC Decisions that "designate" a frequency band for a harmonised application are intended to foster the deployment of an application to meet a market demand in a harmonised manner throughout CEPT. Members signing the Decision commit themselves to make spectrum available for this harmonised application which includes assessing when and where there is a demand for the harmonised service/application and deciding whether that demand is great enough to exclude other services and applications from the harmonised band.

Thus, such Decisions do not necessarily preclude authorising other uses and applications in the same band, or part(s) thereof on the following conditions:

1. an underlay application (i.e., able to share co-frequency, co-coverage with the application for which the band was designated) may be implemented, preferably subject to prior harmonisation at CEPT level, without affecting the application for which the band is designated, i.e., this underlay system is designed in such a way that they are not causing interference to the application for which the band is designated nor request protection against interference;
2. the deployment of the application for which a band is designated may be constrained geographically in a reasonable extent in order to protect stations of another service/application using the same band;
3. there may be a lack of market demand for the application for which the band is designated in some cases:
    a) absence of demand for deployment in certain geographical areas, thus enabling geographical sharing with other applications;
    b) transition period until equipment are available for the deployment of the harmonised application, so that other applications may be introduced or retained for this temporary period;
    c) in cases where market demand does not fully materialise for the harmonised application, all or parts of the band could be used for alternative applications, having due regard to spectrum use consideration (channelling, guard bands, protection of the harmonised application).

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

Underlay regulations

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

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

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

- ECC/DEC/(06)04 amended 9 December 2011 on generic UWB;
- ECC/DEC/(06)08 on GPR/WPR imaging systems;
- ECC/DEC/(07)01 on Material Sensing devices;
- ECC/DEC/(12)03 on the harmonised conditions for UWB applications onboard aircraft.

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, this 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 (NJFA) which was felt to be a useful basis from which to develop a view of military frequency requirements. 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 makes proposals to WGFM.

Military requirements vary both between activities and countries. In some countries national requirements may be more than the harmonised band, in other countries for the time being there may be no national requirements in a band specifically harmonised for military use.

In general, the harmonised military bands should provide *a common military frequency resource* in order to allow systems to operate in common border areas, facilitate common exercises and Peace Keeping Operations (PKO), include the core frequency assets for day-to-day training, exercise, combat readiness and deployment and support Electronic Countermeasures (ECM) training.

Any reorganisation of spectrum utilisation should aim at a provision of a common military frequency resource in accordance with the ECA Table.

6 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 five Annexes are provided in the Attachment.
Annex 1: European 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: 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

Contains in each frequency band:

- Allocations of major use or major interest in CEPT member countries.
- 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.
- EU footnotes relevant to the European allocation, 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: Application

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: European footnotes

This column contains European footnotes (EU) relevant to the particular radio application.

Column 6: Standard

This column contains information about the relevant European standards - see Annex 4.

Column 7: Notes

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

In respect of **defence systems** two terms are used with the associated definitions:

1) Common military tuning range: - A common military tuning range is normally a recommended tuning range for radio equipment operating across harmonised military bands. Such a tuning range forms the basis for planning of future military equipment procurement.

2) Harmonised military band: - A frequency band which is in general military use in Europe and identified for military utilisation in the European Common Allocation Table (ECA Table). Such a frequency band forms a basis for military use and planning. The band can be shared between civil and military users according to national requirements and legislation.

Attachment (ECA Table) with 5 Annexes

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
Below 8.3 kHz						
(Not allocated)	(Not allocated)					
5.53	5.53					
5.54	5.54					
8.3 – 9 kHz						
METEOROGICAL AIDS 5.54A	METEOROGICAL AIDS 5.54A		Lightning detection systems			
5.54A	5.54A					
5.54B						
9 – 11.3 kHz						
METEOROGICAL AIDS 5.54A	METEOROGICAL AIDS 5.54A	ERC/REC 70-03	Inductive applications ISM		EN 300 330	Within the band 9-148.5 kHz
RADIONAVIGATION	RADIONAVIGATION	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
	EU2		Lightning detection systems			
11.3 - 14 kHz						
RADIONAVIGATION	RADIONAVIGATION	ERC/REC 70-03	Inductive applications ISM		EN 300 330	Within the band 9-148.5 kHz
	EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
14 - 19.95 kHz						
FIXED	FIXED		Defence systems			
MARITIME MOBILE 5.57	MARITIME MOBILE 5.57		Inductive applications		EN 300 330	Within the band 9-148.5 kHz
5.55 5.56	5.56 EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
19.95 - 20.05 kHz						
STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)	STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
20.05 - 70 kHz						
FIXED	FIXED		Defence systems			
MARITIME MOBILE 5.57	MARITIME MOBILE 5.57					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
5.56 5.58	5.56 EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
70 - 72 kHz						
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
	EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
72 - 84 kHz						
FIXED	FIXED		Standard frequency and time signal			77.5 kHz DCF time signal
MARITIME MOBILE 5.57	MARITIME MOBILE 5.57		Defence systems			
RADIONAVIGATION 5.60 5.56	RADIONAVIGATION 5.60 5.56 EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
		ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
84 - 86 kHz						
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
	EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
86 - 90 kHz						
FIXED	FIXED		Defence systems			
MARITIME MOBILE 5.57	MARITIME MOBILE 5.57					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
RADIONAVIGATION 5.56	RADIONAVIGATION 5.56 EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
90 - 110 kHz							
RADIONAVIGATION 5.62	RADIONAVIGATION 5.62			Defence systems			
Fixed	Fixed						
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
5.64	5.64	EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
110 - 112 kHz							
FIXED	FIXED			Defence systems			
MARITIME MOBILE	MARITIME MOBILE						
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
RADIONAVIGATION	RADIONAVIGATION						
5.64	5.64	EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
112 - 115 kHz							
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60			Defence systems			
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
		EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
115 - 117.6 kHz							
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60			Defence systems			
Fixed	Fixed						
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
Maritime mobile	Maritime mobile						
5.64	5.64	EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
5.66							
117.6 - 126 kHz							
FIXED	FIXED			Defence systems			
MARITIME MOBILE	MARITIME MOBILE						
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60						
5.64	5.64	EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
126 - 129 kHz						
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
	EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
129 - 130 kHz						
FIXED	FIXED		Defence systems			
MARITIME MOBILE	MARITIME MOBILE					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
RADIONAVIGATION 5.60	RADIONAVIGATION 5.60					
5.64	5.64 EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
130 - 135.7 kHz						
FIXED	FIXED		Defence systems			
MARITIME MOBILE	MARITIME MOBILE					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
5.64	5.64 EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
5.67						
135.7 - 137.8 kHz						
Amateur 5.67A	Amateur 5.67A		Amateur		EN 301 783	Within the band 135.7-137.8 kHz
FIXED	FIXED					
			Defence systems			
MARITIME MOBILE	MARITIME MOBILE					
5.67B	5.67B	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
		ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
137.8 - 148.5 kHz						
FIXED	FIXED		Defence systems			
MARITIME MOBILE	MARITIME MOBILE					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 9-148.5 kHz
5.64 5.67	5.64 EU2	ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
148.5 - 255 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	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
5.68 5.69 5.70		ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
255 - 283.5 kHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Beacons (aeronautical)			Frequency Assignment plan GE85
BROADCASTING	BROADCASTING		Broadcasting		EN 302 017 EN 302 245	Frequency Assignment plan GE75. Digital systems to be introduced
5.70 5.71		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz
283.5 - 315 kHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Beacons (aeronautical)			Frequency Assignment plan GE85
MARITIME RADIONAVIGATION (radiobeacons) 5.73	MARITIME RADIONAVIGATION (radiobeacons) 5.73		Beacons (maritime)			Frequency Assignment plan GE85
5.74	5.74 EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Active medical implants		EN 302 195	Within the band 9-315 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
315 - 325 kHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Beacons (aeronautical)			Frequency Assignment plan GE85
Maritime radionavigation (radiobeacons) 5.73	Maritime radionavigation (radiobeacons) 5.73		Beacons (maritime)			Frequency Assignment plan GE85. IALA plan to allow differential GPS
5.75	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz
325 - 405 kHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Beacons (aeronautical)			Frequency Assignment plan GE85
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
	EU2	ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz
405 - 415 kHz						
RADIONAVIGATION 5.76	RADIONAVIGATION 5.76	ERC/REC 70-03	Beacons (aeronautical)			Frequency Assignment plan GE85
			Beacons (maritime)			Frequency Assignment plan GE85. IALA - plan to allow differential GPS
	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
		ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
415 - 435 kHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Beacons (aeronautical)			Frequency Assignment plan GE85
MARITIME MOBILE 5.79	MARITIME MOBILE 5.79 EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime communications		EN 300 373	Frequency Assignment plan GE85
		ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz
435 - 472 kHz						
MARITIME MOBILE 5.79	MARITIME MOBILE 5.79	ERC/REC 70-03	Detection of avalanche victims		EN 300 718	457 kHz
Aeronautical radionavigation 5.77	Aeronautical radionavigation	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
5.82	5.82 EU2		Maritime communications		EN 300 373	Frequency Assignment plan GE85
		ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz
472 - 479 kHz						
MARITIME MOBILE 5.79	MARITIME MOBILE 5.79	ERC/REC 70-03	Detection of avalanche victims		EN 300 718	457 kHz
Aeronautical radionavigation 5.77 5.80	Aeronautical radionavigation					
Amateur 5.80A	Amateur 5.80A	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
5.80B	5.80B EU2					
5.82	5.82		Maritime communications		EN 300 373	Frequency Assignment plan GE85
		ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
479 - 495 kHz						
MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.77 5.82	MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.82 EU2	ERC/REC 70-03	Detection of avalanche victims		EN 300 718	457 kHz
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime communications		EN 300 373	Frequency Assignment plan GE85
			Navtex		EN 300 065	Navtex transmission national language 490 kHz
		ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz
495 - 505 kHz						
MARITIME MOBILE	MOBILE	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
		ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz
505 - 526.5 kHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Beacons (aeronautical)			Frequency Assignment plan GE85
MARITIME MOBILE 5.79 5.79A 5.84	MARITIME MOBILE 5.79 5.79A 5.84 EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz. For RFID only within the band 400-600 kHz
			Maritime communications		EN 300 373	Frequency Assignment plan GE85
			Navtex		EN 300 065	518 kHz (transmission international language)
		ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz
526.5 - 1606.5 kHz						
BROADCASTING 5.87 5.87A	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	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. For RFID only within the band 400-600 kHz
		ERC/REC 70-03	Active medical implants		EN 302 536	Within the band 315-600 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1606.5 - 1625 kHz						
FIXED	FIXED		Defence systems			
LAND MOBILE	LAND MOBILE	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
MARITIME MOBILE 5.90	MARITIME MOBILE 5.90 Radiolocation		Maritime communications		EN 300 373	Frequency Assignment plan GE85
5.92			Radiodetermination applications			
1625 - 1635 kHz						
RADIOLOCATION	RADIOLOCATION	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.93	5.93		Radiodetermination applications			
1635 - 1800 kHz						
FIXED	FIXED		Defence systems			
LAND MOBILE	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		Maritime communications		EN 300 373	Frequency Assignment plan GE85
5.96	5.96		Radiodetermination applications			
1800 - 1810 kHz						
RADIOLOCATION	RADIOLOCATION	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.93	5.93		Radiodetermination applications			
1810 - 1850 kHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.100 5.98 5.99	5.98 EU2 5.100					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1850 - 2000 kHz						
FIXED	FIXED		Amateur		EN 301 783	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		Defence systems			
5.103		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.92	5.96					
5.96	5.103		Maritime communications		EN 300 373	
			Radiodetermination applications			
2000 - 2025 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.103	5.103		Maritime communications		EN 300 373	
5.92			Radiodetermination applications			
2025 - 2045 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
Meteorological aids 5.104			Maritime communications		EN 300 373	
5.103	5.103					
5.92	5.104		Oceanographic buoys			Meteorological
			Radiodetermination applications			
2045 - 2160 kHz						
FIXED	FIXED		Defence systems			
LAND MOBILE	LAND MOBILE	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
MARITIME MOBILE	MARITIME MOBILE					
5.92	5.92		Maritime communications		EN 300 373	Frequency Assignment plan GE85

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2160 - 2170 kHz						
RADIOLOCATION	RADIOLOCATION	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
			Radiodetermination applications			
5.107 5.93	5.93					
2170 - 2173.5 kHz						
MARITIME MOBILE	MARITIME MOBILE	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications		EN 300 373	Frequency Assignment plan GE85
	EU2					
2173.5 - 2190.5 kHz						
MOBILE (distress and calling)	MOBILE (distress and calling)		DSC		EN 300 373	2187.5 kHz (DSC for distress and calling)
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.108 5.109 5.110 5.111	5.108 EU2 5.109 5.110 5.111		Maritime communications		EN 300 373	2182 kHz (Radiotelephony distress and calling). 2174.5 kHz (Telex distress traffic)
2190.5 - 2194 kHz						
MARITIME MOBILE	MARITIME MOBILE	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2		Maritime communications		EN 300 373	
2194 - 2300 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.103 5.112 5.92	5.103		Maritime communications		EN 300 373	
			Radiodetermination applications			

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2300 - 2498 kHz							
BROADCASTING 5.113 FIXED MOBILE except aeronautical mobile (R) 5.103	FIXED MOBILE except aeronautical mobile (R) 5.103	EU2	ERC/REC 70-03	Defence systems Inductive applications Maritime communications		 EN 300 330 EN 300 373	 Within the band 148.5 kHz - 30 MHz
2498 - 2501 kHz							
STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
2501 - 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
2502 - 2625 kHz							
FIXED MOBILE except aeronautical mobile (R) 5.103 5.114 5.92	FIXED MOBILE except aeronautical mobile (R) 5.103 5.92	EU2	ERC/REC 70-03	Defence systems Inductive applications Radiodetermination 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*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2625 - 2650 kHz							
MARITIME MOBILE	MARITIME MOBILE			Defence systems			
MARITIME RADIONAVIGATION	MARITIME RADIONAVIGATION						
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.92	5.92	EU2		Maritime communications		EN 300 373	
2650 - 2850 kHz							
FIXED	FIXED			Defence systems			
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)						
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.103	5.103			Radiodetermination applications			
5.92	5.92						
2850 - 3025 kHz							
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)			Aeronautical communications			Appendix 27 Allotment Plan
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.111	5.111			SAR (communications)		EN 300 373	3023 kHz ((Aeronautical/Maritime
5.115	5.115						radiotelephony SAR coordination)
3025 - 3155 kHz							
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)			Aeronautical communications			Appendix 26 Allotment Plan
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
3155 - 3200 kHz							
FIXED	FIXED			Defence systems			
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (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	5.116	EU2		Maritime communications		EN 300 373	
5.117							

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
3200 - 3230 kHz							
BROADCASTING 5.113	FIXED			Defence systems			
FIXED	MOBILE except aeronautical mobile (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
MOBILE except aeronautical mobile (R)							
5.116	5.116	EU2		Maritime communications		EN 300 373	
3230 - 3400 kHz							
BROADCASTING 5.113	FIXED			Defence systems			
FIXED	MOBILE except aeronautical 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 aeronautical mobile							
5.116 5.118	5.116	EU2		Maritime communications		EN 300 373	
3400 - 3500 kHz							
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)			Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
3500 - 3800 kHz							
AMATEUR	AMATEUR			Amateur		EN 301 783	
FIXED	FIXED						
				Defence systems			
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile						
5.92	5.92	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
				Maritime communications		EN 300 373	
3800 - 3900 kHz							
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)			Aeronauticalcommunications			Appendix 26 Allotment Plan
FIXED	FIXED						
			ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
LAND MOBILE	LAND MOBILE						
		EU2					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
3900 - 3950 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronauticalcommunications			Appendix 26 Allotment Plan
5.123		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
3950 - 4000 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245	Digital systems to be introduced
FIXED	FIXED				EN 302 017	
			Defence systems			
	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
4000 - 4063 kHz						
FIXED	FIXED	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
MARITIME MOBILE 5.127	MARITIME MOBILE 5.127					
			Maritime communications		EN 300 373	Appendix 17 channelling plan. Appendix 25 allotment plan
5.126	EU2					
4063 - 4438 kHz						
MARITIME MOBILE 5.79A 5.109 5.110	MARITIME MOBILE 5.79A 5.109 5.110		DSC		EN 300 373	4207.5 kHz (DSC distress traffic) Ship stations: 4208, 4208.5, 4209 Coast stations: 4219.5, 4220, 4220.5 kHz (DSC calling)
5.128	EU2					
5.130	5.130	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.131 5.132	5.131 5.132		Maritime communications		EN 300 373	Appendix 17 channelling plan. Appendix 25 allotment plan. 4210 kHz (Safety Information). 4209.5 kHz (Meteorological and navigational warnings). 4125 kHz (Radiotelephony distress and safety traffic). 4177.5 kHz (Telex distress traffic)
			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*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
4438 - 4488 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)					
Radiolocation 5.132A	Radiolocation 5.132A					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.132B	EU2	ERC/REC 70-03	Railway applications		EN 300 330	4516 kHz Euroloop systems
4488 - 4650 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Railway applications		EN 300 330	4516 kHz Euroloop systems
4650 - 4700 kHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
4700 - 4750 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			Appendix 26 Allotment Plan
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
4750 - 4850 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			
BROADCASTING 5.113	FIXED					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
FIXED	LAND MOBILE					
LAND MOBILE						
4850 - 4995 kHz						
BROADCASTING 5.113	FIXED		Defence systems			
FIXED	LAND MOBILE					
		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*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
LAND MOBILE	EU2					
4995 - 5003 kHz						
STANDARD FREQUENCY AND TIME SIGNAL(5000 kHz)	STANDARD FREQUENCY AND TIME SIGNAL(5000 kHz)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5003 - 5005 kHz						
STANDARD FREQUENCY AND TIME SIGNAL Space research	STANDARD FREQUENCY AND TIME SIGNAL Space research	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5005 - 5060 kHz						
BROADCASTING 5.113 FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2					
5060 - 5250 kHz						
FIXED Mobile except aeronautical mobile	FIXED Mobile except aeronautical mobile		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.133	EU2					
5250 - 5275 kHz						
FIXED MOBILE except aeronautical mobile	FIXED MOBILE except aeronautical mobile		Defence systems			
Radiolocation 5.132A	Radiolocation 5.132A	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.133A	EU2					
5275 - 5450 kHz						
FIXED MOBILE except aeronautical mobile	FIXED MOBILE except aeronautical mobile		Defence 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 Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
	EU2					
5450 - 5480 kHz						
AERONAUTICAL MOBILE (OR) FIXED LAND MOBILE	AERONAUTICAL MOBILE (OR) FIXED LAND MOBILE EU2	ERC/REC 70-03	Aeronautical communications Defence systems Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5480 - 5680 kHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.111 5.115	5.111 5.115		SAR (communications)		EN 300 373	5680 kHz (Aeronautical/Maritime radiotelephony SAR coordination)
5680 - 5730 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			Appendix 26 Allotment Plan
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.111 5.115	5.111 5.115		SAR (communications)		EN 300 373	5680 kHz (Aeronautical/Maritime radiotelephony SAR coordination)
5730 - 5900 kHz						
FIXED LAND MOBILE	FIXED LAND MOBILE EU2	ERC/REC 70-03	Defence systems Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5900 - 5950 kHz						
BROADCASTING 5.134 5.136	BROADCASTING 5.134 5.136		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure.
		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*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5950 - 6200 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	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 - 6525 kHz						
MARITIME MOBILE 5.109 5.110 5.130	MARITIME MOBILE 5.109 5.110 5.130		DSC		EN 300 373	6312.5, 6313, 6313.5, 6331, 6331.5, 6332 kHz (DSC calling) 6312 kHz (DSC distress traffic)
5.132 5.137	5.132 EU2 5.137	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications		EN 300 373	Appendix 17 channelling plan. Appendix 25 allotment plan. 6314 kHz (Maritime Safety Information). 6215 kHz (Radiotelephony distress and safety traffic). 6268 kHz (Telex distress traffic)
6525 - 6685 kHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
6685 - 6765 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			Appendix 26 Allotment Plan
		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*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
6765 - 7000 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 6765-6795 kHz; and within the band 148.5 kHz - 30 MHz
5.138	5.138 EU2					
			ISM			Within the band 6765-6795 kHz
		ERC/REC 70-03	Non-Specific SRDs		EN 300 330	Within the band 6765-6795 kHz
7000 - 7100 kHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.140						
5.141						
5.141A						
7100 - 7200 kHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.141A						
5.141B						
7200 - 7300 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure
		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*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
7300 - 7400 kHz						
BROADCASTING 5.134	BROADCASTING 5.134		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure Digital systems to be introduced
5.143	5.143					
5.143A 5.143B 5.143C 5.143D	5.143B	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
7400 - 7450 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure
5.143B 5.143C	5.143B	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 - 8100 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile (R)	MOBILE except aeronautical mobile (R)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 7400-8800 kHz; and within the band 148.5 kHz - 30 MHz
	EU2					
5.144						
8100 - 8195 kHz						
FIXED	FIXED	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 MOBILE	MARITIME MOBILE		Maritime communications		EN 300 373	Appendix 17 channeling plan
	EU2					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
8195 - 8815 kHz						
MARITIME MOBILE 5.109 5.110 5.132 5.145	MARITIME MOBILE 5.109 5.110 5.132 5.145		DSC		EN 300 373	8414.5 kHz (DSC distress traffic). 8415, 8415.5, 8416, 8436.5, 8437, 8437.5 kHz (DSC calling)
5.111	5.111 EU2	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 300 373	Appendix 17 channeling plan. Appendix 25 allotment plan. 8416.5 kHz (Maritime Safety Information). 8291 kHz (Radiotelephony distress and safety traffic). 8376.5 kHz (Telex distress traffic)
8815 - 8965 kHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
8965 - 9040 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			Appendix 26 Allotment Plan
			Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
9040 - 9305 kHz						
FIXED	FIXED		Defence systems			
	EU2	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*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
9305 - 9355 kHz						
FIXED	FIXED		Defence systems			
Radiolocation 5.145A	Radiolocation 5.145A					
	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.145B						
9355 - 9400 kHz						
FIXED	FIXED		Defence systems			
	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
9400 - 9500 kHz						
BROADCASTING 5.134	BROADCASTING 5.134		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure. Digital systems to be introduced
5.146	5.146					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
9500 - 9900 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure. Digital systems to be introduced
5.147	5.147	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
9900 - 9995 kHz						
FIXED	FIXED		Defence systems			
	EU2	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*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
9995 - 10003 kHz						
STANDARD FREQUENCY AND TIME SIGNAL(10000 kHz) 5.111	STANDARD FREQUENCY AND TIME SIGNAL(10000 kHz) 5.111	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
10003 - 10005 kHz						
STANDARD FREQUENCY AND TIME SIGNAL Space research	STANDARD FREQUENCY AND TIME SIGNAL Space research	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
5.111	5.111					
10005 - 10100 kHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.111	5.111					
10100 - 10150 kHz						
FIXED Amateur	FIXED Amateur		Amateur Defence systems		EN 301 783	
	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
10150 - 11175 kHz						
FIXED Mobile except aeronautical mobile (R)	FIXED Mobile except aeronautical mobile (R)		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 10200-11000 kHz; and within the band 148.5 kHz - 30 MHz
	EU2					
		ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
11175 - 11275 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			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	Within the band 11100-16000 kHz
11275 - 11400 kHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
11400 - 11600 kHz						
FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
11600 - 11650 kHz						
BROADCASTING 5.134	BROADCASTING 5.134		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure. Digital systems to be introduced
5.146	5.146	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	Within the band 11100-16000 kHz
11650 - 12050 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure. Digital systems to be introduced
5.147	5.147	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	Within the band 11100-16000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
12050 - 12100 kHz						
BROADCASTING 5.134	BROADCASTING 5.134		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure. Digital systems to be introduced
5.146	5.146	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	Within the band 11100-16000 kHz
12100 - 12230 kHz						
FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
12230 - 13200 kHz						
MARITIME MOBILE 5.109 5.110 5.132 5.145	MARITIME MOBILE 5.109 5.110 5.132 5.145		DSC		EN 300 373	12577 kHz (DSC distress traffic) 12577.5, 12578, 12578.5, 12657, 12657.5, 12658 kHz (DSC calling)
	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications		EN 300 373	Appendix 17 channeling plan. Appendix 25 allotment plan. 12579 kHz (Maritime Safety Information). 12290 kHz (Radiotelephony distress and safety traffic). 12520 kHz (Telex distress traffic)
		ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
13200 - 13260 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
13260 - 13360 kHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
13360 - 13410 kHz						
FIXED	FIXED		Defence systems			
RADIO ASTRONOMY	RADIO ASTRONOMY					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.149	5.149 EU2		Radio astronomy			Continuum observations
		ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
13410 - 13450 kHz						
FIXED	FIXED		Defence systems			
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)	ERC/REC 70-03	Inductive applications		EN 300 330 EN 302 291	Within the band 13553-13567 kHz; and within the band 148.5 kHz - 30 MHz
	EU2		ISM			Within the band 13553-13567 kHz
		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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
13450 - 13550 kHz						
FIXED	FIXED		Defence systems			
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)					
Radiolocation 5.132A	Radiolocation 5.132A	ERC/REC 70-03	Inductive applications		EN 300 330 EN 302 291	Within the band 13553-13567 kHz; and within the band 148.5 kHz - 30 MHz
5.149A	EU2		ISM			Within the band 13553-13567 kHz
		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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
13550 - 13570 kHz						
FIXED	FIXED		Defence systems			
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)	ERC/REC 70-03	Inductive applications		EN 300 330 EN 302 291	Within the band 13553-13567 kHz; and within the band 148.5 kHz - 30 MHz
5.150	5.150 EU2					
			ISM			Within the band 13553-13567 kHz
		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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
13570 - 13600 kHz						
BROADCASTING 5.134	BROADCASTING 5.134		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure. Digital systems to be introduced
5.151	5.151	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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
13600 - 13800 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
13800 - 13870 kHz						
BROADCASTING 5.134	BROADCASTING 5.134		Broadcasting		EN 302 245 EN 302 017	Article 12 planning procedure. Digital systems to be introduced
5.151	5.151	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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
13870 - 14000 kHz						
FIXED	FIXED		Defence systems			
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
14000 - 14250 kHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
14250 - 14350 kHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.152		ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
14350 - 14990 kHz						
FIXED	FIXED		Defence systems			
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
14990 - 15005 kHz						
STANDARD FREQUENCY AND TIME SIGNAL(15000 kHz)	STANDARD FREQUENCY AND TIME SIGNAL(15000 kHz)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
5.111	5.111		SAR (communications)			14993 kHz (+/-3 kHz) concerning manned space vehicles
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
15005 - 15010 kHz						
STANDARD FREQUENCY AND TIME SIGNAL	STANDARD FREQUENCY AND TIME SIGNAL	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
Space research	Space research	ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
15010 - 15100 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
15100 - 15600 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
15600 - 15800 kHz						
BROADCASTING 5.134 5.146	BROADCASTING 5.134 5.146		Broadcasting		EN 302 245 EN 302 017	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	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
15800 - 16100 kHz						
FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
16100 - 16200 kHz						
FIXED	FIXED		Defence systems			
Radiolocation 5.145A	Radiolocation 5.145A	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	Within the band 11100-16000 kHz
5.145B	EU2	ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
16200 - 16360 kHz						
FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Railway applications		EN 302 609	Within the band 11100-16000 kHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
16360 - 17410 kHz						
MARITIME MOBILE 5.109 5.110 5.132 5.145	MARITIME MOBILE 5.109 5.110 5.132 5.145		DSC		EN 300 373	16805, 16805.5, 16806, 16903, 16903.5, 16904 kHz (DSC calling), 16804.5 kHz (DSC distress traffic)
	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications		EN 300 373	Appendix 17 channeling plan. Appendix 25 allotment plan. 16806.5 kHz (Maritime Safety Information). 16420 kHz (Radiotelephony distress and safety traffic). 16695 kHz (Telex distress traffic)
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
17410 - 17480 kHz						
FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
17480 - 17550 kHz						
BROADCASTING 5.134	BROADCASTING 5.134		Broadcasting		EN 302 245 EN 302 017	Digital systems to be introduced
5.146	5.146					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
17550 - 17900 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	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	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
17900 - 17970 kHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
17970 - 18030 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			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	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
18030 - 18052 kHz						
FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
18052 - 18068 kHz						
FIXED	FIXED		Defence systems			
Space research	Space research					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
18068 - 18168 kHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE					
			Amateur Satellite			
5.154		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
18168 - 18780 kHz						
FIXED	FIXED		Defence systems			
Mobile except aeronautical mobile	Mobile except aeronautical mobile					
			DSC		EN 300 373	18898.5, 18899, 18899.5 kHz (DSC calling)
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
18780 - 18900 kHz						
MARITIME MOBILE	MARITIME MOBILE	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
			Maritime communications		EN 300 373	Appendix 17 channeling plan
	EU2	ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
18900 - 19020 kHz						
BROADCASTING 5.134	BROADCASTING 5.134		Broadcasting		EN 302 017 EN 302 245	Article 12 planning procedure. Digital systems to be introduced
5.146	5.146	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
19020 - 19680 kHz						
FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
19680 - 19800 kHz						
MARITIME MOBILE 5.132	MARITIME MOBILE 5.132		DSC		EN 300 373	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
	EU2		Maritime communications		EN 300 373	Appendix 17 channeling plan. Appendix 25 allotment plan. 19680.5 kHz (Maritime Safety Information)
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
19800 - 19990 kHz						
FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
19990 - 19995 kHz						
STANDARD FREQUENCY AND TIME SIGNAL	STANDARD FREQUENCY AND TIME SIGNAL	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
Space research	Space research		SAR (communications)			19993 kHz (+/-3 kHz) concerning manned space vehicles
5.111	5.111					
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
19995 - 20010 kHz						
STANDARD FREQUENCY AND TIME SIGNAL(20000 kHz)	STANDARD FREQUENCY AND TIME SIGNAL(20000 kHz)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
		ERC/REC 70-03	Active medical implants		EN 300 330	Active animal implantable devices within the band 12500-20000 kHz
5.111	5.111					
20010 - 21000 kHz						
FIXED	FIXED		Defence systems			
Mobile	Mobile					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2					
21000 - 21450 kHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE					
			Amateur Satellite			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
21450 - 21850 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	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*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
21850 - 21870 kHz						
FIXED 5.155A	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.155	EU2					
21870 - 21924 kHz						
FIXED 5.155B	FIXED 5.155B		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2					
21924 - 22000 kHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications			Appendix 27 Allotment Plan. Including HF Data Links
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
22000 - 22855 kHz						
MARITIME MOBILE 5.132	MARITIME MOBILE 5.132		DSC		EN 300 373	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
5.156	EU2		Maritime communications		EN 300 373	Appendix 17 channeling plan. Appendix 25 allotment plan. 22376 kHz (Maritime Safety Information)
22855 - 23000 kHz						
FIXED	FIXED		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.156	EU2					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
23000 - 23200 kHz						
FIXED	FIXED		Defence systems			
Mobile except aeronautical mobile (R)	Mobile except aeronautical mobile (R)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.156	EU2					
23200 - 23350 kHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Aeronautical communications			
FIXED 5.156A	FIXED 5.156A		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
23350 - 24000 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile 5.157	MOBILE except aeronautical mobile 5.157	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2					
24000 - 24450 kHz						
FIXED	FIXED		Defence systems			
LAND MOBILE	LAND MOBILE	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2					
24450 - 24600 kHz						
FIXED	FIXED		Defence systems			
LAND MOBILE	LAND MOBILE					
Radiolocation 5.132A	Radiolocation 5.132A	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.158	EU2					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
24600 - 24890 kHz						
FIXED	FIXED		Defence systems			
LAND MOBILE	LAND MOBILE					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2					
24890 - 24990 kHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE					
			Amateur Satellite			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
24990 - 25005 kHz						
STANDARD FREQUENCY AND TIME SIGNAL(25000 kHz)	STANDARD FREQUENCY AND TIME SIGNAL(25000 kHz)	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
25005 - 25010 kHz						
STANDARD FREQUENCY AND TIME SIGNAL	STANDARD FREQUENCY AND TIME SIGNAL	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
Space research	Space research		Space Research			Scientific and medical space research
25010 - 25070 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2					
25070 - 25210 kHz						
MARITIME MOBILE	MARITIME MOBILE		DSC		EN 300 373	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
	EU2		Maritime communications		EN 300 373	Appendix 17 channeling plan

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
25210 - 25550 kHz						
FIXED	FIXED		Defence systems			
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2					
25550 - 25670 kHz						
RADIO ASTRONOMY	RADIO ASTRONOMY	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
			Radio astronomy			Continuum observations
5.149	5.149					
25670 - 26100 kHz						
BROADCASTING	BROADCASTING		Broadcasting		EN 302 245 EN 302 017	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 - 26175 kHz						
MARITIME MOBILE 5.132	MARITIME MOBILE 5.132		DSC		EN 300 373	(DSC calling) 26121, 26121.5, 26122 kHz.
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2		Maritime communications		EN 300 373	Appendix 17 channeling plan. Appendix 25 allotment plan. Maritime Safety Information 26100.5 kHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
26175 - 26200 kHz						
FIXED MOBILE except aeronautical mobile	FIXED MOBILE except aeronautical mobile		Defence systems			
	EU2	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
26200 - 26350 kHz						
FIXED MOBILE except aeronautical mobile	FIXED MOBILE except aeronautical mobile		Defence systems			
Radiolocation 5.132A	Radiolocation 5.132A	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
5.133A	EU2					
26350 - 27500 kHz						
FIXED	FIXED	ECC/DEC/(11)03	CB radio		EN 300 135 EN 300 433	(CEPT PR 27). Within the band 26.960-27.410 MHz
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
5.150	5.150 EU2		Defence systems			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 26.957-27.283 MHz Within the band 148.5 kHz - 30 MHz
			ISM			Within the band 26.957-27.283 MHz
		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 - 28000 kHz						
FIXED	FIXED		Defence systems			
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
MOBILE	MOBILE					
	EU2					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
28 - 29.7 MHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE		Amateur Satellite			
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
29.7 - 30.005 MHz						
FIXED MOBILE	MOBILE		Defence systems	EU1		
		ERC/REC 70-03	Inductive applications		EN 300 330	Within the band 148.5 kHz - 30 MHz
	EU2	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
		ERC/REC 70-03	Active medical implants		EN 302 510	Within the band 30.0-37.5 MHz
30.005 - 30.01 MHz						
FIXED MOBILE	MOBILE		Defence systems	EU1		
SPACE OPERATION (satellite identification) SPACE RESEARCH		ERC/REC 70-03	Radio microphones and ALD	EU1	EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
	EU2	ERC/REC 70-03	Active medical implants		EN 302 510	Within the band 30.0-37.5 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
30.01 - 37.5 MHz						
FIXED MOBILE	MOBILE		Defence systems	EU1		The bands 30.3-30.5 MHz and 32.15-32.45 MHz are harmonised military bands
	EU2 EU27	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	
		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
		ERC/REC 70-03	Active medical implants		EN 302 510	Within the band 30.0-37.5 MHz
37.5 - 38.25 MHz						
FIXED MOBILE Radio astronomy 5.149	MOBILE Radio astronomy 5.149 EU2		Defence systems	EU1		
		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	
			Radio astronomy			Continuum observations
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
38.25 - 39 MHz						
FIXED MOBILE	MOBILE		Defence systems	EU1		
	EU2	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	
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
39 - 39.5 MHz						
FIXED MOBILE	MOBILE		Defence systems	EU1		
Radiolocation 5.132A	Radiolocation 5.132A	ERC/REC/(00)04	Meteor scatter communications			Within the band 39.0-39.2 MHz
5.159	EU2	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	
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
39.5 - 39.986 MHz						
FIXED MOBILE	MOBILE		Defence systems	EU1		
		ERC/REC/(00)04	Meteor scatter communications			Within the band 39.0-39.2 MHz
	EU2	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	
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
39.986 - 40.02 MHz						
FIXED MOBILE Space research	MOBILE Space research		Defence systems	EU1		
	EU2	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	
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz Narrow band audio systems including tour guide systems on a tuning range basis

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
40.02 - 40.66 MHz							
FIXED MOBILE	MOBILE			Defence systems	EU1		
		EU2	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	
			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
40.66 - 40.7 MHz							
FIXED MOBILE	MOBILE			Defence systems	EU1		
				ISM			
5.150	5.150	EU2	ERC/DEC/(01)12	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 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
40.7 - 40.98 MHz						
FIXED MOBILE	MOBILE		Defence systems	EU1		
	EU2	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	
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
40.98 - 41.015 MHz						
FIXED MOBILE Space research 5.160 5.161	MOBILE Space research EU2		Defence systems	EU1		
		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	
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
41.015 - 42 MHz						
FIXED MOBILE	MOBILE		Defence systems	EU1		Harmonised military band
5.160 5.161 5.161A	EU27	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	
		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 – 42.5 MHz						
FIXED MOBILE	FIXED MOBILE		Defence systems	EU1		Harmonised military band
Radiolocation 5.132A	Radiolocation 5.132A	T/R 25-08	PMR		EN 300 086 EN 300 113	
5.160 5.161B	5.161B EU27				EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561	
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
42.5 - 44 MHz							
FIXED MOBILE	MOBILE			Defence systems	EU1		Harmonised military band
5.160 5.161 5.161A		EU27	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	
			ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
44 - 46.4 MHz							
FIXED MOBILE	MOBILE			Defence systems	EU1		Harmonised military band
5.162A	5.162A	EU27	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	
			ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
				Wind profilers			In the range 46-68 MHz, geographical sharing with other services

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
46.4 - 47 MHz							
FIXED MOBILE	MOBILE			Defence systems	EU1		Harmonised military band
5.162A	5.162A	EU27	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	
			ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 29.7-47.0 MHz. Narrow band audio systems including tour guide systems on a tuning range basis
				Wind profilers			In the range 46-68 MHz, geographical sharing with other services
47 - 48 MHz							
BROADCASTING	LAND MOBILE			Defence systems	EU1		
				On-site paging		EN 300 224	On site paging in the band 47-47.25 MHz
5.162A 5.163 5.164 5.165	5.162A 5.164	EU2 EU3	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	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 Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
48 - 48.5 MHz						
BROADCASTING	LAND MOBILE		Defence systems	EU1		
		T/R 25-08	PMR		EN 300 086 EN 300 113 EN 300 219 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561	Single frequency applications
5.162A 5.163 5.164 5.165	5.162A EU2 5.164 EU3					
			Wind profilers			In the range 46-68 MHz, geographical sharing with other services
48.5 - 50 MHz						
BROADCASTING	LAND MOBILE		Defence systems	EU1		
		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	Single frequency applications
5.162A 5.164 5.165	5.162A EU2 5.164 EU3					
			Earth exploration-satellite			Space Research /EESS
			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 Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
50 - 51 MHz						
BROADCASTING	LAND MOBILE Amateur		Amateur		EN 301 783	
5.162A			Defence systems	EU1		
5.164 5.165 5.166 5.169	EU2 EU3	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	Single frequency applications
			Wind profilers			In the range 46-68 MHz, geographical sharing with other services
51 - 52 MHz						
BROADCASTING	LAND MOBILE Amateur		Amateur		EN 301 783	
			Defence systems	EU1		
5.162A 5.164 5.165 5.169	5.162A EU2 5.164 EU3	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	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 Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
52 - 54 MHz							
BROADCASTING	LAND MOBILE			Defence systems	EU1		
			T/R 25-08	PMR		EN 300 086	Single frequency applications
5.162A	5.162A	EU2				EN 300 113	
5.164	5.164	EU3				EN 300 219	
5.165						EN 300 296	
5.166						EN 300 341	
5.169						EN 300 390	
						EN 300 471	
						EN 301 166	
						EN 302 561	
				Wind profilers			In the range 46-68 MHz, geographical sharing with other services
54 - 61 MHz							
BROADCASTING	LAND MOBILE			Defence systems	EU1		
			T/R 25-08	PMR		EN 300 086	ML paired with 61-68 MHz
5.162A	5.162A	EU2				EN 300 113	
5.163	5.163	EU3				EN 300 219	
5.164	5.164					EN 300 296	
5.165						EN 300 341	
5.171						EN 300 390	
						EN 300 471	
						EN 301 166	
						EN 302 561	
				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 Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
61 - 68 MHz							
BROADCASTING	LAND MOBILE			Defence systems	EU1		
			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	FB paired with 54-61 MHz
5.162A 5.164 5.165 5.171	5.162A 5.164	EU2 EU3					
				Wind profilers			In the range 46-68 MHz, geographical sharing with other services
68 - 70.45 MHz							
FIXED MOBILE except aeronautical mobile	MOBILE			Defence systems	EU1		
			ECC/DEC/(06)06	PMR/PAMR		EN 300 086	ML paired with 77.8-80.25 MHz
5.175		EU2 EU4 EU9	T/R 25-08			EN 300 113 EN 300 219 EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
70.45 - 74.8 MHz							
FIXED MOBILE except aeronautical mobile	MOBILE except aeronautical mobile Radio astronomy			Defence systems	EU1		Harmonised military band 73.3-74.1 MHz
5.149 5.175 5.177 5.178 5.179	5.149	EU2 EU4 EU9 EU27	ECC/DEC/(06)06 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	ML paired with 80.25-84.6 MHz
				Radio astronomy			Continuum observations (inter-alia solar wind monitoring in 73-74.6 MHz)
74.8 - 75.2 MHz							
AERONAUTICAL RADIONAVIGATION 5.180 5.181	AERONAUTICAL RADIONAVIGATION 5.180			ILS			Marker beacons
75.2 - 77.7 MHz							
FIXED MOBILE except aeronautical mobile	MOBILE			Defence systems	EU1		
5.175 5.179		EU2	ECC/DEC/(06)06 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	ML paired with 85.0-87.5 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
77.7 - 77.8 MHz						
FIXED MOBILE except aeronautical mobile	MOBILE		Defence systems	EU1		
5.175	EU2	ECC/DEC/(06)06 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	Single frequency applications
		EN 302 561				
77.8 - 84.6 MHz						
FIXED MOBILE except aeronautical mobile	MOBILE		Defence systems	EU1		Harmonised military band 79.0-79.7 MHz
5.175 5.187	EU2 EU27	ECC/DEC/(06)06 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	FB paired with 68.0-74.8 MHz
84.6 - 85 MHz						
FIXED MOBILE except aeronautical mobile	MOBILE		Defence systems	EU1		
5.175 5.187	EU2	ECC/DEC/(06)06 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	Single frequency applications

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
85 - 87.5 MHz						
FIXED MOBILE except aeronautical mobile	MOBILE		Defence systems	EU1		
5.175 5.187	EU2	ECC/DEC/(06)06 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	FB paired with 75.2-77.7 MHz
87.5 - 100 MHz						
BROADCASTING	BROADCASTING		FM Sound analogue		EN 302 018	Geneva Agreement GE84
5.190		ERC/REC 70-03	Wireless Audio Applications		EN 301 357	Within the band 87.5-108.0 MHz
100 - 108 MHz						
BROADCASTING	BROADCASTING		FM Sound analogue		EN 302 018	Geneva Agreement GE84
5.192 5.194		ERC/REC 70-03	Wireless Audio Applications		EN 301 357	Within the band 87.5-108.0 MHz
108 - 117.975 MHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE (R)		Aeronautical communications			Safety and regularity of flights, below 112 MHz limited to ground based data link transmitters
5.197 5.197A	5.197A		ILS VOR			Localiser within the band 108-112 MHz Within the band 108-117.975 MHz
117.975 - 121.45 MHz						
AERONAUTICAL MOBILE (R) 5.200	AERONAUTICAL MOBILE (R) 5.200		Aeronautical communications	EU5	EN 300 676	Safety and regularity of flights

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
121.45 - 121.55 MHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		EPIRBs		EN 300 152	Band only available for distress and safety
5.111	5.111					
5.200	5.200					
121.55 - 136 MHz						
AERONAUTICAL MOBILE (R)	AERONAUTICAL MOBILE (R)		Aeronautical communications	EU5	EN 300 676	123.1 MHz Aeronautical mobile distress communication
5.200	5.200					
5.201	5.201					
136 - 137 MHz						
AERONAUTICAL MOBILE (R) 5.202	AERONAUTICAL MOBILE (R) 5.202		Aeronautical communications	EU5	EN 300 676	
137 - 137.025 MHz						
METEOROLOGICAL-SATELLITE (S/E)	METEOROLOGICAL-SATELLITE (S/E)	ERC/DEC/(99)06	S-PCS	EU6	EN 301 721	Non-geostationary
MOBILE-SATELLITE (S/E) 5.208A 5.209 5.208B	MOBILE		Weather Satellites			
SPACE OPERATION (S/E)	MOBILE-SATELLITE (S/E) 5.208A 5.209 5.208B		Land mobile			Mobile restricted to Aeronautical Mobile OR), including air sport
SPACE RESEARCH (S/E)	Space operation (S/E)					
Fixed	Space research (S/E)					
Mobile except aeronautical mobile (R)						
5.204	5.206					
5.205	5.208					
5.206						
5.207						
5.208						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
137.025 - 137.175 MHz						
METEOROLOGICAL-SATELLITE (S/E)	METEOROLOGICAL-SATELLITE (S/E)	ERC/DEC/(99)06	S-PCS	EU6	EN 301 721	Non-geostationary
SPACE OPERATION (S/E)	MOBILE		Weather Satellites			
SPACE RESEARCH (S/E)	MOBILE-SATELLITE (S/E) 5.208A 5.208B 5.209		Land mobile			Mobile restricted to Aeronautical Mobile OR), including air sport
Mobile except aeronautical mobile (R)	Space operation (S/E)					
Fixed						
Mobile-satellite (S/E) 5.208A 5.208B 5.209	Space research (S/E)					
5.204	5.206					
5.205	5.208					
5.206						
5.207						
5.208						
137.175 - 137.825 MHz						
METEOROLOGICAL-SATELLITE (S/E)	METEOROLOGICAL-SATELLITE (S/E)	ERC/DEC/(99)06	S-PCS	EU6	EN 301 721	Non-geostationary
MOBILE-SATELLITE (S/E) 5.208A 5.209 5.208B	MOBILE		WeatherSatellites			
SPACE OPERATION (S/E)	MOBILE-SATELLITE (S/E) 5.208A 5.209 5.208B		Land obile			Mobile restricted to Aeronautical Mobile (OR), including air sport
SPACE RESEARCH (S/E)	Space operation (S/E)					
Fixed	Space research (S/E)					
Mobile except aeronautical mobile (R)						
5.204	5.206					
5.205	5.208					
5.206						
5.207						
5.208						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
137.825 - 138 MHz						
METEOROLOGICAL-SATELLITE (S/E) SPACE OPERATION (S/E) SPACE RESEARCH (S/E) Fixed Mobile except aeronautical mobile (R) Mobile-satellite (S/E) 5.208A 5.209 5.208B 5.204 5.205 5.206 5.207 5.208	METEOROLOGICAL-SATELLITE (S/E) MOBILE Mobile-satellite (S/E) 5.208A 5.209 5.208B Space operation (S/E) Space research (S/E) 5.206 5.208	ERC/DEC/(99)06	S-PCS Weather Satellites Land mobile	EU6	EN 301 721	Non-geostationary Mobile restricted to Aeronautical Mobile (OR), including air sport
138 - 143.6 MHz						
AERONAUTICAL MOBILE (OR) 5.210 5.211 5.212 5.214	AERONAUTICAL MOBILE (OR) LAND MOBILE Space research (S/E) 5.211 EU2 EU27	ERC/REC 70-03	Defence systems Land mobile Non-Specific SRDs	EU5	EN 300 220	Harmonised military band, including air operation control The frequencies 138.625, 138.675 MHz and 138.650 MHz are used for existing tracking and asset tracing systems on a national basis Within the band 138.20-138.45 MHz
143.6 - 143.65 MHz						
AERONAUTICAL MOBILE (OR) SPACE RESEARCH (S/E) 5.211 5.212 5.214	AERONAUTICAL MOBILE (OR) LAND MOBILE SPACE RESEARCH (S/E) 5.211 EU2 EU27		Defence systems Land mobile	EU5		Harmonised military band, including air operation control

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
143.65 - 144 MHz						
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)		Defence systems	EU5		Harmonised military band, including air operation control
	LAND MOBILE		Land mobile			
5.210	5.211 EU2					
5.211	EU27					
5.212						
5.214						
144 - 146 MHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE		Amateur Satellite			
5.216						
146 - 146.8 MHz						
FIXED MOBILE except aeronautical mobile (R)	MOBILE	ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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	Single frequency applications
146.8 - 148 MHz						
FIXED MOBILE except aeronautical mobile (R)	MOBILE	ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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	ML-paired with 151.4-152.6 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
148 - 148.4 MHz						
FIXED	MOBILE	ERC/DEC/(99)06	S-PCS	EU6	EN 301 721	Non-geostationary
MOBILE except aeronautical mobile (R)	MOBILE-SATELLITE (E/S) 5.209	ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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	ML paired with 152.6-153.0 MHz
MOBILE-SATELLITE (E/S) 5.209 5.218 5.219 5.221	5.218 5.219 5.221					
148.4 - 149.9 MHz						
FIXED	MOBILE	ERC/DEC/(99)06	S-PCS	EU6	EN 301 721	Non-geostationary
MOBILE except aeronautical mobile (R)	MOBILE-SATELLITE (E/S) 5.209	ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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	ML paired with 153.0-154.5 MHz
MOBILE-SATELLITE (E/S) 5.209 5.218 5.219 5.221	5.218 5.219 5.221					
149.9 - 150.05 MHz						
MOBILE-SATELLITE (E/S) 5.209 5.224A	MOBILE	ERC/DEC/(99)06	S-PCS	EU6	EN 301 721	Non-geostationary
RADIONAVIGATION-SATELLITE 5.224B	MOBILE-SATELLITE (E/S) 5.209 5.224A RADIONAVIGATION-SATELLITE 5.224B	ECC/DEC/(06)06 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	Single frequency applications
5.220 5.222 5.223	5.220 5.222 5.223					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
150.05 - 153 MHz						
FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149	MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149	ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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	150.05-151.4 MHz ML paired with 154.65-156.0 MHz, 151.4-153 MHz, FB paired with 146.8-148.4 MHz
			Radio astronomy			Continuum observations (inter-alia solar research)
153 - 154 MHz						
FIXED MOBILE except aeronautical mobile (R) Meteorological aids	MOBILE except aeronautical mobile (R)	ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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	FB paired with 148.4-149.4 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
154 – 156.4875 MHz						
FIXED MOBILE except aeronautical mobile (R) 5.225A 5.226	MOBILE except aeronautical mobile (R) 5.226	ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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	154-154.5 MHz FB paired with 149.4-149.9 MHz, 154.5-154.65 MHz single frequency appl. 154.65-156 MHz FB paired with 150.05-151.4 MHz
			Maritime communications	EU8	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
156.4875 - 156.5125 MHz						
MARITIME MOBILE (distress and calling via DSC) 5.226 5.227	MARITIME MOBILE (distress and calling via DSC) 5.226 5.227		Maritime communications	EU7 EU8	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
156.5125 - 156.5375 MHz						
MARITIME MOBILE (distress and calling via DSC) 5.111 5.226	MARITIME MOBILE (distress and calling via DSC) 5.111 5.226		DSC		EN 301 025 EN 301 929	RR Appendix 18. Distress, safety and calling 156.525 MHz
156.5375 - 156.5625 MHz						
MARITIME MOBILE (distress and calling via DSC) 5.226 5.227	MOBILE except aeronautical mobile (R) MARITIME MOBILE (distress and calling via DSC) 5.226 5.227		Maritime communications	EU7 EU8	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*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
156.5625 - 156.7625 MHz						
FIXED MOBILE except aeronautical mobile (R) 5.226	MOBILE except aeronautical mobile (R) 5.226		Maritime communications	EU7 EU8	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18
156.7625 - 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		Maritime communications		EN 301 929	RR Appendix 18. Satellite AIS Earth-to-space
156.7875 - 156.8125 MHz						
MARITIME MOBILE (distress and calling) 5.111 5.226	MARITIME MOBILE (distress and calling) 5.111 5.226		Maritime communications		EN 300 162	RR Appendix 18. Distress, safety and calling 156.8 MHz for the maritime mobile VHF radiotelephone service
156.8125 - 156.8375 MHz						
MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111 5.226 5.228	MARITIME MOBILE 5.111 5.226 5.228		Maritime communications		EN 301 929	RR Appendix 18. Satellite AIS Earth-to-space
156.8375 – 161.9625 MHz						
FIXED MOBILE except aeronautical mobile 5.226	MOBILE except aeronautical mobile 5.226		Maritime communications	EU7 EU8	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18.
		ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	EN 300 086 EN 300 113 EN 300 219	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
					EN 300 296 EN 300 341 EN 300 390 EN 300 471 EN 301 166 EN 302 561	
161.9625 – 161.9875 MHz						
FIXED MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.228F	MOBILE except aeronautical mobile		Maritime communications	EU7 EU8	EN 300 162 EN 300 698 EN 301 025 EN 301 178	RR Appendix 18.
5.226 5.228A 5.228B	5.226	ERC/DEC/(99)17	AIS		EN 301 929	161.975 MHz
161.9875 – 162.0125 MHz						
FIXED MOBILE except aeronautical mobile 5.226 5.229	MOBILE except aeronautical mobile 5.226		Maritime communications	EU7 EU8	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18.
162.0125 – 162.0375 MHz						
FIXED MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.228F 5.226	MOBILE except aeronautical mobile 5.226		Maritime communications	EU7 EU8	EN 300 162 EN 300 698 EN 301 025 EN 301 178 EN 301 929	RR Appendix 18.
5.229 5.228A 5.228B		ERC/DEC/(99)17	AIS			162.025 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
162.0375 - 174 MHz						
FIXED MOBILE except aeronautical mobile 5.226 5.229	MOBILE except aeronautical 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. Within the band 173.965-174.015 MHz; and within the band 169.4-174.0 MHz on a tuning range basis
		ECC/DEC/(05)02 ERC/REC 70-03	Asset Tracking and Tracing		EN 300 220	
		ECC/DEC/(05)02 ERC/REC 70-03	Meter reading		EN 300 220	
		ECC/DEC/(05)02 ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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	Single frequency applications 165.225-169.4 MHz ML paired with 169.825-174.0 MHz, 162.05-165.2 MHz : FB paired with 157.45-160.6 MHz. The frequency 164.175 MHz is used for existing tracking and asset tracing systems on a national basis. 169.825-174 MHz FB paired with 165.225-169.4 MHz
		ECC/DEC/(05)02 ERC/REC 70-03	Social alarms		EN 300 220	Within the bands169.4750-169.4875 MHz and 169.5875-169.6000 MHz
174 - 216 MHz						
BROADCASTING	BROADCASTING LAND MOBILE	ERC/REC 70-03	Aids for hearing impaired		EN 300 422	Within the band 173.965-174.015 MHz
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422 EN 302 077	On a tuning range basis
5.235	5.235					
5.237			Broadcasting (terrestrial)		EN 302 296 EN 302 297 EN 302 998	Geneva Agreement 2006. TV Broadcasting T-DAB
216 - 223 MHz						
BROADCASTING	BROADCASTING		Broadcasting (terrestrial)		EN 302 077 EN 302 296 EN 302 297 EN 302 998	Geneva Agreement 2006. TV Broadcasting T-DAB
5.235 5.237 5.243	5.235					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
223 - 225 MHz						
BROADCASTING Fixed Mobile 5.243 5.246 5.247	BROADCASTING		Broadcasting (terrestrial)		EN 302 077 EN 302 296 EN 302 297 EN 302 998	Geneva Agreement 2006. TV Broadcasting T-DAB
225 - 230 MHz						
BROADCASTING Fixed Mobile 5.246 5.247	BROADCASTING Land mobile EU10		Broadcasting (terrestrial)		EN 302 077 EN 302 296 EN 302 297 EN 302 998	Geneva Agreement 2006 This band is within the military tuning range 225-400 MHz. Sharing with defence on national basis. TV Broadcasting, T-DAB
230 - 235 MHz						
FIXED MOBILE 5.247 5.251 5.252	MOBILE EU10 EU27		Defence systems T-DAB		EN 302 077	Harmonised military band T-DAB sharing with defence on a national basis. Wiesbaden 1995 Special Arrangement, as revised in Constanta, 2007
235 - 240 MHz						
FIXED MOBILE 5.252 5.254	MOBILE 5.254 EU10 EU27		Defence systems T-DAB		EN 302 077	Harmonised military band T-DAB sharing with defence on a national basis. Wiesbaden 1995 Special Arrangement, as revised in Constanta, 2007

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
240 - 242.95 MHz							
FIXED	MOBILE			Defence systems		EN 302 617	Harmonised military band. Air traffic control
MOBILE							
5.111	5.254	EU10					
5.254		EU27					
5.256							
242.95 - 243.05 MHz							
FIXED	AERONAUTICAL MOBILE			EPIRBs		EN 300 152	Band only available for distress and safety purposes 243.0 MHz
MOBILE							
5.111	5.111						
5.254	5.254						
5.256	5.256						
243.05 - 267 MHz							
FIXED	MOBILE			Defence systems		EN 302 617	Harmonised military band. Air traffic control
MOBILE except aeronautical mobile							
5.111	5.254	EU10					
5.252		EU27					
5.254							
5.256							
5.256A							
267 - 272 MHz							
FIXED	MOBILE			Defence systems		EN 302 617	Harmonised military band. Air traffic control
MOBILE							
Space operation (S/E)							
5.254	5.254	EU10					
5.257	5.257	EU27					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
272 - 273 MHz							
FIXED MOBILE SPACE OPERATION (S/E) 5.254	MOBILE 5.254	 EU10 EU27		Defence systems		EN 302 617	Harmonised military band. Air traffic control
273 - 312 MHz							
FIXED MOBILE 5.254	MOBILE 5.254	 EU10 EU27		Defence systems		EN 302 617	Harmonised military band. Air traffic control
312 - 315 MHz							
FIXED MOBILE Mobile-satellite (E/S) 5.254 5.255	MOBILE 5.254 5.255	 EU10 EU27		Defence systems		EN 302 617	Harmonised military band. Air traffic control
315 - 322 MHz							
FIXED MOBILE 5.254	MOBILE 5.254	 EU10 EU27		Defence systems		EN 302 617	Harmonised military band. Air traffic control
322 - 328.6 MHz							
FIXED MOBILE RADIO ASTRONOMY 5.149	MOBILE RADIO ASTRONOMY 5.149	 EU10 EU27		Defence systems Radio astronomy			Harmonised military band Continuum and spectral line observations (e.g. deuterium), VLBI

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
328.6 - 335.4 MHz							
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION			ILS			Glide path
5.258 5.259	5.258	EU2					
335.4 - 380 MHz							
FIXED MOBILE	MOBILE			Defence systems	EU7	EN 302 617	Harmonised military band Air traffic control
5.254	5.254	EU10 EU27					
380 - 385 MHz							
FIXED MOBILE	MOBILE			Defence systems			Harmonised military band
			ECC/DEC/(08)05 ECC/DEC/(06)05	PPDR		EN 300 113 EN 300 390	Within the bands 384.8-385.0 and 394.8-395.0 MHz for AGA emergency
5.254	5.254	EU2 EU10 EU27	ERC/DEC/(01)19 T/R 25-08			EN 302 561	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 emergency. ML paired with 390.0-395.0 MHz. PPDR (Emergency services) sharing with defence applications. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
385 - 387 MHz							
FIXED MOBILE	MOBILE			Defence systems			Harmonised military band
			T/R 25-08	PMR/PAMR		EN 300 113 EN 301 166	Digital land mobile PMR/PAMR. ML paired with 395-397 MHz
5.254	5.254	EU2 EU10 EU27				EN 302 561 EN 300 390	PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
387 - 390 MHz							
FIXED MOBILE	MOBILE			Defence systems			Harmonised military band
Mobile-satellite (S/E) 5.208A 5.254 5.255 5.208B		EU2 EU10 EU27	T/R 25-08	PMR/PAMR		EN 300 113 EN 301 166 EN 302 561 EN 300 390	Digital land mobile PMR/PAMR. ML 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 - 395 MHz							
FIXED MOBILE	MOBILE			Defence systems			Harmonised military band. PPDR (Emergency services) sharing with defence applications
5.254	5.254	EU2 EU10 EU27	ECC/DEC/(06)05 ECC/DEC/(08)05 ERC/DEC/(01)19 T/R 25-08	PPDR		EN 300 113 EN 300 390 EN 302 561	Within the bands 384.8-385.0 and 394.8-395.0 MHz for AGA emergency 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 emergency. FB paired with 380-385 MHz. PPDR (Emergency services) sharing with defence applications. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
395 - 399.9 MHz							
FIXED MOBILE	MOBILE			Defence systems			Harmonised military band
5.254	5.254	EU2 EU10 EU27	T/R 25-08	PMR/PAMR		EN 300 113 EN 301 166 EN 302 561	Digital land mobile PMR/PAMR. FB paired with 385.0-389.9 MHz. PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
399.9 - 400.05 MHz						
MOBILE-SATELLITE (E/S) 5.209 5.224A	MOBILE-SATELLITE (E/S) 5.209 5.224°	ECC/DEC/(08)05	PPDR			
RADIONAVIGATION-SATELLITE 5.222 5.224B 5.260	RADIONAVIGATION-SATELLITE 5.222 5.224B 5.260					
5.220	5.220					
400.05 - 400.15 MHz						
STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz)	STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz)	ECC/DEC/(08)05	PPDR			
5.261	5.261					
5.262	5.262					
400.15 - 401 MHz						
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS	ERC/DEC/(99)06	S-PCS		EN 301 721	Non-geostationary
METEOROLOGICAL-SATELLITE (S/E)	METEOROLOGICAL-SATELLITE (S/E)					
MOBILE-SATELLITE (S/E) 5.208A 5.208B 5.209	MOBILE-SATELLITE (S/E) 5.208A 5.208B 5.209		Sondes		EN 302 054	
SPACE RESEARCH (S/E) 5.263	SPACE RESEARCH (S/E) 5.263		WeatherSatellites			
Space operation (S/E)	SPACE OPERATION (S/E)					
5.262	5.262	ECC/DEC/(08)05	PPDR			
5.264	5.264					
401 - 402 MHz						
EARTH EXPLORATION-SATELLITE (E/S)	EARTH EXPLORATION-SATELLITE (E/S)		Sondes		EN 302 054	
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		Weather Satellites			Data collection platform telemetry
METEOROLOGICAL-SATELLITE (E/S) SPACE OPERATION (S/E)	METEOROLOGICAL-SATELLITE (E/S)					
Fixed	EU2	ERC/DEC/(01)17	Active medical implants		EN 302 537	ULP-AMI within the band 401-406 MHz
Mobile except aeronautical mobile						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
402 - 403 MHz						
EARTH EXPLORATION-SATELLITE (E/S)	EARTH EXPLORATION-SATELLITE (E/S)		Sondes		EN 302 054	
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		Weather Satellites			Data collection platform telemetry
METEOROLOGICAL-SATELLITE (E/S)	METEOROLOGICAL-SATELLITE (E/S)					
Fixed		ERC/DEC/(01)17	Active medical implants		EN 301 839	ULP-AMI within the band 401-406 MHz
Mobile except aeronautical mobile	EU2					
403 - 405 MHz						
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		Sondes		EN 302 054	
Fixed						
Mobile except aeronautical mobile	EU2	ERC/DEC/(01)17	Active medical implants		EN 301 839	ULP-AMI within the band 401-406 MHz
405 - 406 MHz						
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		Sondes		EN 302 054	
Fixed						
Mobile except aeronautical mobile	EU2	ERC/DEC/(01)17	Active medical implants		EN 302 537	ULP-AMI within the band 401-406 MHz
406 - 406.1 MHz						
MOBILE-SATELLITE (E/S)	MOBILE-SATELLITE (E/S)		EPIRBs		EN 300 066 EN 302 152	Band only available for distress and safety purposes
5.266	5.266					
5.267	5.267					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
406.1 - 410 MHz						
FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149	LAND MOBILE RADIO ASTRONOMY 5.149	ECC/DEC/(06)06 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	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 - 420 MHz						
FIXED MOBILE except aeronautical mobile SPACE RESEARCH (S/S) 5.268	MOBILE except aeronautical mobile	ECC/DEC/(04)06 ECC/DEC/(06)06 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 301 449 EN 301 526 EN 302 426 EN 302 561	ML paired with 420-430 MHz PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
420 - 430 MHz						
FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271	MOBILE except aeronautical mobile Radioocation	ECC/DEC/(04)06 ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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 301 449 EN 301 526 EN 302 426 EN 302 561	FB paired with 410-420 MHz PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
430 - 432 MHz							
AMATEUR	AMATEUR			Amateur		EN 301 783	
RADIOLOCATION	RADIOLOCATION						
5.271	5.277	EU2					
5.274		EU12					
5.275							
5.276							
5.277							
432 - 433.05 MHz							
AMATEUR	AMATEUR			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
RADIOLOCATION	RADIOLOCATION						
Earth exploration-satellite (active) 5.279A	Earth exploration-satellite (active) 5.279A						
				Amateur		EN 301 783	
5.138	5.277	EU2					
5.271		EU12					
5.276							
5.277							
5.280							
433.05 - 434.79 MHz							
AMATEUR	AMATEUR			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
RADIOLOCATION	RADIOLOCATION						
Earth exploration-satellite (active) 5.279A	Land mobile						
	Earth exploration-satellite (active) 5.279A			Amateur		EN 301 783	
5.138	5.138	EU2		ISM			
5.271	5.277	EU12	ERC/REC 70-03	Non-Specific SRDs		EN 300 220	
5.276	5.280						
5.277							
5.280							
5.281							

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
434.79 - 438 MHz						
AMATEUR RADIOLOCATION Earth exploration-satellite (active) 5.279A 5.138 5.271 5.276 5.277 5.280 5.282	AMATEUR AMATEUR-SATELLITE RADIOLOCATION Earth exploration-satellite (active) 5.279A 5.277 EU2 EU12		Active sensors (satellite) Amateur Amateur Satellite		 EN 301 783	The use of this band by sensors in the EESS (active) shall be in accordance with Recommendation ITU-R SA 1260-1 Amateur Satellite Service restricted to 435-438 MHz
438 - 440 MHz						
AMATEUR RADIOLOCATION 5.271 5.274 5.275 5.276 5.277 5.283	AMATEUR RADIOLOCATION 5.277 EU2 EU12		Amateur		EN 301 783	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
440 - 450 MHz						
FIXED	MOBILE except aeronautical mobile		On-site paging		EN 300 224	Call-out & answer-back
MOBILE except aeronautical mobile	Radiolocation					
		ECC/DEC/(05)12	PMR 446		EN 300 296	Analogue PMR-446 in 446-446.1 MHz.
Radiolocation		ERC/DEC/(98)25			EN 300 113	Digital PMR-446 in 446.1-446.2 MHz
					EN 301 166	
5.269	EU31					
5.270						
5.271		ECC/DEC/(06)06	PMR/PAMR	EU7	EN 300 086	Single frequency operation
5.284		T/R 25-08			EN 300 113	PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
5.285					EN 300 219	
5.286					EN 300 296	
					EN 300 341	
					EN 300 390	
					EN 300 471	
					EN 301 166	
					EN 302 561	
			Wind profilers			Geographical sharing with other Services
450 - 455 MHz						
FIXED	MOBILE		On-site paging		EN 300 224	Call-out & answer-back
MOBILE 5.286AA						
		ECC/DEC/(04)06	PMR/PAMR	EU7	EN 300 086	ML paired with 460-465 MHz
5.209	EU31	ECC/DEC/(06)06		EU34	EN 300 113	PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
5.271		T/R 25-08			EN 300 219	
5.286					EN 300 296	
5.286A					EN 300 341	
5.286B					EN 300 390	
5.286C					EN 301 166	
5.286D					EN 301 449	
5.286E					EN 301 526	
					EN 302 426	
					EN 302 561	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
455 - 456 MHz							
FIXED	MOBILE			Land mobile			Existing public cellular networks
MOBILE 5.286AA							
				On-site paging		EN 300 224	Call-out & answer-back
5.209 5.271 5.286A 5.286B 5.286C 5.286E		EU31	ECC/DEC/(04)06 ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7 EU34	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 301 449 EN 301 526 EN 302 426 EN 302 561	ML paired with 465-466 MHz PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
456 - 459 MHz							
FIXED	MOBILE			Land mobile			Existing public cellular networks
MOBILE 5.286AA							
			T/R 32-02	On board communications		EN 300 720	Within the band 457.525-467.575 MHz
5.271 5.287	5.287	EU31		On-site paging		EN 300 224	Call-out & answer-back
5.288			ECC/DEC/(04)06 ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7 EU34	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 301 449 EN 301 526 EN 302 426 EN 302 561	ML paired with 466-469 MHz PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
459 - 460 MHz						
FIXED MOBILE 5.286AA	MOBILE		Land mobile			Existing public cellular networks
			On-site paging		EN 300 224	Call-out & answer-back
5.209 5.271 5.286A 5.286B 5.286C 5.286E	EU31	ECC/DEC/(04)06 ECC/DEC/(06)06 T/R 25-08	PMR/PAMR	EU7	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 301 449 EN 301 526 EN 302 426 EN 302 561	ML paired with 469-470 MHz PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
460 - 470 MHz							
FIXED	MOBILE			Land mobile			Existing public cellular networks
MOBILE 5.286AA							
			T/R 32-02	On board communications		EN 300 720	Within the band 457.525-467.575 MHz
Meteorological-satellite (S/E)							
5.287	5.287	EU31		Meteorological aids			
5.288	5.289						
5.289				On-site paging		EN 300 224	Call-out & answer-back
5.290			ECC/DEC/(04)06	PMR/PAMR	EU34	EN 300 086	FB paired with 450-460 MHz
			ECC/DEC/(06)06		EU7	EN 300 113	PPDR on a tuning range basis in 380-470 MHz range according to ECC/DEC/(08)05
						EN 300 219	
			T/R 25-08			EN 300 296	
						EN 300 341	
						EN 300 390	
						EN 300 471	
						EN 301 166	
						EN 301 449	
						EN 301 526	
						EN 302 426	
						EN 302 561	
				Space Research			Allocation to EESS is via RR 5.289. Data collection platform telecommand. Geographical sharing with other Services
470 - 790 MHz							
BROADCASTING	BROADCASTING		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 470-789 MHz on a tuning range basis
5.149	5.149	EU13		PMSE			Mobile applications restricted to SAB/SAP including radio microphones
5.291A	5.291A						
5.294	5.296						
5.296	5.306			Broadcasting (terrestrial)		EN 302 296	Geneva Agreement 2006.
5.300	5.311A					EN 302 297	TV Broadcasting
5.312						EN 302 998	
5.304				Wind profilers			Limited to the band 470-494 MHz. Geographical sharing with other Services
5.306							
5.311A							
5.312							
5.312A				Radio astronomy			Continuum observations, VLBI

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
790 - 862 MHz							
BROADCASTING	BROADCASTING			-			This band is planned for future mobile applications, based on the RR provisions
FIXED	MOBILE except aeronautical mobile						
MOBILE except aeronautical mobile 5.316B 5.317A				Defence systems			Tactical links
5.312 5.314 5.315	5.312 5.316 5.316A	EU2 EU13	ERC/REC 70-03	Radio microphones and ALD		EN 300 422	Within the band 823-832 MHz
5.316				PMSE			SAP/SAB Radio Microphones
5.316A 5.319				Broadcasting (terrestrial)		EN 302 296 EN 302 297 EN 302 998	Geneva Agreement 2006. TV Broadcasting
			ECC/DEC/(09)03 ECC/REC/(11)04	TRA-ECS			IMT is considered as a part of TRA-ECS

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
862 - 890 MHz							
BROADCASTING 5.322 FIXED MOBILE except aeronautical mobile	MOBILE			-			This band is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonised introduction of IMT
5.317A	5.323	EU2	ERC/REC 70-03	Alarms		EN 300 220	Within the band 868.6-869.700 MHz
5.319	5.317A	EU13					
5.323		EU29	ERC/REC 70-03	Non-Specific SRDs		EN 300 220	Within the band 863-870 MHz. Strategic Plan for the use of SRD within the band 862-870 MHz adopted
			ERC/REC 70-03	Radio microphones and ALD		EN 300 422 EN 301 357	Within the band 863-865 MHz
				Aids for hearing impaired			
			ERC/REC 70-03	RFID		EN 302 208	Within the band 865-868 MHz
			ERC/REC 70-03	Wireless Audio Applications		EN 300 220 EN 301 357	Within the band 863-865 MHz. Narrow band analogue voice devices within the band 864.8-865.0 MHz
				Defence systems			Within the bands 870-876 MHz paired with 915-921 MHz. Identified as preferred bands for TRR, in particular for cross-border operations. In countries where these bands are or will be in civil use according to ERC/ECC Decisions (e.g. digital PMR/PAMR), 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
			ECC/DEC/(04)06 ECC/DEC/(02)05 T/R 25-08	PMR/PAMR		EN 301 166 EN 301 449 EN 301 526 EN 302 426 EN 302 561	Within the band 870-876 MHz paired with 915-921 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
			ECC/REC/(05)08 ERC/DEC/(97)02	GSM	EU32	EN 301 502 EN 301 511 EN 300 609	Within the band 880-890 MHz paired with 925-935 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
		ECC/DEC/(06)13 ECC/REC/(08)02	TRA-ECS		EN 301 908	IMT is considered as a part of TRA-ECS
		ECC/DEC/(08)08	MCV			
890 - 942 MHz						
BROADCASTING 5.322	MOBILE	ECC/REC/(05)08 ERC/DEC/(97)02	GSM	EU32 EU30	EN 301 502	Within the band 890-915 MHz paired with the band 935-960 MHz
FIXED	Radiolocation	ERC/DEC/(94)01			EN 301 511	
MOBILE except aeronautical mobile 5.317A					EN 300 609	
Radiolocation		ECC/DEC/(06)13	TRA-ECS	EU30	EN 301 908	IMT is considered as a part of TRA-ECS
	5.317A EU2	ECC/REC/(08)02				
5.323	5.323 EU13					
	EU14	ECC/DEC/(08)08	MCV			
	EU29					
			Defence systems	EU30		The bands 870-876 MHz and 915-921 MHz are identified as preferred bands for TRR, in particular for cross-border operations. In countries where these bands are or will be in civil use according to ERC/ECC Decisions (e.g. digital PMR/PAMR), 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
		ECC/DEC/(04)06 ECC/DEC/(02)05 T/R 25-08	PMR/PAMR		EN 301 166 EN 301 449 EN 301 526 EN 302 426 EN 302 561	Within the band 870-876 MHz paired with 915-921 MHz
		-				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/(02)05	GSM-R		EN 301 502	Within the band 876-880 MHz paired
		ECC/REC/(05)08			EN 301 511	with 921-925 MHz. Railway systems

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
942 - 960 MHz							
BROADCASTING 5.322	MOBILE		ECC/REC/(05)08	GSM	EU32	EN 301 502	FB paired with 897-915 MHz
FIXED			ERC/DEC/(94)01			EN 301 511	
MOBILE except aeronautical mobile						EN 300 609	
5.317A	5.317A	EU13	ECC/DEC/(06)13	TRA-ECS		EN 301 908	IMT is considered as a part of TRA-ECS
5.323	5.323	EU29	ECC/REC/(08)02				
			ECC/DEC/(08)08	MCV			
960 - 1164 MHz							
AERONAUTICAL RADIONAVIGATION 5.328	AERONAUTICAL RADIONAVIGATION 5.328			Aeronautical navigation			Including DME, JTIDS, MIDS, SSR, TACAN
AERONAUTICAL MOBILE (R) 5.327A	AERONAUTICAL MOBILE (R) 5.327A						
1164 - 1215 MHz							
AERONAUTICAL RADIONAVIGATION 5.328	AERONAUTICAL RADIONAVIGATION 5.328			Galileo			Within the band 1164-1214 MHz
RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B	RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B			GLONASS			Within the band 1190.3-1213.8 MHz
5.328A	5.328A			Aeronautical navigation			Including DME, JTIDS, MIDS, SSR, TACAN
			ECC/REC/(10)02	GNSS repeater		EN 302 645	Within the band 1164-1300 MHz
1215 - 1240 MHz							
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)			Active sensors (satellite)			
RADIOLOCATION	RADIOLOCATION			Defence systems			
RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.329 5.329A	RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.329 5.329A			GLONASS			Within the band 1237.8-1253.8 MHz
SPACE RESEARCH (active)	SPACE RESEARCH (active)			GPS			Within the band 1215.6-1239.6 MHz
5.330	5.331	EU2					
5.331	5.332			Radiolocation (civil)			Radar and Navigation systems
5.332			ECC/REC/(10)02	GNSS repeater		EN 302 645	Within the band 1164-1300 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1240 - 1260 MHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			
RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.329 5.329A	RADIOLOCATION		Amateur		EN 301 783	
RADIOLOCATION	RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.329 5.329A		Defence systems			
SPACE RESEARCH (active)	SPACE RESEARCH (active)		GLONASS			Within the band 1237.8-1253.8 MHz
Amateur	Amateur		Radiolocation (civil)			Radar and Navigation systems
5.282	5.331 EU2					
5.330	5.332	ECC/REC/(10)02	GNSS repeater		EN 302 645	Within the band 1164-1300 MHz
5.331						
5.332						
5.335						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1260 - 1270 MHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			
RADIOLOCATION	RADIOLOCATION		Amateur		EN 301 783	
RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.329 5.329A	RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.329 5.329A		Amateur Satellite			
SPACE RESEARCH (active)	SPACE RESEARCH (active)		Defence systems			
Amateur	Amateur		Galileo			Within the band 1260-1300 MHz
	Amateur-satellite					
5.282	5.282 EU2		Radiolocation (civil)			Radar and Navigation systems
5.330	5.331	ECC/REC/(10)02	GNSS repeater		EN 302 645	Within the band 1164-1300 MHz
5.331	5.335A					
5.335						
5.335A						
1270 - 1300 MHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			
RADIOLOCATION	RADIOLOCATION		Amateur		EN 301 783	
RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.329 5.329A	RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.329 5.329A		Defence systems			
SPACE RESEARCH (active)	SPACE RESEARCH (active)		Galileo			Within the band 1260-1300 MHz
Amateur	Amateur		Radiolocation (civil)			Radar and Navigation systems
5.330	5.331 EU2					
5.331	5.335A		Wind profilers			Within the band 1270-1295 MHz
5.335						
5.335A		ECC/REC/(10)02	GNSS repeater		EN 302 645	Within the band 1164 to1300 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1300 - 1350 MHz						
AERONAUTICAL RADIONAVIGATION 5.337	AERONAUTICAL RADIONAVIGATION 5.337		Defence systems			
RADIOLOCATION	RADIOLOCATION		Radiolocation (civil)			Radar and Navigation systems
RADIONAVIGATION-SATELLITE (E/S)	RADIONAVIGATION-SATELLITE (E/S)		Radio astronomy			Continuum and spectral line observations (e.g. neutral hydrogen line), VLBI
5.149 5.337A	5.149 EU2 5.337A		Satellite Navigation systems			
1350 - 1400 MHz						
FIXED	FIXED		Defence systems	EU15A		
MOBILE	MOBILE	T/R 13-01	Fixed		EN 302 217	Low capacity fixed
RADIOLOCATION	RADIOLOCATION		Radio astronomy			Continuum and spectral line observations (e.g. neutral hydrogen line), VLBI
5.149 5.338 5.338A 5.339	5.149 EU2 5.338A EU15 5.339					
1400 - 1427 MHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)	ECC/DEC/(11)01	Passive sensors (satellite)			Measurement of soil moisture, salinity, ocean surface temperature, vegetation index
RADIO ASTRONOMY SPACE RESEARCH (passive)	RADIO ASTRONOMY SPACE RESEARCH (passive)		Radio astronomy			Continuum and spectral line observations (e.g. neutral hydrogen line), VLBI
5.340 5.341	5.340 5.341					
1427 - 1429 MHz						
FIXED	FIXED		Defence systems	EU15A		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	T/R 13-01	Fixed		EN 302 217	Low capacity fixed
SPACE OPERATION (E/S)	SPACE OPERATION (E/S)					
5.338A 5.341	5.341 EU2 5.338A EU15					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1429 - 1452 MHz							
FIXED	FIXED			Defence systems	EU15A		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		T/R 13-01	Fixed		EN 302 217	Low capacity fixed
5.338A	5.338A	EU2					
5.341	5.341	EU15					
5.342							
1452 - 1492 MHz							
BROADCASTING	BROADCASTING		ECC/DEC/(03)02	Satellite radio			S-DAB within the band 1479.5-1492.0 MHz
BROADCASTING-SATELLITE 5.208B	BROADCASTING-SATELLITE 5.208B			T-DAB		EN 302 077	Within the band 1452.0-1479.5 MHz. Maastricht 2002 Special Arrangement, as revised in Constanta 2007
FIXED	Fixed						
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile						
5.341	5.341						
5.342	5.342						
5.345	5.345						
1492 - 1518 MHz							
FIXED	FIXED			Defence systems	EU15A		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		T/R 13-01	Fixed		EN 302 217	Low capacity fixed links
5.341	5.341	EU2					
5.342		EU15					
1518 - 1525 MHz							
FIXED	FIXED			Defence systems	EU15A		
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile			IMT-2000 satellite component			
MOBILE-SATELLITE (S/E) 5.348 5.348A 5.348B 5.351A	MOBILE-SATELLITE (S/E) 5.348 5.348A 5.348B 5.351A		ECC/DEC/(04)09	MSS Earth stations		EN 301 444	
5.341	5.341	EU2	ECC/DEC/(07)04			EN 301 681	
5.342		EU15	ECC/DEC/(07)05			EN 301 473	
				Fixed		EN 302 217	Unidirectional fixed links

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1525 - 1530 MHz						
FIXED	FIXED		IMT-2000 satellite component			
MOBILE-SATELLITE (S/E) 5.208B 5.351A	MOBILE-SATELLITE (S/E) 5.208B 5.351A	ECC/DEC/(07)04	MSS Earth stations		EN 301 426	
SPACE OPERATION (S/E)	SPACE OPERATION (S/E)	ECC/DEC/(07)05			EN 301 444	
Earth exploration-satellite					EN 301 473	
Mobile except aeronautical mobile 5.349					EN 301 681	
5.341	5.341		Fixed		EN 302 217	Unidirectional fixed links
5.342	5.351					
5.350	5.354					
5.351						
5.352A						
5.354						
1530 - 1533 MHz						
MOBILE-SATELLITE (S/E) 5.208B 5.351A 5.353A	MOBILE-SATELLITE (S/E) 5.208B 5.351A 5.353A		IMT-2000 satellite component			
SPACE OPERATION (S/E)	SPACE OPERATION (S/E)	ECC/DEC/(07)04	MSS Earth stations		EN 301 426	Priority for GMDSS Distress, urgency
Earth exploration-satellite	Earth exploration-satellite	ECC /DEC/(07)05			EN 301 444	and safety and for AMS(R)S categories
Fixed	Fixed				EN 301 473	1 to 6 communications
Mobile except aeronautical mobile	Mobile except aeronautical mobile				EN 301 681	
5.341	5.341					
5.342	5.351					
5.351	5.354					
5.354						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1533 - 1535 MHz						
MOBILE-SATELLITE (S/E) 5.208B 5.351A 5.353A	MOBILE-SATELLITE (S/E) 5.208B 5.351A 5.353A		IMT-2000 satellite component			
SPACE OPERATION (S/E) Earth exploration-satellite Fixed	SPACE OPERATION (S/E) Earth exploration-satellite Mobile except aeronautical mobile	ECC/DEC/(07)04 ECC/DEC/(07)05	MSS Earth stations		EN 301 426 EN 301 444 EN 301 473	Priority for GMDSS Distress, urgency and safety and for AMS(R)S categories 1 to 6 communications
Mobile except aeronautical mobile					EN 301 681	
5.341	5.341					
5.342	5.351					
5.351	5.354					
5.354						
1535 - 1559 MHz						
MOBILE-SATELLITE (S/E) 5.208B 5.351A	MOBILE-SATELLITE (S/E) 5.208B 5.351A		IMT-2000 satellite component			
5.341 5.351 5.353A 5.354 5.355 5.356 5.357 5.357A 5.339 5.362A	5.341 5.351 5.353A 5.354 5.356 5.357 5.357A 5.359	ECC/DEC/(07)04 ECC/DEC/(07)05	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 - 1610 MHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Galileo			Within the band 1559.42-1591.42 MHz
RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.208B 5.328B 5.329A	RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.208B 5.328B 5.329A		GLONASS			Within the band 1592.9-1610.5 MHz
5.341	5.341		GPS			Within the band 1563.42-1587.42 MHz
5.362B	5.362B	ECC/REC/(11)08	GNSS Pseudolites			
5.362C		ECC/REC/(10)02	GNSS Repeater		EN 302 645	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1610 - 1610.6 MHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		GLONASS			Within the band 1592.9-1610.5 MHz
MOBILE-SATELLITE (E/S) 5.351A	MOBILE-SATELLITE (E/S) 5.351A		IMT-2000 satellite component			
5.341	5.341	ECC/DEC/(07)04	MSS Earth stations		EN 301 441	
5.355	5.359	ECC/DEC/(07)05			EN 301 473	
5.359	5.364	ECC/DEC/(09)02				
5.364	5.366					
5.366	5.367					
5.367	5.368					
5.368	5.371					
5.369	5.372					
5.371						
5.372						
1610.6 - 1613.8 MHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		IMT-2000 satellite component			
MOBILE-SATELLITE (E/S) 5.351A	MOBILE-SATELLITE (E/S) 5.351A	ECC/DEC/(07)04	MSS Earth stations		EN 301 441	
RADIO ASTRONOMY	RADIO ASTRONOMY	ECC/DEC/(07)05			EN 301 473	
5.149	5.149	ECC/DEC/(09)02				
5.341	5.341					
5.355	5.359		Radio astronomy			Spectral line observations(e.g. hydroxyl line), VLBI
5.359	5.364					
5.364	5.366					
5.366	5.367					
5.367	5.368					
5.368	5.371					
5.369	5.372					
5.371						
5.372						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1613.8 - 1626.5 MHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		IMT-2000 satellite component			
MOBILE-SATELLITE (E/S) 5.351A	MOBILE-SATELLITE (E/S) 5.351A	ECC/DEC/(07)04	MSS Earth stations		EN 301 441	
Mobile-satellite (S/E) 5.208B	Mobile-satellite (S/E) 5.208B	ECC/DEC/(07)05			EN 301 473	
5.341	5.341	ECC/DEC/(09)02			EN 301 426	
5.355	5.359	ECC(DEC/(09)04				
5.359	5.364					
5.364	5.365					
5.365	5.366					
5.366	5.367					
5.367	5.368					
5.368	5.371					
5.369	5.372					
5.371						
5.372						
1626.5 - 1660 MHz						
MOBILE-SATELLITE (E/S) 5.351A	MOBILE-SATELLITE (E/S) 5.351A		IMT-2000 satellite component			
5.341	5.341	ECC/DEC/(07)04 ECC/DEC/(07)05	MSS Earth stations		EN 301 426 EN 301 473 EN 301 681	Priority for GMDSS Distress, urgency and safety and for AMS(R)S categories 1 to 6 communications within the band 1645.5-1646.5 MHz
5.351	5.351					
5.353A	5.353A					
5.354	5.354					
5.355	5.359					
5.357A						
5.359						
5.362A						
5.374						
5.375						
5.376						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1660 - 1660.5 MHz						
MOBILE-SATELLITE (E/S) 5.351A RADIO ASTRONOMY	MOBILE-SATELLITE (E/S) 5.351A RADIO ASTRONOMY		IMT-2000 Satellite component			
		ECC/DEC/(07)04	MSS Earth stations		EN 301 426	
5.149	5.149 EU15	ECC/DEC/(07)05			EN 301 444	
5.341	5.341				EN 301 473	
5.351	5.351				EN 301 681	
5.354 5.362A 5.376A	5.354 5.376A		Radio astronomy			Continuum and spectral line observations (e.g. hydroxyl line), VLBI
1660.5 - 1668 MHz						
RADIO ASTRONOMY	RADIO ASTRONOMY		Defence systems	EU15A		
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
Fixed	Fixed		Radio astronomy			Continuum and spectral line observations (e.g. hydroxyl line), VLBI
Mobile except aeronautical mobile	Mobile except aeronautical mobile					
5.149	5.149 EU2					
5.341	5.341 EU15					
5.379 5.379A	5.379A					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1668 - 1668.4 MHz						
MOBILE-SATELLITE (E/S) 5.351A 5.379B 5.379C	MOBILE-SATELLITE (E/S) 5.351A 5.379B 5.379C		Defence systems			
RADIO ASTRONOMY	RADIO ASTRONOMY		IMT-2000 satellite component		EN 301 473	
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
Fixed	Fixed		Radio astronomy			Continuum and spectral line observations (e.g. hydroxyl line) , VLBI
Mobile except aeronautical mobile	Mobile except aeronautical mobile					
5.149	5.149 EU15					
5.341	5.341					
5.379	5.379A					
5.379A						
1668.4 - 1670 MHz						
FIXED	FIXED		Defence systems	EU15A		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		IMT-2000 satellite component		EN 301 473	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		Meteorology			
MOBILE-SATELLITE (E/S) 5.351A 5.379B 5.379C	MOBILE-SATELLITE (E/S) 5.351A 5.379B 5.379C		Radio astronomy			Continuum and spectral line observations (e.g. hydroxyl line), VLBI
RADIO ASTRONOMY	RADIO ASTRONOMY					
5.149	5.149 EU2					
5.341	5.341 EU15					
5.379D	5.379D					
5.379E	5.379E					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1670 - 1675 MHz						
FIXED	METEOROLOGICAL AIDS		IMT-2000 satellite component			
METEOROLOGICAL AIDS	METEOROLOGICAL-SATELLITE (S/E)		Weathersatellites			
METEOROLOGICAL-SATELLITE (S/E)	MOBILE					
MOBILE MOBILE-SATELLITE (E/S) 5.351A 5.379B	MOBILE-SATELLITE (E/S) 5.351A 5.379B Fixed	ECC/DEC/(04)09 ECC/DEC/(07)04 ECC/DEC/(07)05	MSS Earth stations		EN 301 444 EN 301 681 EN 301 473	
5.341	5.341					
5.379D	5.379D					
5.379E	5.379E					
5.380A	5.380A					
1675 - 1690 MHz						
FIXED	FIXED		Defence systems	EU15A		
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		Sondes		EN 302 454	Meteorological radiosondes
METEOROLOGICAL-SATELLITE (S/E)	METEOROLOGICAL-SATELLITE (S/E)		Weather satellites			Data collection platform
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
5.341	5.341 EU2 EU15					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1690 - 1700 MHz						
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		Defence systems	EU15A		
METEOROLOGICAL-SATELLITE (S/E)	METEOROLOGICAL-SATELLITE (S/E)					
Fixed	Fixed		Weather Satellites			Data collection platform. Allocation to EESS is via RR 5.289
Mobile except aeronautical mobile	Mobile except aeronautical mobile					
5.289	5.289 EU2					
5.341	5.341 EU15					
5.382						
1700 - 1710 MHz						
FIXED	FIXED		Defence systems	EU15A		
METEOROLOGICAL-SATELLITE (S/E)	METEOROLOGICAL-SATELLITE (S/E)		Weather satellites			Data collection platform. Allocation to EESS is via RR 5.289
MOBILE except aeronautical mobile	Mobile except aeronautical mobile					
5.289	5.289 EU2					
5.341	5.341 EU15					
1710 - 1785 MHz						
FIXED	FIXED	ECC/REC/(05)08	GSM	EU33	EN 301 502	
MOBILE 5.384A	MOBILE 5.384A	ERC/DEC/(95)03			EN 301 511	
					EN 300 609	
		ECC/DEC/(06)13	TRA-ECS		EN 301 908	IMT is considered as a part of TRA-ECS
5.149	5.149 EU29	ECC/REC/(08)02				
5.341	5.341	ECC/DEC/(08)08	MCV			
5.385	5.385	ECC/DEC/(06)07	MCA		EN 302 480	
5.386						
5.387			Radio astronomy			Spectral line observations (e.g. hydroxyl line), VLBI

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1785 - 1800 MHz						
FIXED MOBILE 5.384A 5.386	FIXED MOBILE EU2 EU15		-			This band is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonized introduction of IMT
5.387			Land mobile			Mobile applications
		ERC/REC 70-03	Radio microphones and ALD		EN 300 422	
		ERC/REC 70-03	Wireless Audio Applications		EN 300 422	Within the band 1795-1800 MHz
1800 - 1805 MHz						
FIXED MOBILE 5.384A 5.386	MOBILE Fixed		-			This band is identified for IMT in the RRs, but within CEPT this band is not planned for the harmonised introduction of IMT
1805 - 1880 MHz						
FIXED	FIXED	ECC/REC/(05)08	GSM	EU33	EN 301 502	
MOBILE 5.384A	MOBILE 5.384A	ERC/DEC/(95)03			EN 301 511	
					EN 300 609	
5.386	EU29	ECC/DEC/(06)13 ECC/REC/(08)02	TRA-ECS		EN 301 908	IMT is considered as a part of TRA-ECS
		ECC/DEC/(08)08	MCV			
		ECC/DEC/(06)07	MCA		EN 302 480	
1880 - 1885 MHz						
FIXED	MOBILE 5.384A	ERC/DEC/(94)03	DECT	EU33	EN 301 406	
MOBILE 5.384A	Fixed				EN 301 908	
	EU33					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1885 - 1900 MHz						
FIXED MOBILE 5.388A 5.388B	MOBILE 5.388A Fixed	ERC/DEC/(94)03	DECT	EU33	EN 301 406 EN 301 908	
5.388	5.388 EU33					
1900 - 1930 MHz						
FIXED MOBILE 5.388A 5.388B	MOBILE 5.388A Fixed		-			This band can also be used by fixed service on a national basis
5.388	5.388 EU29	ECC/DEC/(06)01 ERC/REC/(01)01	IMT		EN 301 908	Within CEPT, this band is identified for IMT. This includes IMT-2000 and IMT-Advanced. 1900-1920 MHz: Alternative usage under study
1930 - 1970 MHz						
FIXED MOBILE 5.388A 5.388B	MOBILE 5.388A Fixed		-			This band can also be used by fixed service on a national basis
5.388	5.388 EU29	ECC/DEC/(06)01 ERC/REC/(01)01	IMT		EN 301 908	Within CEPT, this band is identified for IMT. This includes IMT-2000 and IMT-Advanced
1970 - 1980 MHz						
FIXED MOBILE 5.388A 5.388B	MOBILE 5.388A Fixed		-			This band can also be used by fixed service on a national basis
5.388	5.388 EU29	ECC/DEC/(06)01 ERC/REC/(01)01	IMT		EN 301 908	Within CEPT, this band is identified for IMT. This includes IMT-2000 and IMT-Advanced

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
1980 - 2010 MHz						
FIXED	MOBILE		-			This band can also be used by fixed service on a national basis
MOBILE	MOBILE-SATELLITE (E/S) 5.351A					
MOBILE-SATELLITE (E/S) 5.351A	Fixed		IMT			Within CEPT, this band is identified for IMT. This includes IMT-2000 and IMT-Advanced
5.388	5.388					
5.389A	5.389A					
5.389B		ECC/DEC/(06)09	Mobile satellite applications		EN 301 442	The mobile satellite systems using this
5.389F		ECC/DEC/(06)10			EN 301 473	band may incorporate a CGC
		ECC/DEC/(07)04			EN 302 574	
		ECC/DEC/(07)05				
2010 - 2025 MHz						
FIXED	MOBILE 5.388A		-			This band can also be used by fixed service on a national basis
MOBILE 5.388A 5.388B	Fixed					
5.388	5.388 EU29	ERC/REC/(01)01	IMT		EN 301 908	Within CEPT, this band is identified for IMT. This includes IMT-2000 and IMT-Advanced. Alternative usage under study
2025 - 2110 MHz						
EARTH EXPLORATION-SATELLITE (E/S) (S/S) FIXED	EARTH EXPLORATION-SATELLITE (E/S) (S/S) FIXED		Defence systems	EU16A		Harmonised military band for Tactical Radio Relay links for near cross border operation within the band 2025-2070 MHz
MOBILE 5.391	MOBILE 5.391					
SPACE OPERATION (E/S) (S/S)	SPACE OPERATION (E/S) (S/S)	T/R 13-01	Fixed		EN 302 217	
SPACE RESEARCH (E/S) (S/S)	SPACE RESEARCH (E/S) (S/S)	ERC/REC 25-10	PMSE	EU16A	EN 302 064	SAP/SAB on a tuning range
5.392	5.392 EU2 EU15 EU27		Space Research			EESS Satellite payload and platform telecommand

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2110 - 2120 MHz						
FIXED MOBILE 5.388A 5.388B SPACE RESEARCH (deep space) (E/S)	MOBILE 5.388A SPACE RESEARCH (deep space) (E/S) Fixed		-			Satellite payload and platform telecommand for space research (deep space). This band can also be used by fixed service on a national basis
5.388	5.388 EU29	ECC/DEC/(06)01 ERC/REC/(01)01	IMT		EN 301 908	Within CEPT, this band is identified for IMT. This includes IMT-2000 and IMT-Advanced
2120 - 2170 MHz						
FIXED MOBILE 5.388A 5.388B	MOBILE 5.388A Fixed		-			This band can also be used by fixed service on a national basis
5.388	5.388 EU29	ECC/DEC/(06)01 ERC/REC/(01)01	IMT		EN 301 908	Within CEPT, this band is identified for IMT. This includes IMT-2000 and IMT-Advanced
2170 - 2200 MHz						
FIXED MOBILE MOBILE-SATELLITE (S/E) 5.351A	MOBILE MOBILE-SATELLITE (S/E) 5.351A Fixed		-			This band can also be used by fixed service on a national basis
5.388 5.389A 5.389F	5.388 5.389A	ECC/DEC/(06)09 ECC/DEC/(06)10 ECC/DEC/(07)04 ECC/DEC/(07)05 ECC/REC/(10)01	IMT-2000 satellite component MSS Earth stations		EN 301 442 EN 301 473 EN 302 574	Within CEPT, this band is identified for IMT.This includes IMT-2000 and IMT-Advanced The mobile satellite systems using this band may incorporate a Complementary Ground Component (CGC)

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2200 - 2290 MHz						
EARTH EXPLORATION-SATELLITE (S/E) (S/S) FIXED MOBILE 5.391 SPACE OPERATION (S/E) (S/S)	EARTH EXPLORATION-SATELLITE (S/E) (S/S) FIXED MOBILE 5.391 SPACE OPERATION (S/E) (S/S)		Defence systems	EU16A		Harmonised military band for Tactical Radio Relay links for near cross border operation within the band 2200-2245 MHz
		T/R 13-01	Fixed		EN 302 217	
SPACE RESEARCH (S/E) (S/S) 5.392	SPACE RESEARCH (S/E) (S/S) 5.392 EU15		Radio astronomy			Continuum observations, VLBI (used by SRS)
	EU27	ERC/REC 25-10	PMSE	EU16A	EN 302 064	SAP/SAB on a tuning range
		ECC/REC/(10)01	Space Research			EESS Satellite payload and platform telemetry
2290 - 2300 MHz						
FIXED	FIXED		Land mobile			Mobile applications
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
SPACE RESEARCH (deep space) (S/E)	SPACE RESEARCH (deep space) (S/E) EU2		Space Research			Satellite payload and platform telemetry for space research (deep space). Continuum observations, VLBI (used by SRS)
2300 - 2400 MHz						
FIXED MOBILE 5.384A	FIXED MOBILE 5.384A	ERC/REC 62-02	Aeronautical Telemetry			Parts of the band are used for aeronautical telemetry on a national basis
Amateur	Amateur		Amateur		EN 301 783	
Radiolocation	Radiolocation					
5.395	EU2		Land mobile			Mobile applications
		ERC/REC 25-10	PMSE		EN 302 064	SAP/SAB

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2400 - 2450 MHz						
FIXED	FIXED		Amateur		EN 301 783	
MOBILE	MOBILE		Amateur Satellite			
Amateur	Amateur					
	Amateur-satellite		ISM			
Radiolocation	Radiolocation	ERC/REC 70-03	Non-Specific SRDs		EN 300 440	Within the band 2400.0-2483.5 MHz
5.150 5.282	5.150 EU2 5.282	ERC/DEC/(01)08 ERC/REC 70-03	Radiodetermination applications		EN 300 440	Within the band 2400.0-2483.5 MHz
		ERC/REC 70-03	RFID		EN 300 440 EN 300 761	Within the band 2446-2454 MHz
		ERC/REC 70-03	Wideband Data Transmission Systems		EN 300 328	Within the band 2400-2483.5 MHz
2450 - 2483.5 MHz						
FIXED	FIXED		ISM			
MOBILE	MOBILE					
Radiolocation		ERC/REC 70-03	Non-Specific SRDs		EN 300 440	Within the band 2400.0-2483.5 MHz
5.150	5.150 EU2	ERC/DEC/(01)08 ERC/REC 70-03	Radiodetermination applications		EN 300 440	Within the band 2400.0-2483.5 MHz
		ERC/REC 70-03	RFID		EN 300 440 EN 300 761	Within the band 2446-2454 MHz
		ERC/REC 70-03	Wideband Data Transmission Systems		EN 300 328	Within the band 2400-2483.5 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2483.5 - 2500 MHz						
FIXED	FIXED		IMT-2000 satellite component			
MOBILE	MOBILE		ISM			
MOBILE-SATELLITE (S/E) 5.351A	MOBILE-SATELLITE (S/E) 5.351A		Land mobile			Mobile applications
Radiolocation 5.398A						
RADIODETERMINATION-SATELLITE (S/E) 5.398		ECC/DEC/(07)04 ECC/DEC/(07)05 ECC/DEC/(09)02	MSS Earth stations		EN 301 441 EN 301 473	
5.150	5.150					
5.399	5.399	ERC/REC 25-10	PMSE		EN 302 064	SAP/SAB
5.401	5.402					
5.402		ERC/REC 70-03	Active medical implants		EN 301 559	Low Power Active Medical Implants and associated peripherals
2500 - 2520 MHz						
FIXED 5.410 MOBILE except aeronautical mobile 5.384A 5.412	MOBILE except aeronautical mobile 5.384A FIXED	ECC/DEC/(02)06 ECC/DEC/(05)05 ECC/REC/(11)05	TRA-ECS		EN 301 908 EN 302 544	IMT is considered as a part of TRA-ECS

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2520 - 2655 MHz							
BROADCASTING-SATELLITE 5.413 5.416 FIXED 5.410 MOBILE except aeronautical mobile 5.384A 5.339 5.403 5.412 5.417C 5.417D 5.418B 5.418C	FIXED MOBILE except aeronautical mobile 5.384A 5.339 5.418B 5.418C	 EU2 EU15 EU16	ECC/DEC/(02)06 ECC/DEC/(05)05 ECC/REC/(11)05 ERC/REC 25-10	Defence systems TRA-ECS PMSE		 EN 301 908 EN 302 544 EN 302 064	Within the band 2520-2575 MHz IMT is considered as a part of TRA-ECS SAP/SAB on a tuning range basis
2655 - 2670 MHz							
BROADCASTING-SATELLITE 5.208B 5.413 5.416 FIXED 5.410 MOBILE except aeronautical mobile 5.384A Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149 5.412 5.420	FIXED MOBILE except aeronautical mobile 5.384A Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149 5.208B	 EU2 EU15 EU16	ECC/DEC/(02)06 ECC/DEC/(05)05 ECC/REC/(11)05 ERC/REC 25-10	TRA-ECS Radio astronomy PMSE		EN 301 908 EN 302 544 EN 302 064	IMT is considered as a part of TRA-ECS Continuum observations; VLBI SAP/SAB on a tuning range

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2670 - 2690 MHz						
FIXED 5.410 MOBILE except aeronautical mobile 5.384A Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149 5.412 5.419	MOBILE except aeronautical mobile 5.384A FIXED Radio astronomy 5.149	ECC/DEC/(02)06 ECC/DEC/(05)05 ECC/REC/(11)05	TRA-ECS Radio astronomy		EN 301 908 EN 302 544	IMT is considered as a part of TRA-ECS Continuum observations, VLBI
2690 - 2700 MHz						
EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.422	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340		Passive sensors (satellite) Radio astronomy			 Continuum observations, VLBI
2700 - 2900 MHz						
AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423 5.424	AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423	ECC/REC/(02)09	Weather radar Aeronautical navigation Radiolocation (civil)			 Radar and navigation systems

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
2900 - 3100 MHz						
RADIOLOCATION 5.424A	RADIOLOCATION 5.424A		Defence systems			
RADIONAVIGATION 5.426	RADIONAVIGATION 5.426		Radiolocation(civil)		EN 302 248 EN 302 752	Radar and navigation systems
5.425 5.427	5.425 EU2 5.427 EU27					
3100 - 3300 MHz						
RADIOLOCATION	RADIOLOCATION		Active sensors (satellite)			
Earth exploration-satellite (active)	Earth exploration-satellite (active)		Defence systems			
Space research (active)	Space research (active)					
5.149 5.428	5.149 EU2 EU27		Radiolocation (civil)			Radars
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB applications		EN 302 065	Generic UWB Location Tracking Type 2 (LT2) Location Application for Emergency Services (LAES)
			Radiolocation			Spectral line observations (e.g. methine line)
3300 - 3400 MHz						
RADIOLOCATION	RADIOLOCATION		Defence systems			
5.149	5.149 EU2		Radiolocation (civil)			Upper limit for airborne radars 3410 MHz
5.429 5.430		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)
			Radiolocation			Spectral line observations (e.g. methine line)

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
3400 - 3500 MHz						
FIXED	FIXED		Amateur	EU17	EN 301 783	EU 17 within the band 3400-3410 MHz
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
Mobile 5.430A	MOBILE 5.430A	ECC/DEC/(07)02 ECC/REC/(04)05	BWA		EN 302 217 EN 302 326	Within the band 3400-3800 MHz
Radiolocation	Amateur	ERC/REC 14-03			EN 302 623 EN 302 774	
5.431	Radiolocation		FSS Earth stations		EN 301 443	
			PMSE		EN 302 064	For coordinated SAB/SAP 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
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB		EN 302 065	Generic UWB Location Tracking Type 2 (LT2) Location Application for Emergency Services (LAES)
		ECC/DEC/(11)06	MFCN			Within the band 3400-3800 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
3500 - 3600 MHz						
FIXED FIXED-SATELLITE (S/E)	FIXED FIXED-SATELLITE (S/E)	ECC/DEC/(07)02 ECC/REC/(04)05 ERC/REC 14-03	BWA		EN 302 217 EN 302 326 EN 302 623 EN 302 774	Within the band 3400-3800 MHz
Mobile 5.430A	MOBILE 5.430A					
Radiolocation			FSS Earth stations		EN 301 443	
			PMSE		EN 302 064	For coordinated SAB/SAP applications for occasional use. In some countries the mobile service may be on secondary basis
		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)
		ECC/DEC/(11)06	MFCN			Within the band 3400-3800 MHz
3600 - 3800 MHz						
FIXED	FIXED		-			In some countries the mobile service may be on secondary basis
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
Mobile	MOBILE	ECC/DEC/(07)02 ECC/REC/(04)05	BWA		EN 302 217 EN 302 326 EN 302 623 EN 302 774	Within the band 3400-3800 MHz
		ECC/DEC/(05)09	FSS Earth stations		EN 301 443 EN 301 447	Priority for civil networks
		ERC/REC 12-08	Fixed		EN 302 217	Medium/high capacity fixed
		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)
		ECC/DEC/(11)06	MFCN			Within the band 3400-3800 MHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
3800 - 4200 MHz						
FIXED	FIXED	ECC/DEC/(05)09	FSS Earth stations		EN 301 443	Priority for civil networks
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)				EN 301 447	
Mobile		ERC/REC 12-08	Fixed		EN 302 217	Medium/high capacity fixed
		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 - 4400 MHz						
AERONAUTICAL RADIONAVIGATION 5.438	AERONAUTICAL RADIONAVIGATION 5.438		Altimeters			
			Passive sensors (satellite)			For sea surface temperature measurements
5.439	5.440					
5.440		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)
4400 - 4500 MHz						
FIXED	FIXED		Defence systems	EU20		Harmonised military band for fixed and mobile systems
MOBILE	MOBILE					
			PMSE		EN 302 064	Mobile applications for coordinated SAB/SAP applications for occasional use
	EU2 EU27					
		ECC/DEC/(06)04 ECC/REC/(11)09 ECC/REC/(11)10	UWB applications		EN 302 065	Generic UWB Location Tracking Type 2 (LT2) Location Application for Emergency Services (LAES)

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
4500 - 4800 MHz						
FIXED	FIXED		Defence systems	EU20		Harmonised military band for fixed and mobile systems
FIXED-SATELLITE (S/E) 5.441	FIXED-SATELLITE (S/E) 5.441					
MOBILE	MOBILE		FSS Earth stations			FSS not to be implemented in NATO Europe. Fixed-Satellite frequency plan in 4500-4800 MHz
	EU27					
			PMSE		EN 302 064	Mobile applications for coordinated SAB/SAP applications for occasional use
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
		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 - 4990 MHz						
FIXED	FIXED		Defence systems	EU20		Harmonised military band for fixed and mobile systems
MOBILE 5.442	MOBILE except aeronautical mobile					
Radio astronomy	Radio astronomy		PMSE		EN 302 064	Mobile applications for coordinated SAB/SAP applications for occasional use
5.149	5.149 EU27					
5.339	5.339		Passive sensors (satellite)			Space Research and EESS (passive) above 4950 MHz in some countries
5.443						
			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
		ECC/REC/(08)04	BBDR		EN 302 625	Within the band 4940-4990 MHz Optional band for BBDR within the PPDR uses

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
4990 - 5000 MHz						
FIXED	FIXED		Defence systems	EU20		Harmonised military band for fixed and mobile systems
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
RADIO ASTRONOMY	RADIO ASTRONOMY		PMSE			Mobile applications for coordinated SAB/SAP applications
						for occasional use
Space research (passive) 5.149	5.149 EU27		Radio astronomy			Continuum observations, VLBI
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz TLPR application
5000 - 5010 MHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Galileo			For future use by Galileo
RADIONAVIGATION-SATELLITE (E/S)	RADIONAVIGATION-SATELLITE (E/S)		Radio astronomy			Continuum observations, VLBI
AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA					
	Radio astronomy	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz TLPR application
	Space research (passive)					
			Satellite Navigation systems			Aeronautical Radionavigation and FSS envisaged in some countries
5010 - 5030 MHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Galileo			C1
RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.443B	RADIONAVIGATION-SATELLITE (S/E) (S/S) 5.328B 5.443B		Radio astronomy			Continuum observations, VLBI
AERONAUTICAL MOBILE SATELLITE (R) 5.443AA	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA					
	Radio astronomy	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz TLPR application
	Space research (passive)					
			Satellite Navigation systems			Aeronautical Radionavigation and FSS envisaged in some countries

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5030 - 5091 MHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		MLS			Aeronautical Radionavigation
AERONAUTICAL MOBILE (R) 5.443C	AERONAUTICAL MOBILE (R) 5.443C					envisaged in some countries. FSS in
AERONAUTICAL MOBILE-SATELLITE (R) 5.443D	AERONAUTICAL MOBILE-SATELLITE (R) 5.443D					use in some countries
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz TLPR application
5.444	5.444					
5091 - 5150 MHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		-			FSS in use in some countries
AERONAUTICAL MOBILE 5.444B						
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz TLPR application
AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA	AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA					
5.444	5.444					
5.444A	5.444A					
5150 - 5250 MHz						
AERONAUTICAL RADIONAVIGATION	FIXED-SATELLITE (E/S) 5.447A		Aeronautical telemetry			
FIXED-SATELLITE (E/S) 5.447A	MOBILE except aeronautical mobile 5.446A 5.446B		Feeder links			Feeder links for MSS. Aeronautical Radionavigation and FSS envisaged in some countries
MOBILE except aeronautical mobile 5.446A 5.446B		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
5.446	5.446					
5.446C	5.446C	ECC/DEC/(04)08	Radio LANs		EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
5.447	5.447					
5.447B	5.447B					
5.447C	5.447C	ECC/REC/(08)04	BBDR		EN 302 625	Temporary use by PPDR users

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5250 - 5255 MHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			
MOBILE except aeronautical mobile 5.446A 5.447F	MOBILE except aeronautical mobile 5.446A 5.447F		Defence systems			Tactical and weapon system radars
RADIOLOCATION	RADIOLOCATION		-			Position fixing
SPACE RESEARCH 5.447D	SPACE RESEARCH 5.447D	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
5.447E 5.448 5.448A	5.448A EU2 EU22		Maritime radar			Shipborne and VTS radar
		ECC/DEC/(04)08	Radio LANs		EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
			Weather radar			Ground based and airborne
5255 - 5350 MHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			
MOBILE except aeronautical mobile 5.446A 5.447F	MOBILE except aeronautical mobile 5.446A 5.447F		Defence systems			Tactical and weapon system radars
RADIOLOCATION	RADIOLOCATION		-			Position fixing
SPACE RESEARCH (active)	SPACE RESEARCH (active)	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
5.447E 5.448 5.448A	5.448A EU2 EU22		Maritime radar			Shipborne and VTS radar
		ECC/DEC/(04)08	Radio LANs		EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
			Weather radar			Ground based and airborne

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5350 - 5450 MHz						
AERONAUTICAL RADIONAVIGATION 5.449	AERONAUTICAL RADIONAVIGATION 5.449		Active sensors (satellite)			
EARTH EXPLORATION-SATELLITE (active) 5.448B	EARTH EXPLORATION-SATELLITE (active) 5.448B		Defence systems			Tactical and weapon system radars
RADIOLOCATION 5.448D	RADIOLOCATION 5.448D		-			Position fixing
SPACE RESEARCH (active) 5.448C	SPACE RESEARCH (active) 5.448C Fixed	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
	EU2 EU22		Maritime radar			Shipborne and VTS radar
			Weather radar			Ground based and airborne
5450 - 5460 MHz						
AERONAUTICAL RADIONAVIGATION 5.449	AERONAUTICAL RADIONAVIGATION 5.449		Active sensors (satellite)			
EARTH EXPLORATION-SATELLITE (active) 5.448B	EARTH EXPLORATION-SATELLITE (active) 5.448B		Defence systems			Tactical and weapon system radars
RADIOLOCATION 5.448D	RADIOLOCATION 5.448D		-			Position fixing
SPACE RESEARCH (active) 5.448C	SPACE RESEARCH (active) 5.448C	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
	EU2 EU22		Maritime radar			Shipborne and VTS radar
			Weather radar			Ground based and airborne

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5460 - 5470 MHz							
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)			Active sensors (satellite)			
RADIOLOCATION 5.448D	RADIOLOCATION 5.448D			Defence systems			Tactical and weapon system radars
RADIONAVIGATION 5.449	RADIONAVIGATION 5.449			-			Position fixing
SPACE RESEARCH (active)	SPACE RESEARCH (active)						
5.448B	5.448B	EU2	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
		EU22		Maritime radar			Shipborne and VTS radar
				Weather radar			Ground based and airborne
5470 - 5570 MHz							
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)			Active sensors (satellite)			
MARITIME RADIONAVIGATION	MARITIME RADIONAVIGATION			Defence systems			Tactical and weapon system radars
MOBILE except aeronautical mobile 5.446A 5.450A	MOBILE except aeronautical mobile 5.446A 5.450A			-			Position fixing
RADIOLOCATION 5.450B	RADIOLOCATION 5.450B		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for
SPACE RESEARCH (active)	SPACE RESEARCH (active)						TLPR application
5.448B	5.448B	EU2		Maritime radar			Shipborne and VTS radar
5.450		EU22					
5.451			ECC/DEC/(04)08	Radio LANs		EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
				Weather radars			Ground based and airborne

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5570 - 5650 MHz						
MARITIME RADIONAVIGATION	MARITIME RADIONAVIGATION		Defence systems			Tactical and weapon system radars
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
5.446A 5.450A	5.446A 5.450A		-			Position fixing
RADIOLOCATION 5.450B	RADIOLOCATION 5.450B	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for
5.450	5.452 EU2					TLPR application
5.451	EU22		Maritime radar			Shipborne and VTS radar
5.452						
		ECC/DEC/(04)08	Radio LANs		EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
			Weather radars			Ground based
5650 - 5725 MHz						
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		Amateur	EU17	EN 301 783	Within the band 5660-5670 MHz
5.446A 5.450A	5.446A 5.450A					
RADIOLOCATION	RADIOLOCATION		Amateur-satellite	EU23		Within the band 5660-5670 MHz
Amateur	Amateur		Defence systems			Tactical and weapon system radars
Space research (deep space)	Amateur-satellite (E/S)					
5.282	5.282 EU2		-			Position fixing
5.451 5.453	EU17 EU22	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
5.454			Maritime radar			Shipborne and VTS radar
5.455						
		ECC/DEC/(04)08	Radio LANs		EN 301 893	WAS/RLANs within the bands 5150-5350 MHz and 5470-5725 MHz
			Weather radars			Ground based and airborne

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*		*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5725 - 5830 MHz							
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)			Amateur		EN 301 783	
RADIOLOCATION	RADIOLOCATION						
	Fixed		ECC/REC/(06)04	BFWA		EN 302 502	Within the band 5725-5875 MHz
Amateur	Amateur						
	Mobile			Defence systems			Tactical and weapon system radars
5.150	5.150	EU2		ISM			Within the band 5725-5875 MHz
5.451		EU22					
5.453			ERC/REC 70-03	Non-Specific SRDs		EN 300 440	Within the band 5725-5875 MHz
5.455							
5.456			ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
			ERC/REC 70-03	RTTT		EN 300 674	Within the band 5795-5805 MHz. RTTT in the band 5805-5815 MHz on a national basis
				Weather radars			Ground based and airborne

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5830 - 5850 MHz						
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)		Amateur-Satellite	EU23		Within the band 5830-5850 MHz
RADIOLOCATION	RADIOLOCATION					
	Fixed	ECC/REC/(06)04	BFWA		EN 302 502	Within the band 5725-5875 MHz
Amateur	Amateur					
Amateur-satellite (S/E)	Amateur-satellite (S/E)		Defence systems			Tactical and weapon system radars
	Mobile		ISM			Within the band 5725-5875 MHz
5.150	5.150 EU2					
5.451	EU22	ERC/REC 70-03	Non-Specific SRDs		EN 300 440	Within the band 5725-5875 MHz
5.453 5.455 5.456		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application
			Weather radars			Ground based and airborne
5850 - 5925 MHz						
FIXED	FIXED	ECC/REC/(06)04	BFWA		EN 302 502	Within the band 5725-5875 MHz
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)					
			FSS Earth stations		EN 301 443	Priority for civil networks
MOBILE	MOBILE					
5.150	5.150		ISM			Within the band 5725-5875 MHz
		ECC/DEC/(08)01 ECC/REC/(08)01	ITS		EN 302 571	Within the band s 5875-5925 MHz and 5855-5875 MHz
		ERC/REC 70-03	Non-Specific SRDs		EN 300 440	Within the band 5725-5875 MHz
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 4500-7000 MHz for TLPR application

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5925 - 6700 MHz						
FIXED 5.457	FIXED	ERC/REC 14-02	Fixed		EN 302 217	Point-to-point
FIXED-SATELLITE (E/S) 5.457A 5.457B	FIXED-SATELLITE (E/S)					
MOBILE 5.457C	Earth exploration-satellite (passive)		FSS Earth stations		EN 301 443	Priority for civil networks
5.149 5.440 5.458	5.149 5.440 5.458		Passive sensors (satellite)			For sea surface temperature, sea surface wind speed and soil moisture measurements
		ERC/REC 70-03 ECC/DEC/(11)02	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	UWB applications		EN 302 065 EN 302 500	Generic UWB
			Radio astronomy			Spectral line observations. (e.g. methanol line), VLBI

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
6700 - 7075 MHz						
FIXED	FIXED		Feeder links			Feeder links for MSS . Within the band 6925-7075 MHz
FIXED-SATELLITE (E/S) (S/E) 5.441 MOBILE	FIXED-SATELLITE (E/S) (S/E) 5.441	ERC/REC 14-02	Fixed		EN 302 217	Point-to-point
	Earth exploration-satellite (passive)		FSS Earth stations		EN 301 443	Within the band 6725-7025 MHz Priority for civil networks
5.458 5.458A 5.458B	5.458 5.458A 5.458B		Passive sensors (satellite)			For sea surface temperature, sea surface wind speed and soil moisture measurements
5.458C	5.458C	ERC/REC 70-03 ECC/DEC/(11)02	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	UWB applications		EN 302 065 EN 302 500	Generic UWB
7075 - 7145 MHz						
FIXED	FIXED	ERC/REC 14-02	Fixed		EN 302 217	Point-to-point
MOBILE	Earth exploration-satellite (passive)		Passive sensors (satellite)			For sea surface temperature, sea surface wind speed and soil moisture measurements
5.458	5.458					
5.459		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications
7145 - 7235 MHz						
FIXED	FIXED	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
MOBILE SPACE RESEARCH (E/S) 5.460	MOBILE SPACE RESEARCH (E/S) 5.460 Earth exploration-satellite (E/S) Space operation (E/S)		Passive sensors (satellite)			For sea surface temperature, sea surface wind speed and soil moisture measurements
5.458	5.458	ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
5.459		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
7235 - 7250 MHz						
FIXED	FIXED	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
MOBILE	Earth exploration-satellite (E/S)					
			Passive sensors (satellite)			For sea surface temperature, sea surface wind speed and soil moisture measurements
	Space research (E/S)					
5.458		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications
7250 - 7300 MHz						
FIXED	FIXED		Defence systems			Harmonised military band for satellite operation
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
MOBILE	MOBILE	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point. FIXED and MOBILE services not to be Implemented in most NATO countries
5.461	5.461 EU2 EU27					
			MSS Earth stations			Mobile satellite applications within the band 7250-7375 MHz
		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications
7300 - 7450 MHz						
FIXED	FIXED		Defence systems			Harmonised military band for satellite operation
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
5.461	5.461 EU2		MSS Earth stations			Mobile satellite applications within the band 7250-7375 MHz
	EU27					
		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
7450 - 7550 MHz						
FIXED	FIXED		Defence systems			Harmonised military band for satellite operation
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
METEOROLOGICAL-SATELLITE (S/E)	METEOROLOGICAL-SATELLITE (S/E)	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		Weather Satellites			Limited to geostationary systems
5.461A	5.461A EU2					
	EU27	ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications
7550 - 7750 MHz						
FIXED	FIXED		Defence systems			Harmonised military band for satellite operation
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
	EU2					
	EU27	ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications
7750 - 7900 MHz						
FIXED	FIXED		Defence systems			
METEOROLOGICAL-SATELLITE (S/E) 5.461B	METEOROLOGICAL-SATELLITE (S/E) 5.461B	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		Weather Satellites			Limited to non-geostationary systems
	EU2	ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
7900 - 8025 MHz						
FIXED	FIXED		Defence systems			Harmonised military band for satellite operation
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)					
MOBILE	MOBILE	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point.
5.461	5.461 EU2 EU27					FIXED and MOBILE services not to be implemented above 7975 MHz in NATO countries
			MSS Earth stations			Mobile satellite applications
		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications
8025 - 8175 MHz						
EARTH EXPLORATION-SATELLITE (S/E)	EARTH EXPLORATION-SATELLITE (S/E)		Defence systems			Harmonised military band for satellite operation
FIXED	FIXED					
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)		Earth Exploration-Satellite			Satellite payload telemetry
MOBILE 5.463	MOBILE 5.463	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
5.462A	5.462A EU2		Land mobile			Mobile applications within the band 8025-8200 MHz
	EU27	ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
8175 - 8215 MHz						
EARTH EXPLORATION-SATELLITE (S/E)	EARTH EXPLORATION-SATELLITE (S/E)		Defence systems			Harmonised military band for satellite operation
FIXED	FIXED		Earth Exploration-Satellite			Satellite payload telemetry
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
METEOROLOGICAL-SATELLITE (E/S)	METEOROLOGICAL-SATELLITE (E/S)		Land mobile			Mobile applications within the band 8025-8200 MHz
MOBILE 5.463 5.462A	MOBILE 5.463 5.462A EU2	ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
	EU27	ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications
8215 - 8400 MHz						
EARTH EXPLORATION-SATELLITE (S/E)	EARTH EXPLORATION-SATELLITE (S/E)		Defence systems			Harmonised military band for satellite operation
FIXED	FIXED		Earth Exploration-Satellite			Satellite payload telemetry
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)					
MOBILE 5.463		ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
5.462A	5.462A EU2		Radio astronomy			Continuum observations. VLBI (used by SRS)
	5.463 EU27	ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
8400 - 8500 MHz						
FIXED	FIXED	ECC/REC/(02)06	Fixed		EN 302 217	Point-to-point
MOBILE except aeronautical mobile	SPACE RESEARCH (S/E) 5.465					
SPACE RESEARCH (S/E) 5.465 5.466	Radiolocation		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	UWB applications		EN 302 065 EN 302 500	Generic UWB
		ECC/DEC/(11)02	Radiodetermination applications		EN 302 729	Within the band 6000-8500 MHz for LPR applications
8500 - 8550 MHz						
RADIOLOCATION	RADIOLOCATION		Aeronautical navigation			Civil and military e.g. airfield approach
			Radiolocation (civil)			Shipborne, land and airborne surveillance
5.468 5.469	5.469 EU2 EU24		Defence systems			Shipborne, land and airborne surveillance and weapon
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
8550 - 8650 MHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			
RADIOLOCATION	RADIOLOCATION		Aeronautical navigation			Civil and military e.g. airfield approach
SPACE RESEARCH (active)	SPACE RESEARCH (active)		Radiolocation (civil)			Shipborne, land and airborne surveillance
5.468 5.469	5.469 EU2 5.469A EU24		Defence systems			Shipborne, land and airborne surveillance and weapon
5.469A		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
8650 - 8750 MHz						
RADIOLOCATION	RADIOLOCATION		Aeronautical navigation			Civil and military e.g. airfield approach
5.468 5.469	5.469 EU2 EU24		Radiolocation (civil)			Shipborne, land and airborne surveillance
			Defence systems			Shipborne, land and airborne surveillance and weapon
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
8750 - 8850 MHz						
AERONAUTICAL RADIONAVIGATION 5.470	AERONAUTICAL RADIONAVIGATION 5.470		Aeronautical navigation			Civil and military e.g. airfield approach
RADIOLOCATION	RADIOLOCATION		Radiolocation (civil)			Shipborne, land and airborne surveillance
	Space research		Defence systems			Shipborne, land and airborne surveillance and weapon
5.471	EU2 EU24	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB
8850 - 9000 MHz						
MARITIME RADIONAVIGATION 5.472	MARITIME RADIONAVIGATION 5.472		Aeronautical navigation			Civil and military e.g. airfield approach
RADIOLOCATION	RADIOLOCATION		Radiolocation (civil)			Shipborne, land and airborne surveillance
	Space research		Defence systems			Shipborne, land and airborne surveillance and weapon
5.473	5.473 EU2 EU24	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
		ECC/DEC/(06)04	UWB applications		EN 302 065 EN 302 500	Generic UWB

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
9000 - 9200 MHz						
AERONAUTICAL RADIONAVIGATION 5.337	AERONAUTICAL RADIONAVIGATION 5.337		Aeronautical navigation			Civil and military e.g. airfield approach
RADIOLOCATION	RADIOLOCATION		Radiolocation (civil)		EN 303 213	Shipborne, land and airborne surveillance
	Space research		Defence systems		EN 303 213	Shipborne, land and airborne surveillance and weapon
5.471 5.473A	5.471 EU2 5.473A EU24	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
9200 - 9300 MHz						
MARITIME RADIONAVIGATION 5.472	MARITIME RADIONAVIGATION 5.472		Aeronautical navigation			Civil and military e.g. airfield approach
RADIOLOCATION	RADIOLOCATION		Radiolocation (civil)			Shipborne, land and airborne surveillance
	Space research		Defence systems			Shipborne, land and airborne surveillance and weapon
5.473 5.474	5.473 EU2 5.474 EU24	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
9300 - 9500 MHz						
RADIONAVIGATION 5.476	RADIONAVIGATION 5.476		Aeronautical navigation			Civil and military e.g. airfield approach
RADIOLOCATION	RADIOLOCATION		Radiolocation (civil)		EN 302 194 EN 302 752 EN 303 213 EN 302 248	Shipborne, land and airborne surveillance
EARTH EXPLORATION-SATELLITE (active)	SPACE RESEARCH EARTH EXPLORATION-SATELLITE (active)					
SPACE RESEARCH (active)	SPACE RESEARCH (active)		Defence systems		EN 302 194 EN 300 440 EN 303 213 EN 302 248	Shipborne, land and airborne surveillance and weapon
5.427 5.474 5.475 5.475A 5.475B 5.476A	5.427 EU2 5.474 EU24 5.475 5.475A 5.475B 5.476A	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
			Weather radar			Ground based and airborne

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
9500 - 9800 MHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			
RADIOLOCATION	RADIOLOCATION		Aeronautical navigation			Civil and military e.g. airfield approach
RADIONAVIGATION	SPACE RESEARCH (active)		Radiolocation (civil)			Shipborne, land and airborne surveillance
SPACE RESEARCH (active) 5.476A	5.476A EU2 EU24		Defence systems			Shipborne, land and airborne surveillance and weapon
		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
9800 - 9900 MHz						
RADIOLOCATION	RADIOLOCATION		Aeronautical navigation			Civil and military e.g. airfield approach
Fixed	Space research (active)		Radiolocation (civil)			Shipborne, land and airborne surveillance
Earth exploration-satellite (active)	Earth exploration-satellite (active)					
Space research (active)			Defence systems			Shipborne, land and airborne surveillance and weapon
5.477 5.478 5.478A 5.478B	5.478A EU2 5.478B EU24	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
9900 - 10000 MHz						
RADIOLOCATION	RADIOLOCATION		Aeronautical navigation			Civil and military e.g. Airfield approach
FIXED	Fixed		Radiolocation (civil)			Shipborne, land and airborne surveillance
5.477	5.477					
5.478 5.479	5.478 5.479		Defence systems			Shipborne, land and airborne surveillance and weapon
		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

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
10000 - 10150 MHz						
FIXED	FIXED		Amateur		EN 301 783	
MOBILE	MOBILE					
			Defence systems			Non civil radar
RADIOLOCATION	RADIOLOCATION					
Amateur	Amateur	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
5.479	5.479 EU2					
		ERC/REC 25-10	PMSE	EU17A		SAP/SAB
10150 - 10300 MHz						
FIXED	FIXED		Amateur		EN 301 783	
MOBILE	MOBILE					
			Radiolocation (civil)			Low power radars in certain subbands
RADIOLOCATION	RADIOLOCATION		Defence systems			Civil and military radars
Amateur	Amateur					Low power radars in certain subbands
		ERC/REC 12-05	Fixed		EN 302 217	
	EU2		BFWA		EN 302 326	Including Point-to-Multipoint
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
		ERC/REC 25-10	PMSE	EU17A		SAP/SAB
10300 - 10450 MHz						
FIXED	FIXED		Amateur		EN 301 783	
MOBILE	RADIOLOCATION					
			Radiolocation (civil)			Low power radars in certain subbands
RADIOLOCATION	Amateur		Defence systems			Civil and military radars
Amateur	Mobile					Low power radars in certain subbands
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
	EU2 EU17					
		ERC/REC 25-10	PMSE	EU17A		SAP/SAB

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
10450 - 10500 MHz						
RADIOLOCATION	FIXED		Amateur	EU17	EN 301 783	
Amateur	MOBILE					
			Amateur Satellite	EU23		
Amateur-satellite	RADIOLOCATION					
	Amateur		Radiolocation (civil)			
			Defence systems			Civil and military radars
	Amateur-satellite	ERC/REC 12-05	Fixed		EN 302 217	
5.481	5.481 EU2					
		ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 8.5-10.6 GHz for TLPR application
		ERC/REC 25-10	PMSE	EU17A		SAP/SAB
10.5 - 10.55 GHz						
FIXED	FIXED	ERC/REC 12-05	Fixed		EN 302 217	
MOBILE	MOBILE					
			BFWA		EN 302 326	Including Point-to-Multipoint
Radiolocation	Radiolocation					
		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
		ERC/REC 25-10	PMSE	EU17A		SAP/SAB
10.55 - 10.6 GHz						
FIXED	FIXED	ERC/REC 12-05	Fixed		EN 302 217	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
			BFWA		EN 302 326	Including Point-to-Multipoint
Radiolocation	Radiolocation					
		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
		ERC/REC 25-10	PMSE	EU17A		SAP/SAB

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
10.6 - 10.65 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)	ERC/REC 12-05 ECC/DEC/(10)01	Fixed		EN 302 217	
FIXED	FIXED		BFWA		EN 302 326	Including Point-to-Multipoint
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile		Passive sensors (satellite)			Surface emissivity and precipitation measurements
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum observations, VLBI
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)	ERC/REC 25-10	PMSE	EU17A		SAP/SAB
Radiolocation	Radiolocation					
5.149	5.149					
5.482	5.482					
5.482A	5.482A					
10.65 - 10.68 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)	ERC/REC 12-05 ECC/DEC/(10)01	Fixed		EN 302 217	
FIXED	FIXED		Passive sensors (satellite)			Surface emissivity and precipitation measurements
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum observations, VLBI
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)	ERC/REC 25-10	PMSE	EU17A		SAP/SAB
Radiolocation						
5.149	5.149					
5.482	5.482					
5.482A	5.482A					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
10.68 - 10.7 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Surface emmissivity and precipitation measurement
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum observations, VLBI
SPACE RESEARCH (passive) 5.340 5.483	SPACE RESEARCH (passive) 5.340					
10.7 - 11.7 GHz						
FIXED	FIXED	ECC/DEC/(05)11	AES		EN 302 186	
FIXED-SATELLITE (S/E) 5.441 5.484A (E/S) 5.484	FIXED-SATELLITE (S/E) 5.441 5.484A (E/S) 5.484	ERC/DEC/(00)08 ERC/REC 12-06	Fixed		EN 302 217	Limited to high capacity fixed links
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
	Mobile-satellite (S/E)	ECC/DEC/(05)10 ECC/DEC/(05)11 ERC/DEC/(00)08	FSS Earth stations		EN 301 427 EN 301 428 EN 301 430 EN 301 360 EN 301 459 EN 302 340 EN 302 448	Within the band 10.7-10.95/11.2-11.45 GHz in accordance with App 30B of RR SIT/SUT - EUTELTRACS - VSAT
		ECC/DEC/(06)03	HEST		EN 301 428 EN 301 459	
		ECC/DEC/(06)02	LEST		EN 301 428 EN 301 459	
			-		EN 302 977	Vehicle-mounted Earth stations

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
11.7 - 12.5 GHz						
BROADCASTING	BROADCASTING-SATELLITE 5.492	ERC/DEC/(00)08	Broadcasting-satellite receivers		EN 301 459 EN 301 360 EN 302 340 EN 302 448	In accordance with App 30 of RR. SIT within the band 12.4 - 12.5 GHz
BROADCASTING-SATELLITE 5.492	FIXED					
FIXED	MOBILE except aeronautical mobile					
		ECC/DEC/(06)03	HEST			
MOBILE except aeronautical mobile						
5.487	5.487 EU28	ECC/DEC/(06)02	LEST			
5.487A	5.487A		-		EN 302 977	Vehicle-mounted Earth stations
12.5 - 12.75 GHz						
FIXED-SATELLITE (S/E) 5.484A (E/S)	FIXED-SATELLITE (S/E) 5.484A (E/S)	ECC/DEC/(05)11	AES		EN 302 186	
		ECC/DEC/(05)10	FSS Earth stations		EN 301 427	Priority for civil networks.
		ECC/DEC/(05)11			EN 301 428	Low density carriers, including VSATs
5.494					EN 301 430	and digital SNG are encouraged to use
5.495	5.496				EN 301 360	this band VSAT - SIT/SUT
5.496					EN 302 186	
					EN 301 459 EN 302 340	
					EN 302 448	
		ECC/DEC/(06)03	HEST		EN 301 428	
					EN 301 459	
		ECC/DEC/(06)02	LEST		EN 301 428 EN 301 459	
			-		EN 302 977	Vehicle-mounted Earth stations
12.75 - 13.25 GHz						
FIXED	FIXED	ERC/REC 12-02	Fixed		EN 302 217	
FIXED-SATELLITE (E/S) 5.441	FIXED-SATELLITE (E/S) 5.441					
			FSS Earth stations		EN 301 430	
MOBILE						
Space research (deep space) (S/E)						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
13.25 - 13.4 GHz						
AERONAUTICAL RADIONAVIGATION 5.497	AERONAUTICAL RADIONAVIGATION 5.497		Active sensors (satellite)			Altimeters, scatterometers, precipitation radars
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Airborne doppler navigation aids			
SPACE RESEARCH (active)	SPACE RESEARCH (active)		Maritime radar			Ship berthing radars
5.498A	5.498A EU26					
5.499						
13.4 - 13.75 GHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			Altimeters, scatterometers, precipitation radars
RADIOLOCATION	RADIOLOCATION					
			-			Data relay satellites
SPACE RESEARCH 5.501A	SPACE RESEARCH 5.501A					
Standard frequency and time signal-satellite (E/S)			Defence systems			Military radars
5.499	5.501B EU2		Airborne doppler navigation aids			
5.500	EU26	ERC/REC 70-03	Radiodetermination applications		EN 300 440	Within the band 13.4-14.0 GHz
5.501						
5.501B			Maritime radar			Ship berthing radars

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
13.75 - 14 GHz						
FIXED-SATELLITE (E/S) 5.484A	FIXED-SATELLITE (E/S) 5.484A		-			Data relay satellites
RADIOLOCATION	RADIOLOCATION		Defence systems			Military radars
Earth exploration-satellite	Space research					
Space research			FSS Earth stations		EN 301 430	
Standard frequency and time signal-satellite (E/S)			Maritime radar			Navigation radars
5.499	5.502 EU2		Passive sensors (satellite)			Future VLBI measurements
5.500	5.503 EU26					
5.501		ERC/REC 70-03	Radiodetermination applications		EN 300 440	Within the band 13.4-14.0 GHz
5.502						
5.503			Maritimeradar			Ship berthing radars
14 - 14.25 GHz						
FIXED-SATELLITE (E/S) 5.457A 5.457B 5.484A 5.506 5.506B	FIXED-SATELLITE (E/S) 5.457A 5.457B 5.484A 5.506 5.506B	ECC/DEC/(05)11	AES		EN 302 186	
RADIONAVIGATION 5.504	Space research	ECC/DEC/(05)10	ESV		EN 302 340	
Space research	Mobile-satellite (E/S) 5.504B 5.504C 5.506A	ECC/DEC/(06)03	HEST		EN 301 428	
Mobile-satellite (E/S) 5.504B 5.504C 5.506A		ECC/DEC/(06)02	LEST		EN 301 428	
5.504A	5.504		MSS Earth stations		EN 301 427 EN 302 977	Priority for civil networks
		ERC/REC 13-03	VSAT		EN 301 430	Low density carriers, including VSATs and digital SNG, are encouraged to use this band
			-		EN 302 448	Tracking Earth stations on trains, vehicle-mounted Earth stations

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
14.25 - 14.3 GHz						
FIXED-SATELLITE (E/S) 5.457A 5.457B 5.484A 5.506 5.506B	FIXED-SATELLITE (E/S) 5.457A 5.457B 5.484A 5.506 5.506B	ECC/DEC/(05)11	AES		EN 302 186	
RADIONAVIGATION 5.504	Mobile-satellite (E/S) 5.504B 5.506A 5.508A	ECC/DEC/(05)10	ESV		EN 302 340	
Mobile-satellite (E/S) 5.504B 5.506A 5.508A	Space research		MSS Earth stations		EN 301 427 EN 302 977	Priority for civil networks
Space research		ERC/REC 13-03	VSAT		EN 301 428 EN 301 430	SNG
5.504A 5.508	5.504		-			Vehicle-mounted Earth stations
14.3 - 14.4 GHz						
FIXED	FIXED-SATELLITE (E/S) 5.457A 5.484A 5.506	ECC/DEC/(05)11	AES		EN 302 186	
FIXED-SATELLITE (E/S) 5.457A 5.457B 5.484A 5.506 5.506B	Mobile-satellite (E/S) 5.504B 5.506A 5.509A	ECC/DEC/(05)10	ESV		EN 302 340	
Mobile except aeronautical mobile			FSS Earth stations		EN 302 340	Fixed links to be coordinated with Fixed Satellite Services on a national basis
Mobile-satellite (E/S) 5.504B 5.506A 5.509A			MSS Earth stations		EN 301 427 EN 302 977	Priority for civil networks
Radionavigation-satellite 5.504A		ERC/REC 13-03	VSAT		EN 301 428 EN 301 430	SNG
			-			Vehicle-mounted Earth stations -

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
14.4 - 14.47 GHz						
FIXED	FIXED-SATELLITE (E/S) 5.457A 5.484A 5.506	ECC/DEC/(05)11	AES		EN 302 186	
FIXED-SATELLITE (E/S) 5.457A 5.457B 5.484A 5.506 5.506B	Mobile-satellite (E/S) 5.504B 5.506A 5.509A	ECC/DEC/(05)10	ESV		EN 302 340	
MOBILE except aeronautical mobile			FSS Earth stations		EN 302 340	Fixed links to be coordinated with Fixed Satellite Services on a national basis
Mobile-satellite (E/S) 5.504B 5.506A 5.509A						
Radionavigation-satellite 5.504A	5.504A		MSS Earth stations		EN 301 427 EN 302 977	Priority for civil networks
		ERC/REC 13-03	VSAT		EN 301 428 EN 301 430	SNG
			-			Vehicle-mounted Earth stations
14.47 - 14.5 GHz						
FIXED	FIXED-SATELLITE (E/S) 5.457A 5.484A 5.506	ECC/DEC/(05)11	AES		EN 302 186	
FIXED-SATELLITE (E/S) 5.457A 5.457B 5.484A 5.506 5.506B	Mobile-satellite (E/S) 5.504B 5.506A 5.509A	ECC/DEC/(05)10	ESV		EN 302 340	
MOBILE except aeronautical mobile			FSS Earth stations			Fixed links to be coordinated with Fixed Satellite Service on a national basis
Mobile-satellite (E/S) 5.504B 5.506A 5.509A	Radio astronomy		MSS Earth stations		EN 301 427 EN 302 977	Priority for civil networks
Radio astronomy		Radio astronomy				Spectral line observations, VLBI
5.149	5.149					
5.504A	5.504A					
		ERC/REC 13-03	VSAT		EN 301 428	SNG
			-			Vehicle-mounted Earth stations

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
14.5 - 14.8 GHz						
FIXED	FIXED		Defence systems	EU20		The band 14.62-15.23 GHz is a harmonised military band for fixed and mobile services
FIXED-SATELLITE (E/S) 5.510	MOBILE					
MOBILE	Radio astronomy	ERC/REC 12-07	Fixed links	EU20	EN 302 217	
Space research	EU27		Radio astronomy			VLBI (when compatible with primary use)
14.8 - 15.35 GHz						
FIXED	FIXED		Defence systems	EU20		The band 14.62-15.23 GHz is a harmonised military band for fixed and mobile services
MOBILE	MOBILE					
Space research	Radio astronomy	ERC/REC 12-07	Fixed links	EU20	EN 302 217	
5.339	5.339 EU27		Radio astronomy			VLBI (when compatible with primary use)
15.35 - 15.4 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum observations, VLBI
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.340	5.340					
5.511						
15.4 - 15.43 GHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Airborne doppler navigation aids			Doppler radar low power sensing
RADIOLOCATION 5.511E 5.511F	RADIOLOCATION 5.511E 5.511F		Radiolocation (civil)			Ground movement radars
5.511D	5.511D					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
15.43 - 15.63 GHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Airborne doppler navigation aids			Doppler radar low power sensing
FIXED-SATELLITE (E/S) 5.511A	FIXED-SATELLITE (E/S)		FSS Earth stations			MSS feeder links
RADIOLOCATION 5.511E 5.511F	RADIOLOCATION 5.511E 5.511F					
5.511C	5.511C		Radiolocation (civil)			Ground movement radars
15.63 - 15.7 GHz						
AERONAUTICAL RADIONAVIGATION	AERONAUTICAL RADIONAVIGATION		Airborne doppler navigation aids			Doppler radar low power sensing
RADIOLOCATION 5.511E 5.511F	RADIOLOCATION 5.511E 5.511F		Radiolocation (civil)			Ground movement radars
5.511D	5.511D					
15.7 - 16.6 GHz						
RADIOLOCATION	RADIOLOCATION		Defence systems			Harmonised military band for land, airborne and naval radars
5.512	EU27					
5.513						
16.6 - 17.1 GHz						
RADIOLOCATION	RADIOLOCATION		Defence systems			Harmonised military band for land, airborne and naval radars
Space research (deep space) (E/S)	Space research (deep space) (E/S)					
5.512	EU27					
5.513						
17.1 - 17.2 GHz						
RADIOLOCATION	RADIOLOCATION Mobile		Defence systems			Military radar applications
5.512						
5.513	EU2					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
17.2 - 17.3 GHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Defence systems			Military radar applications
RADIOLOCATION	MOBILE					
SPACE RESEARCH (active)	RADIOLOCATION					
	SPACE RESEARCH (active)					
5.512	5.513A EU2					
5.513						
5.513A						
17.3 - 17.7 GHz						
FIXED-SATELLITE (E/S) 5.516 (S/E)	FIXED-SATELLITE (E/S) 5.516 (S/E)	ECC/DEC/(05)08	FSS Earth stations			High Density FSS
5.516A 5.516B	5.516A 5.516B		Feeder links			Feeder links for the BSS service. Appendix 30A of RR
		ECC/DEC/(13)01	ESOMPs		EN 303 978	
Radiolocation	Radiolocation		Defence systems			Military radar applications
5.514	EU2					
17.7 - 18.1 GHz						
FIXED	FIXED	ERC/DEC/(00)07 ERC/REC 12-03	Fixed		EN 302 217	
FIXED-SATELLITE (S/E) 5.484A (E/S) 5.516	FIXED-SATELLITE (S/E) 5.484A (E/S) 5.516		Feeder Links			Feeder links for the BSS service. Appendix 30A of RR
MOBILE						
			FSS Earth stations		EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
		ECC/DEC/(13)01	ESOMPs		EN 303 978	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
18.1 - 18.3 GHz						
FIXED	FIXED	ERC/DEC/(00)07 ERC/REC 12-03	Fixed		EN 302 217	
FIXED-SATELLITE (S/E) 5.484A (E/S) 5.520	FIXED-SATELLITE (S/E) 5.484A	ERC/DEC/(00)07	FSS Earth stations		EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
			Feeder links			Feeder links for the BSS service.
		ECC/DEC/(13)01	ESOMPs		EN 303 978	
MOBILE	METEOROLOGICAL-SATELLITE (S/E)		WeatherSatellites			
5.519 5.521	5.519					
18.3 - 18.4 GHz						
FIXED	FIXED	ERC/DEC/(00)07 ERC/REC 12-03	Fixed		EN 302 217	
FIXED-SATELLITE (S/E) 5.484A (E/S) 5.520	FIXED-SATELLITE (S/E) 5.484A (E/S) 5.520	ERC/DEC/(00)07	FSS Earth stations		EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks’
			Feeder links			Feeder links for the BSS service
		ECC/DEC/(13)01	ESOMPs		EN 303 978	
MOBILE 5.519 5.521	METEOROLOGICAL SATELLITE (S/E) 5.519					
18.4 - 18.6 GHz						
FIXED	FIXED	ERC/DEC/(00)07 ERC/REC 12-03	Fixed		EN 302 217	
FIXED-SATELLITE (S/E) 5.484A	FIXED-SATELLITE (S/E) 5.484A	ERC/DEC/(00)07	FSS Earth stations		EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
MOBILE		ECC/DEC/(13)01	ESOMPs		EN 303 978	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
18.6 - 18.8 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)					
FIXED	FIXED	ERC/DEC/(00)07 ERC/REC 12-03	Fixed		EN 302 217	
FIXED-SATELLITE (S/E) 5.522B	FIXED-SATELLITE (S/E) 5.522B	ERC/DEC/(00)07	FSS Earth stations		EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
		ECC/DEC/(13)01	ESOMPs		EN 303 978	
MOBILE except aeronautical mobile						
Space research (passive) 5.522A 5.522C	5.522A		Passive sensors (satellite)			Surface emmissivity, snow, sea, ice and precipitation
18.8 - 19.3 GHz						
FIXED	FIXED	ERC/DEC/(00)07 ERC/REC 12-03	Fixed		EN 302 217	
FIXED-SATELLITE (S/E) 5.523A	FIXED-SATELLITE (S/E) 5.523A	ERC/DEC/(00)07	FSS Earth stations		EN 301 360 EN 301 459	To coordinated earth stations. Priority for civil networks
MOBILE		ECC/DEC/(13)01	ESOMPs		EN 303 978	
19.3 - 19.7 GHz						
FIXED	FIXED	ERC/DEC/(00)07 ERC/REC 12-03	Fixed		EN 302 217	
FIXED-SATELLITE (S/E) (E/S) 5.523B 5.523C 5.523D 5.523E	FIXED-SATELLITE (S/E) (E/S) 5.523B 5.523C 5.523D 5.523E	ERC/DEC/(00)07	FSS Earth stations		EN 301 360 EN 301 459	To coordinated Earth stations. Priority for civil networks
		ECC/DEC/(13)01	ESOMPs		EN 303 978	MOBILE
19.7 - 20.1 GHz						
FIXED-SATELLITE (S/E) 5.484A 5.516B	FIXED-SATELLITE (S/E) 5.484A 5.516B		MSS Earth stations		EN 301 459 EN 301 360	For uncoordinated Earth stations SUT
		ECC/DEC/(13)01	ESOMPs		EN 303 978	
Mobile-satellite (S/E)	Mobile-satellite (S/E)	ECC/DEC/(06)03	HEST		EN 301 459 EN 301 360	

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
5.524		ECC/DEC/(05)08	FSS Earth stations			High Density FSS
		ECC/DEC/(06)02	LEST		EN 301 459 EN 301 360	

20.1 - 20.2 GHz

FIXED-SATELLITE (S/E) 5.484A 5.516B	FIXED-SATELLITE (S/E) 5.484A 5.516B		MSS Earth stations		EN 301 459 EN 301 360	For uncoordinated Earth stations SUT
		ECC/DEC/(13)01	ESOMPs		EN 303 978	
MOBILE-SATELLITE (S/E)	MOBILE-SATELLITE (S/E)	ECC/DEC/(06)03	HEST		EN 301 459	
5.524	5.525				EN 301 360	
5.525	5.526	ECC/DEC/(05)08	FSS Earth stations			High Density FSS
5.526 5.527	5.527 5.528	ECC/DEC/(06)02	LEST		EN 301 459 EN 301 360	
5.528						

20.2 - 21.2 GHz

FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)		MSS Earth stations			For uncoordinated Earth stations. Harmonised military band for satellite downlinks
MOBILE-SATELLITE (S/E)	MOBILE-SATELLITE (S/E)					
Standard frequency and time signal-satellite (S/E)						
5.524	EU2 EU27					

21.2 - 21.4 GHz

EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Passive systems will be phased out by 2015
FIXED	FIXED	ERC/REC 25-10	PMSE			Unidirectional temporary fixed or mobile links. Including SAP/SAB
MOBILE	MOBILE					
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
21.4 - 22 GHz						
BROADCASTING-SATELLITE 5.208B FIXED	BROADCASTING-SATELLITE 5.208B		Broadcasting-satellite receivers		EN 301 360 EN 301 459	
MOBILE		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz until the reference date of 1 July 2013
5.530A 5.530B	5.530A 5.530B					
5.530C 5.530D	5.530C 5.530D		PMSE			Wideband High Definition Television Fixed service envisaged in some countries
22 - 22.21 GHz						
FIXED	FIXED	T/R 13-02	Fixed		EN 302 217	
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations (e.g. water line), VLBI
	SPACE RESEARCH (passive)	ERC/REC 25-10	PMSE	EU17A		SAP/SAB
5.149	5.149					
		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21.65-26.65 GHz until the reference date of 1 July 2013

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
22.21 - 22.5 GHz						
EARTH EXPLORATION-SATELLITE (passive)	FIXED	T/R 13-02	Fixed		EN 302 217	
	MOBILE except aeronautical mobile					
FIXED			Passive sensors (satellite)			EESS systems will be phased out by 2015
	Mobile					
MOBILE except aeronautical mobile						
	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations (e.g. water line), VLBI
RADIO ASTRONOMY						
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
	Earth exploration-satellite (passive)	ERC/REC 25-10	PMSE	EU17A		SAP/SAB
5.149 5.532	5.149 5.532	ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date of 1 July 2013
22.5 - 22.55 GHz						
FIXED	FIXED	T/R 13-02	Fixed		EN 302 217	
MOBILE	MOBILE					
			Radio astronomy			Continuum and spectral line observations (e.g. water line), VLBI
	RADIO ASTRONOMY					
	SPACE RESEARCH (passive)	ERC/REC 25-10	PMSE	EU17A		SAP/SAB
		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date of 1 July 2013

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
22.55 – 23.15 GHz						
FIXED	FIXED	T/R 13-02	Fixed		EN 302 217	
INTER-SATELLITE 5.338A	MOBILE					
MOBILE	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations (e.g. water line), VLBI
SPACE RESEARCH (E/S) 5.532A	SPACE RESEARCH (passive)	ERC/REC 25-10	PMSE	EU17A		SAP/SAB
5.149	INTER-SATELLITE 5.338A	ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date of 1 July 2013
23.15 - 23.55 GHz						
FIXED	FIXED	T/R 13-02	Fixed		EN 302 217	
INTER-SATELLITE 5.338A	INTER-SATELLITE 5.338A	ERC/REC 25-10	PMSE			SAP/SAB
MOBILE	MOBILE					
		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date of 1 July 2013

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
23.55 - 23.6 GHz						
FIXED	FIXED	T/R 13-02	Fixed		EN 302 217	
MOBILE	INTER-SATELLITE					
		ERC/REC 25-10	PMSE			SAP/SAB
	MOBILE					
		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date of 1 July 2013
23.6 - 24 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Measurement of water vapour, liquid water, clouds for atsmospheric sounding
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations (e.g. ammonia line), VLBI
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.340	5.340	ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date of 1 July 2013
24 - 24.05 GHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE					
			Amateur Satellite			
5.150	5.150		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			SAP/SAB
		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date of 1 July 2013

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
24.05 - 24.25 GHz						
RADIOLOCATION	RADIOLOCATION		Active sensors (satellite)			Rain radars from satellites
Amateur	Amateur		Amateur		EN 301 783	
Earth exploration-satellite (active)	Earth exploration-satellite (active)					
	Fixed		Defence systems			
	Mobile		ISM			Within the band 24-24.25 GHz
5.150	5.150 EU2	ERC/REC 70-03	Non-Specific SRDs		EN 300 440	Within the band 24-24.25 GHz
		ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 300 440 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
		ERC/REC 25-10	PMSE			SAP/SAB
		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date of 1 July 2013
		ERC/REC 70-03	RTTT		EN 302 858	Automotive radars

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
24.25 - 24.45 GHz						
FIXED	FIXED MOBILE	ERC/REC 70-03 ECC/DEC/(11)02	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
		ERC/REC 25-10	PMSE	EU17A		SAP/SAB
		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the referencedate 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
			Fixed			Unidirectional fixed links
		ERC/REC 70-03	RTTT		EN 302 858	Automotive radars
24.45 - 24.5 GHz						
FIXED INTER-SATELLITE	FIXED MOBILE	ERC/REC 70-03 ECC/DEC/(11)02	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
		ERC/REC 25-10	PMSE	EU17A		SAP/SAB
		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date 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
			Fixed			Unidirectional fixed links
		ERC/REC 70-03	RTTT		EN 302 858	Automotive radars

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
24.5 - 24.65 GHz						
FIXED	FIXED	T/R 13-02	Fixed		EN 302 217	
INTER-SATELLITE						
		ECC/REC/(11)01	BFWA		EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
		ERC/REC 70-03 ECC/DEC/(11)02	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	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date 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

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
24.65 - 24.75 GHz						
FIXED	FIXED	T/R 13-02	Fixed		EN 302 217	
INTER-SATELLITE FIXED-SATELLITE (E/S) 5.532B	FIXED-SATELLITE (E/S) 5.532B	ECC/REC/(11)01	BFWA		EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
		ERC/REC 70-03 ECC/DEC/(11)02	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	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date of 1 July 2013 New SRR systems may only be introduced in CEPT countries in the frequency bands 24.25–26.65 GHz until 1 January 2018; this date is extended by 4 years for SRR equipment mounted on motor vehicles for which a type-approval application has been submitted and has been granted before 1 January 2018
24.75 - 25.25 GHz						
FIXED	FIXED	T/R 13-02	Fixed		EN 302 217	
FIXED-SATELLITE (E/S) 5.532B	FIXED-SATELLITE (E/S) 5.532B	ECC/REC/(11)01	BFWA		EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
		ERC/REC 70-03 ECC/DEC/(11)02	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	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date 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

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
25.25 - 25.5 GHz						
FIXED	FIXED	T/R 13-02	Fixed		EN 302 217	
INTER-SATELLITE 5.536 MOBILE	INTER-SATELLITE 5.536 MOBILE	ECC/REC/(11)01	BFWA		EN 302 326	CRS paired with 25.5-26.5 GHz for FDD systems
Standard frequency and time signal-satellite (E/S)		ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 302 372 EN 302 729	Within the band 24.05-27.00 GHz for TLPR application Within the band 25.05-26.50 GHz for LPR applications
		ECC/DEC/(04)10	SRR		EN 302 288	New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date 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

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
25.5 - 26.5 GHz						
EARTH EXPLORATION-SATELLITE (S/E) 5.536B FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (S/E) 5.536C	FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (S/E) 5.536C Earth exploration-satellite (S/E) 5.536B	T/R 13-02 ECC/REC/(11)01 ERC/REC 70-03 ECC/DEC/(11)02	Fixed BFWA Radiodetermination applications		EN 302 217 EN 302 326 EN 302 372 EN 302 729	 TS should be paired with 24.5-25.5 GHz for FDD systems Within the band 24.05-27.00 GHz for TLPR application. Within the band 24.05-26.50 GHz for LPR applications
Standard frequency and time signal-satellite (E/S) 5.536A	 5.536A	 ECC/DEC/(04)10	Space Research SRR		 EN 302 288	Satellite payload telemetry New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date 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

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
26.5 - 27 GHz						
EARTH EXPLORATION-SATELLITE (S/E) 5.536B FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (S/E) 5.536C Standard frequency and time signal-satellite (E/S) 5.536A	FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (S/E) 5.536C Earth exploration-satellite (S/E) 5.536B 5.536A EU27	ERC/REC 70-03 ECC/DEC/(04)10	Defence systems Radiodetermination applications Space Research SRR		EN 302 372 EN 302 288	Harmonised military band for fixed and mobile systems Within the band 24.05-27.00 GHz for TLPR application Satellite payload telemetry New SRR systems may only be introduced in CEPT countries in the frequency bands 21. 65-26.65 GHz until the reference date 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
27 - 27.5 GHz						
FIXED INTER-SATELLITE 5.536 MOBILE	FIXED INTER-SATELLITE 5.536 MOBILE Earth exploration-satellite (S/E) EU27		Defence systems			Harmonised military band for fixed and mobile systems

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
27.5 - 28.5 GHz						
FIXED 5.537A	FIXED		Feeder links			Feeder links to be used for Broadcasting satellites (HDTV) 27.5-29.5 GHz
FIXED-SATELLITE (E/S) 5.484A 5.516B 5.539	FIXED-SATELLITE (E/S) 5.484A 5.516B 5.539	ECC/DEC/(13)01	ESOMPs		EN 303 978	
MOBILE		ECC/DEC/(05)01 T/R 13-02	Fixed		EN 302 217	For frequency arrangement between FS and FSS see ECC/DEC/(05)01
5.538	5.538					
5.540	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/REC/(11)01 ECC/DEC/(05)01	BFWA		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
28.5 - 29.1 GHz						
FIXED	FIXED		Feeder links			Feeder links to be used for Broadcasting satellites (HDTV) 27.5-29.5 GHz
FIXED-SATELLITE (E/S) 5.484A 5.516B 5.523A 5.539	FIXED-SATELLITE (E/S) 5.484A 5.516B 5.523A 5.539					
MOBILE Earth exploration-satellite (E/S) 5.541	Earth exploration-satellite (E/S) 5.541	ECC/DEC/(05)01 T/R 13-02	Fixed		EN 302 217	For frequency arrangement between FS and FSS see ECC/DEC/(05)01
5.540		ECC/DEC/(05)01	FSS Earth stations		EN 301 360	Uncoordinated Earth stations within the band 28.4445-28.8365 GHz
		ECC/DEC/(13)01	ESOMPs		EN 303 978	
		ECC/REC/(11)01 ECC/DEC/(05)01	BFWA		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

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
29.1 - 29.5 GHz						
FIXED	FIXED		Feeder links			Feeder links to be used for Broadcasting satellites (HDTV) 27.5-29.5 GHz
FIXED-SATELLITE (E/S) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A	FIXED-SATELLITE (E/S) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A	ECC/DEC/(13)01	ESOMPs		EN 303 978	
MOBILE		ECC/DEC/(05)01 T/R 13-02	Fixed		EN 302 217	Within the band 29.0605-29.4525 GHz
Earth exploration-satellite (E/S) 5.541	Earth exploration-satellite (E/S) 5.541	ECC/DEC/(05)01	FSS Earth stations		EN 301 360	Uncoordinated Earth stations within the band 29.4525-29.5 GHz
5.540	5.540					
		ECC/REC/(11)01	BFWA		EN 302 326	TS paired with 27.5-28.5 GHz for FDD systems.
		ECC/DEC/(05)01				Uncoordinated Earth stations within the band 29.4525-29.5 GHz
29.5 - 29.9 GHz						
FIXED-SATELLITE (E/S) 5.484A 5.516B	FIXED-SATELLITE (E/S) 5.484A	ECC/DEC/(06)03	HEST		EN 301 459	
5.539	5.516B 5.539	ECC/DEC/(13)01	ESOMPs		EN 303 978	
Earth exploration-satellite (E/S) 5.541	Earth exploration-satellite (E/S) 5.541	ECC/DEC/(05)08	SIT/SUT		EN 301 459	High Density FSS
Mobile-satellite (E/S)	Mobile-satellite (E/S)	ECC/DEC/(06)02	LEST		EN 301 459	
5.540	5.540		MSS Earth stations		EN 301 459	
5.542						
29.9 - 30 GHz						
FIXED-SATELLITE (E/S) 5.484A 5.516B 5.539	FIXED-SATELLITE (E/S) 5.484A 5.516B 5.539		FSS Earth stations			Limited to beacons for uplink power control 29.999-30 GHz
		ECC/DEC/(13)01	ESOMPs		EN 303 798	
MOBILE-SATELLITE (E/S)	MOBILE-SATELLITE (E/S)	ECC/DEC/(06)03	HEST		EN 301 459	
Earth exploration-satellite (E/S) 5.541 5.543	Earth exploration-satellite (E/S) 5.541 5.543	ECC/DEC/(05)08	SIT/SUT		EN 301 459	High Density FSS
5.525	5.525	ECC/DEC/(06)02	LEST		EN 301 459	
5.526	5.526					
5.527	5.527		MSS Earth stations		EN 301 459	
5.538	5.538					
5.540	5.540					
5.542						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
30 - 31 GHz						
FIXED-SATELLITE (E/S) 5.338A	FIXED-SATELLITE (E/S) 5.338A		FSS Earth stations			For uncoordinated Earth stations. Harmonised military band for satellite uplinks
MOBILE-SATELLITE (E/S)	MOBILE-SATELLITE (E/S)		MSS Earth stations			
Standard frequency and time signal-satellite (S/E)						
5.542	EU2 EU27					
31 - 31.3 GHz						
FIXED 5.543A 5.338A	FIXED 5.338A	ECC/REC/(02)02	Fixed		EN 302 217 EN 302 326	
MOBILE	MOBILE					
Space research 5.544 5.545			Radio astronomy			Continuum observations
Standard frequency and time signal-satellite (S/E)						
5.149	5.149					
31.3 - 31.5 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)	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	RADIO ASTRONOMY					
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		Radio astronomy			Continuum observations
5.340	5.340					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
31.5 - 31.8 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Fixed			
RADIO ASTRONOMY	RADIO ASTRONOMY		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
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
Fixed	Fixed					
Mobile except aeronautical mobile	Mobile except aeronautical mobile		Radio astronomy			Continuum observations
5.149 5.546	5.149 5.546					
31.8 - 32 GHz						
FIXED 5.547A	FIXED 5.547A	ECC/REC/(11)01 ERC/REC/(01)02	Fixed		EN 302326 EN 302 217	Point-to-Point and Point-to-Multipoint. High Density FS
RADIONAVIGATION	RADIONAVIGATION					
SPACE RESEARCH (deep space) (S/E)	SPACE RESEARCH (deep space) (S/E)					
5.547 5.547B 5.548	5.547 5.548					
32 - 32.3 GHz						
FIXED 5.547A	FIXED 5.547A	ECC/REC/(11)01	Fixed		EN 302 326	Point-to-Point and Point-to-Multipoint.
RADIONAVIGATION	RADIONAVIGATION	ERC/REC/(01)02			EN 302 217	High Density FS
SPACE RESEARCH (deep space) (S/E)	SPACE RESEARCH (deep space) (S/E)					
5.547 5.547C 5.548	5.547 5.548					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
32.3 - 33 GHz						
FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.547D 5.548	FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.548	ECC/REC/(11)01 ERC/REC/(01)02	Fixed		EN 302326 EN 302 217	Point-to-Point and Point-to-Multipoint. High Density FS
33 - 33.4 GHz						
FIXED 5.547A RADIONAVIGATION 5.547 5.547E	FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547	ECC/REC/(11)01 ERC/REC/(01)02	Fixed		EN 302 326 EN 302 217	Point-to-Point and Point-to-Multipoint. High Density FS
33.4 - 34.2 GHz						
RADIOLOCATION 5.549	RADIOLOCATION EU2 EU27		Defence systems Radiodetermination applications			Harmonised military band for radiolocation systems Surveying and measurement
34.2 - 34.7 GHz						
RADIOLOCATION SPACE RESEARCH (deep space) (E/S) 5.549	RADIOLOCATION SPACE RESEARCH (deep space) (E/S) EU2 EU27		Defence systems Radiodetermination applications			Harmonised military band for radiolocation systems Surveying and measurement
34.7 - 35.2 GHz						
RADIOLOCATION Space research 5.550 5.549	RADIOLOCATION Space research EU2 EU27		Defence systems Radiodetermination applications			Harmonised military band for radiolocation systems Surveying and measurement

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
35.2 - 35.5 GHz						
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		Active sensors (satellite)			Rain radar from satellites
RADIOLOCATION	RADIOLOCATION		Defence systems			Harmonised military band for radiolocation systems
5.549	EU2 EU27					
35.5 - 36 GHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			
METEOROLOGICAL AIDS	METEOROLOGICAL AIDS		Defence systems			Harmonised military band for radiolocation systems
RADIOLOCATION	RADIOLOCATION					
SPACE RESEARCH (active)	SPACE RESEARCH (active)					
5.549 5.549A	5.549A EU2 EU27					
36 - 37 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Defence systems			Harmonised military band for fixed and mobile systems
FIXED	FIXED		Passive sensors (satellite)			EESS surface emmissivity, snow, sea ice and precipitation
MOBILE	MOBILE					
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		Radio astronomy			Spectral line observations (e.g. hydrogen cyanide and hydroxil lines)
	Radio astronomy					36.43-36.50 GHz
5.149 5.550A	5.149 EU27 5.550A					
37 - 37.5 GHz						
FIXED	FIXED		Defence systems			Low and medium capacity fixed links
MOBILE except aeronautical mobile	SPACE RESEARCH (S/E)	T/R 12-01	Fixed		EN 302 217	Major use by civil Fixed Service Systems. High Density fixed links
SPACE OPERATION (S/E)						
5.547	5.547 EU2					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
37.5 - 38 GHz						
FIXED	FIXED		Defence systems			Low and medium capacity fixed links
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)	ERC/DEC/(00)02	FSS Earth stations			Uncoordinated Earth stations shall not claim protection from the Fixed Service
MOBILE except aeronautical mobile	SPACE RESEARCH (S/E)					
SPACE RESEARCH (S/E)	Earth exploration-satellite (S/E)					
Earth exploration-satellite (S/E)		T/R 12-01	Fixed		EN 302 217	Major use by civil Fixed Service Systems. High Density fixed links
5.547	5.547 EU2					
38 - 39.5 GHz						
FIXED	FIXED		Defence systems			Low and medium capacity fixed links
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)	ERC/DEC/(00)02	FSS Earth stations			Uncoordinated Earth stations shall not claim protection from the Fixed Service
MOBILE	Earth exploration-satellite (S/E)					
Earth exploration-satellite (S/E)						
5.547	5.547 EU2	T/R 12-01	Fixed		EN 302 217	Major use by civil Fixed Service Systems. High Density fixed links
39.5 - 40 GHz						
FIXED	FIXED	ERC/DEC/(00)02	FSS Earth stations			
FIXED-SATELLITE (S/E) 5.516B	FIXED-SATELLITE (S/E) 5.516B					
MOBILE	MOBILE					
MOBILE-SATELLITE (S/E)	MOBILE-SATELLITE (S/E)					
Earth exploration-satellite (S/E)	Earth exploration-satellite (S/E)					
5.547	5.547 EU2					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
40 - 40.5 GHz						
EARTH EXPLORATION-SATELLITE (E/S)	FIXED					
FIXED	FIXED-SATELLITE (S/E) 5.516B	ERC/DEC/(00)02	FSS Earth stations			
FIXED-SATELLITE (S/E) 5.516B	MOBILE					
MOBILE	MOBILE-SATELLITE (S/E)					
MOBILE-SATELLITE (S/E)	SPACE RESEARCH (E/S)					
SPACE RESEARCH (E/S)	Earth exploration-satellite (S/E)					
Earth exploration-satellite (S/E)						
	EU2					
40.5 - 41 GHz						
BROADCASTING	BROADCASTING	ECC/DEC/(02)04	FSS Earth stations			
BROADCASTING-SATELLITE	BROADCASTING-SATELLITE	ECC/REC/(01)04	MWS		EN 301 997	Point-to-point and terrestrial
FIXED	FIXED	ERC/DEC/(99)15			EN 302 217	multipoint systems
FIXED-SATELLITE (S/E)		ECC/REC/(01)04 ERC/DEC/(99)15	Fixed		EN 301 997 EN 302 217	Point-to-point and terrestrial multipoint systems
Mobile						
5.547	5.547					
41 - 42 GHz						
BROADCASTING	BROADCASTING	ECC/DEC/(02)04	FSS Earth stations			
BROADCASTING-SATELLITE	BROADCASTING-SATELLITE	ECC/REC/(01)04	MWS		EN 301 997	Point-to-point and terrestrial
FIXED	FIXED	ERC/DEC/(99)15			EN 302 217	multipoint systems
FIXED-SATELLITE (S/E)		ECC/REC/(01)04 ERC/DEC/(99)15	Fixed		EN 301 997 EN 302 217	Point-to-point and terrestrial multipoint systems
Mobile						
5.547	5.547					
5.551F						

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
42 - 42.5 GHz						
BROADCASTING	BROADCASTING	ECC/DEC/(02)04	FSS Earth stations			
BROADCASTING-SATELLITE	BROADCASTING-SATELLITE	ECC/REC/(01)04	MWS		EN 301 997	Point-to-point and terrestrial
FIXED	FIXED	ERC/DEC/(99)15			EN 302 217	multipoint systems
FIXED-SATELLITE (S/E)		ECC/REC/(01)04 ERC/DEC/(99)15	Fixed		EN 301 997 EN 302 217	Point-to-point and terrestrial multipoint systems
Mobile						
5.547	5.551H					
5.551F	5.551I					
5.551H						
5.551I						
42.5 - 43.5 GHz						
FIXED	FIXED	ECC/REC/(01)04	MWS		EN 301 997	Point-to-point and terrestrial
		ERC/DEC/(99)15			EN 302 217	multipoint systems
ECC/REC/(01)04	Fixed	EN 301 997	Point-to-point and terrestrial			
		ERC/DEC/(99)15			EN 302 217	multipoint systems
FIXED-SATELLITE (E/S) 5.552	FIXED-SATELLITE (E/S) 5.552	ECC/DEC/(02)04	FSS Earth stations			Priority for civil networks
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile					
RADIO ASTRONOMY 5.149 5.547	RADIO ASTRONOMY 5.149 5.547		Radio astronomy			Continuum and spectral line observations (e.g. silicon monoxide l ine), VLBI
43.5 - 45.5 GHz						
MOBILE 5.553	MOBILE 5.553		Defence systems			Harmonised military band for satellite uplinks and mobile systems
MOBILE-SATELLITE	MOBILE-SATELLITE					
RADIONAVIGATION	Fixed-satellite					
RADIONAVIGATION-SATELLITE						
5.554	5.554 EU27					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
45.5 - 47 GHz						
MOBILE 5.553	MOBILE 5.553					
MOBILE-SATELLITE	MOBILE-SATELLITE					
RADIONAVIGATION	RADIONAVIGATION					
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE					
5.554	5.554					
47 - 47.2 GHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE		Amateur Satellite			
47.2 - 47.5 GHz						
FIXED	FIXED		Feeder links			For 40 GHz Broadcasting satellites
FIXED-SATELLITE (E/S) 5.552	FIXED-SATELLITE (E/S) 5.552		FSS Earth stations			For fixed applications. Priority for civil networks
MOBILE	MOBILE					
5.552A	5.552A		HAPS			
		ERC/REC 25-10	PMSE			SAP/SAB
47.5 - 47.9 GHz						
FIXED	FIXED		Feeder links			For 40 GHz Broadcasting satellites
FIXED-SATELLITE (E/S) 5.552 (S/E) 5.516B 5.554A	FIXED-SATELLITE (E/S) 5.552 (S/E) 5.516B 5.554A	ECC/DEC/(05)08	FSS Earth stations			High Density FSS
MOBILE	MOBILE	ERC/REC 25-10	PMSE			SAP/SAB

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
47.9 - 48.2 GHz						
FIXED	FIXED		Feeder links			For 40 GHz Broadcasting satellites
FIXED-SATELLITE (E/S) 5.552	FIXED-SATELLITE (E/S) 5.552		FSS Earth stations			For fixed applications. Priority for civil networks
MOBILE	MOBILE					
5.552A	5.552A		HAPS			
		ERC/REC 25-10	PMSE			SAP/SAB
48.2 - 48.54 GHz						
FIXED	FIXED		Feeder links			For 40 GHz Broadcasting satellites
FIXED-SATELLITE (E/S) 5.552 (S/E) 5.516B 5.554A 5.555B	FIXED-SATELLITE (E/S) 5.552 (S/E) 5.516B 5.554A 5.555B	ERC/REC 12-10	Fixed			Within the band 48.50- 48.54 GHz
MOBILE	MOBILE	ECC/DEC/(05)08	FSS Earth stations			High Density FSS
		ERC/REC 25-10	PMSE			SAP/SAB
48.54 - 49.44 GHz						
FIXED	FIXED		Feeder links			48.5-49.2 GHz for 40 GHz Broadcasting satellites
FIXED-SATELLITE (E/S) 5.552	FIXED-SATELLITE (E/S) 5.552					
MOBILE	MOBILE	ERC/REC 12-10	Fixed		EN 302 217	
	RADIO ASTRONOMY		FSS Earth stations			For fixed applications. Priority for civil networks
5.149	5.149		Radio astronomy			Spectral line observations (e.g. carbon monosulphide line)
5.340	5.340					
5.555	5.555	ERC/REC 25-10	PMSE	EU17A		SAP/SAB
49.44 - 50.2 GHz						
FIXED	FIXED	ERC/REC 12-10	Fixed		EN 302 217	
FIXED-SATELLITE (E/S) 5.552 5.338A (S/E) 5.516B 5.554A 5.555B	FIXED-SATELLITE (E/S) 5.552 5.338A (S/E) 5.516B 5.554A 5.555B	ECC/DEC/(05)08	FSS Earth stations			High Density FSS
MOBILE	MOBILE	ERC/REC 25-10	PMSE	EU17A		SAP/SAB

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
50.2 - 50.4 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Atmospheric temperature sounding. Terrestrial passive radiometers.
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					Reference window for the 52.6-59.3 GHz band
5.340	5.340		Radio astronomy			Continuum and spectral line observations
50.4 - 51.4 GHz						
FIXED	FIXED		-			Future satellite and terrestrial applications. Shared civil and non civil allocation
FIXED-SATELLITE (E/S) 5.338A	FIXED-SATELLITE (E/S) 5.338A					
MOBILE	Mobile-satellite (E/S)					
Mobile-satellite (E/S)	EU2					
51.4 - 52.6 GHz						
FIXED 5.338A	FIXED 5.338A	ERC/REC 12-11	Fixed		EN 302 217	High density fixed links
MOBILE	MOBILE		Radio astronomy			Continuum and spectral line observations
	RADIO ASTRONOMY					
5.547	5.547					
5.556	5.556					
52.6 - 54.25 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Atmospheric temperature sounding. Terrestrial passive radiometers
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		Radio astronomy			Continuum and spectral line observations
5.340	5.340					
5.556	5.556					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
54.25 - 55.78 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Atmospheric temperature sounding. Terrestrial passive radiometers
INTER-SATELLITE 5.556A	SPACE RESEARCH (passive)					
SPACE RESEARCH (passive)						
5.556B						
55.78 - 56.9 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)	ERC/REC 12-12	Fixed		EN 302 217	High density fixed links
FIXED 5.557A	FIXED 5.557A		Passive sensors (satellite)			Atmospheric temperature sounding
INTER-SATELLITE 5.556A	INTER-SATELLITE 5.556A					
MOBILE 5.558	SPACE RESEARCH (passive)					
SPACE RESEARCH (passive)						
5.547	5.547					
5.557	5.558					
56.9 - 57 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)	ERC/REC 12-12	Fixed		EN 302 217	High density fixed links
FIXED	FIXED		Passive sensors (satellite)			Atmospheric temperature sounding
INTER-SATELLITE 5.558A	MOBILE 5.558					
MOBILE 5.558	SPACE RESEARCH (passive)					
SPACE RESEARCH (passive)						
5.547	5.547					
5.557	5.558A					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
57 - 58.2 GHz						
EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive)	EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive)	ECC/REC/(09)01 ERC/REC 70-03 ECC/DEC/(11)02	Fixed Passive sensors (satellite) Radiodetermination applications		EN 302 217 EN 302 372 EN 302 729	High density fixed links. Un-coordinated deployment Atmospheric temperature sounding Within the band 57-64 GHz for TLPR and LPR applications
5.547	5.547	ERC/REC 70-03	Wideband Data Transmission Systems		EN 302 567	
5.557		ERC/REC 70-03	Non-specific SRDs		EN 305 550	Within the band 57-64 GHz
58.2 - 59 GHz						
EARTH EXPLORATION-SATELLITE (passive) FIXED	EARTH EXPLORATION-SATELLITE (passive) FIXED	ECC/REC/(09)01	Fixed Passive sensors (satellite)		EN 302 217	Un-coordinated deployment High density fixed links Atmospheric temperature sounding. Terrestrial passive radiometers
MOBILE	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations
SPACE RESEARCH (passive) 5.547 5.556	SPACE RESEARCH (passive) 5.547 EU6 5.556 EU19	ERC/REC 70-03 ECC/DEC/(11)02 ERC/REC 70-03	Radiodetermination applications Wideband Data Transmission Systems		EN 302 372 EN 302 729 EN 302567	Within the band 57-64 GHz for TLPR and LPR applications
		ERC/REC 70-03	Non-specific SRDs		EN 305 550	Within the band 57-64 GHz

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
59 - 59.3 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Defence systems			Frequency band 59-61 GHz is a harmonised military band for fixed, mobile and radiolocation systems
FIXED	FIXED					
INTER-SATELLITE 5.556A	INTER-SATELLITE 5.556A		Passive sensors (satellite)			Atmospheric temperature sounding. Terrestrial passive radiometers
MOBILE 5.558	MOBILE 5.558					
RADIOLOCATION 5.559	RADIOLOCATION 5.559	ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 302 372 EN 302 729	Within the band 57-64 GHz for TLPR and LPR applications
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
	EU2	ERC/REC 70-03	Wideband Data Transmission Systems		EN 302 567	
	EU27	ECC/REC/(09)01	Fixed		EN 302 217	High density fixed links
		ERC/REC 70-03	Non-specific SRDs		EN 305 550	Within the band 57-64 GHz
59.3 - 62 GHz						
FIXED	FIXED		Defence systems			Frequency band 59-61 GHz is a harmonised military band for fixed, mobile and radiolocation systems
INTER-SATELLITE	INTER-SATELLITE					
MOBILE 5.558	MOBILE 5.558		ISM			Within the band 61.0-61.5 GHz
RADIOLOCATION 5.559	RADIOLOCATION 5.559					
5.138	5.138 EU2	ERC/REC 70-03	Non-Specific SRDs		EN 305 550	Within the band 57-64 GHz
	EU27					
		ERC/REC 70-03 ECC/DEC/(11)02	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	
		ECC/REC/(09)01	Fixed		EN 302 217	High density fixed links

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
62 - 63 GHz						
FIXED	FIXED		Land mobile			Broadband mobile systems for connection to IBCN paired with 65-66 GHz
INTER-SATELLITE	INTER-SATELLITE					
MOBILE 5.558	MOBILE 5.558		Defence systems			
RADIOLOCATION 5.559	RADIOLOCATION 5.559 EU2	ERC/REC 70-03 ECC/DEC/(11)02	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	
		ECC/REC (09)01	Fixed		EN 302 217	High density fixed links
		ERC/REC 70-03	Non-specific SRDs		EN 305 550	Within the band 57-64 GHz
63 - 64 GHz						
FIXED	FIXED		Defence systems			
INTER-SATELLITE	INTER-SATELLITE					
MOBILE 5.558	MOBILE 5.558	ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 302 372 EN 302 729	Within the band 57-64 GHz for TLPR and LPR applications
RADIOLOCATION 5.559	RADIOLOCATION 5.559 EU2	ECC/DEC/(09)01	ITS		EN 302 686	
		ERC/REC 70-03	Wideband Data Transmission Systems		EN 302 567	
		ECC/REC (09)01	Fixed		EN 302 217	High density fixed links
		ERC/REC 70-03	Non-specific SRDs		EN 305 550	Within the band 57-64 GHz
64 - 65 GHz						
FIXED	FIXED	ECC/REC/(05)02	Fixed		EN 302 217	High density fixed links
INTER-SATELLITE	INTER-SATELLITE					
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	ERC/REC 70-03	Wideband Data Transmission Systems		EN 302 567	
5.547 5.556	5.547 5.556		Radio astronomy			Continuum and spectral line observations

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
65 - 66 GHz						
EARTH EXPLORATION-SATELLITE	EARTH EXPLORATION-SATELLITE		Land mobile			Broadband mobile systems for connection to IBCN paired with 62-63 GHz
FIXED	FIXED					
INTER-SATELLITE	INTER-SATELLITE	ECC/REC/(05)02	Fixed		EN 302 217	High density fixed links
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	ERC/REC 70-03	Wideband Data Transmission Systems		EN 302 567	
SPACE RESEARCH	SPACE RESEARCH					
5.547	5.547					
66 - 71 GHz						
INTER-SATELLITE	INTER-SATELLITE					Future civil systems
MOBILE 5.553 5.558	MOBILE 5.553 5.558					
MOBILE-SATELLITE	MOBILE-SATELLITE					
RADIONAVIGATION	RADIONAVIGATION					
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE					
5.554	5.554					
71 - 74 GHz						
FIXED	FIXED		Defence systems			Harmonised military band. Pairing with 81-84 GHz is envisaged
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
MOBILE	MOBILE	ECC/REC/(05)07	Fixed		EN 302 217	
MOBILE-SATELLITE (S/E)	MOBILE-SATELLITE (S/E)					
	EU27					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
74 - 75.5 GHz						
BROADCASTING	BROADCASTING	ECC/REC/(05)07	Fixed		EN 302 217	
BROADCASTING-SATELLITE	BROADCASTING-SATELLITE	ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
FIXED	FIXED					
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)		Space Research			VLBI measurements within the band 74-84 GHz
MOBILE	MOBILE					
Space research (S/E)	Space research (S/E)					
5.561	5.561					
75.5 - 76 GHz						
BROADCASTING	BROADCASTING		Amateur	EU35	EN 301 783	
BROADCASTING-SATELLITE	BROADCASTING-SATELLITE		Amateur Satellite			
FIXED	FIXED					
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)	ECC/REC/(05)07	Fixed links		EN 302 217	
MOBILE	Amateur	ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
Space research (S/E)	Amateur-satellite					
5.561	5.561 EU2 EU35		Space Research			VLBI

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
76 - 77.5 GHz						
RADIO ASTRONOMY	RADIO ASTRONOMY		Amateur		EN 301 783	
RADIOLOCATION	RADIOLOCATION		Amateur Satellite			
Amateur	Amateur	ECC/DEC/(04)03	SRR		EN 302 264	
Amateur-satellite	Amateur-satellite		Radiolocation (civil)			
Space research (S/E)	Space research (S/E)		Radio astronomy			Continuum and spectral line observations
5.149	5.149 EU2	ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
		ERC/REC 70-03	RTTT		EN 301 091	Within the band 76-77 GHz Radar. Road Transport and Traffic Telematic
			Railway applications		EN 301 091	Obstruction/vehicle detection at level crossings
77.5 - 78 GHz						
AMATEUR	AMATEUR	ECC/DEC/(04)03	SRR		EN 302 264	
AMATEUR-SATELLITE	AMATEUR-SATELLITE		Radio astronomy			Continuum and spectral line observations
Radio astronomy	Space research (S/E)					
Space research (S/E)		ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
5.149	5.149					
78 - 79 GHz						
RADIOLOCATION	RADIOLOCATION	ECC/DEC/(04)03	SRR		EN 302 264	
Amateur	Amateur		Radiolocation (civil)			
Amateur-satellite	Amateur-satellite		Defence systems			
Radio astronomy	Radio astronomy		Radio astronomy			Continuum and spectral line observations
Space research (S/E)	Space research (S/E)					
5.149	5.149 EU2	ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
5.560	5.560					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
79 - 81 GHz						
RADIO ASTRONOMY	RADIO ASTRONOMY	ECC/DEC/(04)03	SRR		EN 302 264	
RADIOLOCATION	RADIOLOCATION		Radiolocation (civil)			
			Defence systems			
Amateur	Amateur		Radio astronomy			Continuum and spectral line observations
Amateur-satellite (S/E)	Amateur-satellite (S/E)	ERC/REC 70-03 ECC/DEC/(11)02	Radiodetermination applications		EN 302 372 EN 302 729	Within the band 75-85 GHz for TLPR and LPR applications
Space research (S/E)						
5.149	5.149 EU2					
81 - 84 GHz						
FIXED 5.338A	FIXED 5.338A		Amateur		EN 301 783	Within the band 81-81.5 GHz
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)		Amateur Satellite			Within the band 81-81.5 GHz
MOBILE	MOBILE		Defence systems			Harmonised military band. Paring with 71-74 GHz is envisaged
MOBILE-SATELLITE (E/S)	MOBILE-SATELLITE (E/S)	ECC/REC/(05)07	Fixed		EN 302 217	
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations
Space research (S/E)	Space research (S/E)	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 75-85 GHz for TLPR
5.149	5.149 EU27	ECC/DEC/(11)02			EN 302 729	and LPR applications
5.561A	5.561A					
84 - 86 GHz						
FIXED 5.338A	FIXED 5.338A	ECC/REC/(05)07	Fixed		EN 302 217	
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)					
			Radio astronomy			Continuum and spectral line observations
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY	ERC/REC 70-03	Radiodetermination applications		EN 302 372	Within the band 75-85 GHz for TLPR
5.149	5.149	ECC/DEC/(11)02			EN 302 729	and LPR applications

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
86 - 92 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Measurement of clouds, oil spills, ice, snow, rain, reference window for the temperature sounding near 118 GHz.
RADIO ASTRONOMY	RADIO ASTRONOMY					
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		Radio astronomy			Continuum and spectral line observations, VLBI
5.340	5.340					
92 - 94 GHz						
FIXED 5.338A	FIXED 5.338A		Radio astronomy			Continuum and spectralline observations
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY					
RADIOLOCATION	RADIOLOCATION					
5.149	5.149 EU2					
94 - 94.1 GHz						
EARTH EXPLORATION-SATELLITE (active)	EARTH EXPLORATION-SATELLITE (active)		Active sensors (satellite)			Cloud radars
RADIOLOCATION	RADIOLOCATION		Space Research (active)			
SPACE RESEARCH (active)	SPACE RESEARCH (active)					
Radio astronomy	Radio astronomy		Radio astronomy			Continuum and spectral line observations
5.562	5.562 EU2					
5.562A	5.562A					
94.1 - 95 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line observations
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY					
RADIOLOCATION	RADIOLOCATION					
5.149	5.149 EU2					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
95 - 100 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line
MOBILE	MOBILE					observations
RADIO ASTRONOMY	RADIO ASTRONOMY					
RADIOLOCATION	RADIOLOCATION					
RADIONAVIGATION	RADIONAVIGATION					
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE					
5.149	5.149 EU2					
5.554	5.554					
100 - 102 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Limb sounding of atmospheric constituents
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.340	5.340					
5.341	5.341					
102 - 105 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line observations
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY					
5.149	5.149					
5.341	5.341					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
105 - 109.5 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line observations
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY					
SPACE RESEARCH (passive) 5.562B	SPACE RESEARCH (passive) 5.562B					
5.149	5.149					
5.341	5.341					
109.5 - 111.8 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Radio astronomy			Continuum and spectral line observations
RADIO ASTRONOMY	RADIO ASTRONOMY					
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.340	5.340					
5.341	5.341					
111.8 - 114.25 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line observations
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY					
SPACE RESEARCH (passive) 5.562B	SPACE RESEARCH (passive) 5.562B					
5.149	5.149					
5.341	5.341					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
114.25 - 116 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Radio astronomy			Continuum and spectral line observations
RADIO ASTRONOMY	RADIO ASTRONOMY					
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.340	5.340					
5.341	5.341					
116 - 119.98 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Passive sensing as part of the oxygen absorption band with peak at 118.75 GHz
INTER-SATELLITE 5.562C	INTER-SATELLITE 5.562C					
SPACE RESEARCH (passive)						
5.341	5.341					
119.98 - 120.02 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Passive sensing as part of the oxygen absorption band with peak at 118.75 GHz
INTER-SATELLITE 5.562C	INTER-SATELLITE 5.562C					
SPACE RESEARCH (passive)						
5.341	5.341					
120.02 - 122.25 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)	ERC/REC 70-03	Non-Specific SRDs		EN 305 550	Within the band 122-123 GHz
INTER-SATELLITE 5.562C	INTER-SATELLITE 5.562C		Passive sensors (satellite)			Passive sensing as part of the oxygen absorption band with peak at 118.75 GHz
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.138	5.138					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
122.25 - 123 GHz						
FIXED	FIXED		Amateur		EN 301 783	
INTER-SATELLITE	INTER-SATELLITE		Amateur Satellite			
MOBILE 5.558	MOBILE 5.558					
Amateur	Amateur	ERC/REC 70-03	Non-Specific SRDs		EN 305 550	Within the band 122-123 GHz
	Amateur-satellite					
5.138	5.138					
123 - 126 GHz						
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)		Radio astronomy			Continuum and spectral line observations
MOBILE-SATELLITE (S/E)	MOBILE-SATELLITE (S/E)					
RADIONAVIGATION	RADIONAVIGATION					
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE					
Radio astronomy	Radio astronomy					
5.554	5.554					
126 - 130 GHz						
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)		Radio astronomy			Continuum and spectral line observations
MOBILE-SATELLITE (S/E)	MOBILE-SATELLITE (S/E)					
RADIONAVIGATION	RADIONAVIGATION					
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE					
Radio astronomy 5.562D	Radio astronomy					
5.149	5.149					
5.554	5.554					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
130 - 134 GHz						
EARTH EXPLORATION-SATELLITE (active) 5.562E	EARTH EXPLORATION-SATELLITE (active) 5.562E		Radio astronomy			Continuum and spectral line observations
FIXED	FIXED					
INTER-SATELLITE	INTER-SATELLITE					
MOBILE 5.558	MOBILE 5.558					
RADIO ASTRONOMY	RADIO ASTRONOMY					
5.149 5.562A	5.149 5.562A					
134 - 136 GHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE		Amateur Satellite			
Radio astronomy	Radio astronomy		Radio astronomy			Continuum and spectral line observations
136 - 141 GHz						
RADIO ASTRONOMY	RADIO ASTRONOMY		Amateur		EN 301 783	
RADIOLOCATION	RADIOLOCATION		Amateur Satellite			
Amateur	Amateur		Radio astronomy			Continuum and spectral line observations
Amateur-satellite	Amateur-satellite					
5.149	5.149					
141 - 148.5 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line observations
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY					
RADIOLOCATION	RADIOLOCATION					
5.149	5.149					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
148.5 - 151.5 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Harmonised reference window for passive sensor observations
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.340	5.340					
151.5 - 155.5 GHz						
FIXED	FIXED					
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations
RADIOLOCATION	RADIOLOCATION					
5.149	5.149					
155.5 - 158.5 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Protection until 1.1.2018
FIXED	FIXED					
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Spectral line and wide band continuum observations
SPACE RESEARCH (passive) 5.562B	SPACE RESEARCH (passive) 5.562B					
5.149	5.149					
5.562F	5.562F					
5.562G	5.562G					
158.5 - 164 GHz						
FIXED	FIXED					
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
MOBILE	MOBILE					
MOBILE-SATELLITE (S/E)	MOBILE-SATELLITE (S/E)					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
164 - 167 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Passive sensing of the water vapour absorption line whose peak is at 183.31 GHz.
RADIO ASTRONOMY	RADIO ASTRONOMY					Atmospheric limb sounding of the 164.38 GHz CO line
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		Radio astronomy			Continuum and spectral line observations
5.340	5.340					
167 - 168 GHz						
FIXED	FIXED					
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
INTER-SATELLITE	INTER-SATELLITE					
MOBILE 5.558	MOBILE 5.558					
168 - 170 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line observations
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
INTER-SATELLITE	INTER-SATELLITE					
MOBILE 5.558	MOBILE 5.558					
5.149	5.149					
170 - 174.5 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line observations
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
INTER-SATELLITE	INTER-SATELLITE					
MOBILE 5.558	MOBILE 5.558					
5.149	5.149					
5.562D						

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

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
191.8 - 200 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line observations
INTER-SATELLITE	INTER-SATELLITE					
MOBILE 5.558	MOBILE 5.558					
MOBILE-SATELLITE	MOBILE-SATELLITE					
RADIONAVIGATION	RADIONAVIGATION					
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE					
5.149	5.149					
5.341	5.341					
5.554	5.554					
200 - 202 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Earth exploration-satellite			(EESS) Atmospheric limb sounding and atmospheric remote sensing of nitrous oxide at 201 GHz
RADIO ASTRONOMY	RADIO ASTRONOMY					
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		Radio astronomy			Continuum and spectral line continuum observations
5.340	5.340					
5.341	5.341					
5.563A	5.563A					
202 - 209 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Earth exploration-satellite			(EESS) Atmospheric limb sounding and atmospheric remote sensing of water vapour at 203.4 GHz and ozone at 208.5 GHz
RADIO ASTRONOMY	RADIO ASTRONOMY					
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)		Radio astronomy			Continuum and spectral line observations
5.340	5.340					
5.341	5.341					
5.563A	5.563A					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
209 - 217 GHz						
FIXED	FIXED		Radio astronomy			Continuum and spectral line observations
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)					
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY					
5.149 5.341	5.149 5.341					
217 - 226 GHz						
FIXED	FIXED					
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)					
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations
SPACE RESEARCH (passive) 5.562B	SPACE RESEARCH (passive) 5.562B					
5.149 5.341	5.149 5.341					
226 - 231.5 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Atmospheric limb sounding. Reference window for higher frequency water vapour measurements
RADIO ASTRONOMY	RADIO ASTRONOMY					
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.340	5.340		Radio astronomy			Continuum and spectral line observations (e.g. CO line), VLBI

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
231.5 - 232 GHz						
FIXED	FIXED					
MOBILE	MOBILE					
Radiolocation	Radiolocation					
232 - 235 GHz						
FIXED	FIXED					
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
MOBILE	MOBILE					
Radiolocation	Radiolocation					
235 - 238 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Passive sensors (satellite)			Passive sensing limited to microwave sounding
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)		Radio astronomy			Continuum and spectral line observations
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.563A 5.563B	5.563A 5.563B					
238 - 240 GHz						
FIXED	FIXED					
FIXED-SATELLITE (S/E)	FIXED-SATELLITE (S/E)					
MOBILE	MOBILE					
RADIOLOCATION	RADIOLOCATION					
RADIONAVIGATION	RADIONAVIGATION					
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
240 - 241 GHz						
FIXED	FIXED					
MOBILE	MOBILE					
RADIOLOCATION	RADIOLOCATION					
241 - 248 GHz						
RADIO ASTRONOMY	RADIO ASTRONOMY		Amateur		EN 301 783	
RADIOLOCATION	RADIOLOCATION		Amateur Satellite			
Amateur	Amateur					
Amateur-satellite	Amateur-satellite	ERC/REC 70-03	Non-Specific SRDs		EN 305 550	Within the band 244-246 GHz
5.138	5.138		Radio astronomy			Continuum and spectral line observations
5.149	5.149					
248 - 250 GHz						
AMATEUR	AMATEUR		Amateur		EN 301 783	
AMATEUR-SATELLITE	AMATEUR-SATELLITE		Amateur Satellite			
Radio astronomy	Radio astronomy		Radio astronomy			Continuum and spectral line observations
5.149	5.149					
250 - 252 GHz						
EARTH EXPLORATION-SATELLITE (passive)	EARTH EXPLORATION-SATELLITE (passive)		Earth exploration-satellite			(EESS) Limb sounding of nitrous oxide near 251 GHz
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations
SPACE RESEARCH (passive)	SPACE RESEARCH (passive)					
5.340	5.340					
5.563A	5.563A					

RR Region 1 Allocation and RR footnotes applicable to CEPT	*European Common Allocation*	*ECC/ERC harmonisation measure*	*Applications*	*European footnotes*	*Standard*	*Notes*
252 - 265 GHz						
FIXED MOBILE	FIXED MOBILE					
MOBILE-SATELLITE (E/S)	MOBILE-SATELLITE (E/S)					
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations
RADIONAVIGATION	RADIONAVIGATION					
RADIONAVIGATION-SATELLITE	RADIONAVIGATION-SATELLITE					
5.149 5.554	5.149 5.554					
265 - 275 GHz						
FIXED	FIXED					
FIXED-SATELLITE (E/S)	FIXED-SATELLITE (E/S)					
MOBILE	MOBILE					
RADIO ASTRONOMY	RADIO ASTRONOMY		Radio astronomy			Continuum and spectral line observations
5.149 5.563A	5.149 5.563A					
275 - 3000 GHz						
Not allocated 5.565	Not allocated 5.565					May be used by both active and passive service

Annex 1 – European-footnotes included in the ECA Table

EU1	Within the frequency band 20-108 MHz the common military tuning range is 30-87.5 MHz, however, some equipment types use the lower (20 MHz) and upper (108 MHz) limits, regulated on a national basis. The harmonised military bands are: -30.30-30.50 MHz; 32.15-32.45 MHz; 41.00-47.00 MHz; 73.30-74.10 MHz; 79.0-79.70 MHz. When providing for additional requirements, further blocks of frequencies should be spread out over the whole common military tuning range in order to supply frequencies for frequency hopping equipment and to support a larger force (corps size, three divisions). This should be done by the national frequency management organisation(s) concerned.
EU2	Civil-military sharing.
EU3	CEPT administrations are urged to take all practical steps to clear the band 47-68 MHz of assignments to the broadcasting service. The broadcasting assignments according to Stockholm Agreement 1961 shall be protected.
EU4	CEPT administrations are urged to take all practical steps to clear the band 68 - 73 MHz of assignments to the broadcasting service. The broadcasting assignments according to the Final Acts of the Special Regional Conference, Geneva, 1961 shall be protected.
EU5	In parts of this band aeronautical stations and aircraft stations may utilise 8.33 kHz channel spacing for non secure communications requirements.
EU6	The mobile-satellite service is limited to low earth orbiting satellites.
EU7	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.
EU8	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.
EU9	In a growing number of CEPT countries, parts of the band 70.0-70.5 MHz are also allocated to the Amateur service on a secondary basis.
EU10	The mobile service in the harmonised military band 225-400 MHz generally comprises land, air maritime and satellite mobile applications.
EU11	Not used.
EU12	The applicable RR 5 footnotes remain in force. Administrations are however urged to aim for the fullest possible harmonisation with the ITU Table of Allocations and ECA.
EU13	CEPT Administrations are urged to take all practical steps to clear the band 645-960 MHz of the assignments to the aeronautical radionavigation service.
EU14	Radiolocation limited to military requirements for naval ship borne radars.
EU15	In the frequency band 1350-2690 MHz tactical radio relay systems should be capable of tuning over the full range of this band. Requirements for tactical radio relay should be met from the following sub-bands: 1350-1400 MHz; 1427-1452 MHz; 1492-1525 MHz; 1660-1670 MHz; 1675-1710 MHz; 1785-1800 MHz; 2025-2110 MHz; 2200-2290 MHz; 2520-2575 MHz; 2615-2670 MHz. Tactical radio relay systems may operate in the bands 2520-2575 MHz and 2615-2670 MHz provided that they shall not cause harmful interference to terrestrial IMT and do not claim protection from them. The common requirement of 2 x 45 MHz for tactical radio relay for cross/near border operations and exercises should be met from 2025-2110 MHz and 2200-2290 MHz and in particular the bands 2025-2070 / 2200-2245 MHz.
EU15A	Use of the band by the mobile service is limited to tactical radio relay applications.
EU16	On the introduction of IMT, the fixed service will become secondary in appropriate parts of the band.
EU16A	Use of the band by the mobile service is limited to tactical radio relay and SAP/SAB applications.
EU17	In the sub-bands 3400 - 3410 MHz, 5660 - 5670 MHz, 10.36 - 10.37 GHz, 10.45 - 10.46 GHz the amateur service operates on a secondary basis. In making assignments to other services, CEPT administrations are requested wherever possible to maintain these sub-bands in such a way as to facilitate the reception of amateur emissions with minimal power flux densities.
EU17A	Use of the band by the mobile service is limited to SAP/SAB applications.
EU18	Not used.
EU19	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.

EU20 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.

EU21 Not used.

EU22 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.

EU23 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.

EU24 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 EU20).

EU25 Not used.

EU26 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.

EU27 A frequency band that is in general military use in Europe and identified for major military utilisation in the ECA. Such a frequency band forms a basis for military use and planning. The band can be shared between civil and military users according to national requirements and legislation.

EU28 CEPT administrations shall not deploy new fixed service systems in the band 11.7-12.5 GHz (ERC/DEC(00)08).

EU29 The frequency bands 890-915 / 935-960 MHz, 880-890 / 925-935 MHz, 1710-1785 / 1805-1880 MHz, 1900-1980 MHz, 2010-2025 MHz and 2010-2170 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.

EU30 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.

EU31 The band 440-470 MHz is the tuning range for Private Wide Area Paging (PWAP).

EU32 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.

EU33 The band 1880-1900 MHz is generally expected to be used by IMT/DECT.

EU34 Parts of the bands 450-457.5 / 460-467.5 MHz may also be used for existing and evolving public cellular networks on a national basis.

EU35 In Europe the band 75.5-76 GHz is also allocated to the Amateur and Amateur Satellite services.

Annex 2 – ITU Radio Regulations footnotes for Region 1

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

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.

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.

5.54B *Additional allocation:* in Algeria, Saudi Arabia, Egypt, the United Arab Emirates, the Russian Federation, Iraq, 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.

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, Azerbaijan, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the band 14-17 kHz is also allocated to the radionavigation service on a primary basis. (WRC-07)

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, Kazakhstan, 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 (see No.5.32).

5.67 Additional allocation*:* in Mongolia, Kyrgyzstan and Turkmenistan, the 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-07)

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 band 135.7-137.8 kHz in Algeria, Egypt, Iran (Islamic Republic of), Iraq, Lebanon, Syrian Arab Republic, Sudan, South Sudan and Tunisia is limited to the fixed and maritime mobile services. The amateur service shall not be used in the above-mentioned countries in the band 135.7-137.8 kHz, and this should be taken into account by the countries authorizing such use. (WRC-12)

5.68 Alternative allocation: in Angola, Burundi, the Dem. Rep. of the Congo, Malawi, Rwanda and South Africa, the band 160-200 kHz is allocated to the fixed service on a primary basis. (WRC-03)

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., the Dem. Rep. of the Congo, Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Oman, the Dem. Rep. of the Congo, Rwanda, South Africa, Swaziland, Tanzania, Chad, Zambia and Zimbabwe, the band 200-283.5 kHz is allocated to the aeronautical radionavigation service on a primary basis. (WRC-07)

5.71 Alternative allocation: in Tunisia, the band 255-283.5 kHz is allocated to the broadcasting service on a primary basis

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 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-12)

5.79 The use of the bands 415-495 kHz and 505-526.5 kHz (505-510 kHz in Region 2) by the maritime mobile service is limited to radiotelegraphy.

5.79A When establishing coast stations in the NAVTEX service on the frequencies 490 kHz, 518 kHz and 4 209.5 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.

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

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)

5.84 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, Lesotho, Malawi, Mozambique, Namibia, Niger and Swaziland, the band 526.5-535 kHz is also allocated to the mobile service on a secondary basis. (WRC-12)

5.87A Additional allocation: in Uzbekistan, the band 526.5-1 606.5 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 1 605-1 705 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 in Region 1 use radiodetermination systems in the bands 1 606.5-1 625 kHz, 1 635-1 800 kHz, 1 850-2 160 kHz, 2 194-2 300 kHz, 2 502-2 850 kHz and 3 500-3 800 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 Angola, Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Mongolia, Nigeria, Uzbekistan, Poland, Kyrgyzstan, Slovakia, Tajikistan, Chad, Turkmenistan and Ukraine, the bands 1 625-1 635 kHz, 1 800-1 810 kHz and 2 160-2 170 kHz are also allocated to the fixed and land mobile services on a primary basis, subject to agreement obtained under No. **9.21**. (WRC-12)

5.96 In Germany, Armenia, Austria, Azerbaijan, Belarus, Denmark, Estonia, Finland, Georgia, Hungary, Iceland, Ireland, Israel,

Kazakhstan, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Rep., the United Kingdom, the Russian Federation, Sweden, Switzerland, Tajikistan, Turkmenistan and Ukraine, administrations may allocate up to 200 kHz to their amateur service in the bands 1 715-1 800 kHz and 1 850-2 000 kHz. However, when allocating the 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-03)

5.98 Alternative allocation: in Angola, Armenia, Azerbaijan, Belarus, Belgium, Cameroon, the Dem. Rep. of the Congo, Denmark, Egypt, Eritrea, Spain, Ethiopia, the Russian Federation, Georgia, Greece, Italy, Kazakhstan, Lebanon, Lithuania, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tunisia, Turkmenistan, Turkey and Ukraine, the band 1 810-1 830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.99 Additional allocation: in Saudi Arabia, Austria, Iraq, Libya, Uzbekistan, Slovakia, Romania, Slovenia, Chad, and Togo, the band 1 810-1 830 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 1 810-1 830 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, 2502-2 625 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 2 025-2 045 kHz by the meteorological aids service is limited to oceanographic buoy stations.

5.107 Additional allocation: in Saudi Arabia, Eritrea, Ethiopia, Iraq, Libya, Somalia and Swaziland, the 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-12)

5.108 The carrier frequency 2 182 kHz is an international distress and calling frequency for radiotelephony. The conditions for the use of the band 2 173.5-2 190.5 kHz are prescribed in Articles 31 and 52. (WRC-07

5.109 The frequencies 2 187.5 kHz, 4 207.5 kHz, 6 312 kHz, 8 414.5 kHz, 12 577 kHz and 16 804.5 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 2 174.5 kHz, 4 177.5 kHz, 6 268 kHz, 8 376.5 kHz, 12 520 kHz and 16 695 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 2 182 kHz, 3 023 kHz, 5 680 kHz, 8 364 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 10 003 kHz, 14 993 kHz and 19 993 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 Denmark and Sri Lanka, the band 2 194-2 300 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.113 For the conditions for the use of the bands 2 300-2 495 kHz (2 498 kHz in Region 1), 3 200-3 400 kHz, 4 750-4 995 kHz and 5 005-5 060 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 Denmark and Iraq, the band 2 502-2 625 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.115 The carrier (reference) frequencies 3 023 kHz and 5 680 kHz may also be used, in accordance with Article **31** by stations of the maritime mobile service engaged in coordinated search and rescue operations. (WRC-07)

5.116 Administrations are urged to authorize the use of the band 3 155-3 195 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 3 155 kHz and 3 400 kHz to suit local needs.

It should be noted that frequencies in the range 3 000 kHz to 4 000 kHz are suitable for hearing aid devices which are designed to operate over short distances within the induction field.

5.117 Alternative allocation*:* in Côte d'Ivoire, Denmark, Egypt, Liberia, Sri Lanka and Togo, the band 3 155-3 200 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.123 Additional allocation*:* in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the 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.

5.125 Additional allocation: in Greenland, the band 3 950-4 000 kHz is also allocated to the broadcasting service on a primary basis. The power of the broadcasting stations operating in this band shall not exceed that necessary for a national service and shall in no case exceed 5 kW.

5.127 The use of the band 4 000-4 063 kHz by the maritime mobile service is limited to ship stations using radiotelephony (see No. 52.220 and Appendix 17).

5.128 Frequencies in the bands 4 063-4 123 kHz and 4 130-4 438 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W, on condition that harmful interference is not caused to the maritime mobile service. In addition, in Afghanistan, Argentina, Armenia, Azerbaijan, 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 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 be 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-12)

5.130 The conditions for the use of the carrier frequencies 4 125 kHz and 6 215 kHz are prescribed in Articles **31** and **52**. (WRC-07)

5.131 The frequency 4 209.5 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 4 210 kHz, 6 314 kHz, 8 416.5 kHz, 12 579 kHz, 16 806.5 kHz, 19 680.5 kHz, 22 376 kHz and 26 100.5 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)**

5.132B *Alternative allocation:* in Armenia, Austria, Belarus, Moldova, Uzbekistan 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.

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 5 130-5 250 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, Austria, Belarus, Moldova, Uzbekistan 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.

5.134 The use of the 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 bands to facilitate the introduction of digitally modulated emissions in accordance with the provisions of Resolution **517 (Rev.WRC-07)**. (WRC-07)

5.136 Additional allocation: Frequencies in the band 5 900-5 950 kHz may be used by stations in the following services, communicating only within the boundary of the country in which they are located: fixed service (in all three Regions), land mobile service (in Region 1), mobile except aeronautical mobile (R) service (in Regions 2 and 3), on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

5.137 On condition that harmful interference is not caused to the maritime mobile service, the bands 6 200-6 213.5 kHz and 6 220.5-6 525 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W. At the time of notification of these frequencies, the attention of the Bureau will be drawn to the above conditions.

5.138 The following bands:

6 765 - 6 795 kHz	(centre frequency 6 780 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.

5.140 Additional allocation: in Angola, Iraq, Kenya, Somalia and Togo, the band 7 000-7 050 kHz is also allocated to the fixed service on a primary basis. (WRC-12)

5.141 Alternative allocation: in Egypt, Eritrea, Ethiopia, Guinea, Libya, Madagascar and Niger, the band 7 000-7 050 kHz is allocated to the fixed service on a primary basis. (WRC-12)

5.141A Additional allocation*:* in Uzbekistan and Kyrgyzstan, the bands 7 000-7 100 kHz and 7 100-7 200 kHz are also allocated to the fixed and land mobile services on a secondary basis. (WRC-03)

5.141B Additional allocation: after 29 March 2009, in Algeria, Saudi Arabia, Australia, Bahrain, Botswana, Brunei Darussalam, China, Comoros, Korea (Rep. of), Diego Garcia, Djibouti, Egypt, United Arab Emirates, Eritrea, Indonesia, Iran (Islamic Republic of), Japan, Jordan, Kuwait, Libya, Morocco, Mauritania, Niger, New Zealand, Oman, Papua New Guinea, Qatar, the Syrian Arab Republic, Singapore, Sudan, South Sudan, Tunisia, Viet Nam and Yemen, the 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-12)

5.142 Until 29 March 2009, the use of the band 7 100-7 300 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 7 200-7 300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3. (WRC-03)

5.143 Additional allocation: Frequencies in the band 7 300-7 350 kHz may be used by stations in the fixed service and in the land mobile service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)

5.143B In Region 1, the band 7 350-7 450 kHz is allocated, until 29 March 2009, to the fixed service on a primary basis and to the land mobile service on a secondary basis. After 29 March 2009, on condition that harmful interference is not caused to the broadcasting service, frequencies in the band 7 350-7 450 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, each station using a total radiated power that shall not exceed 24 dBW. (WRC-03)

5.143C Additional allocation: after 29 March 2009 in Algeria, Saudi Arabia, Bahrain, Comoros, Djibouti, Egypt, United Arab Emirates, Iran (Islamic Republic of), Jordan, Kuwait, Morocco, Mauritania, Oman, Qatar, the Syrian Arab Republic, Sudan, South Sudan,Tunisia and Yemen, the bands 7 350-7 400 kHz and 7 400-7 450 kHz are also allocated to the fixed service on a primary basis. (WRC-12)

5.145 The conditions for the use of the carrier frequencies 8 291 kHz, 12 290 kHz and 16 420 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)**.

5.145B *Alternative allocation:* in Armenia, Austria, Belarus, Moldova, Uzbekistan 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.

5.146 Additional allocation: Frequencies in the bands 9 400-9 500 kHz, 11 600-11 650 kHz, 12 050-12 100 kHz, 15 600-15 800 kHz, 17 480-17 550 kHz and 18 900-19 020 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 9 775-9 900 kHz, 11 650-11 700 kHz and 11 975-12 050 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:

13 360-13 410 kHz,
25 550-25 670 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,
1 330-1 400 MHz,
1 610.6-1 613.8 MHz,
1 660-1 670 MHz,
1 718.8-1 722.2 MHz,
2 655-2 690 MHz,
3 260-3 267 MHz,
3 332-3 339 MHz,
3 345.8-3 352.5 MHz,
4 825-4 835 MHz,
4 950-4 990 MHz,
4 990-5 000 MHz,
6 650-6 675.2 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,
42.77-42.87 GHz,
43.07-43.17 GHz,
43.37-43.47 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-2000)

5.149A *Alternative allocation:* in Armenia, Austria, Belarus, Moldova, Uzbekistan 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.

5.150 The following bands:

13 553 - 13 567 kHz	(centre frequency 13 560 kHz),
26 957 - 27 283 kHz	(centre frequency 27 120 kHz),
40.66 - 40.70 MHz	(centre frequency 40.68 MHz),
902 - 928 MHz	in Region 2 (centre frequency 915 MHz),
2 400 - 2 500 MHz	(centre frequency 2 450 MHz),
5 725 - 5 875 MHz	(centre frequency 5 800 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 13 570-13 600 kHz and 13 800-13 870 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 14 250-14 350 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 18 068-18 168 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 21 850-21 870 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 21 850-21 870 kHz by the fixed service is limited to provision of services related to aircraft flight safety. (WRC-07)

5.155B The band 21 870-21 924 kHz is used by the fixed service for provision of services related to aircraft flight safety.

5.156 Additional allocation: in Nigeria, the band 22 720-23 200 kHz is also allocated to the meteorological aids service (radiosondes) on a primary basis.

5.156A The use of the band 23 200-23 350 kHz by the fixed service is limited to provision of services related to aircraft flight safety

5.157 The use of the band 23 350-24 000 kHz by the maritime mobile service is limited to inter-ship radiotelegraphy.

5.158 *Alternative allocation:* in Armenia, Austria, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 24 450-24 600 kHz is allocated to the fixed and land mobile services on a primary basis.

5.159 *Alternative allocation:* in Armenia, Austria, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 39-39.5 MHz is allocated to the fixed and mobile services on a primary basis.

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) and the United States, 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)**

5.161B *Alternative allocation:* in Albania, Germany, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Cyprus, Vatican, Croatia, Denmark, Spain, Estonia, Finland, France, Greece, Hungary, Ireland, Iceland, Italy, Latvia, The Former Yugoslav Rep. of Macedonia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Norway, Uzbekistan, Netherlands, Poland, 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.

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, The Former Yugoslav Republic of Macedonia, Liechtenstein, Lithuania, Luxembourg, Monaco, Montenegro, Norway, the Netherlands, Poland, Portugal, the Czech Rep., the United Kingdom, Serbia, Slovenia, Sweden and Switzerland the 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-12)

5.163 *Additional allocation:* in Armenia, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the 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-12)

5.164 *Additional allocation:* in Albania, Algeria, Germany, Austria, Belgium, Bosnia and Herzegovina, Botswana, Bulgaria, Côte d'Ivoire, Denmark, Spain, Estonia, Finland, France, Gabon, Greece, 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, Swaziland, Chad, Togo, Tunisia and Turkey, the band 47-68 MHz, in South Africa the band 47-50 MHz, and in Latvia the band 48.5-56.5 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 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 band. (WRC-12)

5.165 Additional allocation: in Angola, Cameroon, Congo (Rep. of the), Madagascar, Mozambique, Niger, Somalia, Sudan, South Sudan, Tanzania and Chad, the band 47-68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.166 *Alternative allocation:* in New Zealand, the band 50-51 MHz is allocated to the fixed and mobile services on a primary basis; the band 53-54 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.169 Alternative allocation: in Botswana, Lesotho, Malawi, Namibia, the Dem. Rep. of the Congo, Rwanda, South Africa, Swaziland, Zambia and Zimbabwe, the band 50-54 MHz is allocated to the amateur service on a primary basis. In Senegal, the band 50-51 MHz is allocated to the amateur service on a primary basis. (WRC-12).

5.171 Additional allocation*:* in Botswana, Lesotho, Malawi, Mali, Namibia, the Dem. Rep. of the Congo, Rwanda, South Africa, Swaziland, Zambia and Zimbabwe, the band 54-68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

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)

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

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

5.180 The frequency 75 MHz is assigned to marker beacons. Administrations shall refrain from assigning frequencies close to the limits of the guardband to stations of other services which, because of their power or geographical position, might cause harmful interference or otherwise place a constraint on marker beacons.

Every effort should be made to improve further the characteristics of airborne receivers and to limit the power of transmitting stations close to the limits 74.8 MHz and 75.2 MHz.

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

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

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

5.194 Additional allocation: in Azerbaijan, Kyrgyzstan, Somalia and Turkmenistan, the band 104-108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-07)

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

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

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

5.201 Additional allocation: in Angola, Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, Georgia, Hungary, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Latvia, Moldova, Mongolia, Mozambique, Uzbekistan, Papua New Guinea, Poland, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the 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-12)

5.202 Additional allocation: in Saudi Arabia, Armenia, Azerbaijan, Belarus, Bulgaria, the United Arab Emirates, the Russian Federation, Georgia, Iran (Islamic Republic of), Jordan, Latvia, Oman, Uzbekistan, Poland, the Syrian Arab Republic, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the 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-12)

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, Serbia, Singapore, Thailand and Yemen, the 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-07)

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, Finland, France, Georgia, Greece, Kazakhstan, Lebanon, Moldova, Mongolia, Uzbekistan, Poland, Kyrgyzstan, the Syrian Arab Republic, Slovakia, the Czech Republic, Romania, the Russian Federation, 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 bands 137-138 MHz, 387-390 MHz and 400.15-401 MHz, administrations shall take all practicable steps to protect the radio astronomy service in the bands 150.05-153 MHz, 322-328.6 MHz, 406.1-410 MHz and 608-614 MHz from harmful interference from unwanted emissions. The threshold levels of interference detrimental to the radio astronomy service are shown in the relevant ITU-R Recommendation. (WRC-07)

5208B* In the bands:

137-138MHz,
387-390MHz,
400.15-401MHz,
1 452-1 492MHz,
1 525-1 559MHz,
1 559-1610MHz,
1 613.8-1 626.5MHz,
2 655-2 670MHz,
2 670-2 690MHz,
21.4-22 GHz,

Resolution 739 (Rev.WRC-07) applies. (WRC-07).

* This provisions 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)

5.210 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, Ireland, Israel, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Liechtenstein, Luxembourg, Mali, Malta, Montenegro, Norway, the Netherlands, Qatar, the United Kingdom, Serbia, Slovakia, Slovenia, Somalia, Sweden, Switzerland, Tanzania, Tunisia and Turkey, the band 138-144 MHz is also allocated to the maritime mobile and land mobile services on a primary basis. (WRC-12)

5.212 Alternative allocation: in Angola, Botswana, Cameroon, the Central African Rep., Gabon, Gambia, Ghana, Guinea, Iraq, Jordan, Lesotho, Liberia, Malawi, Mozambique, Namibia, Niger, Oman, Uganda, Syrian Arab Republic, the Dem. Rep. of the Congo, Rwanda, Sierra Leone, South Africa, Swaziland, Chad, Togo, Zambia and Zimbabwe, the band 138-144 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.214 Additional allocation: in Eritrea, Ethiopia, Kenya, The Former Yugoslav Republic of Macedonia, Malta, Montenegro, Serbia, Somalia, Sudan and Tanzania, the band 138-144 MHz is also allocated to the fixed service on a primary basis. (WRC-12)

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

5.219 The use of the 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 band 148 - 149.9 MHz.

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. The mobile-satellite service shall not constrain the development and use of the radionavigation-satellite service in the bands 149.9 - 150.05 MHz and 399.9 - 400.05 MHz. (WRC-97)

5.221 Stations of the mobile-satellite service in the 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, Ethiopia, the Russian Federation, Finland, France, Gabon, Ghana, Greece, Guinea, Guinea Bissau, Hungary, India, Iran (Islamic Republic of), Ireland, Iceland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, 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, Sri Lanka, South Africa, Sweden, Switzerland, Swaziland, Tanzania, Chad, Thailand, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Viet Nam, Yemen, Zambia, and Zimbabwe. (WRC-12)

5.222 Emissions of the radionavigation-satellite service in the bands 149.9 - 150.05 MHz and 399.9 - 400.05 MHz may also be used by receiving earth stations of the space research service.

5.223 Recognising that the use of the band 149.9 - 150.05 MHz by the fixed and mobile services may cause harmful interference to the radionavigation-satellite service, administrations are urged not to authorise such use in application of No. 4.4.

5.224A The use of the bands 149.9 - 150.05 MHz and 399.9 - 400.05 MHz by the mobile-satellite service (Earth-to-space) is limited to the land mobile-satellite service (Earth-to-space) until 1 January 2015. (WRC-97)

5.224B The allocation of the bands 149.9 - 150.05 MHz and 399.9 - 400.05 MHz to the radionavigation-satellite service shall be effective until 1 January 2015. (WRC-97)

5.225A *Additional allocation:* in Algeria, Armenia, Azerbaijan, Belarus, China, the Russian Federation, 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.

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.

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.

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.

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.

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.

5.237 *Additional allocation:* in the Dem. Rep. of the Congo, Egypt, Eritrea, Ethiopia, Gambia, Guinea, Libya; , Mali, Sierra Leone, Somalia and Chad, the band 174-223 MHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-12)

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, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the 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.

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, Kazakhstan and Ukraine, the 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, nor claim protection from, nor constrain the use and development of the mobile service systems and mobile-satellite service systems operating in the 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-03)

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)

5.260 Recognising that the use of the band 399.9 - 400.05 MHz by the fixed and mobile services may cause harmful interference to the radionavigation satellite service, administrations are urged not to authorise such use in application of No. 4.4.

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

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

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

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

5.266 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.

5.268 Use of the band 410-420 MHz by the space research service is limited to communications within 5 km of an orbiting, manned space vehicle. The power flux-density at the surface of the Earth produced by emissions from extra-vehicular activities shall not exceed -153 dB(W/m^2) for $0° \le \delta \le 5°$, $-153 + 0.077 (\delta - 5)$ dB(W/m^2) for $5° \le \delta \le 70°$ and -148 dB(W/m^2) for $70° \le \delta \le 90°$, where δ is the angle of arrival of the radio-frequency wave and the reference bandwidth is 4 kHz. No. 4.10 does not apply to extra-vehicular activities. In this frequency band the space research (space-to-space) service shall not claim protection from, nor constrain the use and development of, stations of the fixed and mobile services. (WRC-97)

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, Libyan Arab Jamahiriya, The Former Yugoslav Republic of Macedonia, Montenegro, Serbia and Slovenia, the 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-07)

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, Tanzania, Thailand, Togo, Turkey and Yemen, the band 430-440 MHz is also allocated to the fixed service on a primary basis and the bands 430-435 MHz and 438-440 MHz are also allocated to the mobile, except aeronautical mobile, service on a primary basis. (WRC-12)

5.277 Additional allocation: in Angola, Armenia, Azerbaijan, Belarus, Cameroon, the Dem. Rep. of the Congo, Djibouti, the Russian Federation, Georgia, Hungary, Israel, Kazakhstan, Mali, Mongolia, Uzbekistan, Poland, Kyrgyzstan, Slovakia, Romania, Rwanda, Tajikistan, Chad, Turkmenistan and Ukraine, the band 430-440 MHz is also allocated to the fixed service on a primary basis. (WRC-12)

5.279A The use of this band by sensors in the Earth exploration-satellite service (active) shall be in accordance with Recommendation ITU-RRS.1260-1. Additionally, the Earth exploration-satellite service (active) in the 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-03)

5.280 In Germany, Austria, Bosnia and Herzegovina, Croatia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Montenegro, Portugal, Serbia, Slovenia and Switzerland, the 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 band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 15.13. (WRC-07)

5.281 Additional allocation: in the French Overseas Departments in Region 2 and India, the band 433.75 - 434.25 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis. In France and in Brazil, the band is allocated to the same service on a secondary basis.

5.282 In the bands 435 - 438 MHz, 1 260 - 1 270 MHz, 2 400 - 2 450 MHz, 3 400 - 3 410 MHz (in Regions 2 and 3 only) and 5 650 -

5 670 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 1 260 - 1 270 MHz and 5 650 - 5 670 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.

5.286AA The band 450-470 MHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). See Resolution 224 (Rev.WRC-07). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations.

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)

5.286B 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 In the maritime mobile service, the frequencies 457.525 MHz, 457.550 MHz, 457.575 MHz, 467.525 MHz, 467.550 MHz and 467.575 MHz may be used by on-board communication stations. Where needed, equipment designed for 12.5 kHz channel spacing using also the additional frequencies 457.5375 MHz, 457.5625 MHz, 467.5375 MHz and 467.5625 MHz may be introduced for on-board communications. The use of these frequencies in territorial waters may be subject to the national regulations of the administration concerned. The characteristics of the equipment used shall conform to those specified in Recommendation ITU-R M.1174-2. (WRC-07)

5.289 Earth exploration-satellite service applications, other than the meteorological-satellite service, may also be used in the bands 460 - 470 MHz and 1 690 - 1 710 MHz for space-to-Earth transmissions subject to not causing harmful interference to stations operating in accordance with the Table.

5.290 *Different category of service:* in Afghanistan, Azerbaijan, Belarus, China, the Russian Federation, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 460-470 MHz to the meteorological-satellite service (space-to-Earth) is on a primary basis (see No. **5.33**), subject to agreement obtained under No. **9.21**. (WRC-12)

5.294 Additional allocation: in Saudi Arabia, Cameroon, Côte d'Ivoire, Egypt, Ethiopia, Israel, Kenya, Libya, the Syrian Arab Republic, South Sudan, Chad and Yemen, the band 470-582 MHz is also allocated to the fixed service on a secondary basis. (WRC-12)

5.291A Additional allocation: in Germany, Austria, Denmark, Estonia, Finland, Liechtenstein, Norway, Netherlands, the Czech Republic 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-97)

5.296 Additional allocation: in Albania, Germany, Saudi Arabia, Austria, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Burkina Faso, Cameroon, the Dem. Rep. of the Congo, Côte d'Ivoire, Croatia, Denmark, Djibouti, Egypt, United Arab Emirates, Estonia, Finland, France, Gabon, Ghana, Iraq, Ireland, Iceland, Israel, Italy, Jordan, Kuwait, Latvia, The Former Yugoslav Republic of Macedonia, Libya, Liechtenstein, Lithuania, Luxembourg, Mali, Malta, Morocco, Moldova, Monaco, Niger, Norway, Oman, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Slovakia, the Czech Republic, Spain, the United Kingdom, Sudan, Sweden, Switzerland, Swaziland, Chad, Togo, Tunisia and Turkey, the band 470-790 MHz, and in Angola, Botswana, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Nigeria, South Africa, Tanzania, Zambia and Zimbabwe, the band 470-698 MHz are also allocated on a secondary basis to the land mobile service, intended for applications ancillary to broadcasting. 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-12)

5.300 Additional allocation: in Saudi Arabia, Cameroon, Egypt, United Arab Emirates, Israel, Jordan, Libya, Oman, Qatar, the Syrian Arab Republic, Sudan and South Sudan, the band 582-790 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-12)

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, , Georgia, Kazakhstan, Uzbekistan, Kyrgyzstan, , the Russian Federation, Tajikistan, Turkmenistan and Ukraine, the band 645 - 862 MHz, in Bulgaria the bands 646-686 MHz, 726-758 MHz, 766-814 MHz and 822-862 MHz, in Romania the band 830-862 MHz, and in Poland, the band 830-860 MHz until 31 December 2012 and the band 860-862 MHz until 31 December 2017, are also allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)

5.312A In Region 1, the use of the band 694-790 MHz by the mobile, except aeronautical mobile, service is subject to the provisions of

Resolution 232 **(WRC-12)**. See also Resolution **224 (Rev.WRC-12)**

5.314 Additional allocation: in Austria, Italy, Moldova, Uzbekistan, Kyrgyzstan and the United Kingdom, the band 790-862 MHz is also allocated to the land mobile service on a secondary basis. (WRC-12)

5.315 Alternative allocation: in Greece, the band 790 - 838 MHz is allocated to the broadcasting service on a primary basis. (WRC-12)

5.316 Additional allocation: in Germany, Saudi Arabia, Bosnia and Herzegovina, Burkina Faso, Cameroon, Côte d'Ivoire, Croatia, Denmark, Egypt, Finland, Greece, Israel, the Libyan Arab Jamahiriya, Jordan, Kenya, The Former Yugoslav Republic of Macedonia, Liechtenstein, Mali, Monaco, Montenegro, Norway, the Netherlands, Portugal, the United Kingdom, the Syrian Arab Republic, Serbia,, Sweden and Switzerland, the band 790-830 MHz, and in these same countries and in Spain, France, Gabon and Malta, the band 830-862 MHz, are also allocated to the mobile, except aeronautical mobile, service on a primary basis. However, stations of the mobile service in the countries mentioned in connection with each band referred to in this footnote shall not cause harmful interference to, or claim protection from, stations of services operating in accordance with the Table in countries other than those mentioned in connection with the band. This allocation is effective until 16 June 2015. (WRC-07)

5.316A Additional allocation: in Spain, France, Gabon and Malta, the band 790-830 MHz, in Albania, Angola, Bahrain, Benin, Botswana, the Dem. Rep. of the Congo, Egypt, United Arab Emirates, Estonia, Gambia, Ghana, Guinea, Guinea-Bissau, Hungary, Iraq, Kuwait, Lesotho, Latvia, Lebanon, Lithuania, Luxembourg, Malawi, Morocco, Mauritania, Mozambique, Namibia, Niger, Nigeria, Oman, Uganda, Poland, Qatar, Slovakia, Czech Rep., Romania, Rwanda, Senegal, Sudan, South Sudan, South Africa, Swaziland, Tanzania, Chad, Togo, Yemen, Zambia, Zimbabwe and French Overseas Departments and Communities in Region 1, the band 790-862 MHz and in Georgia, the band 806-862 MHz, are also allocated to the mobile, except aeronautical mobile, service on a primary basis subject to the agreement by the administrations concerned obtained under No. **9.21** and under the GE06 Agreement, as appropriate, including those administrations mentioned in No. **5.312** where appropriate. .. See Resolutions **224 (Rev.WRC-12)** and **749 (Rev.WRC-12)**. This allocation is effective until 16 June 2015. (WRC-12)

5.316B In Region 1, the allocation to the mobile, except aeronautical mobile, service on a primary basis in the frequency band 790-862 MHz shall come into effect from 17 June 2015 and shall be 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. Resolution 224 (Rev.WRC-12**)** and Resolution 749 (Rev.WRC-07**)** shall apply as appropriate. (WRC-12)

5.317A Those parts of the band 698-960 MHz in Region 2 and the band 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 Resolution 224 (Rev.WRC-12**)** and Resolution 749 (Rev.WRC-12**), as appropriate**. This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-12)

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 shall not cause harmful interference to, or claim protection from, services in other countries operating in accordance with the Table of Frequency Allocations and is subject 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 band 862-960 MHz, in Bulgaria the bands 862-890.2 MHz and 900-935.2 MHz, in Poland the band 862-876 MHz until 31 December 2017, and in Romania the 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-12)

5.327A The use of the band 960-1 164 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-12**)**. (WRC-12)

5.328 The use of the band 960-1 215 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 1 164-1 215 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 960-1 215 MHz. No. 5.43A does not apply. The provisions of No. 21.18 shall apply. (WRC-07)

5.328B The use of the bands 1 164-1 300 MHz, 1 559-1 610 MHz and 5 010-5 030 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 1 215-1 300 MHz and 1 559-1 610 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 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 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 (WRC-03) shall apply. (WRC-03)

5.329A Use of systems in the radionavigation-satellite service (space-to-space) operating in the bands 1 215-1 300 MHz and 1 559-1 610 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 1 215-1 300 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

5.331 *Additional allocation:* in Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Belarus, Belgium, Benin, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cameroon, China, Korea (Rep. of), Croatia, Denmark, Egypt, the United Arab Emirates, Estonia, the Russian Federation, Finland, France, Ghana, Greece, Guinea, Equatorial Guinea, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Israel, Jordan, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lesotho, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Madagascar, Mali, Mauritania, Montenegro, Nigeria, Norway, Oman, Pakistan, 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 band 1 215-1 300 MHz is also allocated to the radionavigation service on a primary basis. In Canada and the United States, the 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-12)

5.332 In the band 1 215 - 1 260 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)

5.335A In the band 1 260 - 1 300 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)

5337 The use of the bands 1 300 – 1 350 MHz, 2 700 – 2 900 MHz and 9 000 – 9 200 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 1 300 - 1 350 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 1 350-1 400 MHz. (WRC-12)

5.338A In the bands 1 350-1 400 MHz, 1 427-1 452 MHz, 22.55-23.55 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-12) applies. (WRC-12)

5.339 The bands 1 370 - 1 400 MHz, 2 640 - 2 655 MHz, 4 950 - 4 990 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:

1 400 - 1 427 MHz,	
2 690 - 2 700 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)	

5.341 In the bands 1 400 - 1 727 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.

[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)

5.342 Additional allocation: in Armenia, Azerbaijan, Belarus, the Russian Federation, Uzbekistan, Kyrgystan and Ukraine, the band 1 429-1 535 MHz and in Bulgaria the band 1 525-1 535 MHz, are 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 1 452-1 492 MHz is subject to agreement between the administrations concerned. (WRC-12)

5.345 Use of the 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 (WARC-92).*

* *Note by the Secretariat*: This Resolution was revised by WRC-03

5.348 The use of the band 1 518 - 1 525 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. In the band 1 518 - 1 525 MHz stations in the mobile-satellite service shall not claim protection from the stations in the fixed service. No. 5.43A does not apply. (WRC-03)

5.348A In the band 1 518 - 1 525 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/m^2) in any 4 kHz band for all angles of arrival, instead of those given in Table 5-2 of Appendix 5. In the band 1 518-1 525 MHz stations in the mobile-satellite service shall not claim protection from stations in the mobile service in the territory of Japan. No. 5.43A does not apply. (WRC-03)

5.348B In the band 1 518 - 1 525 MHz, stations in the mobile-satellite service shall not claim protection from aeronautical mobile telemetry stations in the mobile service in the territory of the United States (see Nos. 5.343 and 5.344) and in the countries listed in No. 5.342. No. 5.43A does not apply. (WRC-03)

5.349 Different category of service*:* in Saudi Arabia, Azerbaijan, Bahrain, Cameroon, Egypt, France, Iran (Islamic Republic of), Iraq, Israel, Kazakhstan, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Morocco, Qatar, Syrian Arab Republic, Kyrgyzstan, Turkmenistan and Yemen, the allocation of the band 1 525-1 530 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 5.33). (WRC-07)

5.350 Additional allocation: in Azerbaijan, Kyrgyzstan and Turkmenistan, the band 1 525-1 530 MHz is also allocated to the aeronautical mobile service on a primary basis. (WRC-2000)

5.351 The bands 1 525 - 1 544 MHz, 1 545 - 1 559 MHz, 1 626.5 - 1 645.5 MHz and 1 646.5 - 1 660.5 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.

5.351A For the use of the bands 1 518-1 544 MHz, 1 545-1 559 MHz, 1 610-1 626.5 MHz, 1 626.5-1 645.5 MHz, 1 646.5-1 660.5 MHz, 1 668-1 675 MHz, 1 980-2 010 MHz, 2 170-2 200 MHz, 2 483.5-2 500 MHz, 2 500-2 520 MHz and 2 670-2 690 MHz by the mobile-satellite service, see Resolutions 212 (Rev.WRC-07) and 225 (Rev.WRC-07). (WRC-07)

5.352A In the 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 France and French overseas communities of Region 3, Algeria, Saudi Arabia, Egypt, Guinea, India, Israel, Italy, Jordan, Kuwait, Mali, Morocco, Mauritania, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, Tanzania, Viet Nam and Yemen notified prior to 1 April 1998. (WRC-12)

5.353A In applying the procedures of Section II of Article 9 to the mobile-satellite service in the bands 1 530 - 1 544 MHz and 1 626.5 - 1 645.5 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 1 525 - 1 559 MHz and 1 626.5 - 1 660.5 MHz by the mobile-satellite services is subject to coordination under 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 1 540-1 559 MHz, 1 610-1 645.5 MHz and 1 646.5-1 660 MHz are also allocated to the fixed service on a secondary basis. (WRC-12)

5.356 The use of the band 1 544 - 1 545 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 1 545 - 1 555 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 1 545 - 1 555 MHz and 1 646.5 - 1 656.5 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, Austria, Azerbaijan, Belarus, Benin, Cameroon, the Russian Federation, France, Georgia, Greece, 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, Tanzania, Tunisia, Turkmenistan and Ukraine, the 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 bands. (WRC-12)

5.362B Additional allocation*:* The band 1 559-1 610 MHz is also allocated to the fixed service on a primary basis until 1 January 2010 in Algeria, Saudi Arabia, Cameroon, Jordan, Mali, Mauritania, Syrian Arab Republic and Tunisia. After this date, the fixed service may continue to operate on a secondary basis until 1 January 2015, at which time this allocation shall no longer be valid. The band 1 559-1 610 MHz is also allocated to the fixed service on a secondary basis in Algeria, , Armenia, Azerbaijan, Belarus, Benin, Russian Federation, Gabon, Georgia, Guinea, Guinea-Bissau, Kazakhstan, Lithuania, Nigeria, Uzbekistan, Pakistan, Poland, Kyrgyzstan, Dem. People's Rep. of Korea, Romania, Senegal, Tajikistan, Tanzania, Turkmenistan and Ukraine until 1 January 2015, at which time this allocation shall no longer be valid. Administrations are urged to take all practicable steps to protect the radionavigation-satellite service and the aeronautical radionavigation service and not authorize new frequency assignments to fixed-service systems in this band. (WRC-12)

5.362C Additional allocation: in the Dem. Rep. of the Congo, Eritrea, Iraq, Israel, Jordan, Qatar, the Syrian Arab Republic, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the band 1 559-1 610 MHz is also allocated to the fixed service on a secondary basis until 1 January 2015, at which time this allocation shall no longer be valid. Administrations are urged to take all practicable steps to protect the radionavigation-satellite service and not authorize new frequency assignments to fixed-service systems in this band. (WRC-12)

5.364 The use of the band 1 610 - 1 626.5 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 1 613.8 - 1 626.5 MHz by the mobile-satellite service (space-to-Earth) is subject to coordination under 9.11A.

5.366 The band 1 610 - 1 626.5 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 1 610 - 1 626.5 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 With respect to the radiodetermination-satellite and mobile-satellite services the provisions of No. 4.10 do not apply in the band 1 610 - 1 626.5 MHz, with the exception of the aeronautical radionavigation-satellite service.

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 1 610-1 626.5 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 1 610 - 1 626.5 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 band 1 610.6 - 1 613.8 MHz by stations of the radiodetermination-satellite and mobile-satellite services (No. 29.13 applies).

5.374 Mobile earth stations in the mobile-satellite service operating in the bands 1 631.5 - 1 634.5 MHz and 1 656.5 - 1 660 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 1 645.5 - 1 646.5 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 1 646.5 - 1 656.5 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 1 660-1 660.5 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 1 660.5 - 1 668.4 MHz for future research in radio astronomy, particularly by eliminating air-to-ground transmissions in the meteorological aids service in the band 1 664.4 1 668.4 MHz as soon as practicable.

5.379B The use of the band 1 668-1 675 MHz by the mobile-satellite service is subject to coordination under No. **9.11A**. In the band 1 668-1 668.4 MHz, Resolution 904 (WRC-07) shall apply. (WRC-07)

5.379C In order to protect the radio astronomy service in the band 1 668 - 1 670 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/m^2) in 10 MHz and 194dB(W/m^2) in any 20 kHz at any radio astronomy station recorded in the Master International Frequency Register, for more than 2% of integration periods of 2 000 s. (WRC-03)

5.379D For sharing of the band 1 668.4-1 675 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 1 668.4 - 1 675 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 1 668.4 - 1 675 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 1 670-1 675 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 1 690-1 700 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, the Dem. Rep. of the Congo, Egypt, the United Arab Emirates, Eritrea, Ethiopia, the Russian Federation, Guinea, Iraq, Israel, Jordan, Kazakhstan, Kuwait, the Former Yugoslav Republic of Macedonia, Lebanon, Mauritania, Moldova, Mongolia, Oman, Uzbekistan, Poland, Qatar, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tanzania, Turkmenistan, Ukraine and Yemen, the allocation of the 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 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-12)

5.384A The bands, or portions of the bands, 1 710-1 885 MHz, 2 300-2 400 MHz and 2 500-2 690 MHz, are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution **223** (Rev.WRC-07). This identification does not preclude the use of these bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-07).

5.385 Additional allocation: the band 1 718.8 - 1 722.2 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 1 750-1 850 MHz is also allocated to the space operation (Earth-to-space) and space research (Earth-to-space) services in Region 2, 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-03)

5.387 Additional allocation: in Belarus, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan and Turkmenistan, the band 1 770-1 790 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 bands 1 885 - 2 025 MHz and 2 110 - 2 200 MHz are intended for use, on a worldwide basis, by administrations wishing to implement International Mobile Telecommunications-2000 (IMT-2000). Such use does not preclude the use of these bands by other services to which they are allocated. The bands should be made available for IMT-2000 in accordance with Resolution 212 (Rev.WRC-97)*. (See also Resolution 223 (WRC-2000)).
* *Note by the Secretariat*: This Resolution was revised by WRC-07

5.388A In Regions 1 and 3, the bands 1 885 - 1 980 MHz, 2 010 - 2 025 MHz and 2 110 - 2 170 MHz and, in Region 2, the bands 1 885 - 1 980 MHz and 2 110 - 2 160 MHz may be used by high altitude platform stations as base stations to provide International Mobile Telecommunications 2000 (IMT-2000), in accordance with Resolution 221 (Rev.WRC-03)*. Their use by IMT-2000 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-03).
* *Note by the Secretariat*: This Resolution was revised by WRC-07

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, 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-2000 mobile stations, in their territories from co-channel interference, a high altitude platform station (HAPS) operating as an IMT-2000 base station in neighbouring countries, in the bands referred to in No. 5.388A, shall not exceed a co-channel power flux-density of –127 dB($W/(m^2 \cdot MHz)$) 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-12).

5.389A The use of the bands 1 980-2 010 MHz and 2 170-2 200 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 2 010-2 025 MHz and 2 160-2 170 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, Benin, Cape Verde, Egypt, Iran (Islamic Republic of), Mali, Syrian Arab Republic and Tunisia, the use of the bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobile-satellite 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-2000)

5.391 In making assignments to the mobile service in the bands 2 025 - 2 110 MHz and 2 200 - 2 290 MHz, administrations shall not introduce high-density mobile systems, as described in Recommendation ITU-R SA.1154, and shall take that Recommendation into account for the introduction of any other type of mobile system. (WRC-97)

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 2 025 - 2 110 MHz and 2 200 - 2 290 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 2 310-2 360 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 2 310-2 360 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 2 483.5 - 2 500 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 2 483.5-2 500 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 2 483.5-2 500 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 2 483.5-2 500 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, Burundi, China, Eritrea, Ethiopia, India, Iran (Islamic Republic of), Lebanon, Liberia, Libya, Madagascar, Mali, Pakistan, Papua New Guinea, Syrian Arab Republic, Dem. Rep. of the Congo, Sudan, Swaziland, Togo and Zambia, the 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-12)

5.402 The use of the band 2 483.5-2 500 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 2 483.5-2 500 MHz band, especially those caused by second-harmonic radiation that would fall into the 4 990-5 000 MHz band allocated to the radio astronomy service worldwide.

5.403 Subject to agreement obtained under No**.** 9.21**,** the band 2 520-2 535 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 of No**.** 9.11A apply. (WRC-07)

5.410 The band 2 500-2 690 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 2 500 MHz and 2 690 MHz, administrations are urged to take all necessary steps to protect the radio astronomy service in the band 2 690 - 2 700 MHz.

5.414 The allocation of the frequency band 2 500-2 520 MHz to the mobile-satellite service (space-to-Earth) is subject to coordination under No. 9.11A. (WRC-07)

5.416 The use of the band 2 520-2 670 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)

5.417A In applying provision No. 5.418, in Korea (Rep. of) and Japan, *resolves* 3 of Resolution 528 (Rev.WRC-03) is relaxed to allow the broadcasting-satellite service (sound) and the complementary terrestrial broadcasting service to additionally operate on a primary basis in the band 2 605-2 630 MHz. This use is limited to systems intended for national coverage. 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. The provisions of No. 5.416 and Table 21-4 of Article 21 do not apply. Use of non-geostationary-satellite systems in the broadcasting-satellite service (sound) in the band 2 605-2 630 MHz is subject to the provisions of Resolution 539 (Rev.WRC-03). The power flux-density at the Earth's surface produced by emissions from a geostationary broadcasting-satellite service (sound) space station operating in the band 2 605-2 630 MHz for which complete Appendix 4 coordination information, or notification information, has been received after 4 July 2003, for all conditions and for all methods of modulation, shall not exceed the following limits:

-130 dB(W/(m^2 · MHz))	for $0^0 \le \theta \le 5^0$
$-130 + 0.4\,(\theta - 5)$ dB(W/(m^2 · MHz))	for $5^0 < \theta \le 25^0$

-122 dB(W/(m^2 · MHz)) for $25^0 < \theta \leq 90^0$

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. In the case of the broadcasting-satellite service (sound) networks of Korea (Rep. of), as an exception to the limits above, the power flux-density value of -122 dB(W/(m^2 · MHz)) shall be used as a threshold for coordination under No. 9.11 in an area of 1 000 km around the territory of the administration notifying the broadcasting-satellite service (sound) system, for angles of arrival greater than 35^0. (WRC-03)

5.417C Use of the band 2 605 - 2 630 MHz by non geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. 5.417A is, for which complete Appendix 4 coordination information, or notification information, has been received after 4 July 2003, is subject to the application of the provisions of No. 9.12. (WRC-03)

5.417D Use of the band 2 605-2 630 MHz by geostationary-satellite networks for which complete Appendix 4 coordination information, or notification information, has been received after 4 July 2003 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. 5.417A, and No. 22.2 does not apply. (WRC-03)

5.418B Use of the band 2 630-2 655 MHz by non geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. 5.418, for which complete Appendix 4 coordination information, or notification information, has been received after 2 June 2000, is subject to the application of the provisions of No. 9.12. (WRC-03)

5.418C Use of the band 2 630 2 655 MHz by geostationary-satellite networks for which complete Appendix 4 coordination information, or notification information, has been received after 2 June 2000 is subject to the application of the provisions of No. 9.13 with respect to non geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. 5.418 and No. 22.2 does not apply. (WRC-03)

5.419 When introducing systems of the mobile-satellite service in the band 2 670-2 690 MHz, administrations shall take all necessary steps to protect the satellite systems operating in this band prior to 3 March 1992. The coordination of mobile-satellite systems in the band shall be in accordance with No. 9.11A. (WRC-07)

5.420 The band 2 655-2 670 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, the Dem. Rep. of the Congo, 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 2 690-2 700 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 2 700 - 2 900 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 2 900 - 3 100 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 2 900 - 3 100 MHz, the use of the shipborne interrogator-transponder system (SIT) shall be confined to the sub-band 2 930 - 2 950 MHz.

5.426 The use of the band 2 900 - 3 100 MHz by the aeronautical radionavigation service is limited to ground-based radars.

5.427 In the bands 2 900 - 3 100 MHz and 9 300 - 9 500 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 Azerbaijan, Mongolia, Kyrgyzstan, and Turkmenistan, the band 3 100-3 300 MHz is also allocated to the radionavigation service on a primary basis. (WRC-12)

5.429 Additional allocation: in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, China, the Dem. Rep. of the Congo, Korea (Rep. of), Côte d'Ivoire, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, the Dem. People's Rep. of Korea and Yemen, the band 3 300-3 400 MHz is also allocated to the fixed and mobile services on a primary basis. The countries bordering the Mediterranean shall not claim protection for their fixed and mobile services from the radiolocation service. (WRC-12)

5.430 Additional allocation*:* in Azerbaijan, Mongolia, Kyrgyzstan, and Turkmenistan, the band 3 300-3 400 MHz is also allocated to the radionavigation service on a primary basis. (WRC-12)

5.430A *Different category of service:* in Albania, Algeria, Germany, Andorra, Saudi Arabia, Austria, Azerbaijan, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Cameroon, Cyprus, Vatican, Côte d'Ivoire, Croatia, Denmark, Egypt, Spain, Estonia, Finland, France and French Overseas Departments and Communities in Region 1, Gabon, Georgia, Greece, Guinea, Hungary, Ireland, Iceland, Israel, Italy, Jordan, Kuwait, Lesotho, Latvia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Lithuania, Malawi, Mali, Malta, Morocco, Mauritania, Moldova, Monaco, Mongolia, Montenegro, Mozambique, Namibia, Niger, Norway, Oman, Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, the Dem. Rep of the Congo, Slovakia, Czech Rep., Romania, United Kingdom, San Marino, Senegal, Serbia, Sierra Leone, Slovenia, South Africa, Sweden, Switzerland, Swaziland, Togo, Chad, Tunisia, Turkey, Ukraine, Zambia and Zimbabwe, the band 3 400-3 600 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis subject to agreement obtained under No. **9.21** with other administrations and is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. 9.17 and 9.18 also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this band it shall ensure that the power flux-

density (pfd) produced at 3 m above ground does not exceed −154.5 dBW/(m^2 · 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), 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 band 3 400-3 600 MHz shall not claim more protection from space stations than that provided in Table 21-4 of the Radio Regulations (Edition of 2004).This allocation is effective from 17 November 2010. (WRC-12)

5.431 Additional allocation: in Germany, Israel and the United Kingdom, the band 3 400 - 3 475 MHz is also allocated to the amateur service on a secondary basis. (WRC-03)

5.438 Use of the band 4 200 - 4 400 MHz by the aeronautical radionavigation service is reserved exclusively for radio altimeters installed on board aircraft and for the associated transponders on the ground. However, passive sensing in the Earth exploration-satellite and space research services may be authorised in this band on a secondary basis (no protection is provided by the radio altimeters).

5.439 *Additional allocation:* in Iran (Islamic Republic of), the band 4 200-4 400 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 4 202 MHz for space-to-Earth transmissions and the frequency 6 427 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.

5.441 The use of the bands 4 500 - 4 800 MHz (space-to-Earth), 6 725 - 7 025 MHz (Earth-to-space) by the fixed-satellite service shall be in accordance with the provisions of Appendix 30B. The use of the bands 10.7 - 10.95 GHz (space-to-Earth), 11.2 - 11.45 GHz (space-to-Earth) and 12.75 - 13.25 GHz (Earth-to-space) by geostationary-satellite systems in the fixed-satellite service shall be in accordance with the provisions of Appendix 30B. The use of the bands 10.7 - 10.95 GHz (space-to Earth), 11.2 - 11.45 GHz (space-to-Earth) and 12.75 - 13.25 GHz (Earth-to-space) by a non-geostationary-satellite system in the fixed-satellite service is subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite system in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite system in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. 5.43A does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)

5.442 In the bands 4 825-4 835 MHz and 4 950-4 990 MHz, the allocation to the mobile service is restricted to the mobile, except aeronautical mobile, service. In Region 2 (except Brazil, Cuba, Guatemala, Paraguay, Uruguay and Venezuela), and in Australia, the band 4 825-4 835 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 5 000-5 030 MHz and 5 091-5 150 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.

5.443B In order not to cause harmful interference to the microwave landing system operating above 5 030 MHz, the aggregate power flux-density produced at the Earth's surface in the band 5 030 - 5 150 MHz by all the space stations within any radionavigation-satellite service system (space-to-Earth) operating in the band 5 010 - 5 030 MHz shall not exceed –124.5 dB(W/m^2) in a 150 kHz band. In order not to cause harmful interference to the radio astronomy service in the band 4 990 5 000 MHz, radionavigation-satellite service systems operating in the band 5 010 - 5 030 MHz shall comply with the limits in the band 4 990 - 5 000 MHz defined in Resolution 741 (Rev. WRC 12). (WRC-12)

5.443C The use of the frequency band 5 030-5 091 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 5 030-5 091 MHz shall be limited to protect RNSS system downlinks in the adjacent 5 010-5 030 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 5 010-5 030 MHz for any AM(R)S station unwanted emission should be used. (WRC-12)

5.443D In the frequency band 5 030-5 091 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 5 030-5 150 MHz is to be used for the operation of the international standard system (microwave landing system) for precision approach and landing. In the band 5 030-5 091 MHz, the requirements of this system shall take precedence over other uses of this band. For the use of the band 5 091-5 150 MHz, No. 5.444A and Resolution 114 (Rev.WRC-12**)** apply. (WRC-12)

5.444A Additional allocation: the band 5 091-5 150 MHz is also allocated to the fixed-satellite service (Earth-to-space) on a primary basis. This allocation is limited to feeder links of non-geostationary mobile-satellite systems in the mobile-satellite service and is subject to coordination under No. 9.11A.

In the band 5 091-5 150 MHz, the following conditions also apply:

1 prior to 1 January 2018, the use of the band 5 091-5 150 MHz by feeder links of non-geostationary-satellite systems in the mobile-satellite service shall be made in accordance with Resolution **114 (Rev.WRC-03)**;

2 after 1 January 2016, no new assignments shall be made to earth stations providing feeder links of non-geostationary mobile-satellite systems;

3 after 1 January 2018, the fixed-satellite service will become secondary to the aeronautical radionavigation service. (WRC-07)

5.444B The use of the 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-12);

– aeronautical telemetry transmissions from aircraft stations (see No. 1.83) in accordance with Resolution 418 (Rev.WRC-12). (WRC-12);

5.446 Additional allocation: in the countries listed in No. 5.369 , the band 5 150 - 5 216 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, the 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 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 radiodetermination-satellite service operating in the bands 1 610 - 1 626.5 MHz and/or 2 483.5 - 2 500 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-12)

5.446A The use of the 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-12). (WRC-12)

5.446B In the band 5 150 - 5 250 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, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Syrian Arab Republic, Sudan, South Sudan and Tunisia) and 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 (WRC-07). These stations shall not claim protection from other stations operating in accordance with Article 5. No. 5.43A does not apply. (WRC-12)

5.447 *Additional allocation:* in Côte d'Ivoire, Egypt, Israel, Lebanon, the Syrian Arab Republic and Tunisia, the 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-12) do not apply. (WRC-12)

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 5 150 - 5 216 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 5 150 - 5 216 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 5 150 - 5 250 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 5 250 - 5 255 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 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). These services shall not impose on the mobile service more stringent protection criteria, based on system characteristics and interference criteria, than those stated in Recommendations ITU-R M.1638 and ITU-R SA.1632. (WRC-03).

5.448 Additional allocation: in Azerbaijan, Kyrgyzstan, Romania and Turkmenistan, the band 5 250 - 5 350 MHz is also allocated to the radionavigation service on a primary basis. (WRC-12).

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 5 350 - 5 570 MHz and space research service (active) operating in the band 5 460 - 5 570 MHz shall not cause harmful interference to the aeronautical radionavigation service in the band 5 350 - 5 460 MHz, the radionavigation service in the band 5 460 - 5 470 MHz and the maritime radionavigation service in the band 5 470 - 5 570 MHz. (WRC-03)

5.448C The space research service (active) operating in the band 5 350 - 5 460 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 5 350 - 5 470 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 5 350 - 5 470 MHz by the aeronautical radionavigation service is limited to airborne radars and associated airborne beacons.

5.450 Additional allocation: in Austria, Azerbaijan, Iran (Islamic Republic of), Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 5 470 - 5 650 MHz is also allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)

5.450A In the band 5 470 - 5 725 MHz, stations in the mobile service shall not claim protection from radiodetermination services.

Radiodetermination services shall not impose on the mobile service more stringent protection criteria, based on system characteristics and interference criteria, than those stated in Recommendation ITU-R M.1638. (WRC-03)

5.450B In the frequency band 5 470 - 5 650 MHz, stations in the radiolocation service, except ground-based radars used for meteorological purposes in the band 5 600 - 5 650 MHz, shall not cause harmful interference to, nor claim protection from, radar systems in the maritime radionavigation service. (WRC-03)

5.451 Additional allocation: in the United Kingdom, the band 5 470 - 5 850 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 5 725 - 5 850 MHz.

5.452 Between 5 600 MHz and 5 650 MHz, ground-based radars used for meteorological purposes are authorised to operate on a basis of equality with stations of the maritime radionavigation service.

5.453 *Additional allocation:* in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, China, the Dem. Rep of the Congo, Korea (Rep. of), Côte d'Ivoire, Djibouti, Egypt, the United Arab Emirates, Gabon, Guinea, Equatorial Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, 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, Swaziland, Tanzania, Chad, Thailand, Togo, Viet Nam and Yemen, the 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-12)** do not apply. (WRC-12)

5.454 Different category of service: in Azerbaijan, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 5 670-5 725 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, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 5 670-5 850 MHz is also allocated to the fixed service on a primary basis. (WRC-07)

5.457 In Australia, Burkina Faso, Cote d'Ivoire, Mali and Nigeria, the allocation to the fixed service in the bands 6 440-6 520 MHz (HAPS-to-ground direction) and 6 560-6 640 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 1 000 kilometres from the border of an administration intending to use the HAPS gateway links

5.457A In the bands 5 925 - 6 425 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). (WRC-03)

5.457B In the bands 5 925-6 425 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, Kuwait, Morocco, Mauritania, Oman, Qatar, the Syrian Arab Republic, Sudan, South 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-12)

5.457C In Region 2 (except Brazil, Cuba, French Overseas Departments and Communities, Guatemala, Paraguay, Uruguay and Venezuela), the band 5 925-6 700 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 services. Any such use does not preclude the use of these bands by other mobile service applications or by other services to which these bands are allocated on a co-primary basis and does not establish priority in the Radio Regulations. (WRC-07)

5.458 In the band 6 425 - 7 075 MHz, passive microwave sensor measurements are carried out over the oceans. In the band 7 075 - 7 250 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 6 425 - 7 025 MHz and 7 075 - 7 250 MHz.

5.458A In making assignments in the band 6 700 - 7 075 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 6 650 - 6 675.2 MHz from harmful interference from unwanted emissions.

5.458B The space-to-Earth allocation to the fixed-satellite service in the band 6 700 - 7 075 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 6 700 - 7 075 MHz (space-to-Earth) by feeder links for non-geostationary satellite systems in the mobile-satellite service is not subject to No. 22.2.

5.458C Administrations making submissions in the band 7 025 - 7 075 MHz (Earth-to-space) for geostationary-satellite systems in the fixed-satellite service after 17 November 1995 shall consult on the basis of relevant ITU-R Recommendations with the administrations that have notified and brought into use non-geostationary-satellite systems in this frequency band before 18 November 1995 upon request of the latter administrations. This consultation shall be with a view to facilitating shared operation of both geostationary-satellite systems in the fixed-satellite service and non-geostationary-satellite systems in this band.

5.459 Additional allocation: in the Russian Federation, the frequency bands 7 100 - 7 155 MHz and 7 190 - 7 235 MHz are also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under No. 9.21. (WRC-97)

5.460 The use of the band 7 145-7 190 MHz by the space research service (Earth-to-space) is restricted to deep space; no emissions to deep space shall be effected in the band 7 190-7 235 MHz. Geostationary satellites in the space research service operating in the band 7 190-7 235 MHz shall not claim protection from existing and future stations of the fixed and mobile services and No. 5.43A does not apply. (WRC-03)

5.461 Additional allocation: the bands 7 250 - 7 375 MHz (space-to-Earth) and 7 900 - 8 025 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 7 450-7 550 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)

5.461B The use of the band 7 750-7 900 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 8 025-8 400 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/m^2) in a 1 MHz band	for $0° \le \theta < 5°$
$-135 + 0.5\ (\theta - 5)$ dB(W/m^2) in a 1 MHz band	for $5° \le \theta < 25°$
-125 dB(W/m²) in a 1 MHzz band	for $25° \le \theta \le 90°$

These values are subject to study under Resolution 124 (WRC-97)*. (WRC-97).
* *Note by the Secretariat*: This Resolution was revised by WRC-2000

5.463 Aircraft stations are not permitted to transmit in the band 8 025 - 8 400 MHz. (WRC-97)

5.465 In the space research service, the use of the band 8 400 - 8 450 MHz is limited to deep space.

5.466 Different category of service: in Singapore and Sri Lanka, the allocation of the band 8 400-8 500 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, the Dem. Rep. of the Congo, Costa Rica, Egypt, the United Arab Emirates, Gabon, Guyana, Indonesia, Iran (Islamic Republic of), Iraq, Jamaica, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Uganda, Pakistan, Qatar, Syrian Arab Republic, the Dem. People's Rep. of Korea, Senegal, Singapore, Somalia, Sudan, Swaziland, Tanzania, Chad, Togo, Tunisia and Yemen, the band 8 500-8 750 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

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 8 500 - 8 750 MHz is also allocated to the land mobile and radionavigation services on a primary basis. (WRC-12)

5.469A In the band 8 550 - 8 650 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 8 750 - 8 850 MHz by the aeronautical radionavigation service is limited to airborne Doppler navigation aids on a centre frequency of 8 800 MHz.

5.471 Additional allocation: in Algeria, Germany, Bahrain, Belgium, China, Egypt, the United Arab Emirates, France, Greece, Indonesia, Iran (Islamic Republic of), Libya the Netherlands, Qatar, Sudan and South Sudan, the bands 8 825-8 850 MHz and 9 000-9 200 MHz are also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars only. (WRC-12)

5.472 In the bands 8 850 - 9 000 MHz and 9 200 - 9 225 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, Mongolia, Uzbekistan, Poland, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the bands 8 850-9 000 MHz and 9 200-9 300 MHz are also allocated to the radionavigation service on a primary basis. (WRC-07)

5.473A In the band 9 000-9 200 MHz, stations operating in the radiolocation service shall not cause harmful interference to, nor claim protection from, systems identified in No. 5.337 operating in the aeronautical radionavigation service, or radar systems in the maritime radionavigation service operating in this band on a primary basis in the countries listed in No. 5.471. (WRC-07)

5.474 In the band 9 200 - 9 500 MHz, search and rescue transponders (SART) may be used, having due regard to the appropriate ITU-R Recommendation (see also Article 31).

5.475 The use of the band 9 300-9 500 MHz by the aeronautical radionavigation service is limited to airborne weather radars and ground-based radars. In addition, ground-based radar beacons in the aeronautical radionavigation service are permitted in the band 9 300-9 320 MHz on condition that harmful interference is not caused to the maritime radionavigation service. (WRC-07)

5.475A The use of the band 9 300-9 500 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 9 500-9 800 MHz band. (WRC-07)

5.475B In the band 9 300-9 500 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 9 300-9 800 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, and Yemen, the allocation of the band 9 800-10 000 MHz to the fixed service is on a primary basis (see No. 5.33). (WRC-12)

5.478 Additional allocation: in Azerbaijan, Mongolia, Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 9 800-10 000 MHz is also allocated to the radionavigation service on a primary basis. (WRC-07)

5.478A In the band 9 800-9 900 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 fixed service to which this band is allocated on a secondary basis.

5.478B The use of the band 9 800-9 900 MHz by the Earth exploration-satellite service (active) and the space research service (active) is limited to systems requiring necessary bandwidth greater than 500 MHz that cannot be fully accommodated within the 9 300-9 800 MHz band.

5.479 The band 9 975 - 10 025 MHz is also allocated to the meteorological-satellite service on a secondary basis for use by weather radars.

5.481 Additional allocation: in Germany, Angola, Brazil, China, Costa Rica, Côte d'Ivoire, El Salvador, Ecuador, Spain, Guatemala, Hungary, Japan, Kenya, Morocco, Nigeria, Oman, Uzbekistan, Pakistan, Paraguay, Peru, the Dem. People's Rep. of Korea, Romania, Tanzania, Thailand and Uruguay, the band 10.45-10.5 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

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), Costa Rica, 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 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-12)

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 oadcasting-satellite service.

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

5.487 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, Angola, Saudi Arabia, Bahrain, Cameroon, the Central African Rep., the Dem. Rep. of the Congo, 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, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the band 12.5-12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

5.495 Additional allocation: in France, Greece, Monaco, Montenegro, Uganda, Romania, Tanzania and Tunisia, the band 12.5-12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-12)

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)

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)

5.500 Additional allocation: in Algeria, Angola, 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 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 band 13.4 - 13.75 GHz 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)

5.501B In the band 13.4 - 13.75 GHz, the earth exploration-satellite (active) and space research (active) services shall not cause harmful interference to, or constrain the use and development of, the radiolocation service. (WRC-97)

5.502 In the band 13.75 - 14 GHz, an earth station of a geostationary fixed-satellite service network shall have a minimum antenna diameter of 1.2 m and an earth station of a non-geostationary fixed-satellite service system shall have a minimum antenna diameter of 4.5 m. In addition, the e.i.r.p., averaged over one second, radiated by a station in the radiolocation or radionavigation services shall not exceed 59 dBW for elevation angles above 2° and 65 dBW at lower angles. Before an administration brings into use an earth station in a geostationary-satellite network in the fixed-satellite service in this band with an antenna size smaller than 4.5 m, it shall ensure that the power flux-density produced by this earth station does not exceed:

- –115 dB(W/(m^2 • 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/(m^2 • 10 MHz)) for more than 1% of the time produced 3 m above ground at the border of the territory of an administration deploying or planning to deploy land mobile radars in this band, unless prior agreement has been obtained.

For earth stations within the fixed-satellite service having an antenna diameter greater than or equal to 4.5 m, the e.i.r.p. of any emission should be at least 68 dBW and should not exceed 85 dBW. (WRC-03)

5.503 In the band 13.75 - 14 GHz, geostationary space stations in the space research service for which information for advance publication has been received by the Bureau prior to 31 January 1992 shall operate on an equal basis with stations in the fixed-satellite service; after that date, new geostationary space stations in the space research service will operate on a secondary basis. Until those geostationary space stations in the space research service for which information for advance publication has been received by the Bureau prior to 31 January 1992 cease to operate in this band:

– in the band 13.77 - 13.78 GHz, the e.i.r.p. density of emissions from any earth station in the fixed-satellite service operating with a space station in geostationary-satellite orbit shall not exceed:

  i) 4.7D + 28 dB(W/40 kHz), where D is the fixed-satellite service earth station antenna diameter (m) for antenna diameters equal to or greater than 1.2 m and less than 4.5 m;

  ii) 49.2 + 20 log(D/4.5) dB(W/40 kHz), where D is the fixed-satellite service earth station antenna diameter (m) for antenna diameters equal to or greater than 4.5 m and less than 31.9 m;

  iii) 66.2 dB(W/40 kHz) for any fixed-satellite service earth station for antenna diameters (m) equal to or greater than 31.9 m;

  iv) 56.2 dB(W/4 kHz) for narrow-band (less than 40 kHz of necessary bandwidth) fixed-satellite service earth station emissions from any fixed-satellite service earth station having an antenna diameter of 4.5 m or greater;

– the e.i.r.p. density of emissions from any earth station in the fixed-satellite service operating with a space station in non-geostationary-satellite orbit shall not exceed 51 dBW in the 6 MHz band from 13.772 to 13.778 GHz.

Automatic power control may be used to increase the e.i.r.p. density in these frequency ranges to compensate for rain attenuation, to the extent that the power flux-density at the fixed-satellite service space station does not exceed the value resulting from use by an earth station of an e.i.r.p. meeting the above limits in clear-sky conditions. (WRC-03)

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

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

5.504B Aircraft earth stations operating in the aeronautical mobile-satellite service in the band 14 - 14.5 GHz shall comply with the provisions of Annex 1, Part C of Recommendation ITU-R M.1643, with respect to any radio astronomy station performing observations in the 14.47 - 14.5 GHz band located on the territory of Spain, France, India, Italy, the United Kingdom and South Africa. (WRC-03)

5.504C In the band 14-14.25 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, 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, 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)

5.505 *Additional allocation:* in Algeria, Angola, Saudi Arabia, Bahrain, Botswana, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Djibouti, Korea (Rep. of), Egypt, the United Arab Emirates, Gabon, Guatemala, 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, Swaziland, Tanzania, Chad and Yemen, the band 14-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-12)

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, Greece and Malta, within the minimum distance given in Resolution 902 (WRC-03) from these countries. (WRC-03)

5.508 *Additional allocation:* in Germany, France, Italy, Libya, The Former Yugoslav Rep. of Macedonia and the United Kingdom, the band 14.25-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-12)

5.508A In the band 14.25 - 14.3 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, 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, 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)

5.509A 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)

5.510 The use of the 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.

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 The band 15.43 - 15.63 GHz is also allocated to the fixed-satellite service (space-to-Earth) on a primary basis. Use of the band 15.43 - 15.63 GHz by the fixed-satellite service (space-to-Earth and Earth-to-space) is limited to feeder links of non-geostationary systems in the mobile-satellite service, subject to coordination under No. 9.11A. The use of the frequency band 15.43 - 15.63 GHz by the fixed-satellite service (space-to-Earth) is limited to feeder links of non-geostationary systems in the mobile-satellite service for which advance publication information has been received by the Bureau prior to 2 June 2000. In the space-to-Earth direction, the minimum earth station elevation angle above and gain towards the local horizontal plane and the minimum coordination distances to protect an earth station from harmful interference shall be in accordance with Recommendation ITU-R S.1341. In order to protect the radio astronomy service in the band 15.35 - 15.4 GHz, the aggregate power flux-density radiated in the 15.35 - 15.4 GHz band by all the space stations within any feeder-link of a non-geostationary system in the mobile-satellite service (space-to-Earth) operating in the 15.43 - 15.63 GHz band shall not exceed the level of –156 dB(W/m^2) in a 50 MHz bandwidth, into any radio astronomy observatory site for more than 2% of the time. (WRC-2000)

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. 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. (WRC-97)

5.511D Fixed-satellite service systems for which complete information for advance publication has been received by the Bureau by 21 November 1997 may operate in the bands 15.4 - 15.43 GHz and 15.63 - 15.7 GHz in the space-to-Earth direction and 15.63 -

15.65 GHz in the Earth-to-space direction. In the bands 15.4 - 15.43 GHz and 15.65 - 15.7 GHz, emissions from a non-geostationary space station shall not exceed the power flux-density limits at the Earth's surface of –146 dB(W/m^2/MHz) for any angle of arrival. In the band 15.63 - 15.65 GHz, where an administration plans emissions from a non-geostationary space station that exceed –146 dB(W/m^2/MHz) for any angle of arrival, it shall coordinate under No. 9.11A with the affected administrations. Stations in the fixed-satellite service operating in the band 15.63 - 15.65 GHz in the Earth-to-space direction shall not cause harmful interference to stations in the aeronautical radionavigation service (No. 4.10 applies). (WRC-97)

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.

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/m^2) 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.

5.512 Additional allocation: in Algeria, Angola, Saudi Arabia, Austria, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, the Dem. Rep. of the Congo, Costa Rica, Egypt, El Salvador, the United Arab Emirates, Eritrea, Finland, Guatemala, India, Indonesia, Iran (Islamic Republic of), the Libyan Arab Jamahiriya, Jordan, Kenya, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Montenegro, Mozambique, Nepal, Nicaragua, Niger, Oman, Pakistan, Qatar, Syrian Arab Republic, the Dem. Rep. of the Congo, Serbia, Singapore, Somalia, Sudan, South Sudan, Tanzania, Chad, Togo and Yemen, the band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)

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. 5.512.

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, Angola, 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 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-12)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 fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. The use of the band 17.3-17.8 GHz in Region 2 by systems in the fixed-satellite service (Earth-to-space) is limited to geostationary satellites. For the use of the band 17.3-17.8 GHz in Region 2 by feeder links for the broadcasting-satellite service in the band 12.2-12.7 GHz, see Article **11**. The use of the bands 17.3-18.1 GHz (Earth-to-space) in Regions 1 and 3 and 17.8-18.1 GHz (Earth-to-space) in Region 2 by non-geostationary-satellite systems in the fixed-satellite service is subject to application of the provisions of No. **9.12** for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. **5.43A** does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)

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

5.516B The following bands are identified for use by high-density applications in the fixed-satellite service (HDFSS):

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.

This identification does not preclude the use of these bands by other fixed-satellite service applications or by other services to

which these bands are allocated on a co-primary basis and does not establish priority in these Regulations among users of the bands. Administrations should take this into account when considering regulatory provisions in relation to these bands. See Resolution 143 (WRC-03)*. (WRC-03)

* *Note by the Secretariat*: This Resolution was revised by WRC-07

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 Germany, Denmark, the United Arab Emirates and Greece, the 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-03)

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

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

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

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

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

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

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

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

5.524 *Additional allocation:* in Afghanistan, Algeria, Angola, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, China, the Dem. Rep. of the Congo, 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, Tanzania, Chad, Togo and Tunisia, the 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 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 band. (WRC-12)

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.

5.528 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 · 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 Recommendation ITU-R BO.1898). (WRC-12)

5.530B In the band 21.4-22 GHz, in order to facilitate the development of the broadcasting-satellite service, administrations in Regions 1 and 3 are encouraged not to deploy stations in the mobile service and are encouraged to limit the deployment of stations in the fixed service to point-to-point links. (WRC-12)

5.530C The use of the band 21.4-22 GHz is subject to the provisions of Resolution 755 **(WRC-12)**. (WRC-12)

5.530D See Resolution 555 **(WRC-12)**. (WRC-12)

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.

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.

5.535 In the band 24.75-25.25 GHz, feeder links to stations of the broadcasting-satellite service shall have priority over other uses in the fixed-satellite service (Earth-to-space). Such other uses shall protect and shall not claim protection from existing and future operating feeder-link networks to such broadcasting satellite stations.

5.535A The use of the band 29.1 - 29.5 GHz (Earth-to-space) by the fixed-satellite service is limited to geostationary-satellite systems and feeder links to non-geostationary-satellite systems in the mobile-satellite service. Such use is subject to the application of the provisions of No. 9.11A, but not subject to the provisions of No. 22.2, except as indicated in Nos. 5.523C and 5.523E where such use is not subject to the provisions of No. 9.11A and shall continue to be subject to Articles 9 (except No. 9.11A) and 11 procedures, and to the provisions of No. 22.2. (WRC-97)

5.536 Use of the 25.25 - 27.5 GHz band by the inter-satellite service is limited to space research and Earth exploration-satellite applications, and also transmissions of data originating from industrial and medical activities in space.

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 Recommendation ITU-R SA.1862. (WRC-12)

5.536B In Saudi Arabia, Austria, Belgium, Brazil, Bulgaria, China, Korea (Rep. of), Denmark, Egypt, United Arab Emirates, Estonia, Finland, Hungary, India, Iran (Islamic Republic of), Ireland, Israel, Italy, Jordan, Kenya, Kuwait, Lebanon, Libya, Liechtenstein, Lithuania, Moldova, Norway, Oman, Uganda, Pakistan, the Philippines, Poland, Portugal, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the Czech Rep., Romania, the United Kingdom, Singapore, Sweden, Switzerland, Tanzania, Turkey, Viet Nam and Zimbabwe, earth stations operating in the Earth exploration-satellite 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)

5.536C 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, the 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-03)

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, 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 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-12). (WRC-12)

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), 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 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 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 band 31-31.3 GHz shall not cause harmful interference to the radio astronomy service having a primary allocation in the band 31.3-31.8 GHz, taking into account the protection criterion as given in 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 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-12)

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, 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 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-12)

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 not exceed -□73.3 dB(W/m^2) 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)

5.551H The equivalent power flux-density (epfd) produced in the band 42.5-43.5 GHz by all space stations in any non-geostationary-satellite system in the fixed-satellite service (space-to-Earth), or in the broadcasting-satellite service (space-to-Earth) operating in the 42-42.5 GHz band, shall not exceed the following values at the site of any radio astronomy station for more than 2% of the time:

−230 dB(W/m^2) in 1 GHz and –246 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

−209 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 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 and shall apply over the whole sky and for elevation angles higher than the minimum operating angle θ_{min} 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-07)

5.551I The power flux-density in the band 42.5 - 43.5 GHz produced by any geostationary space station in the fixed-satellite service (space-to-Earth), or the broadcasting-satellite service (space-to-Earth) operating in the 42 - 42.5 GHz band, shall not exceed the following values at the site of any radio astronomy station:

–137 dB(W/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/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 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 Radiocommunication 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 bands 47.2-47.5 GHz and 47.9-48.2 GHz is designated for use by high altitude platform stations. The use of the bands 47.2-47.5 GHz and 47.9-48.2 GHz is subject to the provisions of Resolution 122 (Rev.WRC-07). (WRC-07)

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)

5.554 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/m^2) in any 500 kHz band at the site of any radio astronomy station. (WRC-03)

5.556 In the bands 51.4 - 54.25 GHz, 58.2 - 59 GHz and 64 - 65 GHz, radio astronomy observations may be carried out under national arrangements. (WRC-2000)

5.556A Use of the bands 54.25 - 56.9 GHz, 57 - 58.2 GHz and 59 - 59.3 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density at all altitudes from 0 km to 1 000 km above the Earth' s surface produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, shall not exceed -147 dB(W/m^2 · 100 MHz) for all angles of arrival. (WRC-97)

5.557A In the band 55.78 - 56.26 GHz, in order to protect stations in the Earth exploration-satellite service (passive), the maximum power density delivered by a transmitter to the antenna of a fixed service station is limited to –26 dB(W/MHz). (WRC-2000)

5.558 In the bands 55.78 - 58.2 GHz, 59 - 64 GHz, 66 - 71 GHz, 122.25 - 123 GHz, 130 - 134 GHz, 167 - 174.8 GHz and 191.8 - 200 GHz, stations in the aeronautical mobile service may be operated subject to not causing harmful interference to the inter-satellite service (see No. 5.43). (WRC-2000)

5.558A Use of the band 56.9 - 57 GHz by inter-satellite systems is limited to links between satellites in geostationary-satellite orbit and to transmissions from non-geostationary satellites in high-Earth orbit to those in low-Earth orbit. For links between satellites in the geostationary-satellite orbit, the single entry power flux-density at all altitudes from 0 km to 1 000 km above the Earth's surface, for all conditions and for all methods of modulation, shall not exceed –147 dB(W/m^2 · 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)

5.560 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)

5.562A In the bands 94-94.1 GHz and 130-134 GHz, transmissions from space stations of the Earth exploration-satellite service (active) that are directed into the main beam of a radio astronomy antenna have the potential to damage some radio astronomy receivers. Space agencies operating the transmitters and the radio astronomy stations concerned should mutually plan their operations so as to avoid such occurrences to the maximum extent possible. (WRC-2000)

5.562B In the bands 105-109.5 GHz, 111.8-114.25 GHz, 155.5-158.5 GHz and 217-226 GHz, the use of this allocation is limited to space-based radio astronomy only. (WRC-2000)

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/(m^2 · MHz)) for all angles of arrival. (WRC-2000)

5.562D Additional allocation: In Korea (Rep. of), the bands 128-130 GHz, 171-171.6 GHz, 172.2-172.8 GHz and 173.3-174 GHz are also allocated to the radio astronomy service on a primary basis until 2015. (WRC-2000)

5.562E The allocation to the Earth exploration-satellite service (active) is limited to the band 133.5 - 134 GHz. (WRC-2000)

5.562F In the band 155.5 - 158.5 GHz, the allocation to the Earth exploration-satellite (passive) and space research (passive) services shall terminate on 1 January 2018. (WRC-2000)

5.562G 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 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 –144 dB(W/(m^2 · 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)

5.565 The following frequency bands in the range 275-1 000 GHz are identified for use by administrations for passive service 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 275-1 000 GHz by the passive services does not preclude use of this range by active services. Administrations wishing to make frequencies in the 275-1 000 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 275-1 000 GHz frequency range.

All frequencies in the range 1 000-3 000 GHz may be used by both active and passive services. (WRC-12)

Annex 3 - Relevant ECC/ERC Decisions and Recommendations

ECC/DEC/(13)01	ECC Decision of 8 March 2013 on the harmonised use, free circulation and exemption from individual licensing of Earth Stations On Mobile Platforms (ESOMPs) within the frequency bands 17.3-20.2 GHz and 27.5-30.0 GHz.
ECC/DEC/(12)03	ECC Decision of 2 November 2012 on the harmonised conditions for UWB applications onboard aircraft
ECC/DEC/(11)06	ECC Decision of 9 December 2011 on harmonized frequency arrangements for mobile/fixed communications networks (MFCN operating in the bands 3400-3600 MHz and 3600-3800 MHz
ECC/DEC/(11)04	ECC Decision of 9 December 2011 on exemption from individual licensing of digital terminals of narrowband and wideband PMR/PAMR/PPDR systems and free circulation and use of digital terminals of narrowband and wideband PPDR ststems operating in the 80 MHz, 160 MHz, 380-470 MHz and 800/900 MHz bands
ECC/DEC/(11)03	ECC Decision of 24 June 2011 on the harmonized use of frequencies for Citizen' Band (CB) radio equipment
ECC/DEC/(11)02	ECC Decision of 11 March 2011on the 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	ECC Decision of 11 March 2011on the protection of EESS in the band 1400-1427 MHz
ECC/DEC/(10)02	ECC Decision of 12 November 2010 on 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	ECC Decision of 12 November 2010 on 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	ECC Decision of 30 October 2009 on 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	ECC Decision of 30 October 2009 on harmonised conditions for Mobile/Fixed Communications Networks (MFCN)operating in the band 790-862 MHz
ECC/DEC/(09)02	ECC Decision of 26 June 2009 on the harmonisation of the bands 1610-1626.5 MHz and 2483.5-2500 MHz for use by systems in the Mobile-Satellite Service amended 2 November 2012
ECC/DEC/(09)01	ECC Decision of 13 March 2009 on the harmonised use of the 63-64 GHz frequency band for Intelligent Transport Systems (ITS)
ECC/DEC/(08)08	ECC Decision of 31 October 2008 on the harmonised use of GSM system on board vessels in the frequency bands 880-915/925-960 MHz and 1710-1785/1805-1880 MHz
ECC/DEC/(08)05	ECC Decision of 27 June 2008 on the harmonisation of frequency bands for theimplementation of digital Public Protection and Disaster Relief (PPDR) radio applications in bands within the 380-470 MHz range
ECC/DEC/(08)01	ECC Decision of 14 March 2008 on the harmonised use of the 5875-5925 MHz frequency band for Intelligent Transport Systems (ITS)
ECC/DEC/(07)05	ECC Decision of 21 December 2007 on exemption from individual licensing of land mobile satellite terminals operating in the Mobile-Satellite Service allocation in the frequency range 1-3 GHz
ECC/DEC/(07)04	ECC Decision of date/month 2007 on free circulation and use of mobile satellite terminals operating in the Mobile-Satellite Service allocation in the frequency range 1-3 GHz
ECC/DEC/(07)02	ECC Decision of 30 March 2007 on availability of frequency bands between 3400-3800 MHz for the Harmonised implementation of Broadband Wireless Access systems (BWA)
ECC/DEC/(06)13	ECC Decision of 1 December 2006 on designation of the bands 880-915 MHz, 925-960 MHz, 1710-1785 MHz and 1805-1880 MHz for terrestrial IMT-2000/UMTS systems
ECC/DEC/(06)10	ECC Decision of 1 December 2006 on 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	ECC Decision of 1 December 2006 on designation of the bands 1980-2010 MHz and 2170-2200 MHz for use by systems in the Mobile-Satellite Service (MSS) including those supplemented by a Complementary Ground Component (CGC) amended 5 September 2007
ECC/DEC/(06)07	ECC Decision of 1 December 2006 on The harmonised use of airborne GSM systems in the frequency bands 1710-1785 and 1805-1880 MHz amended 13 June 2009
ECC/DEC/(06)06	ECC Decision of 7 July 2006 on the availability of frequency bands for the introduction of Narrow Band Digital Land Mobile PMR/PAMR in the 80 MHz, 160 MHz and 400 MHz bands
ECC/DEC/(06)05	ECC Decision of 7 July 2006 on the harmonised frequency bands to be designated for Air-Ground-Air operation (AGA) of Digital Land Mobile Systems for the Emergency Services
ECC/DEC/(06)04	ECC Decision of 24 March 2006 on the harmonised conditions for devices using UWB technology in bands below 10.6 GHz amended 6 July 2007 and 9 December 2011
ECC/DEC/(06)03	ECC Decision of 24 March 2006 on 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	ECC Decision of 24 March 2006 on Exemption from Individual Licensing of Low e.i.r.p. Satellite Terminals (LEST) operating within the Frequency Bands 10.70–12.75 GHz or 19.7–20.2 GHz space–to–Earth and 14.00–14.25 GHz or 29.50–30.00 GHz Earth–to–Space.
ECC/DEC/(06)01	ECC Decision of 24 March 2006 on the harmonised utilisation of the bands 1920-1980 MHz and 2110-2170 MHz for mobile/fixed communications networks (MFCN) including terrestrial IMT systems amended 2 November 2012
ECC/DEC/(05)12	ECC Decision of 28.10.2005 on harmonised frequencies, technical characteristics, exemption from individual licensing and free carriage and use of digital PMR 446 applications operating in the frequency band 446.1 – 446.2 MHz
ECC/DEC/(05)11	ECC Decision of 24 June 2005 on 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	ECC Decision of 24 June 2005 on 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	ECC Decision of 24 June 2005 on the free circulation and use of Earth Stations on board Vessels operating in Fixed Satellite

	service networks in the frequency bands 5 925–6 425 MHz (Earth–to–space) and 3 700–4 200 MHz (space–to–Earth)
ECC/DEC/(05)08	ECC Decision of 24 June 2005 on the availability of frequency bands for High Density applications in the Fixed–Satellite Service (space–to–Earth and Earth–to–space) amended on 8 March 2013
ECC/DEC/(05)05	ECC Decision of 18 March 2005 on harmonised utilisation of spectrum for IMT–2000/UMTS systems operating within the band 2500–2690 MHz
ECC/DEC/(05)02	ECC Decision of 18 March 2005 on the use of the frequency band 169.4–169.8125 MHz amended 5 September 2007 and 12 November 2010 is currently under review
ECC/DEC/(05)01	ECC Decision of 18 March 2005 on the use of the band 27.5–29.5 GHz by fixed service and uncoordinated Earth stations of the fixed–satellite service (Earth–to–space) amended on 8 March 2013
ECC/DEC/(04)10	ECC Decision of 12 November 2004 on the frequency bands to be designated for the temporary introduction of Automative Short Range Radars (SRR) amended 5 September 2007 amended 1 June 2012
ECC/DEC/(04)09	ECC Decision of 12 November 2004 on designation of the bands 1518–1525 MHz and 1670–1675 MHz for the Mobile Satellite Service amended 26 June 2009
ECC/DEC/(04)08	ECC Decision of 9 July 2004 on the harmonised use of the 5 GHz frequency bands for the implementation of Wireless Access Systems including Radio Local Area Networks (WAS/RLANs) amended 3 November 2009
ECC/DEC/(04)06	ECC Decision of 19 March 2004 on the availability of frequency bands for the introduction of Wide Band Digital Land Mobile PMR/PAMR in the 400 MHz and 800/900 MHz bands amended 26 June 09 and 9 december 2011
ECC/DEC/(04)03	ECC Decision of 19 March 2004 on the frequency band 77–81 GHz to be designated for the use of Automotive Short Range Radars
ECC/DEC/(03)02	ECC Decision of 17 October 2003 on the designation of the frequency band 1479.5–1492MHz for use by Satellite Digital Audio Broadcasting systems
ECC/DEC/(02)10	ECC Decision of 15 November 2002 on exemption from individual licensing of GSM–R mobile terminals operating within the frequency bands 876–880 MHz and 921–925 MHz for railway purposes amended 11 March 2010
ECC/DEC/(02)09	ECC Decision of 15 November 2002 on free circulation and use of GSM–R mobile terminals operating within the frequency bands 876–880 MHz and 921–925 MHz for railway purposes in CEPT member countries, enlarging the field of application of ERC/DEC/(95)01 amended 11 March 2010
ECC/DEC/(02)06	ECC Decision of 15 November 2002 on the designation of frequency band 2500–2690 MHz for UMTS/IMT–2000
ECC/DEC/(02)05	ECC Decision of 5 July 2002 on the designation and availability of frequency bands for railway purposes in the 876–880 and 921–925 MHz bands amended on 8 March 2013
ECC/DEC/(02)04	ECC Decision of 15 March 2002 on 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/(01)19	ERC Decision of 12 March 2001 on 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	ERC Decision of 12 March 2001 on harmonised frequencies, technical characteristics and exemption from individual licensing of Short Range Devices used for Ultra Low Power Active Medical Implants operating in the frequency band 402–405 MHz amended 9 December 2011
ERC/DEC/(01)12	ERC Decision of 12 March 2001 on 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	ERC Decision of 12 March 2001 on 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/(01)08	ERC Decision of 12 March 2001 on harmonised frequencies, technical characteristics and exemption from individual licensing of Short Range Devices used for Movement Detection and Alert operating in the frequency band 2400–2483.5 MHz
ERC/DEC/(00)08	ERC Decision of 19 October 2000 on 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
ERC/DEC/(00)07	ERC Decision of 19 October 2000 on the shared use of the band 17.7–19.7 GHz by the fixed service and Earth stations of the fixed satellite services (space–to–Earth)
ERC/DEC/(00)02	ERC Decision of 27 March 2000 on 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)
ERC/DEC/(99)17	ERC Decision of 1 June 1999 on the Automatic Identification and Surveillance system (AIS) channels in the maritime VHF band
ERC/DEC/(99)15	ERC Decision of 1 June 1999 on the designation of the harmonised frequency band 40.5 to 43.5 GHz for the introduction of Multimedia Wireless Systems (MWS) including Multipoint Video Distribution Systems (MVDS) amended 5 March 2010
ERC/DEC/(99)06	ERC Decision of 10 March 1999 on the harmonised introduction of satellite personal communication systems operating in the bands below 1 GHz (S–PCS<1GHz)
ERC/DEC/(98)25	ERC Decision of 23 November 1998 on the harmonized frequency band to be designated for PMR 446 amended 1 June 2012
ERC/DEC/(97)02	ERC Decision of 21 March 1997 on the extended frequency bands to be used for the GSM Digital Pan–European Communications System
ERC/DEC/(95)03	ERC Decision of 1 December 1995 on the frequency bands to be designated for the introduction of DCS 1800
ERC/DEC/(94)03	ERC Decision of 24 October 1994 on the frequency band to be designated for the coordinated introduction of the Digital European Cordless Telecommunications system
ERC/DEC/(94)01	ERC Decision of 24 October 1994 on the frequency bands to be designated for the coordinated introduction of the GSM Digital pan–European communications System
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 authorization regime of indoor Global Navigation Satellite System (GNSS) Pseudolites in the band 1559-1610 MHz
ECC/REC/(11)05	Frequency planning and frequency coordination for terrestrial systems for Mobile/Fixed Communication Networks (MFCN) capable of providing electronic communications services in the frequency band 2 500-2 690 MHz

ECC/REC/(11)04	Frequency planning and frequency coordination for terrestrial systems for Mobile/Fixed Communication Networks (MFCN) capable of providing electronic communications services 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 the GSM 900 (including E-GSM) / UMTS 900, GSM 1800/UMTS 1800 land mobile systems
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 frequency coordination for the GSM 900, GSM 1800, E–GSM and GSM–R systems
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/(04)05	Recommended guidelines for accommodation and assignment of multipoint Fixed Wireless Systems in frequency bands 3.4–3.6 and 3.6–3.8 GHz
ECC/REC/(02)09	Protection of Aeronautical Radio Navigation Service in the band 2700–2900 MHz from interference caused by the operation of Digital Cordless Cameras
ECC/REC/(02)06	Preferred channel arrangements for digital fixed service systems operating in the frequency range 7125–8500 MHz
ECC/REC/(02)02	Channel arrangements for digital fixed service systems (point–to–point and point–to–multipoint) operating in the frequency band 31–31.3 GHz
ECC/REC/(01)04	Recommended guidelines for the accommodation and assignment of Multimedia Wireless Systems (MWS) in the frequency band 40.5–43.5 GHz
ERC/REC/(01)02	Preferred channel arrangement for digital fixed service systems operating in the frequency band 31.8–33.4 GHz
ERC/REC/(01)01	Border coordination of UMTS/IMT–2000 systems
ERC/REC/(00)04	Harmonised frequencies and free circulation and use for Meteor Scatter Applications
CEPT/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
CEPT/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
CEPT/ERC/REC 12–05	Harmonised radio frequency channel arrangements for digital terrestrial fixed systems operating in the band 10.0 GHz to 10.68 GHz
CEPT/ERC/REC 12–06	Harmonised radio frequency channel arrangements for digital terrestrial fixed systems operating in the band 10.7 GHz to 11.7 GHz
CEPT/ERC/REC 12–07	Harmonised radio frequency channel arrangements for digital terrestrial fixed systems operating in the band 15.23 GHz to 15.35 GHz
CEPT/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
CEPT/ERC/REC 12–10	Harmonised radio frequency arrangements for digital systems operating in the band 48.5 GHz to 50.2 GHz
CEPT/ERC/REC 12–11	Radio frequency channel arrangement for fixed service systems operating in the band 51.4–52.6 GHz
CEPT/ERC/REC 12–12	Radio frequency channel arrangement for fixed service systems operating in the band 55.78–57.0 GHz
CEPT/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)
CEPT/ERC/REC 14–01	Radio–frequency channel arrangements for high capacity analogue and digital radio–relay systems operating in the band 5925 MHz – 6425 MHz
CEPT/ERC/REC 14–02	Radio–frequency channel arrangements for medium and high capacity analogue or high capacity digital radio–relay systems operating in the band 6425 MHz – 7125 MHz
CEPT/ERC/REC 14–03	Harmonised radio frequency channel arrangements and block allocations for low and medium capacity systems in the band 3400 MHz to 3600 MHz
CEPT/ERC/REC 25–10	Frequency ranges for the use of temporary terrestrial audio and video SAP/SAB links (incl. ENG/OB)
CEPT/ERC/REC 62–02	Harmonised frequency band for civil and military airborne telemetry applications
CEPT/ERC/REC 70–03	Relating to the use of Short Range Devices (SRD)
T/R 12–01	Harmonized radio frequency channel arrangements for analogue and digital terrestrial fixed systems operating in the band 37 GHz–39.5 GHz

T/R 13–01	Preferred channel arrangements for fixed services in the range 1–3 GHz
T/R 13–02	Preferred channel arrangements for fixed services in the range 22.0–29.5 GHz
T/R 25–08	Planning criteria and coordination of frequencies in the land mobile service in the range 29.7–921 MHz
T/R 32–02	Frequencies to be used by on–board communication stations

Annex 4 - European Standards included in the ECA Table

Standard name	*Short Standard title*
EN 300 065	Narrow-band direct-printing telegraph equipment for receiving meteorological or navigational information (NAVTEX)
EN 300 066	Float-free maritime satellite Emergency Position Indicating Radio Beacons (EPIRBs) operating in the 406.0 to 406.1 MHz
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 300 135	Angle-modulated Citizens Band radio equipment (CEPT PR 27 Radio Equipment)
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	SRD; Radio equipment to be used in the 25 to 1 000 MHz frequency range with power levels ranging up to 500 mW
EN 300 224	Electromagnetic compatibility and Radio spectrum Matters (ERM); 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 300 341	Land Mobile Service (RP 02); Radio equipment using an integral antenna transmitting signals to initiate a specific response in the receiver
EN 300 373	Maritime mobile transmitters and receivers for use in the MF and HF bands
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	Land Mobile Service; Double Side Band (DSB) and/or Single Side Band (SSB) amplitude modulated citizen's band radio equipment
EN 300 440	Short Range Devices; Radio equipment to be used in the 1 to 40 GHz frequency range
EN 300 454	Wide band audio links
EN 300 471	Land Mobile Service; Rules for Access and the Sharing of common used channels by equipment complying with EN 300 113
EN 300 609	GSM Repeaters
EN 300 674	Road Transport and Traffic Telematics (RTTT);Dedicated Short Range Communication (DSRC) transmission equipment (500 kbit/s/250 kbit/s) operating in the 5.8 GHz
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 300 718	Avalanche Beacons; Transmitter-receiver systems
EN 300 720	Electromagnetic compatibility and Radio Spectrum Matters (ERM) Ultra-High Frequency (UHF) on-board communications systems and equipment
EN 300 761	Short Range Devices (SRD); Automatic Vehicle Identification (AVI) for railways operating in the 2.45 GHz frequency range
EN 301 025	VHF radiotelephone equipment for general communications and associated equipment for Class "D" Digital

	Selective Calling (DSC)
EN 301 091	Short Range Devices;Road Transport and Traffic Telematics (RTTT); 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 e
EN 301 360	Satellite Interactive Terminals (SIT) and Satellite User Terminals (SUT) transmitting towards geostationary satellites in the 27.5 to 29.5 GHz
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
EN 301 427	Low data rate Mobile satellite Earth Stations (MESs) except aeronautical mobile satellite earth stations, operating in the 11/12/14 GHz
EN 301 428	Very Small Aperture Terminal (VSAT); Transmit-only, transmit/receive or receive-only satellite earth stations operating in the 11/12/14 GHz
EN 301 430	Satellite News Gathering Transportable Earth Stations (SNG TES) operating in the 11-12/13-14 GHz frequency bands
EN 301 441	Mobile Earth Stations (MESs), including 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	Mobile Earth Stations (MESs), including 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	Very Small Aperture Terminal (VSAT);Transmit-only, transmit-and-receive, receive-only satellite earth stations operating in the 4 GHz and 6 GHz
EN 301 444	Land Mobile Earth Stations (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 the Fixed Satellite Service (FSS)
EN 301 449	CDMA spread spectrum base stations operating in the 450 MHz cellular band (CDMA 450) and 410, 450 and 870 MHz PAMR bands (CDMA-PAMR)
EN 301 459	Satellite Interactive Terminals (SIT) and Satellite User Terminals (SUT) transmitting towards satellites in geostationary orbit in the 29.5 GHz to 30.0 GHz
EN 301 473	Aircraft Earth Stations (AES) operating under the Aeronautical Mobile Satellite Service (AMSS)/Mobile Satellite Service (MSS) and/or the Aeronautical Mobile Satellite on Route Service (AMS(R)S), MSS
EN 301 502	Global System for Mobile communications (GSM); Base Station and Repeater equipment covering essential requirements under article 3.2 of the R&TTE directive
EN 301 511	Global System for Mobile communications (GSM); Harmonized EN for mobile stations in the GSM 900 and GSM 1800 bands covering essential requirements
EN 301 526	CDMA spread spectrum mobile stations operating in the 450 MHz cellular band (CDMA 450) and 410, 450 and 870 MHz PAMR bands (CDMA-PAMR)
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	Mobile Earth Stations (MESs) of Geostationary mobile satellite systems, including handheld earth stations, for Satellite Personal Communications Networks (S-PCN) in the 1.5/1.6 GHz under MSS
EN 301 721	Mobile Earth Stations (MES) 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 operating in the frequency range 402 MHz to 405 MHz
EN 301 893	Broadband Radio Access Networks (BRAN); 5 GHz high performance RLAN
EN 301 908	Base Stations (BS), Repeaters and User Equipment (UE) for IMT-2000 Third-Generation cellular networks
EN 301 929	VHF transmitters and receivers as Coast Stations for GMDSS and other applications in the maritime mobile

	service
EN 301 997	Radio equipment for use in Multimedia Wireless Systems (MWS) in the frequency band 40.5 GHz to 43.5 GHz
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
EN 302 065	Ultra WideBand (UWB) technologies for communication purposes
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
EN 302 186	Satellite mobile Aircraft Earth Stations (AESs) operating in the 11/12/14 GHz
EN 302 194	Navigation radar used on inland waterways
EN 302 195	Radio equipment in the frequency range 9 kHz to 315 kHz for Ultra Low Power Active Medical Implants (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
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 77-81 GHz
EN 302 288	Short range radar equipment operating in the 24 GHz range
EN 302 291	SRD Close Range Inductive Data Communication equipment operating at 13.56 MHz
EN 302 296	Digital television broadcast service, terrestrial (DVB-T)
EN 302 297	Transmitting equipment for the analogue television broadcasting service
EN 302 326	Multipoint Equipment and Antennas
EN 302 340	Satellite Earth Stations on board Vessels (ESVs) operating in the 11/12/14 GHz frequency 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 302 426	CDMA spread spectrum Repeaters operating in the 450 MHz cellular band (CDMA450) and the 410 MHz, 450 MHz and 870 MHz PAMR bands (CDMA-PAMR)
EN 302 435	SRD equipment using Ultra WideBand technology (UWB). Building Material Analysis (BMA) and Classification equipment
EN 302 448	Tracking 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 302 498	SRD equipment using Ultra WideBand technology (UWB); Object Discrimination and Characterisation Applications for power tool devices
EN 302 500	Location Tracking equipment operating in 6-8.5 GHz using UWB technology
EN 302 502	5.8 GHz fixed broadband data transmitting systems
EN 302 510	Radio equipment in the frequency range 30 MHz to 37.5 MHz for Ultra Low Power Active Medical Membrane Implants and Accessories
EN 302 536	Radio equipment in the frequency range 315 kHz to 600 kHz
EN 302 537	Ultra Low Power Medical Data Service Systems operating in the frequency range 401 MHz to 402 MHz and 405 MHz to 406 MHz
EN 302 544	Broadband Data Transmission Systems in 2500-2690 MHz using TDD

EN 302 561	Radio equipment using constant or non-constant envelope modulation operating in a channel bandwith 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 the 1980 to 2010 MHz (earth-to-space) and 2170 to 2200 MHz (space-to-earth) 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 302 623	BWA equipment in the 3.4-3.8 GHz frequency range
EN 302 625	5 GHz BroadBand Disaster Relief applications (BBDR)
EN 302 645	Short Range Devices; Global Navigation Satellite Systems (GNSS) Repeaters
EN 302 686	Intelligent Transport Systems (ITS); Radiocommunications equipment operating in the 63 to 64 GHz frequency band
EN 302 729	Level Probing Radar (LPR) equipment operating in the frequency ranges 6 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 Enhancers
EN 302 774	Broadband Wireless Access Systems (BWA) in the 3 400 MHz to 3 800 MHz frequency band; Base Stations
EN 302 858	Short range radar equipment operating in the 24,05 GHz to 24,25 GHz frequency range for automotive application
EN 302 977	Vehicle-Mounted Earth stations (VMES) operating 14/12 GHz frequency bands
EN 302 998	Transmitting equipment for terrestrial mobile TV to provide multimedia multicast service
EN 303 213	Advanced Surface Movement Guidance and Control System
EN 303 978	Earth Stations on Mobile Platforms (ESOMP) transmitting towards satellites in geostationary orbit in the 27,5 GHz to 30,0 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 - List of abbreviations used in the ECA Table

AGA	- Air Ground Air
AIS	- Automatic Identification System
AMS(R)S	- Aeronautical Mobile Satellite (Route) Services
APP	- Appendix of the ITU Radio Regulations
AVI	- Automatic Vehicle Idenfication
BBDR	- Broad Band Disaster Relief
BFWA	- Broadband Fixed Wireless Access
BMA	- Building Material Analysis
BSS	- Broadcasting Satellite Service
BWA	- Broadband Wireless Access
CB	- Citizens' radio Band
CEPT	- European Conference of Postal and Telecommunications Administrations
CGC	- Complementary Ground Component
CRS	- Central Radio Station
DEC	- Decision
DECT	- Digital Enhanced Cordless Telecommunication
DME	- Distance Measuring Equipment
DMO	- Direct Mode Operation
DSC	- Digital Selective Calling
DSI	- Detailed Spectrum Investigation
DVB-T	- Terrestrial Digital Video Broadcasting
ECA	- European Common Allocation
ECC	- Electronic Communications Committee
ECM	- Electronic C ountermeasures
ECP	- European Common Proposal
EESS	- Earth Exploration-Satellite Service
EFIS	- European Frequency Information System
EGSM	- Extended GSM
EISCAT	- European Incoherent SCATter facility
ENG	- Electronic News Gathering
EPIRB	- Emergency Position-Indicating Radiobeacon
ERC	- European Radiocommunications Committee
ERO	- European Radiocommunications Office
ESOMPs	- Earth Stations On Mobile Platforms
EST	- Earth Stations on Trains
E/s	- Earth-to-space direction
EU	- EUropean footnote
FB	- Base station (fixed base)
FDD	- Frequency Division Duplex
FM	- Frequency Modulation
FSS	- Fixed-Satellite Service
FWA	- Fixed Wireless Access
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
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
ILS	- Instrument Landing System
IMO	- International Maritime Organisation
IMT	- International Mobile Telecommunications
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
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
MIDS	- Multifunctional Information Distribution System
MCA	- Mobile Communications Services on Board Aircraft
MCV	- Mobile Communication Services on Board Vessels
MES	- Mobile Earth Stations
MFCN	- Mobile/Fixed Communications Networks
ML	- Mobile Link (Mobile station transmits)
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
NJFA	- NATO Joint Civil/Military Frequency Agreement
OB	- Outside Broadcasting
(OR)	- Off-Route
ODC	- Object Discrimination and Characterisation

PAMR	- Public Access Mobile Radio
PKO	- Peace Keeping Operations
PMR	- Professional Mobile Radio, Private Mobile Radio
PPDR	- Public Protection and Disaster Relief
PWAP	- Private Wide Area Paging
(R)	- Route
R&TTE	- Radio Equipment and Telecommunications Terminal Equipment
RA	- Radio Astronomy
REC	- Recommendation
RFID	- Radio Frequency Identification
RLANS	- Radio Local Area Network System
RR	- ITU Radio Regulations
RTTT	- Road Transport & Traffic Telematics
SAB	- Services Ancillary to Broadcasting
SAP	- Services Ancillary to Programming
SAR(communications)	- Search and Rescue
S-DAB	- Satellite Digital Audio Broadcasting
s/E	- space-to-Earth direction
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
TRA-ECS	- Terrestrial Radio Applications Capable of Providing Electronic Communications Services
TRR	- Tactical Radio Relays
TS	- Terminal Station
TV	- Television
UIC	- International Union for Railways
ULP-AMI	- Ultra Low Power Active Medical Implants
UMTS	- Universal Mobile Telecommunications System
UWB	- Ultra – Wideband
VLBI	- Very Long Baseline Interferometry (Radio Astronomy)
VOR	- VHF Omni-directional Range
VSAT	- Very Small Aperture Terminal
VTS	- Vessel Traffic System (radar)
WARC	- World Administrative Radio Conference
WAS	- Wireless Access System
WRC	- World Radiocommunication Conference