State Commission on Radio Frequencies
of the Republic of Moldova

NATIONAL TABLE OF FREQUENCY ALLOCATIONS

Adopted by Decision
of the State Commission on Radio Frequencies
of the Republic of Moldova
no. 11 of 27.04.2000
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no. 12 of 6.10.2000
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INTRODUCTION

National Table of Frequency Allocations, below referred to as "NTFA", is a normative act which settles the allocation of radio frequency bands for radiocommunication services anf their usage, also determining the usage category of radiofrequency bands.

NTFA constitutes the basis of radio frequency spectrum management in Republic of Moldova.

NTFA corresponds to national priorities and it is in conformity with allocation of frequency bands established by competent entities of the International Telecommunication Union, which contains in Article 5 of the Radio Regulations of the ITU. Radio Regulations of the ITU can be accessed at the address: http://www.itu.int/.

NTFA is formed as follows: General presentation, the Table itself, Annex 1 and Annex 2 containing conditions under which frequencies of a specified band can be used by mentioned services and Appendix 3 contains the list of abbreviations.

NTFA is updated regularly in accordance with the requirements of the new national and international regulations in the field of frequency allocations.

General presentation comprises the following paragraphs**:**

§ 1.1 Allocation of frequency bands

That paragraph contains summary on problem of allocation of frequency bands on international and national levels as well as conditions under which many radiocommunication services could use the same frequency band.

§ 1.2 Terms and definitions

That paragraph was introduced with the purpose that specific terms for all users of the NTFA have the same meaning. It contains all terms used in the Table and in international and national footnotes. Terms are followed by corresponding definitions as they appear in Article 1 of the ITU Radio Regulations.

§ 1.3 Structure of NTFA

In that paragraph it is described structure of NTFA as well as meaning of codes used in columns of NTFA for indicating footnotes and national usage mode.

Part II - NTFA contains corresponding Table, Annexes 1 and 2 include footnotes within which frequencies could be used by services which a specific frequency band is allocated to and Annex 3 contains list of abbreviations.

NTFA is subject to periodical revision in conformity with requirements which are imposed by new national and international regulations which refer to allocation of frequency bands.

NATIONAL TABLE OF FREQUENCY ALLOCATIONS

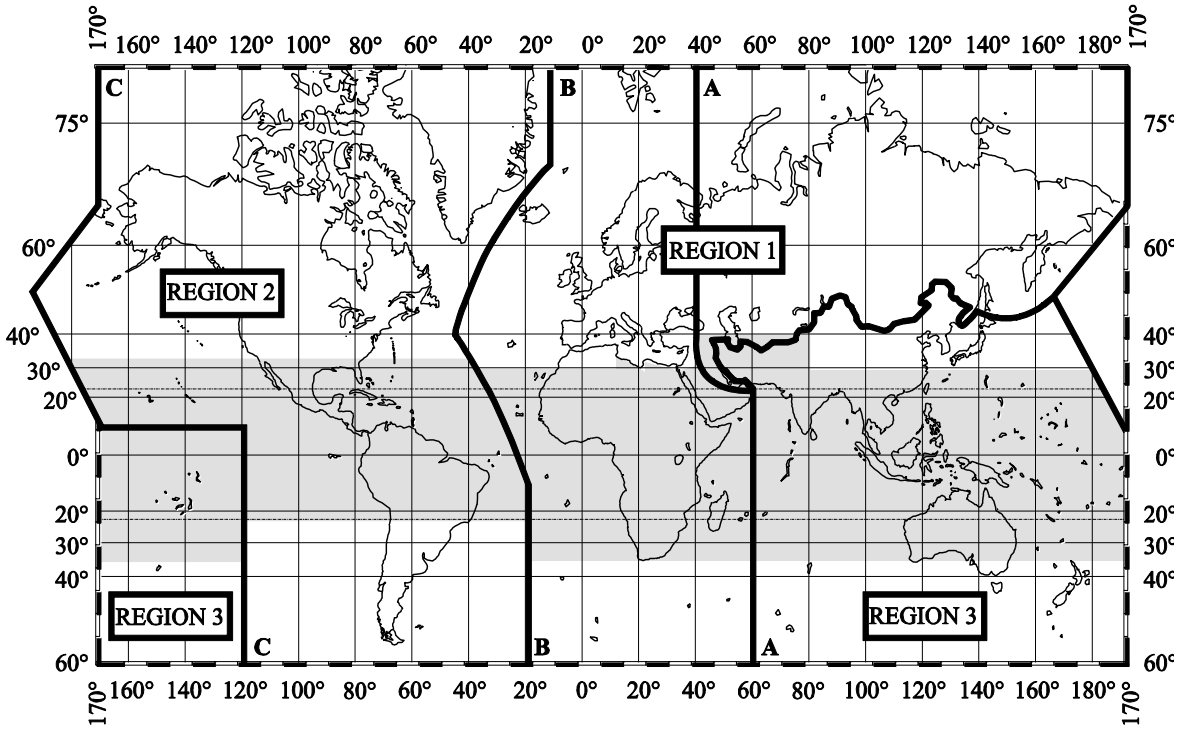
GENERAL PRESENTATION

§ 1.1 Allocation of frequency bands

In conformity with Radio Regulations, an allocation of frequency band means an entry in Table of Frequency Allocations of that band with the purpose to use it by a terrestrial or space service or services or radioastronomy service under specified conditions.

On the international level allocation of frequency bands is done by World Radiocommunications Conferencies (WRCs), which gather all Member States of the International Telecommunication Union (The Republic of Moldova is a Member State of the International Telecommunication Union since 1992).

For the allocation of frequencies the world has been divided into three Regions as shown on the following map:



The shaded part represents the Tropical Zones as defined in Nos. **S5.16** to **S5.20** and **S5.21.**

S5-01

Region 1 1 includes the area limited on the east by line A (lines A, B and C are defined below) and on the west by line B, excluding any of the territory of the Islamic Republic of Iran which lies between these limits. It also includes the whole of the territory of Armenia, Azerbaijan, Russian Federation, Georgia, Kazakstan, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Turkey and Ukraine and the area to the north of Russian Federation which lies between lines A and C.
Moldova is in Region 1.

Region 2 includes the area limited on the east by line B and on the west by line C.

Region 3 includes the area limited on the east by line C and on the west by line A, except any of the territory of Armenia, Azerbaijan, Russian Federation, Georgia, Kazakstan, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Turkey and Ukraine and the area to the north of Russian Federation. It also includes that part of the territory of the Islamic Republic of Iran lying outside of those limits.

On the national level allocation of frequency bands is done by the State Commission on Radio Frequencies of the Republic of Moldova.

§ 1.2 Terms and definitions

Telecommunication*:* Any transmission, **emission** or reception of signs, signals, writings, images and sounds or intelligence of any nature by wire, **radio**, optical or other electromagnetic systems**.**

Radio waves or hertzian waves*:* Electromagnetic waves of frequencies arbitrarily lower than 3 000 GHz, propagated in space without artificial guide.

Radiocommunication*:* **Telecommunication** by means of *radio waves*

Allocation (of a frequency band)*:* Entry in the Table of Frequency Allocations of a given frequency band for the purpose of its use by one or more terrestrial or space **radiocommunication services** or the **radio astronomy service** under specified conditions. This term shall also be applied to the frequency band concerned.

Allotment (of a radio frequency or radio frequency channel)*:* Entry of a designated frequency channel in an agreed plan, adopted by a competent conference, for use by one or more administrations for a terrestrial or **space radiocommunication service** in one or more identified countries or geographical areas and under specified conditions.

Asssignment (of a radio frequency or radio frequency channel)*:* Authorization given by an administration for a radio **station** to use a radio frequency or radio frequency channel under specified conditions.

Public correspondence*:* Any **telecommunication** which the offices and **stations** must, by reason of their being at the disposal of the public, accept for transmission

Terrestrial radiocommunication*:* Any **radiocommunication** other than **space radiocommunication** or **radio astronomy**.

Space radiocommunication*:* Any **radiocommunication** involving the use of one or more **space stations** or the use of one or more **reflecting satellites** or other objects in space.

Radiodetermination*:* The determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to these parameters, by means of the propagation properties of **radio waves**.

Radionavigation*:* **Radiodetermination** used for the purposes of navigation, including obstruction warning.

Radiolocation*:* **Radiodetermination** used for purposes other than those of **radionavigation**.

Radio astronomy*:* Astronomy based on the reception of **radio waves** of cosmic origin.

Industrial, scientific and medical (ISM) applications (of radio frequency energy): Operation of equipment or appliances designed to generate and use locally radio frequency energy for industrial, scientific, medical, domestic or similar purposes, excluding applications in the field of **telecommunications**.

Emission*:* **Radiation** produced, or the production of **radiation**, by a radio transmitting **station**. For example, the energy radiated by the local oscillator of a radio receiver would not be an emission but a **radiation**.

Harmful interference*:* **Interference** which endangers the functioning of a **radionavigation service** or of other **safety services** or seriously degrades, obstructs, or repeatedly interrupts a **radiocommunication service** operating in accordance with Radio Regulations.

Station*:* One or more transmitters or receivers or a combination of transmitters and receivers, including the accessory equipment, necessary at one location for carrying on a **radiocommunication service**, or the **radio astronomy service**.
Each station shall be classified by the service in which it operates permanently or temporarily.

Feeder link*:* A radio link from an **earth station** at a given location to a **space station**, or vice versa, conveying information for **a space radiocommunication service** other than for the **fixed-satellite service**. The given location may be at a specified fixed point, or at any fixed point within specified areas.

Radiocommunication service*:* A service as defined in this Section involving the transmission, **emission** and/or reception of **radio waves** for specific **telecommunication** purposes.
In this document, unless otherwise stated, any radiocommunication service relates to **terrestrial radiocommunication**.

Fixed service*:* A **radiocommunication service** between specified fixed points.

Fixed-satellite service*:* A **radiocommunication service** between **earth stations** at given positions, when one or more **satellites** are used; the given position may be a specified fixed point or any fixed point within specified areas; in some cases this service includes satellite-to-satellite links, which may also be operated in the **inter-satellite service**; the fixed-satellite service may also include **feeder links** for **other space radiocommunication services**.

Inter-satellite service*:* A **radiocommunication service** providing links between artificial **satellites**.

Space operation service*:* A **radiocommunication service** concerned exclusively with the operation of **spacecraft**, in particular **space tracking, space telemetry** and **space telecommand**.
These functions will normally be provided within the service in which the **space station** is operating.

Mobile service*:* A **radiocommunication service** between **mobile** and **land stations**, or between **mobile stations**

Mobile-satellite service*:* A **radiocommunication service:**

- between **mobile earth stations** and one or more **space stations,** or between **space stations** used by this service; or
- between **mobile earth stations** by means of one or more **space stations**.

This service may also include **feeder links** necessary for its operation.

Land mobile service*:* A **mobile service** between **base stations** and **land mobile stations**, or between **land mobile stations**.

Maritime mobile service*:* A **mobile service** between **coast stations** and **ship stations**, or between **ship stations**, or between associated **on-board communication stations; survival craft stations** and **emergency position-indicating radiobeacon stations** may also participate in this service.

Port operations service*:* A **maritime mobile service** in or near a port, between **coast stations** and **ship stations**, or between **ship stations**, in which messages are restricted to those relating to the operational handling, the movement and the safety of ships and, in emergency, to the safety of persons.
Messages which are of a **public correspondence** nature shall be excluded from this service.

Ship movement service*:* A **safety service** in the **maritime mobile service** other than a **port operations service**, between **coast stations** and **ship stations**, or between **ship stations**, in which messages are restricted to those relating to the movement of ships.
Messages which are of a **public correspondence** nature shall be excluded from this service.

Aeronautical mobile service*:* A **mobile** *service* between **aeronautical stations** and **aircraft stations,** or between **aircraft stations**, in which **survival craft stations** may participate; **emergency position-indicating radiobeacon stations** may also participate in this service on designated distress and emergency frequencies.

Aeronautical mobile (R)[1*] service: An aeronautical mobile service reserved for communications relating to safety and regularity of flight, primarily along national or international civil air routes.

Aeronautical mobile (OR)[2] service:** An **aeronautical mobile service** intended for communications, including those relating to flight coordination, primarily outside national or international civil air routes.

Aeronautical mobile-satellite service: A **mobile-satellite service** in **which mobile earth stations** are located on board aircraft; **survival craft stations** and **emergency position-indicating radiobeacon stations** may also participate in this service.

Aeronautical mobile-satellite (R)* service: An **aeronautical mobile-satellite service** reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.

Aeronautical mobile-satellite (OR) service:** An **aeronautical mobile-satellite service** intended for communications, including those relating to flight coordination, primarily outside national and international civil air routes.

Broadcasting service: A **radiocommunication service** in which the transmissions are intended for direct reception by the general public. This service may include sound transmissions, **television** transmissions or other types of transmission.

Broadcasting-satellite service: A **radiocommunication service** in which signals transmitted or retransmitted by **space stations** are intended for direct reception by the general public.
In the broadcasting-satellite service, the term "direct reception" shall encompass both **individual reception** and **community reception**.

Radiodetermination service: A **radiocommunication service** for the purpose of **radiodetermination**.

Radiodetermination-satellite service: A **radiocommunication service** for the purpose of **radiodetermination** involving the use of one or more **space stations**.

1* (R): route.
2** (OR): off-route

This service may also include **feeder links** necessary for its own operation.

Radionavigation service: A **radiodetermination service** for the purpose of **radionavigation**.

Radionavigation-satellite service: A **radiodetermination-satellite service** used for the purpose of **radionavigation**.
This service may also include **feeder links** necessary for its operation.

Maritime radionavigation service*:* A **radionavigation service** intended for the benefit and for the safe operation of ships.

Aeronautical radionavigation service*:* A **radionavigation service** intended for the benefit and for the safe operation of aircraft.

Aeronautical radionavigation-satellite service: A **radionavigation-satellite service** in which **earth stations** are located on board aircraft.

Radiolocation service: A **radiodetermination service** for the purpose of **radiolocation**.

Radiolocation-satellite service: A **radiodetermination-satellite service** used for the purpose of **radiolocation**.
This service may also include the **feeder links** necessary for its operation.

Meteorological aids service: A **radiocommunication service** used for meteorological, including hydrological, observations and exploration.

Earth exploration-satellite service: A **radiocommunication service** between **earth stations** and one or more **space stations**, which may include links between **space stations**, in which:

- information relating to the characteristics of the Earth and its natural phenomena, including data relating to the state of the environment, is obtained from active sensors or passive sensors on Earth satellites;
- similar information is collected from airborne or Earth-based platforms;
- such information may be distributed to earth stations within the system concerned;
- platform interrogation may be included.

This service may also include **feeder links** necessary for its operation.

Meteorological-satellite service: An **earth exploration-satellite service** for meteorological purposes.

Standard frequency and time signal service: A **radiocommunication service** for scientific, technical and other purposes, providing the transmission of specified frequencies, time signals, or both, of stated high precision, intended for general reception.

Standard frequency and time signal-satellite service: A **radiocommunication service** using **space stations** on earth **satellites** for the same purposes as those of the **standard frequency and time signal service.**
This service may also include **feeder links** necessary for its operation.

Space research service: A **radiocommunication service** in which **spacecraft** or other objects in space are used for scientific or technological research purposes.

Amateur service: A **radiocommunication service** for the purpose of self-training, intercommunication and technical investigations carried out by amateurs, that is, by duly authorized persons interested in radio technique solely with a personal aim and without pecuniary interest.

Amateur-satellite service: A **radiocommunication service** using **space stations** on earth **satellites** for the same purposes as those of the **amateur service.**

Radio astronomy service: A service involving the use of **radio astronomy**.

Safety service: Any **radiocommunication service** used permanently or temporarily for the safeguarding of human life and property.

Special service: A **radiocommunication service**, not otherwise defined in this Section, carried on exclusively for specific needs of general utility, and not open to **public correspondence.**

§ 1.3 Structure of the National Table of Frequency Allocations

National Table of Frequency Allocations consists of four columns:

Column 1 – International allocation for Region 1. Frequency band – Services – Footnotes. It contains allocation of frequency bands for different radiocommunication services for Region 1 countries. Contents of this column is identical to the column 1 of the Table of Frequency Allocations of Article 5 of the Radio Regulations.

Columns, which correspond to national allocation, have the following contents:

Column 2 – Frequency Band – Services. It contains allocation of frequency bands for different radiocommunications services in Moldova. This allocation corresponds to provisions of Article 5 of the Radio Regulations.

Column 3 – Footnotes. This column contains reference numbers of footnotes under which corresponding service is permitted to be used in Moldova. Reference numbers have the following meaning:

- numbers of type 5.317A correspond to numbers under which corresponding footnotes could be found in Article 5 of the Radio Regulations. Texts of those footnotes are shown in Annex 1 to the National Table of Frequency Allocations
- three digit numbers followed by letters RN, correspond to national footnotes which describe national usage of specific frequency band. Texts of those footnotes are shown in Annex 2 to the National Table of Frequency Allocations

Footnotes are integral part of the NTFA.

Coloana 4 – Possible applications. It contains information regarding possible aplications to be used within frequency band.

Column 5 – Category. It contains mode of use of frequency bands in Moldova. The meaning of remarks in this column is as follows:

- **G –** means that corresponding band is allocated exclusively for the governmental purposes (defense, national security, governmental communications, civil protection, police). Frequencies in those bands are assigned by interested entities;

- **NG –** means that corresponding band is allocated exclusively for the nongovernmental purposes. Frequencies in those bands are allocated and assigned by the National Regulatory Agency for Electronic Communications and Information Technology.

- **P –** means that corresponding band is shared by governmental and nongovernmental users. The coordination of frequencies in these bands is done by interested entities and the National Radiofrequency Centre.

Status under which radiocommunication services could use allocated band can be:
- primary
- secondary

Services of the same status have equal rights.

Stations of a secondary service:

a) shall not cause harmful interference to stations of primary services to which frequencies are already assigned or to which frequencies may be assigned at a later date;

b) cannot claim protection from harmful interference from stations of a primary service to which frequencies are already assigned or may be assigned at a later date;

c) can claim protection, however, from harmful interference from stations of the same or other secondary service(s) to which frequencies may be assigned at a later date.

Where it is indicated in the Table that a service may operate in a specific frequency band subject to not causing harmful interference, this means also that this service cannot claim protection from harmful interference caused by other services to which the band is allocated in conformity with the Table.

Status of services is indicated in the Table in the following manner:

a) services the names of which are printed in "capitals" (example: FIXED); these are called primary services;

b) services the names of which are printed in "normal characters" (example: Mobile); these are called secondary services

While delimiting frequency bands it is adopted conventionally that if frequency assignment corresponds to the lower limit of a band it refers to this band and if frequency assignment corresponds to the upper limit of a band it refers to the next upper band.

Note: Usage of radioelectronic applications in conformity with NTFA, is permitted only if standards, regulations in radiocommunications and procedures for authorisation in force are respected.

TABLE OF FREQUENCY ALLOCATIONS

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
Below 8.3 kHz (Not allocated) 5.53, 5.54	**Below 8.3 kHz** (Not allocated)	5.53, 5.54		
8.3-9 kHz METEOROLOGICAL AIDS 5.54A, 5.54B, 5.54C	**8.3-9 kHz** METEOROLOGICAL AIDS	5.54A	Lightning detection systems	P
9 – 11.3 kHz RADIONAVIGATION METEOROLOGICAL AIDS 5.54A	**9 – 11.3 kHz** RADIONAVIGATION METEOROLOGICAL AIDS	5.54A, RN018, RN035	Lightning detection systems	P
11.3 - 14 kHz RADIONAVIGATION	**11.3 - 14 kHz** RADIONAVIGATION	RN018, RN035	Active medical implants ISM Inductive applications	P
14 - 19.95 kHz FIXED MARITIME MOBILE 5.57 5.55, 5.56	**14 - 19.95 kHz** FIXED MARITIME MOBILE	5.57, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
19.95 – 20.05 kHz STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)	**19.95 – 20.05 kHz** STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)	RN018, RN035	Active medical implants Inductive applications	P
20.05 - 70 kHz FIXED MARITIME MOBILE 5.57 5.56, 5.58	**20.05 - 70 kHz** FIXED MARITIME MOBILE	5.57, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
70 - 72 kHz RADIONAVIGATION 5.60	**70 - 72 kHz** RADIONAVIGATION	5.60, RN018, RN035	Active medical implants Governmental applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			Inductive applications	
72 - 84 kHz FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.60 5.56	**72 - 84 kHz** FIXED MARITIME MOBILE RADIONAVIGATION	5.57, 5.60, RN001, RN018, RN035	Active medical implants Governmental applications Inductive applications Standard frequency and time	P
84 - 86 kHz RADIONAVIGATION 5.60	**84 - 86 kHz** RADIONAVIGATION	5.60, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
86 - 90 kHz FIXED MARITIME MOBILE 5.57 RADIONAVIGATION 5.56	**86 - 90 kHz** FIXED MARITIME MOBILE RADIONAVIGATION	5.57, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
90 - 110 kHz RADIONAVIGATION 5.62 Fixed 5.64	**90 - 110 kHz** RADIONAVIGATION Fixed	5.62, 5.64, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
110 - 112 kHz FIXED MARITIME MOBILE RADIONAVIGATION 5.64	**110 - 112 kHz** FIXED MARITIME MOBILE RADIONAVIGATION	5.64, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
112 -115 kHz RADIONAVIGATION 5.60	**112 -115 kHz** RADIONAVIGATION	5.60, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
115 – 117.6 kHz RADIONAVIGATION 5.60	**115 – 117.6 kHz**	5.60, 5.64,	Active medical implants	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
Fixed Maritime Mobile 5.64, 5.66	RADIONAVIGATION Fixed Maritime Mobile	RN018, RN035	Governmental applications Inductive applications	
117.6 - 126 kHz FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	**117.6 - 126 kHz** FIXED MARITIME MOBILE RADIONAVIGATION	5.60, 5.64, RN001, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
126 - 129 kHz RADIONAVIGATION 5.60	**126 - 129 kHz** RADIONAVIGATION	5.60, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
129 - 130 kHz FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	**129 - 130 kHz** FIXED MARITIME MOBILE RADIONAVIGATION	5.60, 5.64, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
130 – 135.7 kHz FIXED MARITIME MOBILE 5.64, 5.67	**130 – 135.7 kHz** FIXED MARITIME MOBILE	5.64, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
135.7 – 137.8 kHz FIXED MARITIME MOBILE Amateur 5.67A 5.64, 5.67, 5.67B	**135.7 – 137.8 kHz** FIXED MARITIME MOBILE Amateur	5.64, 5.67A, RN018, RN035	Active medical implants Amateur Governmental applications Inductive applications	P
137.8 – 148.5 kHz FIXED MARITIME MOBILE 5.64, 5.67	**137.8 – 148.5 kHz** FIXED MARITIME MOBILE	5.64, RN018, RN035	Active medical implants Governmental applications Inductive applications	P
148.5 - 255 kHz BROADCASTING	**148.5 - 255 kHz** BROADCASTING		Active medical implants	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
5.68, 5.69, 5.70		RN002, RN018, RN035	Broadcasting Inductive applications	
255 – 283.5 kHz BROADCASTING AERONAUTICAL RADIONAVIGATION 5.70	**255 – 283.5 kHz** BROADCASTING AERONAUTICAL RADIONAVIGATION	RN002, RN018, RN035	Active medical implants Beacons (aeronautical) Broadcasting Governmental application Inductive applications	P
283.5 - 315 kHz AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons) 5.73 5.74	**283.5 - 315 kHz** AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons)	5.73, 5.74, RN018, RN035	Active medical implants Beacons (aeronautical) Beacons (maritime) Governmental applications Inductive applications	P
315 - 325 kHz AERONAUTICAL RADIONAVIGATION Maritime Radionavigation (radiobeacons) 5.73, 5.75	**315 - 325 kHz** AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons)	5.73, 5.75, RN018, RN035	Beacons (aeronautical) Beacons (maritime) Governmental applications Inductive applications	P
325 - 405 kHz AERONAUTICAL RADIONAVIGATION	**325 - 405 kHz** AERONAUTICAL RADIONAVIGATION	RN018, RN035	Beacons (aeronautical) Governmental applications Inductive applications	P
405 - 415 kHz RADIONAVIGATION 5.76	**405 - 415 kHz** RADIONAVIGATION	5.76, RN003, RN018, RN035	Beacons (aeronautical) Beacons (maritime) Governmental applications Inductive applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
415 - 435 kHz MARITIME MOBILE 5.79 AERONAUTICAL RADIONAVIGATION	**415 - 435 kHz** AERONAUTICAL RADIONAVIGATION MARITIME MOBILE	5.79, RN018, RN035	Beacons (aeronautical) Governmental applications Inductive applications Maritime communications	P
435 - 472 kHz MARITIME MOBILE 5.79, Aeronautical Radionavigation 5.77, 5.82	**435 - 472 kHz** MARITIME MOBILE Aeronautical Radionavigation	5.79, 5.82, RN018, RN035	Emergency detection Governmental applications Inductive applications Maritime communications	P
472-479 kHz MARITIME MOBILE 5.79 Amateur 5.80A Aeronautical Radionavigation 5.77, 5.80 5.82 5.80B	**472-479 kHz** MARITIME MOBILE Amateur Aeronautical Radionavigation	5.79, 5.80A, 5.82, RN035	Active medical implants Amateur Inductive applications Maritime communications	P
479-495 kHz MARITIME MOBILE 5.79,5.79A Aeronautical Radionavigation 5.77, 5.82	**479-495 kHz** MARITIME MOBILE Aeronautical Radionavigation	5.79, 5.79A, 5.82 RN035	Governmental applications Inductive applications Maritime communications NAVTEX	P
495 - 505 kHz MARITIME MOBILE 5.82C, 5.82D	**495 - 505 kHz** MARITIME MOBILE	5.82C, 5.82D RN018, RN035	Governmental applications Inductive applications	P
505 – 526.5 kHz MARITIME MOBILE 5.79, 5.79A,5.84 AERONAUTICAL RADIONAVIGATION	**505 – 526.5 kHz** MARITIME MOBILE AERONAUTICAL RADIONAVIGATION	5.79, 5.79A, 5.84, RN004, RN018, RN035	Beacons (aeronautical) Governmental applications Inductive applications Maritime communications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			NAVTEX	
526.5 – 1606.5 kHz BROADCASTING 5.87, 5.87A	**526.5 – 1606.5 kHz** BROADCASTING	RN005, RN018, RN035	Broadcasting Inductive applications	P
1606.5 - 1625 kHz FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92	**1606.5 - 1625 kHz** FIXED LAND MOBILE MARITIME MOBILE	5.90, 5.92, RN018, RN035	Governmental applications Inductive applications Maritime communications Radiodeterminatio n applications	P
1625 - 1635 kHz RADIOLOCATION 5.93	**1625 - 1635 kHz** RADIOLOCATION	RN018, RN035	Governmental applications Inductive applications Radiodetermination applications	P
1635 - 1800 kHz FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92, 5.96	**1635 - 1800 kHz** FIXED LAND MOBILE MARITIME MOBILE	5.90, 5.92, 5.96, RN018, RN035	Governmental applications Inductive applications Maritime communications Radiodetermination applications	P
1800 - 1810 kHz RADIOLOCATION 5.93	**1800 - 1810 kHz** RADIOLOCATION	RN018, RN035	Governmental applications Inductive applications Radiodetermination applications	P
1810 - 1850 kHz AMATEUR 5.98, 5.99, 5.100	**1810 - 1850 kHz** AMATEUR	5.100, RN018, RN035	Amateur Inductive applications	NG
1850 - 2000 kHz FIXED MOBILE except aeronautical mobile 5.92, 5.96, 5.103	**1850 - 2000 kHz** FIXED MOBILE except aeronautical mobile Amateur	5.92, 5.96, 5.103, RN018, RN035	Amateur Governmental applications Inductive applications Maritime communications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			Radiodetermination applications	
2000 - 2025 kHz FIXED MOBILE except aeronautical mobile (R) 5.92, 5.103	**2000 - 2025 kHz** FIXED MOBILE except aeronautical mobile (R)	5.92, 5.103, RN018, RN035	Governmental applications Inductive applications Maritime communications Radiodetermination applications	P
2025 - 2045 kHz FIXED MOBILE except aeronautical mobile (R) Meteorological Aids 5.104, 5.92, 5.103	**2025 - 2045 kHz** FIXED MOBILE except aeronautical mobile (R) Meteorological Aids	5.92, 5.103, 5.104, RN018, RN035	Governmental applications Inductive applications Maritime communications Oceanographic buoys Radiodetermination applications	P
2045 - 2160 kHz MARITIME MOBILE FIXED LAND MOBILE 5.92	**2045 - 2160 kHz** MARITIME MOBILE FIXED LAND MOBILE	5.92, RN018, RN035	Governmental applications Inductive applications Maritime communications	P
2160 - 2170 kHz RADIOLOCATION 5.93, 5.107	**2160 - 2170 kHz** RADIOLOCATION	RN018, RN035	Governmental applications Inductive applications Radiodetermination applications	P
2170 – 2173.5 kHz MARITIME MOBILE	**2170 – 2173.5 kHz** MARITIME MOBILE	RN018, RN035	Governmental applications Inductive applications Maritime communications	P
2173.5 – 2190.5 kHz MOBILE (distress and calling) 5.108, 5.109, 5.110, 5.111	**2173.5 – 2190.5 kHz** MOBILE (distress and calling)	5.108, 5.109, 5.110, 5.111, RN018, RN035	DSC Inductive applications Maritime communications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
2190.5 - 2194 kHz MARITIME MOBILE	**2190.5 - 2194 kHz** MARITIME MOBILE	RN018, RN035	Governmental applications Inductive applications Maritime communications	P
2194 - 2300 kHz FIXED MOBILE except aeronautical mobile (R) 5.92, 5.103, 5.112	**2194 - 2300 kHz** FIXED MOBILE except aeronautical mobile (R)	5.92, 5.103, RN018, RN035	Governmental applications Inductive applications Maritime communications Radiodetermination applications	P
2300 - 2498 kHz FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113, 5.103	**2300 - 2498 kHz** FIXED MOBILE except aeronautical mobile (R) BROADCASTING	5.103, 5.113, RN018, RN035	Governmental applications Inductive applications Maritime communications	P
2498 - 2501 kHz STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	**2498 - 2501 kHz** STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	RN018, RN035	Inductive applications	P
2501 - 2502 kHz STANDARD FREQUENCY AND TIME SIGNAL Space Research	**2501 - 2502 kHz** STANDARD FREQUENCY AND TIME SIGNAL Space Research	RN018, RN035	Inductive applications	P
2502 - 2625 kHz FIXED MOBILE except aeronautical mobile (R) 5.92, 5.103, 5.114	**2502 - 2625 kHz** FIXED MOBILE except aeronautical mobile (R)	5.92, 5.103, RN018, RN035	Governmental applications Inductive applications Radiodetermination applications	P
2625 - 2650 kHz MARITIME MOBILE MARITIME RADIONAVIGATION 5.92	**2625 - 2650 kHz** MARITIME MOBILE MARITIME RADIONAVIGATION	5.92, RN018, RN035	Governmental applications Inductive applications Maritime communications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
2650 - 2850 kHz FIXED MOBILE except aeronautical mobile (R) 5.92, 5.103	**2650 - 2850 kHz** FIXED MOBILE except aeronautical mobile (R)	5.92, 5.103, RN018, RN035	Governmental applications Inductive applications Radiodetermination applications	P
2850 - 3025 kHz AERONAUTICAL MOBILE (R) 5.111, 5.115	**2850 - 3025 kHz** AERONAUTICAL MOBILE (R)	5.111, 5.115, RN018, RN035	Governmental applications Aeronautical communications Inductive applications SAR (communications)	P
3025 - 3155 kHz AERONAUTICAL MOBILE (OR)	**3025 - 3155 kHz** AERONAUTICAL MOBILE (OR)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
3155 - 3200 kHz FIXED MOBILE except aeronautical mobile (R) 5.116, 5.117	**3155 - 3200 kHz** FIXED MOBILE except aeronautical mobile (R)	5.116, RN018, RN035	Governmental applications Inductive applications Maritime communications	P
3200 - 3230 kHz FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113, 5.116	**3200 - 3230 kHz** FIXED MOBILE except aeronautical mobile (R) BROADCASTING	5.113, 5.116, RN018, RN035	Governmental applications Inductive applications Maritime communications	P
3230 - 3400 kHz FIXED MOBILE except aeronautical mobile BROADCASTING 5.113, 5.116, 5.118	**3230 - 3400 kHz** FIXED MOBILE except aeronautical mobile BROADCASTING	5.113, 5.116, RN018, RN035	Governmental applications Inductive applications Maritime communications	P
3400 - 3500 kHz AERONAUTICAL MOBILE (R)	**3400 - 3500 kHz** AERONAUTICAL MOBILE (R)	RN018, RN035	Governmental applications Aeronautical communications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			Inductive applications	
3500 - 3800 kHz AMATEUR FIXED MOBILE except aeronautical mobile 5.92	**3500 - 3800 kHz** AMATEUR FIXED MOBILE except aeronautical mobile	5.92, RN018, RN035	Amateur Governmental applications Inductive applications Maritime communications	P
3800 - 3900 kHz FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	**3800 - 3900 kHz** FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
3900 - 3950 kHz AERONAUTICAL MOBILE (OR) 5.123	**3900 - 3950 kHz** AERONAUTICAL MOBILE (OR)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
3950 - 4000 kHz FIXED BROADCASTING	**3950 - 4000 kHz** FIXED BROADCASTING	RN018, RN035	Broadcasting Inductive applications Governmental applications	P
4000 - 4063 kHz FIXED MARITIME MOBILE 5.127, 5.126	**4000 - 4063 kHz** FIXED MARITIME MOBILE	5.127, RN018, RN035	Governmental applications Inductive applications Maritime communications	P
4063 - 4438 kHz MARITIME MOBILE 5.79A, 5.82D, 5.109, 5.110, 5.130, 5.131, 5.132, 5.128	**4063 - 4438 kHz** MARITIME MOBILE	5.79A, 5.82D, 5.109, 5.110, 5.128, 5.130, 5.131, 5.132, RN018, RN035, RN036	Governmental applications DSC Inductive applications Maritime communications NAVTEX Railway applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
4438 - 4488 kHz FIXED MOBILE except aeronautical mobile (R) Radiolocation 5.132A, 5.132B	**4438 - 4488 kHz** FIXED MOBILE except aeronautical mobile (R)	5.132B, RN018, RN035	Governmental applications Inductive applications	P
4488-4650 kHz FIXED MOBILE except aeronautical mobile (R)	**4488-4650 kHz** FIXED MOBILE except aeronautical mobile (R)	RN018, RN035	Inductive applications Governmental applications	P
4650 - 4700 kHz AERONAUTICAL MOBILE (R)	**4650 - 4700 kHz** AERONAUTICAL MOBILE (R)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
4700 - 4750 kHz AERONAUTICAL MOBILE (OR)	**4700 - 4750 kHz** AERONAUTICAL MOBILE (OR)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
4750 - 4850 kHz FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE BROADCASTING 5.113	**4750 - 4850 kHz** FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE BROADCASTING	5.113, RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
4850 - 4995 kHz FIXED LAND MOBILE BROADCASTING 5.113	**4850 - 4995 kHz** FIXED LAND MOBILE BROADCASTING	RN018, RN035	Inductive applications Governmental applications	P
4995 - 5003 kHz STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz)	**4995 - 5003 kHz** STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz)	RN018, RN035	Inductive applications	P
5003 - 5005 kHz STANDARD FREQUENCY AND TIME SIGNAL Space Research	**5003 - 5005 kHz** STANDARD FREQUENCY AND TIME SIGNAL Space Research	RN018, RN035	Inductive applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
5005 - 5060 kHz FIXED BROADCASTING 5.113	**5005 - 5060 kHz** FIXED BROADCASTING	5.113, RN018, RN035	Inductive applications Governmental applications	P
5060 - 5250 kHz FIXED Mobile except aeronautical mobile 5.133	**5060 - 5250 kHz** FIXED Mobile except aeronautical mobile	RN018, RN035	Inductive applications Governmental applications	P
5250 – 5275 kHz FIXED Mobile except aeronautical mobile Radiolocation 5.132A, 5.133A	**5250 - 5275 kHz** FIXED Mobile except aeronautical mobile	5.133A, RN018, RN035	Governmental applications Inductive applications	P
5275-5351.5 kHz FIXED MOBILE except aeronautical mobile	**5275-5351.5 kHz** FIXED MOBILE except aeronautical mobile	RN018, RN035	Inductive applications Governmental applications	P
5351.5-5366.5 kHz FIXED MOBILE except aeronautical mobile Amateur 5.133B	**5351.5-5366.5 kHz** FIXED MOBILE except aeronautical mobile Amateur 5.133B	RN018, RN035	Inductive applications Governmental applications Amateur	P
5366.5-5450 kHz FIXED MOBILE except aeronautical mobile	**5366.5-5450 kHz** FIXED MOBILE except aeronautical mobile	RN018, RN035	Inductive applications Governmental applications	P
5450 - 5480 kHz FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	**5450 - 5480 kHz** FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	RN018, RN035	Aeronautical communications Governmental applications Inductive applications	P
5480 - 5680 kHz AERONAUTICAL MOBILE (R) 5.111, 5.115	**5480 - 5680 kHz** AERONAUTICAL MOBILE (R)	5.111, 5.115, RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			SAR (communications)	
5680 - 5730 kHz AERONAUTICAL MOBILE (OR) 5.111, 5.115	**5680 - 5730 kHz** AERONAUTICAL MOBILE (OR)	5.111, 5.115, RN018, RN035	Governmental applications Aeronautical communications Inductive applications SAR (communications)	P
5730 - 5900 kHz FIXED LAND MOBILE	**5730 - 5900 kHz** FIXED LAND MOBILE	RN018, RN035	Inductive applications Governmental applications	P
5900 - 5950 kHz BROADCASTING 5.134 5.136	**5900 - 5950 kHz** FIXED LAND MOBILE BROADCASTING	5.134, 5.136, RN006, RN018, RN035	Broadcasting Inductive applications	P
5950 - 6200 kHz BROADCASTING	**5950 - 6200 kHz** BROADCASTING	RN018, RN035	Broadcasting Inductive applications	NG
6200 - 6525 kHz MARITIME MOBILE 5.109, 5.110, 5.130, 5.132, 5.137, 5.137A	**6200 - 6525 kHz** MARITIME MOBILE	5.109, 5.110, 5.130, 5.132, 5.137, 5.137A RN018, RN035	Governmental applications DSC Inductive applications Maritime communications	P
6525 - 6685 kHz AERONAUTICAL MOBILE (R)	**6525 - 6685 kHz** AERONAUTICAL MOBILE (R)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
6685 - 6765 kHz AERONAUTICAL MOBILE (OR)	**6685 - 6765 kHz** AERONAUTICAL MOBILE (OR)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
6765 - 7000 kHz	**6765 - 7000 kHz**	5.138,	ISM	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
FIXED MOBILE except aeronautical mobile (R) 5.138	FIXED MOBILE except aeronautical mobile (R)	RN018, RN035	Inductive applications Governmental applications	
7000 - 7100 kHz AMATEUR AMATEUR-SATELLITE 5.140, 5.141, 5.141A	**7000 - 7100 kHz** AMATEUR AMATEUR-SATELLITE	RN018, RN035	Amateur Inductive applications	NG
7100 - 7200 kHz AMATEUR 5.141A, 5.141B, 5.141C, 5.142	**7100 – 7200 kHz** AMATEUR	5.141C, RN018, RN035	Amateur Inductive applications	NG
7200-7300 kHz BROADCASTING	**7200-7300 kHz** BROADCASTING	RN018, RN035	Broadcasting Inductive applications	NG
7300 - 7400 kHz BROADCASTING 5.134 5.143, 5.143A, 5.143B, 5.143C, 5.143D	**7300 – 7400 kHz** BROADCASTING	5.134, 5.143 5.143B, RN006, RN018, RN035	Broadcasting Inductive applications	P
7400-7450 kHz BROADCASTING 5.143B, 5.143C	**7400-7450 kHz** BROADCASTING	5.143B, RN018, RN035	Broadcasting Inductive applications	NG
7450 - 8100 kHz FIXED MOBILE except aeronautical mobile (R) 5.143E, 5.144	**7450 - 8100 kHz** FIXED MOBILE except aeronautical mobile (R)	5.143E RN018, RN035	Inductive applications Governmental applications	P
8100 - 8195 kHz FIXED MARITIME MOBILE	**8100 - 8195 kHz** FIXED MARITIME MOBILE	RN018, RN035	Governmental applications Inductive applications Maritime communications	P
8195 - 8815 kHz MARITIME MOBILE 5.109, 5.110, 5.132, 5.137A 5.145 5.111	**8195 - 8815 kHz** MARITIME MOBILE	5.109, 5.110, 5.111, 5.132, 5.137A, 5.145, RN018, RN035	Governmental applications DSC Inductive applications Maritime communications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
8815 - 8965 kHz AERONAUTICAL MOBILE (R)	**8815 - 8965 kHz** AERONAUTICAL MOBILE (R)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
8965 - 9040 kHz AERONAUTICAL MOBILE (OR)	**8965 - 9040 kHz** AERONAUTICAL MOBILE (OR)	RN018, RN035	Aeronautical communications Governmental applications Inductive applications	P
9040 - 9305 kHz FIXED	**9040 - 9305 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications	P
9305-9355 kHz FIXED Radiolocation 5.145A, 5.145B	**9305-9355 kHz** FIXED	5.145B RN018, RN035	Governmental applications Inductive applications	P
9355-9400 kHz FIXED	**9355-9400 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications	P
9400 - 9500 kHz BROADCASTING 5.134, 5.146	**9400 – 9500 kHz** BROADCASTING	5.134, 5.146, RN006, RN018, RN035	Broadcasting Inductive applications	P
9500 - 9900 kHz BROADCASTING 5.147	**9500 – 9900 kHz** BROADCASTING	5.147, RN018, RN035	Broadcasting Inductive applications	P
9900 - 9995 kHz FIXED	**9900 - 9995 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications	P
9995 - 10003 kHz STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz) 5.111	**9995 - 10003 kHz** STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz)	5.111, RN018, RN035	Inductive applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
10003 - 10005 kHz STANDARD FREQUENCY AND TIME SIGNAL Space Research 5.111	**10003 - 10005 kHz** STANDARD FREQUENCY AND TIME SIGNAL Space Research	5.111, RN018, RN035	Inductive applications SAR (communications)	P
10005 - 10100 kHz AERONAUTICAL MOBILE (R) 5.111	**10005 - 10100 kHz** AERONAUTICAL MOBILE (R)	5.111, RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
10100 - 10150 kHz FIXED Amateur	**10100 - 10150 kHz** FIXED Amateur	RN018, RN035	Amateur Inductive applications Governmental applications	P
10150 - 11175 kHz FIXED Mobile except aeronautical mobile (R)	**10150 - 11175 kHz** FIXED Mobile except aeronautical mobile (R)	RN018, RN035	Inductive applications Governmental applications Railway applications	P
11175 - 11275 kHz AERONAUTICAL MOBILE (OR)	**11175 - 11275 kHz** AERONAUTICAL MOBILE (OR)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications Railway applications	P
11275 - 11400 kHz AERONAUTICAL MOBILE (R)	**11275 - 11400 kHz** AERONAUTICAL MOBILE (R)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications Railway applications	P
11400 - 11600 kHz FIXED	**11400 - 11600 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			Railway applications	
11600 - 11650 kHz BROADCASTING 5.134, 5.146	**11600 - 11650 kHz** BROADCASTING	5.134, 5.146, RN006, RN018, RN035	Broadcasting Inductive applications Railway applications	P
11650 - 12050 kHz BROADCASTING 5.147	**11650 - 12050 kHz** BROADCASTING	5.147, RN018, RN035	Broadcasting Inductive applications Railway applications	NG
12050 - 12100 kHz BROADCASTING 5.134, 5.146	**12050 - 12100 kHz** BROADCASTING	5.134, 5.146, RN006, RN018, RN035	Broadcasting Inductive applications Railway applications	P
12100 - 12230 kHz FIXED	**12100 - 12230 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications Railway applications	P
12230 - 13200 kHz MARITIME MOBILE 5.109, 5.110, 5.132, 5.137A 5.145	**12230 - 13200 kHz** MARITIME MOBILE	5.109, 5.110, 5.132, , 5.137A, 5.145, RN009, RN018, RN035	Governmental applications DSC Inductive applications Maritime communications Railway applications	P
13200 - 13260 kHz AERONAUTICAL MOBILE (OR)	**13200 - 13260 kHz** AERONAUTICAL MOBILE (OR)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications Railway applications	P
13260 - 13360 kHz AERONAUTICAL	**13260 - 13360 kHz** AERONAUTICAL	RN018, RN035	Governmental applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
MOBILE (R)	MOBILE (R)		Aeronautical communications Inductive applications Railway applications	
13360 - 13410 kHz FIXED RADIO ASTRONOMY 5.149	**13360 - 13410 kHz** FIXED RADIO ASTRONOMY	5.149, RN018, RN035	Inductive applications Governmental applications Radio astronomy Railway applications	P
13410 - 13450 kHz FIXED Mobile except aeronautical mobile (R)	**13410 - 13450 kHz** FIXED Mobile except aeronautical mobile (R)	RN018, RN035	Inductive applications Governmental applications Railway applications	P
13450-13550 kHz FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A, 5.149A	**13450-13550 kHz** FIXED Mobile except aeronautical mobile (R)	5.149A, RN018, RN035	Governmental applications Inductive applications Railway applications	P
13550-13570 kHz FIXED Mobile except aeronautical mobile (R) 5.150	**13550-13570 kHz** FIXED Mobile except aeronautical mobile (R)	5.150, RN018, RN035	ISM Inductive applications Governmental applications Non-specific SRDs Railway applications	P
13570 - 13600 kHz BROADCASTING 5.134, 5.151	**13570 - 13600 kHz** BROADCASTING	5.134, 5.151, RN006, RN018, RN035	Broadcasting Inductive applications Railway applications	P
13600 - 13800 kHz BROADCASTING	**13600 - 13800 kHz** BROADCASTING	RN018, RN035	Broadcasting Inductive applications	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			Railway applications	
13800 - 13870 kHz BROADCASTING 5.134, 5.151	**13800 - 13870 kHz** BROADCASTING	5.134, 5.151, RN006, RN018, RN035	Broadcasting Inductive applications Railway applications	P
13870 - 14000 kHz FIXED Mobile except aeronautical mobile (R)	**13870 - 14000 kHz** FIXED Mobile except aeronautical mobile (R)	RN018, RN035	Inductive applications Governmental applications Railway applications	P
14000 - 14250 kHz AMATEUR AMATEUR-SATELLITE	**14000 - 14250 kHz** AMATEUR AMATEUR-SATELLITE	RN018, RN035	Amateur Amateur-satellite Inductive applications Railway applications	NG
14250 - 14350 kHz AMATEUR 5.152	**14250 - 14350 kHz** AMATEUR	RN018, RN035	Amateur Inductive applications Railway applications	NG
14350 - 14990 kHz FIXED Mobile except aeronautical mobile (R)	**14350 - 14990 kHz** FIXED Mobile except aeronautical mobile (R)	RN018, RN035	Inductive applications Governmental applications Railway applications	P
14990 - 15005 kHz STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz) 5.111	**14990 - 15005 kHz** STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz)	5.111, RN018, RN035	Inductive applications Railway applications SAR (communications)	P
15005 - 15010 kHz STANDARD FREQUENCY AND TIME SIGNAL Space Research	**15005 - 15010 kHz** STANDARD FREQUENCY AND TIME SIGNAL Space Research	RN018, RN035	Inductive applications Railway applications	P
15010 - 15100 kHz	**15010 - 15100 kHz**	RN018,		P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
AERONAUTICAL MOBILE (OR)	AERONAUTICAL MOBILE (OR)	RN035	Governmental applications Aeronautical communications Inductive applications Railway applications	
15100 - 15600 kHz BROADCASTING	**15100 - 15600 kHz** BROADCASTING	RN018, RN035	Broadcasting Inductive applications Railway applications	NG
15600 - 15800 kHz BROADCASTING 5.134, 5.146	**15600 - 15800 kHz** BROADCASTING	5.134, 5.146, RN006, RN018, RN035	Broadcasting Inductive applications Railway applications	P
15800 - 16100 kHz FIXED 5.153	**15800 - 16100 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications Railway applications	P
16100-16200 kHz FIXED Radiolocation 5.145A, 5.145B	**16100-16200 kHz** FIXED	5.145B, RN018, RN035	Governmental applications Inductive applications	P
16200-16360 kHz FIXED	**16200-16360 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications	P
16360 - 17410 kHz MARITIME MOBILE 5.109, 5.110, 5.132, , 5.137A, 5.145	**16360 - 17410 kHz** MARITIME MOBILE	5.109, 5.110, 5.132, 5.137A, 5.145, RN009, RN018, RN035	Governmental applications DSC Inductive applications Maritime communications	P
17410 - 17480 kHz FIXED	**17410 - 17480 kHz** FIXED	RN018, RN035	Inductive applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			Governmental applications	
17480 - 17550 kHz BROADCASTING 5.134, 5.146	**17480 - 17550 kHz** BROADCASTING	5.134, 5.146, RN006, RN018, RN035	Broadcasting Inductive applications	P
17550 - 17900 kHz BROADCASTING	**17550 - 17900 kHz** BROADCASTING	RN018, RN035	Broadcasting Inductive applications	NG
17900 - 17970 kHz AERONAUTICAL MOBILE (R)	**17900 - 17970 kHz** AERONAUTICAL MOBILE (R)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
17970 - 18030 kHz AERONAUTICAL MOBILE (OR)	**17970 - 18030 kHz** AERONAUTICAL MOBILE (OR)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
18030 - 18052 kHz FIXED	**18030 - 18052 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications	P
18052 - 18068 kHz FIXED Space Research	**18052 - 18068 kHz** FIXED Space Research	RN018, RN035	Inductive applications Governmental applications	P
18068 - 18168 kHz AMATEUR AMATEUR-SATELLITE 5.154	**18068 - 18168 kHz** AMATEUR AMATEUR-SATELLITE	RN018, RN035	Amateur Amateur-satellite Inductive applications	NG
18168 - 18780 kHz FIXED Mobile except aeronautical mobile	**18168 - 18780 kHz** FIXED Mobile except aeronautical mobile	RN018, RN035	DSC Inductive applications Governmental applications	P
18780 - 18900 kHz	**18780 - 18900 kHz**			P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
MARITIME MOBILE	MARITIME MOBILE	RN009, RN018, RN035	Governmental applications Inductive applications Maritime communications	
18900 - 19020 kHz BROADCASTING 5.134, 5.146	**18900 - 19020 kHz** BROADCASTING	5.134, 5.146, RN006, RN018, RN035	Broadcasting Inductive applications	P
19020 - 19680 kHz FIXED	**19020 - 19680 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications	P
19680 - 19800 kHz MARITIME MOBILE 5.132	**19680 - 19800 kHz** MARITIME MOBILE	5.132, RN009, RN018, RN035	Governmental applications DSC Inductive applications Maritime communications	P
19800 - 19990 kHz FIXED	**19800 - 19990 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications	P
19990 - 19995 kHz STANDARD FREQUENCY AND TIME SIGNAL Space Research 5.111	**19990 - 19995 kHz** STANDARD FREQUENCY AND TIME SIGNAL Space Research	5.111, RN018, RN035	Inductive applications SAR (communications)	P
19995 - 20010 kHz STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz) 5.111	**19995 - 20010 kHz** STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz)	5.111, RN018, RN035	Inductive applications	P
20010 - 21000 kHz FIXED Mobile	**20010 - 21000 kHz** FIXED Mobile	RN018, RN035	Inductive applications Governmental applications	P
21000 - 21450 kHz	**21000 - 21450 kHz**	RN018, RN035	Amateur	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
AMATEUR AMATEUR-SATELLITE	AMATEUR AMATEUR-SATELLITE		Amateur-satellite Inductive applications	
21450 - 21850 kHz BROADCASTING	**21450 - 21850 kHz** BROADCASTING	RN018, RN035	Broadcasting Inductive applications	NG
21850 – 21870 kHz FIXED 5.155A 5.155	**21850 - 21870 kHz** FIXED AERONAUTICAL MOBILE (R)	5.155, 5.155A, RN018, RN035	Inductive applications Governmental applications	P
21870 – 21924 kHz FIXED 5.155B	**21870 - 21924 kHz** FIXED	5.155B, RN018, RN035	Inductive applications Governmental applications	P
21924 – 22000 kHz AERONAUTICAL MOBILE (R)	**21924 - 22000 kHz** AERONAUTICAL MOBILE (R)	RN018, RN035	Governmental applications Aeronautical communications Inductive applications	P
22000 – 22855 kHz MARITIME MOBILE 5.132, 5.137A, 5.156	**22000 - 22855 kHz** MARITIME MOBILE	5.132, 5.137A, RN010, RN018, RN035	Governmental applications DSC Inductive applications Maritime communications	P
22855 – 23000 kHz FIXED 5.156	**22855 - 23000 kHz** FIXED	RN018, RN035	Inductive applications Governmental applications	P
23000 – 23200 kHz FIXED Mobile except aeronautical mobile (R) 5.156	**23000 - 23200 kHz** FIXED Mobile except aeronautical mobile (R)	RN018, RN035	Inductive applications Governmental applications	P
23200 – 23350 kHz FIXED 5.156A AERONAUTICAL MOBILE (OR)	**23200 - 23350 kHz** FIXED AERONAUTICAL MOBILE (OR)	5.156A, RN011, RN018, RN035	Aeronautical communications Governmental applications Inductive applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
23350 – 24000 kHz FIX MOBIL cu excepţia mobil aeronautic 5.157	**23350 - 24000 kHz** FIX MOBIL cu excepţia mobil aeronautic	5.157, RN018, RN035	Inductive applications Governmental applications	P
24000 – 24450 kHz FIXED LAND MOBILE	**24000 - 24450 kHz** FIXED LAND MOBILE	RN018, RN035	Inductive applications Governmental applications	P
24450-24600 kHz FIXED LAND MOBILE Radiolocation 5.132A 5.158	**24450-24600 kHz** FIXED LAND MOBILE	5.158, RN018, RN035	Governmental applications Inductive applications	P
24600-24890 kHz FIXED LAND MOBILE	**24600-24890 kHz** FIXED LAND MOBILE	RN018, RN035	Inductive applications Governmental applications	P
24890 – 24990 kHz AMATEUR AMATEUR-SATELLITE	**24890 - 24990 kHz** AMATEUR AMATEUR-SATELLITE	RN018, RN035	Amateur Amateur-satellite Inductive applications	NG
24990 – 25005 kHz STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)	**24990 - 25005 kHz** STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)	RN018, RN035	Inductive applications	P
25005 – 25010 kHz STANDARD FREQUENCY AND TIME SIGNAL Space Research	**25005 - 25010 kHz** STANDARD FREQUENCY AND TIME SIGNAL Space Research	RN018, RN035	Inductive applications Space research	P
25010 – 25070 kHz FIXED MOBILE except aeronautical mobile	**25010 - 25070 kHz** FIXED MOBILE except aeronautical mobile	RN018, RN035	Inductive applications Governmental applications	P
25070 – 25210 kHz MARITIME MOBILE	**25070 - 25210 kHz** MARITIME MOBILE	RN010, RN018, RN035	Governmental applications DSC Inductive applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			Maritime communications	
25210 – 25550 kHz FIXED MOBILE except aeronautical mobile	**25210 - 25550 kHz** FIXED MOBILE except aeronautical mobile	RN018, RN035	Inductive applications Governmental applications	P
25550 – 25670 kHz RADIO ASTRONOMY 5.149	**25550 - 25670 kHz** RADIO ASTRONOMY	5.149 RN018, RN035	Inductive applications Radio astronomy	NG
25670 – 26100 kHz BROADCASTING	**25670 - 26100 kHz** BROADCASTING	RN018, RN035	Broadcasting Inductive applications	NG
26100 – 26175 kHz MARITIME MOBILE 5.132	**26100 - 26175 kHz** MARITIME MOBILE	5.132, RN010, RN018, RN035	Governmental applications DSC Inductive applications Maritime communications	P
26175 – 26200 kHz FIXED MOBILE except aeronautical mobile	**26175 - 26200 kHz** FIXED MOBILE except aeronautical mobile	RN018, RN035	Inductive applications Governmental applications	P
26200-26350 kHz FIXED MOBILE except aeronautical mobile Radiolocation 5.132A, 5.133A	**26200-26350 kHz** FIXED MOBILE except aeronautical mobile	5.133A RN018, RN035	Governmental applications Inductive applications	P
26350-27500 kHz FIXED MOBILE except aeronautical mobile 5.150	**26350-27500 kHz** FIXED MOBILE except aeronautical mobile	5.150 RN012, RN013, RN018, RN035	CB radio ISM Inductive applications Governmental applications Model control Non-specific SRDs Railway applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
27.5 - 28 MHz METEOROLOGICAL AIDS FIXED MOBILE	**27.5 - 28 MHz** METEOROLOGICAL AIDS FIXED MOBILE	RN018, RN035	Governmental applications Inductive applications	P
28 - 29.7 MHz AMATEUR AMATEUR-SATELLITE	**28 - 29.7 MHz** AMATEUR AMATEUR-SATELLITE	RN018, RN035	Amateur Amateur-satellite Inductive applications	NG
29.7 – 30.005 MHz FIXED MOBILE	**29.7 – 30.005 MHz** FIXED MOBILE	RN013A, RN018, RN035	Active medical implants Inductive applications Governmental applications Radio Microphones and Assistive Listening Devices (ALD)	P
30.005 – 30.01 MHz SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH	**30.005 – 30.01 MHz** SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH	RN013A, RN018, RN035	Active medical implants Governmental applications Radio Microphones and Assistive Listening Devices (ALD)	P
30.01 – 37.5 MHz FIXED MOBILE	**30.01 – 37.5 MHz** FIXED MOBILE	RN013A, RN013B, RN018, RN035	Active medical implants Governmental applications Model control PMR Radio Microphones and Assistive Listening Devices (ALD)	P
37.5 – 38.25 MHz	**37.5 – 38.25 MHz**	RN013A,		P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
FIXED MOBILE Radio Astronomy 5.149	FIXED MOBILE Radio Astronomy	5.149, RN018, RN035	Governmental applications PMR Radio astronomy Radio Microphones and Assistive Listening Devices (ALD)	
38.25 – 39 MHz FIXED MOBILE	**38.25 – 39 MHz** FIXED MOBILE	RN013A, RN018, RN035	Governmental applications PMR Radio Microphones and Assistive Listening Devices (ALD)	P
39-39.5 MHz FIXED MOBILE Radiolocation 5.132A, 5.159	**39-39.5 MHz** FIXED MOBILE	5.159, RN013A, RN018, RN035	Governmental applications Meteor scatter communications PMR Radio Microphones and Assistive Listening Devices (ALD)	P
39.5-39.986 MHz FIXED MOBILE	**39.5-39.986 MHz** FIXED MOBILE	RN013A, RN013B, RN018, RN035	Governmental applications Meteor scatter communications PMR Radio Microphones and Assistive Listening Devices (ALD)	P
39.986 – 40 MHz FIXED MOBILE Space Research	**39.986 – 40 MHz** FIXED MOBILE Space Research	RN013A, RN018, RN35	Governmental applications PMR	P
40 – 40.02 MHz FIXED MOBILE	**40 – 40.02 MHz** FIXED MOBILE	5.159A RN013A,	Governmental applications PMR	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
Earth exploration-satellite (active) 5.159A Space research	Earth exploration-satellite (active) Space research	RN018, RN035		
40.02 – 40.98 MHz FIXED MOBILE Earth exploration-satellite (active) 5.159A 5.150	**40.02 – 40.98 MHz** FIXED MOBILE Earth exploration-satellite (active)	RN013A, 5.150, 5.159A,RN018, RN035	Governmental applications PMR Radio Microphones and Assistive Listening Devices (ALD) Model control Non-specific SRDs ISM	P
40.98 - 41.015 MHz FIXED MOBILE Earth exploration-satellite (active) 5.159A Space Research 5.160, 5.161	**40.98 - 41.015 MHz** FIXED MOBILE Earth exploration-satellite (active) Space Research	5.159A, RN013A, RN018, RN035	PMR Radio Microphones and Assistive Listening Devices (ALD)	P
41.015 - 42 MHz FIXED MOBILE Earth exploration-satellite (active) 5.159A 5.160, 5.161, 5.161A	**41.015 - 42 MHz** FIXED MOBILE Earth exploration-satellite (active)	159A, RN013A, RN018, RN035	Governmental applications PMR Radio Microphones and Assistive Listening Devices (ALD)	P
42-42.5 MHz FIXED MOBILE Earth exploration-satellite (active) 5.159A Radiolocation 5.132A, 5.160, 5.161B	**42-42.5 MHz** FIXED MOBILE Earth exploration-satellite (active)	159A, RN013A, 5.161B, RN018, RN035	Governmental applications PMR Radio Microphones and Assistive Listening Devices (ALD)	P
42.5-44 MHz	**42.5-44 MHz**			P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
FIXED MOBILE Earth exploration-satellite (active) 5.159A 5.160, 5.161, 5.161A	FIXED MOBILE Earth exploration-satellite (active)	159A, RN013A, RN018, RN035	Governmental applications PMR Radio Microphones and Assistive Listening Devices (ALD)	
44 - 47 MHz FIXED MOBILE Earth exploration-satellite (active) 5.159A 5.162, 5.162A	**44 - 47 MHz** FIXED MOBILE Earth exploration-satellite (active)	159A, RN013A, RN018, RN035	Governmental applications PMR Radio Microphones and Assistive Listening Devices (ALD) Wind profilers	P
47 - 50 MHz BROADCASTING Earth exploration-satellite (active) 5.159A 5.162A, 5.163, 5.164 5.165	**47 - 48.5 MHz** BROADCASTING Land Mobile Fixed Earth exploration-satellite (active) **48.5 - 50 MHz** BROADCASTING Earth exploration-satellite (active)	159A, 5.163, RN013A, RN014, RN018, RN035	Broadcasting Space research PMR Governmental applications Wind profilers On-site paging	P NG
50 – 52 MHz BROADCASTING Amateur 5.166A 5.166B 5.166C 5.166D 5.166E 5.169 5.169A 5.169B 5.162A 5.164 5.165	**50 – 52 MHz** BROADCASTING Amateur	5.163, 5.166B, 5.166C, 5.169B, RN014, RN018, RN035	Broadcasting Amateur Wind Profiles	NG
52 – 68 MHz BROADCASTING 5.162A 5.163 5.164 5.165 5.169 5.169A 5.169B 5.171	**52-56.5 MHz** BROADCASTING **56.5 – 58 MHz** BROADCASTING	5.163, RN013A,	Broadcasting PMR Governmental applications	NG P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
	Fixed Land Mobile **58 – 68 MHz** BROADCASTING	RN014, RN017, RN018, RN035	Wind Profiles	NG
68 - 74.8 MHz FIXED MOBILE except aeronautical mobile 5.149, 5.175, 5.177, 5.179	**68 - 73 MHz** BROADCASTING **73 – 74.8 MHz** FIXED MOBILE except aeronautical mobile	5.149, 5.175, RN013A, RN016, RN017, RN017A, RN018 RN035	Broadcasting Amateur Governmental applications PMR/PAMR	P
74.8 - 75.2 MHz AERONAUTICAL RADIONAVIGATION 5.180, 5.181	**74.8 - 75.2 MHz** AERONAUTICAL RADIONAVIGATION	5.180 RN018 RN035	ILS	P
75.2 - 87.5 MHz FIXED MOBILE except aeronautical mobile 5.175, 5.179, 5.187	**75.2 – 76.0 MHz** FIXED MOBILE except aeronautical mobile **76.0 - 87.5 MHz** BROADCASTING	5.175 RN013A, RN014, RN017A, RN018 RN035	Governmental applications PMR/PAMR Broadcasting	P
87.5 - 100 MHz BROADCASTING 5.190	**87.5 - 100 MHz** BROADCASTING	RN014, RN017, RN018, RN035	FM sound analogue Wireless audio/multimedia	P
100 - 108 MHz BROADCASTING 5.192, 5.194	**100-108 MHz** BROADCASTING	RN017, RN018, RN035	FM sound analogue Wireless audio/multimedia	NG
108 - 117.975 MHz AERONAUTICAL RADIONAVIGATION 5.197, 5.197A	**108 - 117.975 MHz** AERONAUTICAL RADIONAVIGATION	5.197A RN018	Aeronautical communications ILS VOR GBAS	G

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
117.975 - 137 MHz AERONAUTICAL MOBILE (R) AERONAUTICAL MOBILE-SATELLITE (R) 5.198A, 5.198B 5.111, 5.200, 5.201 5.202	**117.975 – 137 MHz** AERONAUTICAL MOBILE (R) AERONAUTICAL MOBILE-SATELLITE (R)	5.111, 5.198A, 5.198B, 5.200, RN018 RN035	Aeronautical communications EPIRBs	P
137 - 137.025 MHz SPACE RESEARCH (space-to-Earth) 5.203C METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A, 5.208B, 5.209 SPACE OPERATION (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.204, 5.205, 5.206, 5.207, 5.208	**137 - 137.025 MHz** SPACE OPERATION (space-to-Earth) SPACE RESEARCH (space-to-Earth) METEOROLOGICAL-ATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) AERONAUTICAL MOBILE (OR) Fixed Mobile except aeronautical mobile (R)	5.203C 5.206, 5.208 5.208A, 5.208B, 5.209, RN018, RN035	Land mobile S-PCS Weather satellites Governmental applications	P
137.025 - 137.175 MHz SPACE OPERATION (space-to-Earth) 5.203C METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) Mobile-satellite (space-to-Earth) 5.208A, 5.208B, 5.209 5.204, 5.205, 5.206, 5.207, 5.208	**137.025 - 137.175 MHz** SPACE OPERATION (space-to-Earth) SPACE RESEARCH (space-to-Earth) METEOROLOGICAL-ATELLITE (space-to-Earth) Mobile-satellite (space-to-Earth) AERONAUTICAL MOBILE (OR) Fixed Mobile except aeronautical mobile (R)	5.203C, 5.206, 5.208, 5.208A, 5.208B 5.209, RN018 RN035	Land mobile S-PCS Weather satellites Governmental applications	P
137.175 - 137.825 MHz SPACE OPERATION (space-to-Earth) 5.203C, 5.209A METEOROLOGICAL-SATELLITE (space-to-Earth)	**137.175 - 137.825 MHz** SPACE OPERATION (space-to-Earth) SPACE RESEARCH (space-to-Earth) METEOROLOGICAL-	5.203C, 5.206, 5.208, 5.208A, 5.208B, 5.209, 5.209A	Land mobile S-PCS Weather satellites Governmental applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
MOBILE-SATELLITE (space-to-Earth) 5.208A, 5.208B, 5.209 SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) 5.204, 5.205, 5.206, 5.207, 5.208	SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) AERONAUTICAL MOBILE (OR) Fixed Mobile except aeronautical mobile (R)	RN018, RN035		
137.825 – 138 MHz SPACE OPERATION (space-to-Earth) 5.203C METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) Mobile-satellite (space-to-Earth) 5.208A, 5.208B, 5.209 Fixed Mobile except aeronautical mobile (R) 5.204, 5.205, 5.206, 5.207, 5.208	**137.825 - 138 MHz** SPACE OPERATION (space-to-Earth) SPACE RESEARCH (space-to-Earth) METEOROLOGICAL-ATELLITE (space-to-Earth) AERONAUTICAL MOBILE (OR) Mobile-satellite (space-to-Earth) Fixed Mobile except aeronautical mobile (R)	5.203C, 5.206, 5.208, 5.208A, 5.208B, 5.209, RN018, RN035	Land mobile S-PCS Weather satellites Governmental applications	P
138 - 143.6 MHz AERONAUTICAL MOBILE (OR) 5.210, 5.211, 5.212, 5.214	**138 - 143.6 MHz** AERONAUTICAL MOBILE (OR)	RN018, RN035	Governmental applications Land mobile Non-specific SRDs	G
143.6 - 143.65 MHz AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth) 5.211, 5.212, 5.214	**143.6 - 143.65 MHz** AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth)	RN018	Governmental applications Land mobile	G
143.65 - 144 MHz AERONAUTICAL MOBILE (OR) 5.210, 5.211, 5.212, 5.214	**143.65 - 144 MHz** AERONAUTICAL MOBILE (OR)	RN018	Governmental applications Land mobile	G
144 - 146 MHz AMATEUR AMATEUR-SATELLITE 5.216	**144 - 146 MHz** AMATEUR AMATEUR-SATELLITE	RN018	Amateur Amateur-satellite	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
146 - 148 MHz FIXED MOBILE except aeronautical mobile (R)	**146 - 148 MHz** FIXED MOBILE except aeronautical mobile (R)	RN013A, RN018, RN018A, RN018B, RN035	PMR/PAMR Governmental applications	G
148 – 149.9 MHz FIXED MOBILE except aeronautical mobile (R) MOBILE-SATELLITE (Earth-to-space) 5.209 5.218, 5.218A, 5.219, 5.221	**148 - 149.9 MHz** FIXED MOBILE except aeronautical mobile (R) MOBILE-SATELLITE (Earth-to-space)	5.209, 5.218, 5.218A, 5.219, 5.221 RN013A, RN018, RN018A, RN035	PMR/PAMR S-PCS Governmental applications	G
149.9 – 150.05 MHz MOBILE-SATELLITE (Earth-to-space) 5.209, 5.224A RADIONAVIGATION-SATELLITE 5.224B 5.220,	**149.9 - 150.05 MHz** RADIONAVIGATION-SATELLITE MOBILE-SATELLITE (Earth-to-space)	5.209, 5.220, RN018, RN018A, RN035	PMR/PAMR S-PCS	P
150.05 - 153 MHz FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149	**150.05 - 153 MHz** FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY	5.149, RN013A, RN018, RN018A, RN019, RN035	PMR/PAMR Radio astronomy	P
153 - 154 MHz FIXED MOBILE except aeronautical mobile (R) Meteorological Aids	**153 - 154 MHz** FIXED MOBILE except aeronautical mobile (R) Meteorological Aids	RN013A, RN018, RN018A, RN019, RN035	PMR/PAMR	P
154 - 156.4875 MHz FIXED MOBILE except aeronautical mobile (R) 5.225A, 5.226	**154 - 156.4875 MHz** FIXED MOBILE except aeronautical mobile (R)	5.225A, 5.226, RN013A, RN018, RN018A, RN019, RN035	Maritime communications PMR/PAMR	P
156.4875 – 156.5625 MHz MARITIME MOBILE (distress and calling via DSC) 5.111, 5.226, 5.227	**156.4875 – 156.5625 MHz** MARITIME MOBILE (distress and calling via DSC)	5.111, 5.226, 5.227, RN018, RN018A, RN019, RN035	Maritime communications DSC	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
156.5625 - 156.7625 MHz FIXED MOBILE except aeronautical mobile (R) 5.226	**156.5625 - 156.7625 MHz** FIXED MOBILE except aeronautical mobile (R)	5.226, RN013A, RN018, RN018A, RN019, RN035	Maritime communications PMR/PAMR	P
156.7625 – 156.7875 MHz MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111, 5.226, 5.228	**156.7625 - 156.7875 MHz** MARITIME MOBILE Mobile-satellite (Earth-to-space)	5.111, 5.226, 5.228, RN018, RN018A, RN035	Maritime communications	P
156.7875-156.8125 MHz MARITIME MOBILE (distress and calling) 5.111, 5.226	**156.7875-156.8125 MHz** MARITIME MOBILE (distress and calling)	5.111, 5.226, RN018, RN018A, RN035	Maritime communications	P
156.8125-156.8375 MHz MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111, 5.226, 5.228	**156.8125-156.8375 MHz** MARITIME MOBILE Mobile-satellite (Earth-to-space)	5.111, 5.226, 5.228, RN018, RN018A, RN035	Maritime communications	P
156.8375 – 157.1875 MHz FIXED MOBILE except aeronautical mobile 5.226	**156.8375 – 157.1875 MHz** FIXED MOBILE except aeronautical mobile	5.226, RN013A, RN018, RN018A, RN019, RN035	Maritime communications PMR/PAMR	P
157.1875 – 157.3375 MHz FIXED MOBILE except aeronautical mobile Maritime satellite mobile (Earth-to-space) 5.208A 5.208B 5.228AB 5.228AC 5.226	**157.1875 – 157.3375 MHz** FIXED MOBILE except aeronautical mobile Maritime satellite mobile (Earth-to-space)	5.208A, 5.208B, 5.226, 5.228AB, 5.228AC, RN013A, RN018, RN018A, RN019, RN035	Maritime communications PMR/PAMR	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
157.3375 – 161.7875 MHz FIXED MOBILE except aeronautical mobile 5.226	**157.3375 – 161.7875 MHz** FIXED MOBILE except aeronautical mobile	5.226, RN013A, RN018, RN018A, RN019, RN035	Maritime communications PMR/PAMR	P
161.7875 – 161.9375 MHz FIXED MOBILE except aeronautical mobile Maritime satellite mobile (Earth-to-space) 5.208A 5.208B 5.228AB 5.228AC 5.226	**161.7875 – 161.9375 MHz** FIXED MOBILE except aeronautical mobile Maritime satellite mobile (Earth-to-space)	5.208A, 5.208B, 5.226, 5.228AB, 5.228AC, RN013A, RN018, RN018A, RN019, RN035	Maritime communications PMR/PAMR	P
161.9375 – 161.9625 MHz FIXED MOBILE except aeronautical mobile Maritime satellite mobile (Earth-to-space) 5.226, 5.228AA	**161.9375 - 161.9625 MHz** FIXED MOBILE except aeronautical mobile Maritime satellite mobile (Earth-to-space)	5.226, 5.228AA, RN013A, RN018, RN018A, RN019, RN035	Maritime communications PMR/PAMR	P
161.9625-161.9875 MHz FIXED MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.226, 5.228A,5.228B, 5.228F	**161.9625-161.9875 MHz** FIXED MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space)	5.226, 5.228A, 5.228B, 5.228F, RN013A, RN018, RN018A, RN019, RN035	AIS Maritime communications	P
161.9875-162.0125 MHz FIXED MOBILE except aeronautical mobile Maritime satellite mobile (Earth-to-space) 5.226, 5.229, 5.228AA	**161.9875-162.0125 MHz** FIXED MOBILE except aeronautical mobile Maritime satellite mobile (Earth-to-space)	5.226, 5.228AA, RN013A, RN018, RN018A, RN019, RN035	Maritime communications	P
162.0125-162.0375 MHz FIXED MOBILE except aeronautical mobile	**162.0125-162.0375 MHz** FIXED MOBILE except aeronautical mobile	5.226, 5.228A, 5.228B, 5.228F,	AIS Maritime communications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
MOBILE-SATELLITE (Earth-to-space) 5.226,5.229, 5.228A,5.228B, 5.228F	MOBILE-SATELLITE (Earth-to-space)	RN013A, RN018, RN018A, RN019, RN035		
162.0375-174 MHz FIXED MOBILE except aeronautical mobile 5.226, 5.229	**162.0375-162.7625 MHz** FIXED MOBILE except aeronautical mobile **162.7625 – 163.2 MHz** FIXED MOBILE except aeronautical mobile **163.2 - 168.5 MHz** FIXED MOBILE except aeronautical mobile **168.5 - 174 MHz** FIXED MOBILE except aeronautical mobile	5.226, RN013A, RN018, RN018A, RN019, RN021, RN035	Aids for hearing impaired Non-specific SRDs PMR/PAMR Governmental applications Meter reading	P G P G
174 - 223 MHz BROADCASTING 5.235, 5.237, 5.243	**174 - 223 MHz** BROADCASTING	RN014, RN018, RN023, RN035	PMSE Broadcasting (terrestrial) Radio microphones and Assistive Listening Devices (ALD)	P
223 - 230 MHz BROADCASTING Fixed Mobile 5.243, 5.246, 5.247	**223 - 230 MHz** BROADCASTING Fixed Mobile	RN013A, RN014, RN018, RN023, RN035	Broadcasting (terrestrial)	P
230 - 235 MHz FIXED MOBILE 5.247, 5.251, 5.252	**230 - 235 MHz** FIXED MOBILE	RN018, RN023, RN035	Governmental applications T-DAB	P
235 - 267 MHz FIXED MOBILE	**235 -240 MHz** FIXED MOBILE **240 – 267 MHz** FIXED	5.111, 5.254, 5.256, RN018, RN023, RN035	Governmental applications T-DAB EPIRBs	P G

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
5.111, 5.252, 5.254, 5.256, 5.256A	MOBILE			
267 - 272 MHz FIXED MOBILE Space Operation (space–to-Earth) 5.254, 5.257	**267 - 272 MHz** FIXED MOBILE Space Operation (space–to-Earth)	5.254, 5.257, RN018, RN035	Governmental applications	G
272 - 273 MHz SPACE OPERATION (space–to-Earth) FIXED MOBILE 5.254	**272 - 273 MHz** FIXED MOBILE	5.254, RN018 RN035	Governmental applications	G
273 - 312 MHz FIXED MOBILE 5.254	**273 - 312 MHz** FIXED MOBILE	5.254, RN018, RN024, RN035	Governmental applications	P
312 - 315 MHz FIXED MOBILE Mobile-satellite (Earth-to-space) 5.254, 5.255	**312 - 315 MHz** FIXED MOBILE Mobile-satellite (Earth-to-space)	5.254, 5.255, RN018, RN035	Governmental applications	G
315 - 322 MHz FIXED MOBILE 5.254	**315 - 322 MHz** FIXED MOBILE	5.254, RN018, RN035	Governmental applications	G
322 - 328.6 MHz FIXED MOBILE RADIO ASTRONOMY 5.149	**322 - 328.6 MHz** FIXED MOBILE RADIO ASTRONOMY	5.149, RN018, RN035	Governmental applications Radio astronomy	P
328.6 - 335.4 MHz AERONAUTICAL RADIONAVIGATION 5.258, 5.259	**328.6 - 335.4 MHz** AERONAUTICAL RADIONAVIGATION	5.258, RN018, RN035	Governmental applications ILS	G
335.4 - 380 MHz FIXED MOBILE 5.254	**335.4 - 380 MHz** FIXED MOBILE	5.254, RN018, RN024, RN035	Governmental applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
380 - 385 MHz FIXED MOBILE 5.254	**380 - 385 MHz** FIXED MOBILE	5.254, RN013A, RN018, RN025, RN025A, RN035	Governmental applications PPDR	P
385 - 387 MHz FIXED MOBILE 5.254	**385 - 387 MHz** FIXED MOBILE	5.254, RN013A, RN018, RN025A, RN035	Governmental applications PMR/PAMR	P
387 - 390 MHz FIXED MOBILE Mobile-satellite (space-to-Earth) 5.208A, 5.254, 5.255, 5.347A	**387 - 390 MHz** FIXED MOBILE Mobile-satellite (space-to-Earth)	5.208A, 5.254, 5.255, 5.347A, RN013A, RN018, RN025A, RN035	Governmental applications PMR/PAMR	G
390 - 395 MHz FIXED MOBILE 5.254	**390 - 395 MHz** FIXED MOBILE	5.254, RN013A, RN018, RN025, RN025A, RN035	Governmental applications PPDR	P
395 - 399.9 MHz FIXED MOBILE 5.254	**395 - 399.9 MHz** FIXED MOBILE	5.254, RN013A, RN018, RN025A, RN035	Governmental applications PMR/PAMR	P
399.9 - 400.05 MHz MOBILE-SATELLITE (Earth-to-space) 5.209, 5.220, 5.260A, 5.260B	**399.9 - 400.05 MHz** MOBILE-SATELLITE (Earth-to-space)	5.209, 5.220, 5.260A, 5.260B, RN018, RN025A, RN035	PPDR	P
400.05 - 400.15 MHz STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz)	**400.05 - 400.15 MHz** STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz)	5.261, 5.262, RN018, RN025A, RN035	PPDR	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
5.261, 5.262	FIXED MOBILE			
400.15 - 401 MHz METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) 5.263 MOBILE-SATELLITE (space-to-Earth) 5.208A, 5.209, 5.208B Space Operation (space-to-Earth) 5.262, 5.264	**400.15 - 401 MHz** METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) SPACE RESEARCH (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Space Operation (space-to-Earth) FIXED MOBILE	5.208A, 5.209 5.262, 5.263, 5.264, 5.347A, RN018, RN025A, RN035	PPDR S-PCS Sondes Weather satellites	P
401 - 402 MHz METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile 5.264A, 5.264B	**401 - 402 MHz** METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile	5.264A, 5.264B RN018, RN025A, RN026A, RN035	Active medical implants Sondes Weather satellites	P
402 - 403 MHz METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile 5.264A, 5.264B	**402 - 403 MHz** METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile	5.264A, 5.264B RN018, RN025A, RN026A, RN035	Active medical implants Sondes Weather satellites	P
403 - 406 MHz METEOROLOGICAL AIDS Fixed Mobile except	**403 - 406 MHz** METEOROLOGICAL AIDS Fixed	5.265, RN018, RN025A,	Active medical implants Sondes	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
aeronautical mobile 5.265	Mobile except aeronautical mobile	RN026A, RN035		
406 - 406.1 MHz MOBILE-SATELLITE (Earth-to-space) 5.265, 5.266, 5.267	**406 - 406.1 MHz** MOBILE-SATELLITE (Earth-to-space)	5.265, 5.266, 5.267, RN018, RN025A, RN035	EPIRBs	P
406.1 - 410 MHz FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149, 5.265	**406.1 - 410 MHz** FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY	5.149, 5.265, RN013A, RN018, RN025A, RN027, RN035	PMR/PAMR Governmental application Radio astronomy	P
410 - 420 MHz FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) 5.268	**410 - 420 MHz** FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space)	5.268, RN013A, RN018, RN025A, RN027, RN035	PMR/PAMR Governmental applications	P
420 - 430 MHz FIXED MOBILE except aeronautical mobile Radiolocation 5.269, 5.270, 5.271	**420 - 430 MHz** FIXED MOBILE except aeronautical mobile Radiolocation	RN013A RN018, RN025A, RN027, RN035	PMR/PAMR PPDR Governmental applications	P
430 - 432 MHz AMATEUR RADIOLOCATION 5.271, 5.274, 5.275, 5.276, 5.277	**430 - 432 MHz** AMATEUR RADIOLOCATION	RN018, RN025A, RN035	Amateur ULP-WMCE Governmental applications	P
432-438 MHz AMATEUR RADIOLOCATION Earth exploration-satellite (active) 5.279A 5.138, 5.271, 5.276, 5.277, 5.280, 5.281, 5.282	**432-438 MHz** AMATEUR RADIOLOCATION Earth exploration-satellite (active)	5.138, 5.279A, RN018, RN025A, RN035	Active sensors (satellite) Amateur Amateur-satellite ISM Non-specific SRDs ULP-WMCE Governmental applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
438-440 MHz AMATEUR RADIOLOCATION 5.271, 5.274, 5.275, 5.276, 5.277, 5.283	**438-440 MHz** AMATEUR RADIOLOCATION	RN018, RN025A, RN035	Amateur ULP-WMCE Governmental applications	P
440 – 450 MHz FIXED MOBILE except aeronautical mobile Radiolocation 5.269, 5.270, 5.271, 5.284, 5.285, 5.286	**440 - 446 MHz** FIXED MOBILE except aeronautical mobile Radiolocation **446 – 446.2 MHz** FIXED MOBILE except aeronautical mobile Radiolocation **446.2 - 450 MHz** FIXED MOBILE except aeronautical mobile Radiolocation	5.286, RN013A, RN018, RN025A, RN027, RN029, RN035	PMR 446 PMR/PAMR Wind profilers ULP-WMCE Governmental applications On-site paging	G NG G
450 - 455 MHz FIXED MOBILE 5.286AA 5.209, 5.271, 5.286 5.286A, 5.286B, 5.286C, 5.286D, 5.286E	**450 - 451 MHz** FIXED MOBILE **451 - 455 MHz** FIXED MOBILE	5.286, 5.286A, 5.286AA, RN013A, RN018, RN025A, RN027, RN029A, RN035	PMR/PAMR PPDR MFCN On-site paging	P NG
455 - 456 MHz FIXED MOBILE 5.286AA 5.209, 5.271, 5.286A, 5.286B, 5.286C, 5.286E	**455 - 456 MHz** FIXED MOBILE	5.209, 5.286A, 5.286AA, RN013A, RN018, RN025A, RN027, RN029A, RN035	Land mobile PMR/PAMR MFCN On-site paging	NG
456 - 459 MHz FIXED MOBILE 5.286AA 5.271, 5.287, 5.288	**456 – 457.5 MHz** FIXED MOBILE **457.5 – 459 MHz** FIXED MOBILE	5.286AA, 5.287, RN013A, RN018, RN025A, RN027, RN029A,	Land mobile MFCN On-board communications PMR/PAMR PPDR On-site paging	NG P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
		RN035		
459 - 460 MHz FIXED MOBILE 5.286AA 5.209, 5.271, 5.286A, 5.286B, 5.286C, 5.286E	**459 - 460 MHz** FIXED MOBILE	5.286A, 5.286AA, RN013A, RN018, RN025A, RN027, RN035	Land mobile PMR/PAMR Governmental applications On-site paging	G
460 - 470 MHz FIXED MOBILE 5.286AA Meteorological-satellite (space-to-Earth) 5.287, 5.288, 5.289, 5.290	**460 - 461 MHz** FIXED MOBILE Meteorological-satellite (space-to-Earth) **461 – 467.5 MHz** FIXED MOBILE Meteorological-satellite (space-to-Earth) **467.5 - 470 MHz** FIXED MOBILE Meteorological-satellite (space-to-Earth)	5.286AA, 5.287, 5.289, RN013A, RN018, RN025A, RN027, RN029A, RN035	Land mobile Governmental applications On-board communications PMR/PAMR PPDR MFCN Space research On-site paging	P NG P
470 - 694 MHz BROADCASTING 5.149, 5.291A, 5.294, 5.295A, 5.296, 5.300, 5.304, 5.306, 5.307A, 5.307B, 5.312,	**470-694 MHz** BROADCASTING Land mobile	5.295A, 5.296, 5.149, 5.306, RN014, RN018, RN035	Broadcasting (terrestrial) PMSE Radio astronomy Radio microphones and Assistive Listening Devices (ALD) Wind profilers	NG
694 - 790 MHz MOBILE except aeronautical mobile 5.312A, 5.312B, 5.317A BROADCASTING 5.300, 5.312	**694 - 790 MHz** MOBILE except aeronautical mobile BROADCASTING	5.312A, 5.312B, 5.317A, RN014, RN018, RN030, RN035	Broadcasting (terrestrial) MFCN PMSE Radio microphones and Assistive Listening Devices (ALD)	NG
790 - 862 MHz	**790 - 862 MHz**		MFCN	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
BROADCASTING FIXED MOBILE except aeronautical mobile 5.312B, 5.316B, 5.317A 5.312, 5.319	BROADCASTING FIXED MOBILE except aeronautical mobile	5.312B, 5.316B, RN014, RN018, RN031, RN035	Radio microphones and Assistive Listening Devices (ALD)	
862 - 890 MHz FIXED MOBILE except aeronautical mobile 5.312B, 5.317A BROADCASTING 5.322 5.319, 5.323	**862 - 880 MHz** FIXED MOBILE except aeronautical mobile **880 - 890 MHz** FIXED MOBILE except aeronautical mobile	5.312B, 5.317A, RN018, RN033, RN034, RN035, RN037, RN037A	Alarms GSM GSM-R IMT Governmental applications MCV Non-specific SRDs PMR/PAMR RFID Active medical implants Tracking, tracing and data acquisition Wireless audio/multimedia Wideband data transmission systems Radio microphones and Assistive Listening Devices (ALD)	P NG
890 - 942 MHz FIXED MOBILE except aeronautical mobile 5.312B, 5.317A BROADCASTING 5.322 Radiolocation 5.323	**890 - 942 MHz** FIXED MOBILE except aeronautical mobile Radiolocation	5.312B, 5.317A, RN018, RN034, RN035, RN037, RN037A	GSM GSM-R IMT MCV Non-specific SRDs RFID	NG
942 - 960 MHz FIXED MOBILE except aeronautical mobile 5.312B, 5.317A	**942 - 960 MHz** FIXED MOBILE except aeronautical mobile	5.312B, 5.317A, RN018, RN035, RN037,	GSM IMT MCV	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
BROADCASTING 5.322 5.323		RN037A		
960 – 1164 MHz AERONAUTICAL RADIONAVIGATION 5.328, 5.328 AA AERONAUTICAL MOBILE (R) 5.327A	**960 - 1164 MHz** AERONAUTICAL RADIONAVIGATION AERONAUTICAL MOBILE (R)	5.327A, 5.328, 5.328AA, RN018, RN035, RN038	Aeronautical navigation Governmental applications	P
1164-1215 MHz AERONAUTICAL RADIONAVIGATION 5.328 RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328A, 5.328B	**1164-1215 MHz** AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)	5.328, 5.328A, 5.328B, RN035	Aeronautical navigation GALILEO GLONASS GNSS Repeater Governmental applications	P
1215 – 1240 MHz RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B, 5.329, 5.329A EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) 5.330, 5.331, 5.332	**1215 – 1240 MHz** RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active)	5.328B, 5.329, 5.329A, 5.332, RN035	Active sensors (satellite) GLONASS GNSS Repeater GPS Radiolocation Governmental applications	P
1240 – 1300 MHz RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B, 5.329, 5.329A EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) Amateur 5.282, 5.330, 5.331, 5.332, 5.332A, 5.335, 5.335A	**1240 - 1300 MHz** RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) Amateur	5.329, 5.329A 5.332, 5.332A, 5.335A, RN035	Active sensors (satellite) Amateur Amateur-satellite GLONASS GNSS Repeater Radiolocation Governmental application GALILEO Wind profilers	P
1300 – 1350 MHz	**1300 - 1350 MHz**	5.149, 5.337, 5.337A,	Radio astronomy Radiolocation	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
AERONAUTICAL RADIONAVIGATION 5.337 RADIOLOCATION RADIONAVIGATION-SATELLITE (Earth-to-space) 5.149, 5.337A	AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space) RADIOLOCATION	RN035	Governmental applications Satellite navigation systems	
1350 – 1400 MHz FIXED MOBILE RADIOLOCATION 5.149, 5.338, 5.338A, 5.339	**1350 - 1400 MHz** FIXED MOBILE RADIOLOCATION	5.149, 5.338A, 5.339, RN035	Governmental applications Fixed Radio astronomy Radio Microphones and Assistive Listening Devices (ALD)	P
1400 – 1427 MHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	**1400 - 1427 MHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340, 5.341, RN035	Passive sensors (satellite) Radio astronomy	P
1427 – 1429 MHz SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile 5.341, 5.338A 5.341A, 5.341B, 5.341C	**1427 - 1429 MHz** SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile	5.341, 5.338A, 5.341A, RN023A, RN035	MFCN Fixed	NG
1429 – 1452 MHz FIXED MOBILE except aeronautical mobile 5.338A, 5.341, 5.341A, 5.342	**1429 - 1452 MHz** FIXED MOBILE except aeronautical mobile	5.341, 5.341A, 5.338A, RN023A, RN035	MFCN Fixed	NG
1452 – 1492 MHz FIXED MOBILE except aeronautical mobile 5.346	**1452 - 1492 MHz** FIXED MOBILE except aeronautical mobile	5.341, 5.345, 5.208B, RN023, RN023A,	MFCN T-DAB	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
BROADCASTING BROADCASTING-SATELLITE 5.208B, 5.345, 5.341, 5.342	BROADCASTING BROADCASTING-SATELLITE	RN035		
1492 - 1518 MHz FIXED MOBILE except aeronautical mobile 5.341, 5.341A, 5.342	**1492 - 1518 MHz** FIXED MOBILE except aeronautical mobile	5.341,5.341A, RN023A, RN035	MFCN Fixed Radio Microphones and Assistive Listening Devices (ALD)	NG
1518-1525 MHz FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A, 5.348B, 5.351A, 5.341, 5.342	**1518-1525 MHz** FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (space-to-Earth)	5.341, 5.348, 5.351A, RN035	Fixed IMT satellite component Governmental applications MSS Earth stations Radio Microphones and Assistive Listening Devices (ALD)	P
1525 - 1530 MHz SPACE OPERATION (space-to-Earth) FIXED MOBILE-SATELLITE (space-to-Earth) 5.347A, 5.351A Earth Exploration-Satellite Mobile except aeronautical mobile 5.349 5.341, 5.342, 5.350, 5.351, 5.352A, 5.354	**1525 - 1530 MHz** SPACE OPERATION (space-to-Earth) FIXED MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Mobile except aeronautical mobile	5.341, 5.347A, 5.351, 5.351A, 5.354, RN035	Fixed IMT satellite component MSS Earth stations	P
1530 - 1535 MHz SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.347A, 5.351A 5.353A Earth Exploration-Satellite Fixed Mobile except aeronautical mobile 5.341, 5.342, 5.351, 5.354	**1530 - 1535 MHz** SPACE OPERATION (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite Fixed Mobile except aeronautical mobile	5.341, 5.347A, 5.351, 5.351A 5.353A, 5.354, RN035	IMT satellite component MSS Earth stations	P
1535 - 1559 MHz	**1535 – 1559 MHz**			P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
MOBILE-SATELLITE (space-to-Earth) 5.208B, 5.351A 5.341, 5.351, 5.353A, 5.354, 5.355, 5.356, 5.357, 5.357A, 5.359, 5.362A	MOBILE-SATELLITE (space-to-Earth)	5.341, 5.208B, 5.351, 5.351A, 5.353A, 5.354, 5.357A, RN035	IMT satellite component MSS Earth stations	
1559 - 1610 MHz AERONAUTICAL RADIONAVIGATION ADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B, 5.329A, 5.208B 5.341	**1559 - 1610 MHz** AERONAUTICAL RADIONAVIGATION ADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)	5.328B, 5.329A, 5.341, 5.208B, RN035, RN042	GALILEO GLONASS GNSS GNSS Repeater GPS	P
1610 - 1610.6 MHz MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION 5.341, 5.355, 5.359, 5.364, 5.366, 5.367, 5.368, 5.369, 5.371, 5.372	**1610 - 1610.6 MHz** MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION	5.341, 5.351A, 5.364, 5.366, 5.367, 5.368, 5.371, 5.372, RN035, RN042, RN044	GLONASS IMT satellite component MSS Earth stations	P
1610.6 - 1613.8 MHz MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION 5.149, 5.341, 5.355, 5.359, 5.364, 5.366, 5.367, 5.368, 5.369, 5.371, 5.372	**1610.6 - 1613.8 MHz** MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION	5.149, 5.341, 5.351A, 5.364, 5.366, 5.367, 5.368, 5.371, 5.372, RN035, RN042, RN043, RN044	IMT satellite component MSS Earth stations Radio astronomy	P
1613.8 - 1621.35 MHz MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION Mobile-satellite (space-to-Earth) 5.208B 5.341, 5.355, 5.359, 5.364, 5.365, 5.366, 5.367, 5.368, 5.369, 5.371, 5.372, 5.372A	**1613.8 - 1621.35 MHz** MOBILE-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION Mobile-satellite (space-to-Earth)	5.208B, 5.341, 5.351A, 5.364, 5.365, 5.366, 5.367, 5.368, 5.371, 5.372, 5.372A, RN035, RN042, RN044	IMT satellite component MSS Earth stations	P
1621.35 – 1626.5 MHz	**1621.35 – 1626.5 MHz**			P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
MARITIME MOBILE-SATELLITE (Earth-to-space) 5.373, 5.373A MOBILE-SATELLITE (Earth-to-space) 5.351A RADIONAVIGATION Mobile-satellite (space-to-Earth) except maritime satellite mobile (space-to-Earth) 5.208B 5.341, 5.355, 5.359, 5.364, 5.365, 5.366, 5.367, 5.368, 5.369, 5.371, 5.372	MARITIME MOBILE-SATELLITE (Earth-to-space) MOBILE-SATELLITE (Earth-to-space) RADIONAVIGATION Mobile-satellite (space-to-Earth) except maritime satellite mobile (space-to-Earth)	5.208B, 5.341, 5.351A, 5.364, 5.365, 5.366, 5.367, 5.368, 5.371, 5.372, 5.373, 5.373A, RN035, RN042, RN044	IMT satellite component MSS Earth stations	
1626.5 - 1660 MHz MOBILE-SATELLITE (Earth-to-space) 5.351A 5.341, 5.351, 5.353A, 5.354, 5.355, 5.357A, 5.359, 5.362A, 5.374, 5.375, 5.376	**1626.5 - 1660 MHz** MOBILE-SATELLITE (Earth-to-space)	5.341, 5.351, 5.351A, 5.353A, 5.354, RN035, RN040	ALS IMT satellite component MSS Earth stations	P
1660 - 1660.5 MHz MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY 5.149, 5.341, 5.351, 5.354, 5.362A, 5.376A	**1660 - 1660.5 MHz** MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY	5.149, 5.341, 5.351, 5.351A, 5.354, 5.376A, RN035	ALS IMT satellite component MSS Earth stations Radio astronomy	P
1660.5 - 1668.0 MHz RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149, 5.341, 5.379, 5.379A	**1660.5 - 1668.0 MHz** RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile	5.149, 5.341, 5.379A, RN035	Radio astronomy	P
1668-1668.4 MHz MOBILE-SATELLITE (Earth-to-space) 5.351A, 5.379B, 5.379C RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed	**1668-1668.4 MHz** MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed	5.149, 5.341, 5.351A, 5.379A, 5.379B, 5.379C, RN035	IMT satellite component Radio astronomy	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
Mobile except aeronautical mobile 5.149, 5.341, 5.379, 5.379A	Mobile except aeronautical mobile			
1668.4 - 1670 MHz METEOROLOGICAL AIDS FIXED MOBILE except aeronautical mobile MOBILE-SATELLITE (Earth-to-space) 5.351A, 5.379B, 5.379C RADIO ASTRONOMY 5.149, 5.341, 5.379D, 5.379E	**1668.4 - 1670 MHz** METEOROLOGICAL AIDS MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY FIXED MOBILE except aeronautical mobile	5.149, 5.341 5.351A, 5.379B, 5.379C, 5.379D, RN035	IMT satellite component Meteorology Radio astronomy	P
1670 – 1675 MHz METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A, 5.379B 5.341, 5.379D, 5.379E, 5.380A	**1670 - 1675 MHz** METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (Earth-to-space)	5.341, 5.351A, 5.379B, 5.379D, 5.380A, RN035	IMT satellite component MSS Earth stations Meteorology Weather satellites	P
1675 – 1690 MHz METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.341	**1675 - 1690 MHz** METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile	5.341, RN035	Governmental applications Sondes Weather satellites	P
1690 - 1700 MHz METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) Fixed Mobile except aeronautical mobile 5.289, 5.341, 5.382	**1690 – 1700 MHz** METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) FIXED MOBILE except aeronautical mobile	5.289, 5.341, 5.382, RN035	Governmental applications Weather satellites	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
1700 - 1710 MHz FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289, 5.341	**1700 - 1710 MHz** FIXED METEOROLOGICAL-ATELLITE (space-to-Earth) MOBILE except aeronautical mobile	5.289, 5.341, RN035	Governmental applications Weather satellites	P
1710 - 1930 MHz FIXED MOBILE 5.384A, 5.388A, 5.149, 5.341, 5.385, 5.386, 5.387, 5.388	**1710 –1930 MHz** FIXED MOBILE	5.149, 5.341, 5.384A, 5.385, 5.388, 5.388A, RN034, RN035, RN037, RN037A, RN044A, RN044B, RN045, RN046	GSM IMT MCA MCV MFCN Radio astronomy Land mobile DECT Radio Microphones and Assistive Listening Devices (ALD)	NG
1930 – 1970 MHz FIXED MOBILE 5.388A, 5.388	**1930 - 1970 MHz** FIXED MOBILE	5.388, 5.388A, RN035, RN037A, RN044B, RN046, RN047	MFCN MCA MCV	NG
1970 – 1980 MHz FIXED MOBILE 5.388A, 5.388	**1970 - 1980 MHz** FIXED MOBILE	5.388, 5.388A, RN035, RN037A, RN044B, RN046, RN047	MFCN MCA MCV	NG
1980 – 2010 MHz FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A, 5.388, 5.389A, 5.389B, 5.389F	**1980 - 2010 MHz** FIXED MOBILE MOBILE-SATELLITE (Earth-to-space)	5.351A, 5.388, 5.389A, RN035, RN047, RN047A	MSS Earth stations	NG
2010 – 2025 MHz FIXED MOBILE 5.388A, 5.388	**2010 - 2025 MHz** FIXED MOBILE	5.388, 5.388A, RN035, RN039, RN047	PMSE	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
2025 – 2110 MHz SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (Earth-to-space) (space-to-space) 5.392	**2025 - 2110 MHz** SPACE OPERATION (Earth-to-space) (space-to-space) EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space) FIXED MOBILE SPACE RESEARCH (Earth-to-space) (space-to-space)	5.391, 5.392, RN035, RN047	Fixed PMSE Space research	NG
2110 - 2120 MHz FIXED MOBILE 5.388A SPACE RESEARCH (deep space) (Earth-to-space) 5.388	**2110 - 2120 MHz** FIXED MOBILE SPACE RESEARCH (deep space) (Earth-to-space)	5.388, 5.388A, RN035, RN037A, RN044B, RN046	MFCN MCA MCV	NG
2120 - 2160 MHz FIXED MOBILE 5.388A, 5.388	**2120 - 2160 MHz** FIXED MOBILE	5.388, 5.388A, RN035, RN037A, RN044B, RN046	MFCN MCA MCV	NG
2160 - 2170 MHz FIXED MOBILE 5.388A, 5.388	**2160 - 2170 MHz** FIXED MOBILE	5.388, 5.388A, RN035, RN037A, RN044B, RN046	MFCN MCA MCV	NG
2170 – 2200 MHz FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A 5.388, 5.389A, 5.389F	**2170 – 2200 MHz** FIXED MOBILE MOBILE-SATELLITE (space-to-Earth)	5.351A, 5.388, 5.389A, RN035, RN047A	MSS Earth stations	NG
2200 – 2290 MHz SPACE OPERATION	**2200 – 2290 MHz** SPACE OPERATION	5.391, 5.392,	Fixed PMSE	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
(space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) FIXED MOBILE 5.391 SPACE RESEARCH (space-to-Earth) (space-to-space) 5.392	(space-to-Earth) (space-to-space) EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space) FIXED MOBILE SPACE RESEARCH (space-to-Earth) (space-to-space)	RN035, RN048	Radio astronomy Space research	
2290 – 2300 MHz FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)	**2290 – 2300 MHz** FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)	RN035, RN048	Land mobile PMSE Space research	NG
2300 – 2450 MHz FIXED MOBILE Amateur Radiolocation 5.150, 5.282, 5.384A, 5.395	**2300 – 2400 MHz** FIXED MOBILE Amateur Radiolocation **2400 – 2450 MHz** FIXED MOBILE Amateur Radiolocation	5.150, 5.282, 5.384A, RN035, RN047B	Governmental application Aeronautical telemetry Amateur MFCN PMSE Amateur-satellite ISM Non-specific SRDs RFID Radiodetermination applications Wideband data transmission systems	NG P
2450 – 2483.5 MHz FIXED MOBILE Radiolocation 5.150,	**2450 – 2483.5 MHz** FIXED MOBILE Radiolocation	5.150, RN035	ISM Non-specific SRDs RFID PMSE Radiodetermination applications Wideband data transmission systems	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
2483.5 – 2500 MHz FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A RADIODETERMINATION SATELLITE (space-to-Earth) 5.398 Radiolocation 5.398A 5.150, 5.368, 5.372A, 5.399, 5.401, 5.402	**2483.5 – 2500 MHz** FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) RADIODETERMINATION SATELLITE (space-to-Earth) Radiolocation	5.150, 5.368, 5.372A, 5.398, 5.351A, 5.399, 5.402, RN035, RN044	Active medical implants IMT satellite component ISM Land mobile MSS Earth stations PMSE MBANS	NG
2500 – 2520 MHz FIXED 5.410 MOBILE except aeronautical mobile 5.384A, 5.409A, 5.412	**2500 – 2520 MHz** FIXED MOBILE except aeronautical mobile	5.384A, 5.409A, 5.410, RN035, RN037A, RN048A	MFCN MCV	NG
2520 – 2655 MHz FIXED 5.410 MOBILE except aeronautical mobile 5.384A 5.409A, BROADCASTING-SATELLITE 5.413, 5.416 5.339, 5.412, 5.418B, 5.418C	**2520-2655 MHz** FIXED MOBILE except aeronautical mobile BROADCASTING-SATELLITE	5.339, 5.384A, 5.409A, 5.410, 5.418B, 5.418C, RN035, RN037A, RN048A	MFCN MCV	NG
2655 – 2670 MHz FIXED 5.410 MOBILE except aeronautical mobile 5.384A, 5.409A, BROADCASTING-SATELLITE 5.208B, 5.413, 5.416 Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive) 5.149, 5.412	**2655 – 2670 MHz** FIXED MOBILE except aeronautical mobile BROADCASTING-SATELLITE Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive)	5.149, 5.208B, 5.384A, 5.409A, 5.410, 5.413, 5.416, RN035, RN037A, RN048A	MFCN MCV Radio astronomy	NG
2670 – 2690 MHz FIXED 5.410 MOBILE except	**2670 – 2690 MHz** FIXED MOBILE except	5.149, 5.384A, 5.409A,	MFCN MCV Radio astronomy	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
aeronautical mobile 5.384A, 5.409A, Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive) 5.149, 5.412	aeronautical mobile Earth Exploration-Satellite (passive) Radio Astronomy Space Research (passive)	5.410, RN035, RN037A, RN048A		
2690 – 2700 MHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.422	**2690 – 2700 MHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340, RN035	Passive sensors (satellite) Radio astronomy	NG
2700 – 2900 MHz AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423, 5.424	**2700 – 2900 MHz** AERONAUTICAL RADIONAVIGATION Radiolocation	5.337, 5.423, RN035	Aeronautical navigation Radiolocation Weather radar PMSE Governmental applications	P
2900 – 3100 MHz RADIONAVIGATION 5.426 RADIOLOCATION 5.424A 5.425, 5.427	**2900 – 3100 MHz** RADIONAVIGATION Radiolocation	5.424A, 5.425, 5.426, 5.427, RN035	Radiolocation Radiolocation (governmental)	P
3100 – 3300 MHz RADIOLOCATION Earth exploration-satellite (active) Space research (active) 5.149, 5.428	**3100 – 3300 MHz** RADIOLOCATION Earth exploration-satellite (active) Space research (active)	5.149, RN035	Active sensors (satellite) Radio astronomy Radiolocation Radiolocation (governmental) UWB applications	P
3300 – 3400 MHz RADIOLOCATION 5.149, 5.429, 5.429A, 5.429B 5.430	**3300 – 3400 MHz** RADIOLOCATION	5.149, RN035, RN049A	Radio astronomy Radiolocation Radiolocation (governmental) UWB applications	P
3400 – 3600 MHz FIXED FIXED-SATELLITE	**3400 – 3600 MHz** FIXED FIXED-SATELLITE	5.430A, RN035, RN048B,	Amateur FSS Earth stations MFCN	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
(space-to-Earth) MOBILE except aeronautical mobile 5.430A Radiolocation 5.431	(space-to-Earth) MOBILE except aeronautical mobile Radiolocation	RN049A	PMSE Radiolocation UWB applications	
3600 – 3800 MHz FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.433B 5.434A 5.434B 5.435A	**3600 – 3800 MHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile	5.434A , RN048B, RN035, RN049A	ESV FSS Earth stations Fixed MFCN UWB applications	NG
3800-4200 MHz FIXED FIXED-SATELLITE (space-to-Earth) Mobile	**3800-4200 MHz** FIXED FIXED-SATELLITE (space-to-Earth) Mobile	RN048B, RN035, RN049A	ESV FSS Earth stations Fixed MFCN UWB applications	NG
4200 – 4400 MHz AERONAUTICAL RADIONAVIGATION 5.438, 5.439, 5.440	**4200 – 4400 MHz** AERONAUTICAL RADIONAVIGATION	5.438, 5.440, RN035, RN049A	Altimeters Passive sensors (satellite) UWB applications WAIC Governmental applications	P
4400 – 4500 MHz FIXED MOBILE	**4400 – 4500 MHz** FIXED MOBILE	RN035, RN049A	PMSE UWB applications	NG
4500 – 4800 MHz FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE 5.440A	**4500 – 4800 MHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE	5.441, RN035, RN049A	Governmental applications FSS Earth stations PMSE Radiodeterminatio n applications UWB applications	NG
4800 – 4990 MHz FIXED MOBILE 5.442, 5.440A Radio Astronomy 5.149, 5.339, 5.443	**4800 – 4990 MHz** FIXED MOBILE Radio Astronomy	5.149, 5.339, 5.442, RN035, RN048G	BBDR PMSE Passive sensors (satellite) Radio astronomy Radiodeterminatio n applications	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
4990 – 5000 MHz FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY Space Research (passive) 5.149	**4990 – 5000 MHz** FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY Space Research (passive)	5.149, RN035	PMSE Radio astronomy Radiodetermination applications	NG
5000 – 5010 MHz AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space) AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA	**5000 – 5010 MHz** AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space) AERONAUTICAL MOBILE-SATELLITE (R)	5.443AA, RN035	GALILEO Radio astronomy Radiodeterminatio n applications Satellite navigation systems	P
5010-5030 MHz AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-space) 5.328B, 5.443B AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA	**5010-5030 MHz** AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-space) AERONAUTICAL MOBILE-SATELLITE (R)	5.328B, 5.443AA, 5.443B, RN035	GALILEO Radio astronomy Radiodeterminatio n applications Satellite navigation systems	P
5030-5091 MHz AERONAUTICAL MOBILE (R) 5.443C AERONAUTICAL RADIONAVIGATION 5.444 AERONAUTICAL MOBILE-SATELLITE (R) 5.443D	**5030-5091 MHz** AERONAUTICAL MOBILE (R) AERONAUTICAL MOBILE-SATELLITE (R) AERONAUTICAL RADIONAVIGATION	5.443C, 5.443D, 5.444, RN035	MLS Radiodetermination applications	P
5091-5150 MHz AERONAUTICAL MOBILE 5.444B AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA	**5091-5150 MHz** AERONAUTICAL MOBILE AERONAUTICAL MOBILE-SATELLITE (R)	5.443AA, 5.444, 5.444A, 5.444B, RN035	Radiodetermination applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
AERONAUTICAL RADIONAVIGATION 5.444, 5.444A	AERONAUTICAL RADIONAVIGATION			
5150 – 5250 MHz AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (Earth-to-space) 5.447A MOBILE except aeronautical mobile 5.446A, 5.446B, 5.446, 5.446C, 5.447, 5.447B, 5.447C	**5150 – 5250 MHz** AERONAUTICAL RADIONAVIGATION FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile	5.446, 5.446A, 5.446B, 5.446C, 5.447A, 5.447B, 5.447C, RN035, RN048G, RN048H	Aeronautical telemetry BBDR Feeder links WAS/RLAN Radiodetermination applications	P
5250 – 5255 MHz EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH 5.447D MOBILE except aeronautical mobile 5.446A, 5.447F 5.447E, 5.448, 5.448A	**5250 – 5255 MHz** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH MOBILE except aeronautical mobile	5.446A, 5.447A, 5.447B, 5.447C, 5.447F, RN035, RN048H	Active sensors (satellite) Maritime radar WAS/RLAN Radiodeterminatio n applications Radiolocation (governmental) Weather radar	P
5255 – 5350 MHz EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) MOBILE except aeronautical mobile 5.446A, 5.447F 5.447E, 5.448, 5.448A	**5255 – 5350 MHz** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) MOBILE except aeronautical mobile	5.446A, 5.447F, 5.448A RN035, RN048H	Active sensors (satellite) Maritime radar WAS/RLAN Radiodeterminatio n applications Radiolocation (governmental) Weather radar	P
5350 – 5460 MHz EARTH EXPLORATION-SATELLITE (active) 5.448B SPACE RESEARCH (active) 5.448C AERONAUTICAL RADIONAVIGATION 5.449 RADIOLOCATION 5.448D	**5350 – 5460 MHz** AERONAUTICAL RADIONAVIGATION EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active)	5.448B, 5,448C, 5.449, 5.448D, RN035	Active sensors (satellite) Maritime radar Radiodeterminatio n applications Radiolocation (governmental) Weather radar	P
5460 – 5470 MHz	**5460 – 5470 MHz** RADIONAVIGATION	5.448B, 5.448D, 5.449,	Active sensors (satellite)	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
RADIONAVIGATION 5.449 EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.448D 5.448B	EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION	RN035	Maritime radar Radiodeterminatio n applications Radiolocation (governmental) Weather radar	
5470 – 5570 MHz MARITIME RADIONAVIGATION MOBILE except aeronautical mobile 5.446A 5.450A EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.450B 5.448B 5.450 5.451	**5470 – 5570 MHz** MARITIME RADIONAVIGATION MOBILE except aeronautical mobile EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION	5.446A, 5.448B, 5.450A, 5.450B, RN035, RN048H	Active sensors (satellite) Maritime radar WAS/RLAN Radiodeterminatio n applications Weather radar	NG
5570-5650 MHz MARITIME RADIONAVIGATION MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION 5.450B	**5570-5650 MHz** MARITIME RADIONAVIGATION MOBILE except aeronautical mobile RADIOLOCATION	5.446A, 5.450, 5.450A, 5.450B, 5.451, 5.452, RN035, RN048H	Maritime radar WAS/RLAN Radiodeterminatio n applications Weather radar	NG
5650 – 5725 MHz RADIOLOCATION MOBILE except aeronautical mobile 5.446A, 5.450A Amateur Space Research (deep space) 5.282, 5.451, 5.453, 5.454, 5.455	**5650 – 5670 MHz** RADIOLOCATION MOBILE except aeronautical mobile Amateur Space Research (deep space) **5670 – 5725 MHz** FIXED RADIOLOCATION MOBILE except aeronautical mobile Amateur Space Research (deep space)	5.282, 5.446A, 5.450A, 5.455, RN035, RN048H	Amateur Amateur-satellite Maritime radar WAS/RLAN Radiodeterminatio n applications Weather radar	P NG
5725 – 5830 MHz	**5725 – 5830 MHz**	5.150,	Amateur BFWA	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
FIXED-SATELLITE (Earth-to-space) RADIOLOCATION FIXED Amateur 5.150, 5.451, 5.453, 5.455,	FIXED-SATELLITE (Earth-to-space) RADIOLOCATION FIXED Amateur	5.455, RN035, RN048C	ISM Non-specific SRDs Radiodeterminatio n applications TTT WIA Weather radar	
5830 – 5850 MHz FIXED-SATELLITE (Earth-to-space) RADIOLOCATION FIXED Amateur Amateur-satellite (space-to-Earth) 5.150, 5.451, 5.453, 5.455,	**5830 – 5850 MHz** FIXED-SATELLITE (Earth-to-space) RADIOLOCATION FIXED Amateur Amateur-satellite (space-to-Earth)	5.150, 5.455, RN035, RN048C	Amateur Amateur-satellite BFWA ISM Non-specific SRDs Radiodeterminatio n applications WIA Weather radar	NG
5850 – 5925 MHz FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.150	**5850 – 5925 MHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5.150, RN035, RN048C, RN048I	DA2GC MBR BFWA FSS Earth stations ISM ITS Non-specific SRDs Radiodeterminatio n applications WIA	NG
5925 – 6700 MHz FIXED 5.457 FIXED-SATELLITE (Earth-to-space) 5.457A, 5.457B MOBILE 5.457C 5.149, 5.440, 5.458	**5925 – 6700 MHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5.149, 5.440, 5.457A, 5.458, RN035, RN048D, RN048E, RN048H, RN049A	ESV FSS Earth stations Fixed Passive sensors (satellite) Radiodeterminatio n applications Radio Astronomy UWB applications WAS/RLAN	NG
6700 – 7075 MHz FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441 MOBILE	**6700 – 7075 MHz** FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) MOBILE	5.441, 5.458, 5.457E, 5.458A, 5.458B, RN035, RN048D, RN049A	FSS Earth stations Feeder links Fixed PMSE Passive sensors (satellite)	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
5.457D, 5.457E, 5.457F, 5.458, 5.458A, 5.458B,			Radiodeterminatio n applications UWB applications	
7075 – 7145 MHz FIXED MOBILE 5.457E, 5.457F5.458, 5.459	**7075 – 7145 MHz** FIXED MOBILE	5.457E, 5.458, RN035, RN048D, RN048F, RN049A	Fixed Passive sensors (satellite) PMSE Radiodeterminatio n applications UWB applications	NG
7145-7235 MHz FIXED MOBILE SPACE RESEARCH (Earth-to-space) 5.460 5.458, 5.459	**7145-7235 MHz** FIXED MOBILE SPACE RESEARCH (Earth-to-space)	5.458, 5.460, RN035, RN048F, RN049A	Fixed Passive sensors (satellite) PMSE Radiodeterminatio n applications UWB applications	NG
7235-7250 MHz FIXED MOBILE 5.458	**7235-7250 MHz** FIXED MOBILE	5.458, RN035, RN048F, RN049A	Fixed Passive sensors (satellite) PMSE Radiodeterminatio n applications UWB applications	NG
7250 – 7300 MHz FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 5.461	**7250 – 7300 MHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE	5.461, RN035, RN048F, RN049A	Fixed MSS Earth stations Radiodeterminatio n applications PMSE UWB applications	NG
7300 – 7375 MHz FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.461	**7300 – 7375 MHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile	5.461, RN035, RN048F, RN049A	Fixed MSS Earth stations PMSE Radiodeterminatio n applications UWB applications	NG
7375 – 7450 MHz FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except	**7375 – 7450 MHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except	5.461AA, 5.461AB, 5.461AC, RN035, RN048F,	Fixed MSS Earth stations PMSE	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth) 5.461AA, 5.461AB, 5.461AC	aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth)	RN049A	Radiodeterminatio n applications UWB applications	
7450 – 7550 MHz FIXED FIXED-SATELLITE (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth) 5.461AA, 5.461AB, 5.461AC, 5.461A	**7450 – 7550 MHz** FIXED FIXED-SATELLITE (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth)	5.461A, 5.461AA, 5.461 AB, 5.461AC RN035, RN048F, RN049A	Fixed Radiodeterminatio n applications PMSE UWB applications Weather satellites	NG
7550 – 7750 MHz FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth) 5.461AA, 5.461AB 5.461AC	**7550 – 7750 MHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth)	5.461AA, 5.461AB, 5.461AC, RN035, RN049, RN048F, RN049A	Fixed Radiodeterminatio n applications PMSE UWB applications	NG
7750 – 7900 MHz FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B MOBILE except aeronautical mobile	**7750 – 7900 MHz** FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile	5.461B, RN035, RN048F, RN049A	Fixed PMSE Radiodeterminatio n applications UWB applications Weather satellites	NG
7900 – 8025 MHz FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.461	**7900 – 8025 MHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5.461, RN035, RN048F, RN049A	Fixed MSS Earth stations Radiodeterminatio n applications PMSE	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			UWB applications	
8025 – 8175 MHz EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A	**8025 – 8175 MHz** EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5.462A, 5.463, RN035, RN048F, RN049A	Earth exploration-satellite Fixed PMSE Land mobile Radiodeterminatio n applications UWB applications	NG
8175 – 8215 MHz EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) MOBILE 5.463, 5.462A	**8175 – 8215 MHz** EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) MOBILE	5.462A, 5.463, RN035, RN048F, RN049A	Earth exploration-satellite Fixed PMSE Land mobile Radiodeterminatio n applications UWB applications	NG
8215 – 8400 MHz EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 5.462A	**8215 – 8400 MHz** EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5.462A, 5.463, RN035, RN048F, RN049A	Earth exploration-satellite Fixed PMSE Radio astronomy Radiodeterminatio n applications UWB applications	NG
8400 – 8500 MHz FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.465, 5.466	**8400 – 8500 MHz** FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth)	5.465, RN035, RN048F, RN049A	Fixed PMSE Radiodeterminatio n applications Space research UWB applications	NG
8500 – 8550 MHz RADIOLOCATION 5.468, 5.469	**8500 – 8550 MHz** RADIOLOCATION	RN035, RN049, RN049A	Aeronautical navigation	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			Radiodeterminatio n applications Radiolocation Governmental applications UWB applications	
8550 – 8650 MHz RADIOLOCATION SPACE RESEARCH (active) EARTH EXPLORATION-SATELLITE (active) 5.468, 5.469, 5.469A	**8550 – 8650 MHz** RADIOLOCATION SPACE RESEARCH (active) EARTH EXPLORATION-SATELLITE (active)	5.469A, RN035 RN049, RN049A	Active sensors (satellite) Aeronautical navigation Radiodeterminatio n applications Radiolocation Governmental applications UWB applications	P
8650 – 8750 MHz RADIOLOCATION 5.468, 5.469	**8650 – 8750 MHz** RADIOLOCATION	RN035, RN049, RN049A	Aeronautical navigation Radiodeterminatio n applications Radiolocation Governmental applications UWB applications	P
8750 – 8850 MHz RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.470 5.471	**8750 – 8850 MHz** RADIOLOCATION AERONAUTICAL RADIONAVIGATION	5.470, RN035, RN049A	Aeronautical navigation Radiodeterminatio n applications Radiolocation Governmental applications UWB applications	P
8850 – 9000 MHz RADIOLOCATION MARITIME RADIONAVIGATION 5.472, 5.473	**8850 – 9000 MHz** RADIOLOCATION RADIONAVIGATION	5.472, RN035, RN049A	Aeronautical navigation Radiodeterminatio n applications Radiolocation Governmental applications UWB applications	P
9000 – 9200 MHz AERONATICAL RADIONAVIGATION 5.337	**9000 – 9200 MHz** AERONATICAL RADIONAVIGATION RADIOLOCATION	5.337, 5.473A, RN035	Aeronautical navigation Radiodeterminatio n applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
RADIOLOCATION 5.471, 5.473A			Radiolocation Governmental applications	
9200 – 9300 MHz EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C RADIOLOCATION MARITIME RADIONAVIGATION 5.472 5.473, 5.474, 5.474D	**9200 – 9300 MHz** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION MARITIME RADIONAVIGATION	5.472, 5.474, 5.474A, 5.474B, 5.474C, 5.474D, RN035	Aeronautical navigation Radiodeterminatio n applications Radiolocation SAR Governmental applications	P
9300 – 9500 MHz RADIONAVIGATION 5.475, EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION 5.427, 5.474, 5.475A, 5.475B, 5.476A	**9300 – 9500 MHz** RADIONAVIGATION EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) RADIOLOCATION	5.427, 5.474, 5.475, 5.475A, 5.475B, 5.476A, RN035	Aeronautical navigation Radiodeterminatio n applications Radiolocation Governmental applications Weather radar	P
9500 – 9800 MHz EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active) 5.476A	**9500 – 9800 MHz** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active)	5.476A, RN035	Active sensors (satellite) Aeronautical navigation Radiodeterminatio n applications Radiolocation Governmental applications	P
9800 – 9900 MHz RADIOLOCATION Earth exploration-satellite (active) Space research (active) Fixed 5.477, 5.478, 5.478A, 5.478B	**9800 – 9900 MHz** RADIOLOCATION Earth exploration-satellite (active) Space research (active) Fixed	5.478A, 5.478B, RN035	Aeronautical navigation Radiodeterminatio n applications Radiolocation Governmental applications	P
9900 – 10000 MHz EARTH EXPLORATION-	**9900 – 10000 MHz** EARTH EXPLORATION-	5.479, 5.474A 5.474B,	Aeronautical navigation Radiodeterminatio n applications	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
SATELLITE (active) 5.474A 5.474B 5.474C RADIOLOCATION Fixed 5.474D, 5.477, 5.478, 5.479	SATELLITE (active) RADIOLOCATION Fixed	5.474C, 5.474D, RN035	Radiolocation SAR Governmental applications	
10 – 10.4 GHz EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474CFIX MOBIL RADIOLOCAȚIE Amateur 5.474D, 5.479	**10 – 10.4 GHz** EARTH EXPLORATION-SATELLITE (active) FIXED MOBILE RADIOLOCATION Amateur	5.479, 5.474A, 5.474B, 5.474C, 5.474D, RN035, RN050, RN050A	Amateur PMSE Radiodeterminatio n applications FWA Fixed Radiolocation SAR	NG
10.4 – 10.45 GHz FIXED MOBILE RADIOLOCATION Amateur	**10.4 – 10.45 GHz** FIXED MOBILE RADIOLOCATION Amateur	RN035, RN050, RN050A	Amateur PMSE Radiodeterminatio n applications Radiolocation Governmental applications	NG
10.45 – 10.5 GHz RADIOLOCATION Amateur Amateur-satellite 5.481	**10.45 – 10.5 GHz** RADIOLOCATION Amateur Amateur-satellite	RN035, RN050 RN050A	Amateur Amateur-satellite PMSE Radiodeterminatio n applications Radiolocation Governmental applications	P
10.5 – 10.55 GHz FIXED MOBILE Radiolocation	**10.5 – 10.55 GHz** FIXED MOBILE Radiolocation	RN035, RN050, RN050A	Fixed PMSE Radiodetermination applications	NG
10.55 – 10.6 GHz FIXED MOBILE except aeronautical mobile Radiolocation	**10.55 – 10.6 GHz** FIXED MOBILE except aeronautical mobile Radiolocation	RN035, RN050, RN050A,	Fixed PMSE Radiodetermination applications	NG
10.6 – 10.68 GHz	**10.6 – 10.68 GHz**	5.149, 5.482,	Fixed	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation 5.149, 5.482, 5.482A	EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation	5.482A, RN035, RN050, RN050A,	PMSE Passive sensors (satellite) Radio astronomy	
10.68 – 10.7 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.483	**10.68 – 10.7 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340, RN035	Passive sensors (satellite) Radio astronomy	NG
10.7 – 10.95 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.441 (Earth-to-space) 5.484 MOBILE except aeronautical mobile	**10.7 – 10.95 GHz** FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) MOBILE except aeronautical mobile	5.441, 5.484, RN035, RN051, RN053B, RN053C, RN053D, RN053E, RN053F, RN053G, RN053H	AES FSS Earth stations ESIM ESV	NG
10.95 – 11.2 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.484A, 5.484B (Earth-to-space) 5.484 MOBILE except aeronautical mobile	**10.95 – 11.2 GHz** FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) MOBILE except aeronautical mobile	5.484, 5.484A, 5.484B, RN035, RN051, RN053B, RN053C, RN053D, RN053E, RN053F, RN053G, RN053H	AES FSS Earth stations Fixed ESIM ESV	NG
11.2 – 11.45 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.441 (Earth-to-space) 5.484	**11.2 – 11.45 GHz** FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space)	5.441, 5.484, RN035, RN051, RN053B, RN053C,	AES FSS Earth stations Fixed ESIM ESV	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
MOBILE except aeronautical mobile	MOBILE except aeronautical mobile	RN053D, RN053E, RN053F, RN053G, RN053H		
11.45 – 11.7 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.484A, 5.484B (Earth-to-space) 5.484 MOBILE except aeronautical mobile	**11.45 – 11.7 GHz** FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) MOBILE except aeronautical mobile	5.484, 5.484A, 5.484B, RN035, RN051, RN053B, RN053C, RN053D, RN053E, RN053F, RN053G, RN053H	AES FSS Earth stations Fixed ESIM ESV	NG
11.7 – 12.5 GHz FIXED BROADCASTING BROADCASTING-SATELLITE MOBILE except aeronautical mobile 5.487, 5.487A, 5.492	**11.7 – 12.5 GHz** FIXED BROADCASTING BROADCASTING-SATELLITE MOBILE except aeronautical mobile	5.487, 5.487A, 5.492, RN035, RN053B, RN053C, RN053D, RN053G, RN053H	Broadcasting (satellite) HEST LEST ESIM NGSO FSS	NG
12.5 – 12.75 GHz FIX PRIN SATELIT (space-to-Earth) 5.484A, 5.484B (Earth-to-space) 5.494, 5.495, 5.496	**12.5 – 12.75 GHz** FIXED-SATELLITE (space-to-Earth) (Earth-to-space)	5.484A, 5.484B, RN053B, RN053C, RN053D, RN053G, RN053H	AES FSS Earth stations HEST LEST ESIM ESV	NG
12.75 – 13.25 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.441, 5.496A MOBILE Space Research (deep space) (space-to-Earth)	**12.75 – 13.25 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Space Research (deep space) (space-to-Earth)	5.441, 5.496ARN052	FSS Earth stations Fixed	NG
13.25 – 13.4 GHz EARTH	**13.25 – 13.4 GHz**	5.497, 5.498A	Active sensors (satellite)	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
EXPLORATION- SATELLITE (active) AERONAUTICAL RADIONAVIGATION 5.497 SPACE RESEARCH (active) 5.498A	EARTH EXPLORATION-SATELLITE (active) AERONAUTICAL RADIONAVIGATION SPACE RESEARCH (active)		Airborne doppler navigation aids Maritime radar	
13.4 – 13.65 GHz EARTH EXPLORATION- SATELLITE (active) FIXED-SATELLITE (space-to- Earth) 5.499A, 5.499B RADIOLOCATION SPACE RESEARCH 5.499C, 5.499D Standard frequency and time signal-satellite (Earth-to-space) 5.499E, 5.500, 5.501, 5.501B	**13.4 – 13.65 GHz** EARTH EXPLORATION-SATELLITE (active) FIXED-SATELLITE (space-to- Earth) RADIOLOCATION SPACE RESEARCH Standard frequency and time signal-satellite (Earth-to-space)	5.499A, 5.499B, 5.499C, 5.499D, 5.499E, 5.501B, RN035, RN053	Active sensors (satellite) Airborne doppler navigation aids Maritime radar Radiodeterminatio n applications Radiolocation (governmental)	P
13.65 – 13.75 GHz EARTH EXPLORATION- SATELLITE (active) RADIOLOCATION SPACE RESEARCH 5.501A Standard frequency and time signal-satellite (Earth-to-space) 5.499, 5.500, 5.501, 5.501B	**13.65 – 13.75 GHz** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH Standard frequency and time signal-satellite (Earth-to-space)	5.501A, 5.501B, RN035	Active sensors (satellite) Airborne doppler navigation aids Maritime radar Radiodeterminatio n applications Radiolocation (governmental)	P
13.75 – 14 GHz FIXED-SATELLITE (Earth-to-space) 5.484A RADIOLOCATION Standard frequency and time signal-satellite (Earth-to-space) Space Research Earth exploration-satellite 5.499, 5.500, 5.501, 5.502, 5.503	**13.75 – 14 GHz** FIXED-SATELLITE (Earth-to-space) RADIOLOCATION Standard frequency and time signal-satellite (Earth-to-space) Space Research Earth exploration-satellite	5.484A, 5.502, 5.503, RN035	FSS Earth stations Maritime radar Passive sensors (satellite) Radiodeterminatio n applications	NG
14 – 14.25 GHz FIXED-SATELLITE	**14 – 14.25 GHz** FIXED-SATELLITE	5.457A, 5.484A,	AES ESV	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
(Earth-to-space) 5.457A, 5.457B, 5.484A, 5.484B, 5.506, 5.506B RADIONAVIGATION 5.504 Mobile-satellite (Earth-to-space) 5.504B, 5.504C, 5.506A Space Research 5.504A, 5.505	(Earth-to-space) RADIONAVIGATION Mobile-satellite (Earth-to-space) Space Research	5.484B, 5.504, 5.504A, 5.504B, 5.506A, RN053B, RN053C, RN053D, RN053G, RN053H	HEST LEST ESIM MSS Earth stations NGSO FSS VSAT	
14.25 – 14.3 GHz FIXED-SATELLITE (Earth-to-space) 5.457A, 5.457B, 5.484A,5.484B, 5.506, 5.506B RADIONAVIGATION 5.504 Mobile-satellite (Earth-to-space) 5.504B, 5.506A, 5.508A Space Research 5.504A, 5.505, 5.508	**14.25 – 14.3 GHz** FIXED-SATELLITE (Earth-to-space) RADIONAVIGATION Mobile-satellite (Earth-to-space) Space Research	5.457A, 5.484A, 5.484B, 5.504, 5.504A, 5.504B, 5.506A, 5.506B, RN053B, RN053C, RN053D, RN053E, RN053F	AES ESV MSS Earth stations VSAT ESIM NGSO FSS	NG
14.3 – 14.4 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.457A, 5.457B 5.484A, 5.484B, 5.506, 5.506B MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B, 5.506A, 5.509A Radionavigation-satellite 5.504A	**14.3 – 14.4 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) Radionavigation-satellite	5.457A, 5.484A, 5.484B, 5.504A, 5.504B, 5.506A, 5.506B, RN053B, RN053C, RN053D, RN053E, RN053F	AES ESV ESIM FSS Earth stations Fixed MSS Earth stations VSAT	NG
14.4 – 14.47 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.484A,5.484B 5.457A, 5.457B, 5.506, 5.506B MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B, 5.506A, 5.509A	**14.4 – 14.47 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) Space Research (space-to-Earth)	5.457A, 5.484A, 5.484B, 5.504A, 5.504B, 5.506A, 5.506B, RN053A, RN053B, RN053C, RN053D,	AES ESV ESIM FSS Earth stations MSS Earth stations VSAT	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
Space Research (space-to-Earth) 5.504A		RN053E, RN053F		
14.47 – 14.5 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.457A, 5.457B, 5.484A, 5.506, 5.506B MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.504B, 5.506A, 5.509A Radio Astronomy 5.149, 5.504A	**14.47 – 14.5 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) Radio Astronomy	5.149, 5.457A, 5.484A, 5.504A, 5.506A, 5.506B, RN053A, RN053B, RN053C, RN053D, RN053E, RN053F	AES ESV ESIM FSS Earth stations MSS Earth stations Radio astronomy VSAT	NG
14.5 – 14.75 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.509B, 5.509C, 5.509D, 5.509E, 5.509F, 5.510 MOBILE Space Research	**14.5 – 14.75 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Space Research	RN053A	Fixed Radio astronomy	NG
14.75 – 14.8 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.510 MOBILE Space Research 5.509G	**14.75 – 14.8 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Space Research	RN053A	Radio astronomy	NG
14.8 – 15.35 GHz FIXED MOBILE Space Research 5.510A, 5.339	**14.8 – 15.35 GHz** FIXED MOBILE Space Research	5.510A, 5.339, RN053A	Fixed Radio astronomy	NG
15.35 – 15.4 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.511	**15.35 – 15.4 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340	Passive sensors (satellite) Radio astronomy	NG
15.4 – 15.41 GHz	**15.4 – 15.41 GHz**			P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
RADIOLOCATION 5.511E, 5.511F AERONAUTICAL RADIONAVIGATION	RADIOLOCATION AERONAUTICAL RADIONAVIGATION	5.511E, 5.511F	Airborne doppler navigation aids Radiolocation	
15.41 – 15.43 GHz RADIOLOCATION 5.511E, 5.511F AERONAUTICAL RADIONAVIGATION Aeronautical mobile (OR) 5.511G	**15.41 – 15.43 GHz** RADIOLOCATION 5.511E, 5.511F AERONAUTICAL RADIONAVIGATION Aeronautical mobile (OR)	5.511E, 5.511F 5.511G	Airborne doppler navigation aids Radiolocation	P
15.43 – 15.63 GHz RADIOLOCATION 5.511E, 5.511F FIXED-SATELLITE (Earth-to-space) 5.511A AERONAUTICAL RADIONAVIGATION Aeronautical mobile (OR) 5.511G 5.511C	**15.43 – 15.63 GHz** RADIOLOCATION FIXED-SATELLITE (Earth-to-space) AERONAUTICAL RADIONAVIGATION Aeronautical mobile (OR)	5.511A, 5.511C, 5.511E, 5.511F, 5.511G	Airborne doppler navigation aids FSS Earth stations Radiolocation	P
15.63 – 15.7 GHz RADIOLOCATION 5.511E, 5.511F AERONAUTICAL RADIONAVIGATION Aeronautical mobile (OR) 5.511G	**15.63 – 15.7 GHz** RADIOLOCATION AERONAUTICAL RADIONAVIGATION Aeronautical mobile (OR)	5.511E, 5.511F, 5.511G	Airborne doppler navigation aids Radiolocation	P
15.7 – 16.6 GHz RADIOLOCATION 5.512, 5.513	**15.7 – 16.6 GHz** RADIOLOCATION		Radiolocation (governmental)	P
16.6 – 17.1 GHz RADIOLOCATION Space Research (deep space) (Earth-to-space) 5.512, 5.513	**16.6 – 17.1 GHz** RADIOLOCATION Space Research (deep space) (Earth-to-space)		Radiolocation (governmental)	P
17.1 – 17.2 GHz RADIOLOCATION 5.512, 5.513	**17.1 – 17.2 GHz** RADIOLOCATION	RN035	GBSAR Radiolocation (governmental)	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
17.2 – 17.3 GHz EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.512, 5.513, 5.513A	**17.2 – 17.3 GHz** EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active)	5.513A, RN035	GBSAR Radiolocation (governmental)	P
17.3 – 17.7 GHz FIXED-SATELLITE (Earth-to-space) 5.516 (space-to-Earth) 5.516A, 5.516B Radiolocation 5.514	**17.3 – 17.7 GHz** FIXED-SATELLITE (Earth-to-space) (space-to-Earth) Radiolocation	5.516, 5.516A, 5.516B, RN054A	FSS Earth stations Feeder links GSO ESOMPs NGSO ESOMPs	NG
17.7 – 18.1 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.517A, 5.517B (Earth-to-space) 5.516 MOBILE	**17.7 – 18.1 GHz** FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) MOBILE	5.484A, 5.516, 5.517A, 5.517B RN054, RN054A	FSS Earth stations Feeder links Fixed GSO ESOMPs NGSO ESOMPs	NG
18.1 – 18.4 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.484A, 5.516B, 5.517A (Earth-to-space) 5.520 INTER-SATELLITE 5.521A MOBILE 5.519, 5.521	**18.1 – 18.4 GHz** FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) INTER-SATELLITE MOBILE	5.484A, 5.516B, 5.517A, 5.521A, 5.519, 5.520, RN054, RN054A	FSS Earth stations Feeder links Fixed GSO ESOMPs NGSO ESOMPs	NG
18.4 – 18.6 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.484A, 5.516B, 5.517A, 5.517B INTER-SATELLITE 5.521A MOBILE	**18.4 – 18.6 GHz** FIXED FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE	5.484A, 5.516B, 5.517A, 5.517B, 5.521A, RN054, RN054A	FSS Earth stations Fixed GSO ESOMPs NGSO ESOMPs	NG
18.6 – 18.8 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE	**18.6 – 18.8 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED	5.517A, 5.522A, 5.522B, 5.522C, RN054,	FSS Earth stations Fixed Passive sensors (satellite) GSO ESOMPs	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
(space-to-Earth) 5.517A, 5.522B MOBILE except aeronautical mobile Space Research (passive) 5.522A, 5.522C	FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile Space Research (passive)	RN054A	NGSO ESOMPs	
18.8 – 19.3 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.516B, 5.517A, 5.523A, 5.517B INTER-SATELLITE 5.521A MOBILE	**18.8 – 19.3 GHz** FIXED FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE	5.516B, 5.517A, 5.517B 5.521A 5.523A, RN054, RN054A	FSS Earth stations Fixed GSO ESOMPs NGSO ESOMPs	NG
19.3 – 19.7 GHz FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.517A, 5.523B, 5.523C, 5.523D, 5.523E INTER-SATELLITE 5.521A, 5.523DAMOBILE	**19.3 – 19.7 GHz** FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) INTER-SATELLITE MOBILE	5.517A, 5.521A, 5.523DA, 5.523B, 5.523C, 5.523D, 5.523E, RN054, RN054A	FSS Earth stations Fixed GSO ESOMPs NGSO ESOMPs	NG
19.7 – 20.1 GHz FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B, 5.516B, 5.517B, 5.527A INTER-SATELLITE 5.521A Mobile-satellite (space-to-Earth) 5.524	**19.7 – 20.1 GHz** FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE Mobile-satellite (space-to-Earth)	5.484A, 5.484B, 5.516B, 5.517B, 5.521A,5.527A, RN053G, RN053H, RN054A	FSS Earth stations GSO ESOMPs HEST LEST MSS Earth stations NGSO ESOMPs	NG
20.1 – 20.2 GHz FIXED-SATELLITE (space-to-Earth) 5.484A, 5.484B, 5.516B, 5.517B, 5.527A INTER-SATELLITE 5.521A MOBILE-SATELLITE (space-to-Earth) 5.524, 5.525, 5.526, 5.527, 5.528	**20.1 – 20.2 GHz** FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE-SATELLITE (space-to-Earth)	5.484A, 5.516B, 5.517B, 5.521A, 5.525, 5.526, 5.527, 5.528, RN053G, RN053H, RN054A	FSS Earth stations GSO ESOMPs HEST LEST MSS Earth stations NGSO ESOMPs	NG
20.2 – 21.2 GHz FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE	**20.2 – 21.2 GHz** FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE	5.529A	MSS Earth stations	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
(space-to-Earth) Standard frequency and time signal-satellite (space-to-Earth) 5.524, 5.529A	(space-to-Earth) Standard frequency and time signal-satellite (space-to-Earth)			
21.2 – 21.4 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	**21.2 – 21.4 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)		PMSE	NG
21.4 – 22 GHz FIXED MOBILE BROADCASTING-SATELLITE 5.208B, 5.530A, 5.530B, 5.530D	**21.4 – 22 GHz** FIXED MOBILE BROADCASTING-SATELLITE	5.208B 5.530A, 5.530B, 5.530D, RN035	Broadcasting (satellite) PMSE SRR	NG
22 – 22.2GHz FIXED MOBILE except aeronautical mobile 5.531A, 5.531B, 5.531C, 5.5531D, 5.531F 5.149	**22 – 22.2 GHz** FIXED MOBILE except aeronautical mobile	5.149, 5.531A, 5.531B, 5.531C, 5.5531D, 5.531F RN035, RN055	Fixed PMSE Radio astronomy SRR	NG
22.2 – 22.21 GHz FIXED MOBILE except aeronautical mobile 5.149	**22.2 – 22.21 GHz** FIXED MOBILE except aeronautical mobile	5.149, RN035, RN055	Fixed PMSE Radio astronomy SRR	G
22.21 – 22.5 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149, 5.532	**22.21 – 22.5 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive)	5.149, 5.532, RN035, RN055	Fixed PMSE Radio astronomy SRR	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
22.5 – 22.55 GHz FIXED MOBILE	**22.5 – 22.55 GHz** FIXED MOBILE	RN035, RN055	Fixed PMSE Radio astronomy SRR	NG
22.55 – 23.15 GHz FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (Earth-to-space) 5.149 5.532A	**22.55 – 23.15 GHz** FIXED INTER-SATELLITE MOBILE SPACE RESEARCH (Earth-to-space)	5.149, 5.338A, 5.532A, RN035, RN055	Fixed PMSE Radio astronomy SRR	NG
23.15 – 23.55 GHz FIXED INTER-SATELLITE 5.338A MOBILE	**23.15 – 23.55 GHz** FIXED INTER-SATELLITE MOBILE	5.338A, RN035, RN055	Fixed PMSE SRR	NG
23.55 – 23.6 GHz FIXED MOBILE	**23.55 – 23.6 GHz** FIXED MOBILE	RN035, RN055	Fixed PMSE SRR	NG
23.6 – 24 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	**23.6 – 24 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340, RN035, RN055	Passive sensors (satellite) Radio astronomy SRR	NG
24 – 24.05 GHz AMATEUR AMATEUR-SATELLITE 5.150	**24 – 24.05 GHz** AMATEUR AMATEUR-SATELLITE	5.150, RN035, RN055	Amateur Amateur-satellite ISM Non-specific SRDs PMSE SRR	NG
24.05 – 24.25 GHz RADIOLOCATION Amateur Earth Exploration-Satellite (active) 5.150	**24.05 – 24.25 GHz** RADIOLOCATION Amateur Earth Exploration-Satellite (active)	5.150, RN035, RN055	Active sensors (satellite) Amateur Governmental applications ISM Non-specific SRDs PMSE	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
			Radiodeterminatio n applications SRR TTT	
24.25 – 24.45 GHz FIXED MOBILE except aeronautical mobile 5.532AB 5.338A	**24.25 – 24.45 GHz** FIXED	5.532AB, 5.338A, RN035, RN055, RN055A	MFCN Fixed PMSE Radiodeterminatio n applications SRR	NG
24.45 – 24.65 GHz FIXED INTER-SATELLITE MOBILE except aeronautical mobile 5.532AB 5.338A	**24.45 – 24.65 GHz** FIXED INTER-SATELLITE	5.532AB, 5.338A, RN035, RN055, RN055A	MFCN PMSE FWA Fixed Radiodeterminatio n applications SRR	NG
24.65 – 24.75 GHz FIXED INTER-SATELLITE FIXED-SATELLITE (Earth-to-space) 5.532B MOBILE except aeronautical mobile 5.532AB 5.338A	**24.65 – 24.75 GHz** FIXED INTER-SATELLITE FIXED-SATELLITE (Earth-to-space)	5.532AB, 5.338A, RN035, RN055, RN055A	MFCN FWA Fixed Radiodeterminatio n applications SRR	NG
24.75 – 25.25 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.532B MOBILE except aeronautical mobile 5.532AB 5.338A	**24.75 – 25.25 GHz** FIXED FIXED-SATELLITE (Earth-to-space)	5.532AB, 5.532B, 5.338A RN035, RN055, RN055A	MFCN FWA Fixed Radiodeterminatio n applications SRR	NG
25.25 – 25. 5 GHz FIXED INTER-SATELLITE 5.536 MOBILE 5.532AB, 5.338A Standard frequency and time signal-satellite (Earth-to-space)	**25.25 – 25. 5 GHz** FIXED INTER-SATELLITE MOBILE Standard frequency and time signal-satellite (Earth-to-space)	5.532AB, 5.536, 5.338A RN035, RN055, RN055A	MFCN FWA Fixed Radiodeterminatio n applications SRR	NG
25.5 – 27 GHz	**25.5 – 27 GHz**	5.532AB	MFCN	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
EARTH EXPLORATION- SATELLITE (space-to-Earth) 5.536B FIXED INTER-SATELLITE 5.536 MOBILE 5.532AB, 5.338A SPACE RESEARCH (space-to-Earth) 5.536C Standard frequency and time signal-satellite (Earth-to-space) 5.536A	EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED INTER-SATELLITE MOBILE SPACE RESEARCH (space-to-Earth) Standard frequency and time signal-satellite (Earth-to-space)	5.536, 5.536A, 5.536B, 5.538A, RN035, RN055, RN055A	BFWA Fixed Radiodeterminatio n applications SRR Space research	
27 – 27. 5 GHz FIXED INTER-SATELLITE 5.536 MOBILE 5.532AB, 5.338A	**27 – 27. 5 GHz** FIXED INTER-SATELLITE MOBILE	5.532AB, 5.536, 5.338A, RN055, RN055A	MFCN Fixed	NG
27.5 – 28. 5 GHz FIXED 5.537A FIXED-SATELLITE (Earth-to-space) 5.484A, 5.516B, 5.517A, 5.517B 5.539 INTER-SATELLITE 5.521A MOBILE 5.538, 5.540	**27.5 – 28. 5 GHz** FIXED FIXED-SATELLITE (Earth-to-space) INTER-SATELLITE MOBILE	5.484A, 5.516B, 5.517A, 5.517B, 5.521A, 5.537A, 5.538, 5.539, 5.540, RN054A RN055, RN056	FWA FSS Earth stations Feeder links Fixed GSO ESOMPs NGSO ESOMPs	NG
28.5 – 29.1 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.484A, 5.516B, 5.517A, 5.517B, 5.523A, 5.539 INTER-SATELLITE 5.521A MOBILE Earth Exploration-Satellite (Earth-to-space) 5.541, 5.540	**28.5 – 29.1 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Earth Exploration-Satellite (Earth-to-space)	5.484A, 5.516B, 5.517A, 5.523A, 5.539, 5.540, 5.541, RN054A, RN055, RN056	FWA FSS Earth stations Feeder links Fixed GSO ESOMPs NGSO ESOMPs	NG
29.1 – 29.5 GHz	**29.1 – 29.5 GHz**	5.516B, 5.517A,	FWA FSS Earth stations	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
FIXED FIXED-SATELLITE (Earth-to-space) 5.516B, 5.517A, 5.523C, 5.523E, 5.535A, 5.539, 5.541A INTER-SATELLITE 5.521A MOBILE Earth Exploration-Satellite (Earth-to-space) 5.541, 5.540	FIXED FIXED-SATELLITE (Earth-to-space) INTER-SATELLITE MOBILE Earth Exploration-Satellite (Earth-to-space)	5.521A, 5.523C, 5.523E, 5.535A, 5.539, 5.540, 5.541, 5.541A, RN054A, RN055, RN056	Feeder links Fixed GSO ESOMPs	
29.5 – 29.9 GHz FIXED-SATELLITE (Earth-to-space) 5.484A, 5.484B, 5.516B, 5.517B, 5.527A, 5.539 INTER-SATELLITE 5.521A Earth Exploration-Satellite (Earth-to-space) 5.541 Mobile-satellite (Earth-to-space) 5.540, 5.542	**29.5 – 29.9 GHz** FIXED-SATELLITE (Earth-to-space) INTER-SATELLITE Earth Exploration-Satellite (Earth-to-space) Mobile-satellite (Earth-to-space)	5.484A, 5.484B, 5.516B, 5.517B, 5.521A, 5.527A, 5.539, 5.540, 5.541, RN053G, RN053H, RN054A	GSO ESOMPs HEST LEST MSS Earth stations NGSO ESOMPs SIT/SUT	NG
29.9 – 30 GHz FIXED-SATELLITE (Earth-to-space) 5.484A, 5.484B, 5.516B, 5.517B, 5.527A, 5.539 INTER-SATELLITE 5.521A MOBILE-SATELLITE (Earth-to-space) Earth Exploration-Satellite (Earth-to-space) 5.541, 5.543 5.525, 5.526, 5.527, 5.538, 5.540, 5.542	**29.9 – 30 GHz** FIXED-SATELLITE (Earth-to-space) INTER-SATELLITE MOBILE-SATELLITE (Earth-to-space) Earth Exploration-Satellite (Earth-to-space)	5.484A, 5.484B, 5.516B, 5.517B, 5.521A, 5.525, 5.526, 5.527, 5.527A, 5.538, 5.539, 5.540, 5.543, RN053G, RN053H, RN054A	FSS Earth stations GSO ESOMPs HEST LEST MSS Earth stations NGSO ESOMPs SIT/SUT	NG
30 – 31 GHz FIXED-SATELLITE	**30 – 31 GHz** FIXED-SATELLITE	5.529A, 5.338A	FSS Earth stations MSS Earth stations	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
(Earth-to-space) 5.338A MOBILE-SATELLITE (Earth-to-space) Standard frequency and time signal-satellite (space-to-Earth) 5.529A, 5.542	(Earth-to-space) MOBILE-SATELLITE (Earth-to-space) Standard frequency and time signal-satellite (space-to-Earth)			
31 – 31.3 GHz FIXED 5.338A, 5.543B MOBILE Standard frequency and time signal-satellite (space-to-Earth) Space Research 5.544, 5.545, 5.149	**31 – 31.3 GHz** FIXED MOBILE Standard frequency and time signal-satellite (space-to-Earth) Space Research	5.149, 5.338A, 5.543B, 5.544, RN057	Fixed Radio astronomy HAPS	NG
31.3 – 31.5 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	**31.3 – 31.5 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340	Passive sensors (satellite) Radio astronomy	NG
31.5 – 31.8 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149, 5.546	**31.5 – 31.8 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) FIXED MOBILE except aeronautical mobile	5.149, 5.546	Fixed Passive sensors (satellite) Radio astronomy	NG
31.8 – 32 GHz FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547, 5.547B, 5.548	**31.8 – 32 GHz** FIXED RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth)	5.547, 5.547A, 5.548, RN050B, RN058	Fixed FWA	P
32 – 32.3 GHz FIXED 5.547A INTER-SATELLITE RADIONAVIGATION	**32 – 32.3 GHz** FIXED INTER-SATELLITE RADIONAVIGATION	5.547, 5.548, RN050B, RN058	Fixed FWA	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
SPACE RESEARCH (deep space) (space-to-Earth) 5.547, 5.547C, 5.548	SPACE RESEARCH (deep space) (space-to-Earth)			
32.3 – 33 GHz FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547, 5.547D, 5.548	**32.3 – 33 GHz** FIXED INTER-SATELLITE RADIONAVIGATION	5.547, 5.548, RN050B, RN058	Fixed FWA	NG
33 – 33.4 GHz FIXED 5.547A RADIONAVIGATION 5.547, 5.547E	**33 – 33.4 GHz** FIXED RADIONAVIGATION	5.547, 5.547A, RN050B, RN058	Fixed FWA	P
33.4 – 34.2 GHz RADIOLOCATION 5.549	**33.4 – 34.2 GHz** RADIOLOCATION		Radiodeterminatio n applications Radiolocation (governmental)	P
34.2 – 34.7 GHz RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space) 5.549	**34.2 – 34.7 GHz** RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space)		Radiodeterminatio n applications Radiolocation (governmental)	P
34.7 – 35.2 GHz RADIOLOCATION Space Research 5.550 5.549	**34.7 – 35.2 GHz** RADIOLOCATION Space Research		Radiodeterminatio n applications Radiolocation (governmental)	P
35.2 – 35.5 GHz METEOROLOGICAL AIDS RADIOLOCATION 5.549	**35.2 – 35.5 GHz** METEOROLOGICAL AIDS RADIOLOCATION		Active sensors (satellite) Radiolocation (governmental)	P
35.5 – 36 GHz EARTH EXPLORATION-SATELLITE (active) METEOROLOGICAL AIDS RADIOLOCATION SPACE RESEARCH (active) 5.549, 5.549A	**35.5 – 36 GHz** EARTH EXPLORATION-SATELLITE (active) METEOROLOGICAL AIDS RADIOLOCATION SPACE RESEARCH (active)	5.549A	Active sensors (satellite)	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
36 – 37 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.149, 5.550A	**36 – 37 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	5.149, 5.550A	Passive sensors (satellite) Radio astronomy	NG
37 – 37.5 GHz FIXED MOBILE except aeronautical mobile 5.550B SPACE RESEARCH (space-to-Earth) 5.547	**37 – 37.5 GHz** FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth)	5.547, 5.550B, RN059	Fixed	NG
37.5 – 38 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.550C, 5.550CA MOBILE excep aeronautical mobile 5.550B SPACE RESEARCH (space-to-Earth) Earth Exploration-Satellite (space-to-Earth) 5.547	**37.5 – 38 GHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (space-to-Earth) Earth Exploration-Satellite (space-to-Earth)	5.547, 5.550B, 5.550C, 5.550CA, RN059	FSS Earth stations Fixed	NG
38 – 39.5 GHz FIXED 5.550D FIXED-SATELLITE (space-to-Earth) 5.550C MOBILE 5.550B Earth Exploration-Satellite (space-to-Earth) 5.547	**38 – 39.5 GHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Earth Exploration-Satellite (space-to-Earth)	5.547, 5.550B, 5.550C, 5.550D, RN059	FSS Earth stations Fixed HAPS	NG
39.5 – 40 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.516B, 5.550C MOBILE 5.550B	**39.5 – 40 GHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE	5.516B, 5.547, 5.550B, 5.550C, RN059	FSS Earth stations	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
MOBILE-SATELLITE (space-to-Earth) Earth Exploration-Satellite (space-to-Earth) 5.547	(space-to-Earth) Earth Exploration-Satellite (space-to-Earth)			
40 – 40.5 GHz EARTH EXPLORATION-SATELLITE (Earth-to-space) FIXED FIXED-SATELLITE (space-to-Earth) 5.516B, 5.550C MOBILE 5.550B MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (Earth-to-space) Earth Exploration-Satellite (space-to-Earth) 5.550E	**40 – 40.5 GHz** EARTH EXPLORATION-SATELLITE (Earth-to-space) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (Earth-to-space) Earth Exploration-Satellite (space-to-Earth)	5.516B, 5.550B, 5.550C, 5.550E, RN059	FSS Earth stations	NG
40.5 – 41 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.550C LAND MOBILE 5.550B BROADCASTING BROADCASTING-SATELLITE Aeronatutical Mobile Maritime Mobile 5.547	**40.5 – 41 GHz** FIXED FIXED-SATELLITE (space-to-Earth) LAND MOBILE BROADCASTING BROADCASTING-SATELLITE Aeronautical Mobile Maritime mobile	5.547, 5.550B, 5.550C, RN060, RN060A	MFCN FSS Earth stations Fixed MWS	NG
41 – 42.5 GHz FIXED FIXED-SATELLITE (space-to-Earth) 5.516B, 5.550C LAND MOBILE 5.550B BROADCASTING BROADCASTING-SATELLITE Aeronautical Mobile Maritime mobile	**41 – 42.5 GHz** FIXED FIXED-SATELLITE (space-to-Earth) LAND MOBILE BROADCASTING BROADCASTING-SATELLITE Aeronautical mobile Maritime mobile	5.516B, 5.547, 5.550B, 5.550C, 5.551H, 5.551I, RN060, RN060A	MFCN FSS Earth stations Fixed MWS	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
5.547, 5.551F, 5.551H, 5.551I				
42.5 – 43.5 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE except aeronautical mobile 5.550B RADIO ASTRONOMY 5.149, 5.547	**42.5 – 43.5 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE except aeronautical mobile RADIO ASTRONOMY	5.149, 5.547, 5.550B, 5.552, RN060, RN060A	MFCN FSS Earth stations Fixed MWS Radio astronomy	NG
43.5 – 47 GHz MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554	**43.5 – 47 GHz** MOBILE MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE	5.553, 5.554	Governmental applications	P
47 – 47.2 GHz AMATEUR AMATEUR-SATELLITE	**47 – 47.2 GHz** AMATEUR AMATEUR-SATELLITE		Amateur Amateur-satellite	NG
47.2 – 47.5 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.550C, 5.552 MOBILE 5.552A	**47.2 – 47.5 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5.550C, 5.552, 5.552A	FSS Earth stations Feeder links HAPS PMSE	NG
47.5-47.9 GHz FIXED FIXED-SATELLITE (Earth-to-space)5.550C, 5.552 (space-to-Earth) 5.516B, 5.554A MOBILE	**47.5-47.9 GHz** FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) MOBILE	5.516B, 5.550C, 5.552, 5.554A	FSS Earth stations Feeder links PMSE	NG
47.9-48.2 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.550C, 5.552 MOBILE 5.552A	**47.9-48.2 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5.550C, 5.552, 5.552A	FSS Earth stations Feeder links HAPS PMSE	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
48.2-48.54 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.550C, 5.552 (space-to-Earth) 5.516B, 5.554A, 5.555B MOBILE	**48.2-48.54 GHz** FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) MOBILE	5.516B, 5.550C, 5.552, 5.554A, 5.555B, RN061	FSS Earth stations Feeder links Fixed PMSE	NG
48.54-49.44 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.550C, 5.552 MOBILE 5.149, 5.340, 5.555	**48.54-49.44 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5.149, 5.340, 5.550C, 5.552, RN061	FSS Earth stations Feeder links Fixed PMSE Radio astronomy	NG
49.44-50.2 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.552, 5.338A, 5.550C (space-to-Earth) 5.516B, 5.554A, 5.555B MOBILE	**49.44-50.2 GHz** FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) MOBILE	5.338A, 5.516B, 5.550C, 5.552, 5.554A, 5.555B, RN061	FSS Earth stations Fixed PMSE	NG
50.2 – 50.4 GHz EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340	**50.2 – 50.4 GHz** EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive)	5.340	Passive sensors (satellite) Radio astronomy	NG
50.4 – 51.4 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.338A, 5.550C MOBILE Mobile-satellite (Earth-to-space)	**50.4 – 51.4 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Mobile-satellite (Earth-to-space)	5.338A, 5.550C	Fixed	NG
51.4 – 52.4 GHz FIXED FIXED-SATELLITE (Earth-to-space) 5.555C MOBILE 5.338A, 5.547, 5.556	**51.4 – 52.4 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE	5.338A, 5.547, 5.555C 5.556, RN062	Fixed Radio astronomy	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
52.4 – 52.6 GHz FIXED 5.338A MOBILE 5.547, 5.556	**52.4 – 52.6 GHz** FIXED MOBILE	5.338A, 5.547. 5.556, RN062	Fixed Radio astronomy	NG
52.6 – 54.25 GHz EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340, 5.556	**52.6 – 54.25 GHz** EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive)	5.340, 5.556	Passive sensors (satellite) Radio astronomy	NG
54.25 – 55.78 GHz EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.556A SPACE RESEARCH (passive) 5.556B	**54.25 – 55.78 GHz** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE SPACE RESEARCH (passive)	5.556A	Passive sensors (satellite)	NG
55.78 – 56.9 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED 5.557A INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547, 5.557	**55.78 – 56.9 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE SPACE RESEARCH (passive)	5.547, 5.556A, 5.557A, 5.558, RN063	Fixed Passive sensors (satellite)	NG
56.9 – 57 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.558A MOBILE 5.558 SPACE RESEARCH (passive) 5.547, 5.557	**56.9 – 57 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE SPACE RESEARCH (passive)	5.547, 5.558, 5.558A, RN063	Fixed Passive sensors (satellite)	NG
57 – 58.2 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558	**57 – 58.2 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE MOBILE	5.547, 5.556A, 5.558, RN035, RN064, RN064A	Fixed Non-specific SRDs Passive sensors (satellite) Radiodeterminatio n applications	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
SPACE RESEARCH (passive) 5.547, 5.557	SPACE RESEARCH (passive)		Wideband data transmission systems	
58.2 – 59 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.547, 5.556	**58.2 – 59 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	5.547, 5.556, RN035, RN064, RN064A	Fixed Non-specific SRDs Passive sensors (satellite) Radio astronomy Radiodeterminatio n applications Wideband data transmission systems	NG
59 – 59.3 GHz EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559	**59 – 59.3 GHz** EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) FIXED INTER-SATELLITE MOBILE RADIOLOCATION	5.556A, 5.558 5.559, RN035, RN064A	Fixed Non-specific SRDs Passive sensors (satellite) Radiodeterminatio n applications Wideband data transmission systems	NG
59.3 – 64 GHz FIXED INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 5.138	**59.3 – 64 GHz** FIXED INTER-SATELLITE MOBILE RADIOLOCATION	5.138, 5.558, 5.559, RN035, RN064A, RN064B	Fixed ISM Non-specific SRDs Radiodeterminatio n applications Wideband data transmission systems ITS	P
64 – 65 GHz FIXED INTER-SATELLITE MOBILE except aeronautical mobile 5.547, 5.556	**64 – 65 GHz** FIXED INTER-SATELLITE MOBILE except aeronautical mobile	5.547, 5.556, RN035, RN065	Fixed Radio astronomy Wideband data transmission systems ITS	NG
65 – 66 GHz EARTH EXPLORATION-SATELLITE SPACE RESEARCH INTER-SATELLITE	**65 – 66 GHz** EARTH EXPLORATION-SATELLITE SPACE RESEARCH	5.547, RN035, RN065	Fixed Land mobile Wideband data transmission systems	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
FIXED MOBILE except aeronautical mobile 5.547	INTER-SATELLITE FIXED MOBILE except aeronautical mobile		ITS	
66 – 71 GHz INTER-SATELLITE MOBILE 5.553, 5.558, 5.559AA MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554	**66 – 71 GHz** MOBILE MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE INTER-SATELLITE	5.553, 5.554, 5.558, 5.559AA, RN065A	MFCN	NG
71 – 74 GHz FIXED FIXED-SATELLITE (space – to-Earth) MOBILE MOBILE-SATELLITE (space – to-Earth)	**71 – 74 GHz** FIXED FIXED-SATELLITE (space – to-Earth) MOBILE MOBILE-SATELLITE (space – to-Earth)	RN066	Fixed	NG
74 – 76 GHz FIXED FIXED-SATELLITE (space – to-Earth) MOBILE BROADCASTING BROADCASTING-SATELLITE Space Research (space-to-Earth) 5.561	**74 – 76 GHz** FIXED FIXED-SATELLITE (space – to-Earth) MOBILE BROADCASTING BROADCASTING-SATELLITE Space Research (space-to-Earth)	5.561, RN035, RN066	Fixed Radiodeterminatio n applications Space research Amateur Amateur-satellite	NG
76 – 77.5 GHz RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space Research (space-to-Earth) 5.149	**76 – 77.5 GHz** RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space Research (space-to-Earth)	5.149, RN035, RN067	Amateur Amateur-satellite Radio astronomy Radiodeterminatio n applications Radiolocation Railway applications SRR TTT	P
77.5 – 78 GHz AMATEUR AMATEUR-SATELLITE	**77.5 – 78 GHz** AMATEUR AMATEUR-SATELLITE	5.149, 5.559B, RN035,	Amateur Amateur-satellite Radio astronomy	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
RADIOLOCATION 5.559B Radio Astronomy Space Research (space-to-Earth) 5.149	RADIOLOCATION Radio Astronomy Space Research (space-to-Earth)	RN067	Radiodeterminatio n applications SRR	
78 – 79 GHz RADIOLOCATION Amateur Amateur-satellite Radio Astronomy Space Research (space-to-Earth) 5.149, 5.560	**78 – 79 GHz** RADIOLOCATION Amateur Amateur-satellite Radio Astronomy Space Research (space-to-Earth)	5.149, 5.560, RN035, RN067	Amateur Amateur-satellite Radio astronomy Radiodeterminatio n applications Radiolocation Radiolocation (governmental) SRR	P
79 – 81 GHz RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space Research (space-to-Earth) 5.149	**79 – 81 GHz** RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space Research (space-to-Earth)	5.149, RN035, RN067	Amateur Amateur-satellite Radio astronomy Radiodeterminatio n applications Radiolocation SRR	P
81 – 84 GHz FIXED 5.338 A FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Space Research (space-to-Earth) 5.149, 5.561A	**81 – 84 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Space Research (space-to-Earth)	5.149, 5.338A, 5.561A, RN035, RN066	Amateur Amateur-satellite Fixed Radio astronomy Radiodetermination applications	NG
84 – 86 GHz FIXED 5.338 A FIXED-SATELLITE (Earth-to-space) 5.561B MOBILE RADIO ASTRONOMY 5.149	**84 – 86 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY	5.149, 5.338A, 5.561B, RN035, RN066	Fixed Radio astronomy Radiodetermination applications	NG
86 – 92 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY	**86 – 92 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY	5.340	Passive sensors (satellite) Radio astronomy	NG

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
SPACE RESEARCH (passive) 5.340	SPACE RESEARCH (passive)			
92 – 94 GHz FIXED 5.338 A MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	**92 – 94 GHz** FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION	5.149, 5.338A, RN068	Fixed Radio astronomy	P
94 – 94.1 GHz RADIOLOCATION EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) Radio astronomy 5.562, 5.562A	**94 – 94.1 GHz** RADIOLOCATION EARTH EXPLORATION-SATELLITE (active) SPACE RESEARCH (active) Radio astronomy	5.562, 5.562A, RN068	Active sensors (satellite) Radio astronomy Space research	P
94.1 – 95 GHz FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	**94.1 – 95 GHz** FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION	5.149, RN068	Fixed Radio astronomy	P
95 – 100 GHz FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION – SATELLITE 5.149, 5.554	**95 – 100 GHz** FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION – SATELLITE	5.149, 5.554	Fixed Radio astronomy	P
100 – 102 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	**100 – 102 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340, 5.341	Passive sensors (satellite) Radio astronomy	P
102 – 105 GHz FIXED MOBILE	**102 – 105 GHz** FIXED MOBILE	5.149, 5.341	Fixed Radio astronomy	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
RADIO ASTRONOMY 5.149, 5.341	RADIO ASTRONOMY			
105 – 109. 5 GHz FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149, 5.341	**105 – 109. 5 GHz** FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive)	5.149, 5.341, 5.562B	Fixed Radio astronomy	P
109. 5 – 111. 8 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	**109. 5 – 111. 8 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340, 5.341	Radio astronomy	P
111. 8 – 114.25 GHz FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149, 5.341	**111. 8 – 114. 25 GHz** FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive)	5.149, 5.341 5.562B	Fixed Radio astronomy	P
114. 25 – 116 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341	**114. 25 – 116 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340, 5.341	Radio astronomy	P
116 – 119.98 GHz EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.341	**116 – 119.98 GHz** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE SPACE RESEARCH (passive)	5.341, 5. 562C	Passive sensors (satellite)	P
119.98 – 122.25 GHz EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive)	**119.98 – 122.5 GHz** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE	5.138, 5.341, 5.562C, RN035	Passive sensors (satellite) Non-specific SRDs	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
5.138, 5.341	SPACE RESEARCH (passive)			
122.25 – 123 GHz FIXED INTER-SATELLITE MOBILE 5.558 Amateur 5.138	**122.25 – 123 GHz** FIXED INTER-SATELLITE MOBILE Amateur	5.138, 5.558, RN035	Amateur Amateur-satellite Non-specific SRDs	P
123 – 130 GHz FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio Astronomy 5.562D 5.149, 5.554	**123 – 130 GHz** FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio Astronomy	5.149, 5.554	Radio astronomy	P
130 – 134 GHz EARTH EXPLORATION-SATELLITE (active) 5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149, 5.562A	**130 – 134 GHz** EARTH EXPLORATION-SATELLITE (active) FIXED INTER-SATELLITE MOBILE RADIO ASTRONOMY	5.149, 5.558, 5.562A, 5.562E	Fixed Radio astronomy	P
134 – 136 GHz AMATEUR AMATEUR-SATELLITE Radio Astronomy	**134 – 136 GHz** AMATEUR AMATEUR-SATELLITE Radio Astronomy		Amateur Amateur-satellite Radio astronomy	NG
136 – 141 GHz RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.149	**136 – 141 GHz** RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite	5.149	Amateur Amateur-satellite Radio astronomy	P
141– 148.5 GHz FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	**141– 148.5 GHz** FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION	5.149	Fixed Radio astronomy	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
148.5 – 151.5 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	**148.5 – 151.5 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340	Passive sensors (satellite) Radio astronomy	P
151.5 – 155.5 GHz FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	**151.5 – 155.5 GHz** FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION	5.149	Fixed Radio astronomy	P
155.5 – 158.5 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149	**155.5 – 158.5 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive)	5.149, 5.385, 5.562B	Fixed Passive sensors (satellite) Radio astronomy	P
158.5 – 164 GHz FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)	**158.5 – 164 GHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)		Fixed	P
164 – 167 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	**164 – 167 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340	Passive sensors (satellite) Radio astronomy	P
167 – 174.5 GHz FIXED FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE 5.558 5.149, 5.562D	**167 – 174.5 GHz** FIXED FIXED-SATELLITE (space-to-Earth) INTER-SATELLITE MOBILE	5.149, 5.558	Fixed Radio astronomy	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
174.5 – 174.8 GHz FIXED INTER-SATELLITE MOBILE 5.558	**174.5 – 174.8 GHz** FIXED INTER-SATELLITE MOBILE	5.558	Fixed	P
174.8 – 182 GHz EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)	**174.8 – 182 GHz** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE SPACE RESEARCH (passive)	5.562H	Passive sensors (satellite)	P
182 – 185 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	**182 – 185 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340	Passive sensors (satellite) Radio astronomy	P
185 – 190 GHz EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)	**185 – 190 GHz** EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE SPACE RESEARCH (passive)	5.562H	Passive sensors (satellite)	P
190 – 191.8 GHz EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340	**190 – 191.8 GHz** EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive)	5.340	Passive sensors (satellite) Radio astronomy	P
191.8 – 200 GHz FIXED INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149,5.341, 5.554	**191.8 – 200 GHz** FIXED INTER-SATELLITE MOBILE MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE	5.149, 5.341, 5.554, 5.558	Radio astronomy	P
200 – 202 GHz	**200 – 202 GHz**	5.340, 5.341, 5.563A	Earth exploration-satellite	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341, 5.563A	EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)		Radio astronomy	
202 – 209 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.341, 5.563A	**202 – 209 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340, 5.341, 5.563A	Earth exploration-satellite Radio astronomy	P
209 – 217 GHz FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149, 5.341	**209 – 217 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY	5.149, 5.341	Radio astronomy	P
217 – 226 GHz FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149, 5.341	**217 – 226 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive)	5.149, 5.341, 5.562B	Radio astronomy	P
226 – 231.5 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	**226 – 231.5 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340	Passive sensors (satellite) Radio astronomy	P
231.5 – 232 GHz FIXED MOBILE Radiolocation	**231.5 – 232 GHz** FIXED MOBILE Radiolocation			P
232 – 235 GHz FIXED FIXED-SATELLITE	**232 – 235 GHz** FIXED FIXED-SATELLITE			P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
(space-to-Earth) MOBILE Radiolocation	(space-to-Earth) MOBILE Radiolocation			
235 – 238 GHz EARTH EXPLORATION-SATELLITE (passive) 5.563AA FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive) 5.563A, 5.563B	**235 – 238 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) MOBILE SPACE RESEARCH (passive)	5.563A, 5.563AA, 5.563B	Passive sensors (satellite) Radio astronomy	P
238 – 239.2 GHz FIXED FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION – SATELLITE	**238 – 239.2 GHz** FIXED FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION – SATELLITE		Passive sensors (satellite)	P
239.2 – 240 GHz EARTH EXPLORATION-SATELLITE (passive) FIXED-SATELLITE (space-to-Earth) RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE	**239.2 – 240 GHz** EARTH EXPLORATION-SATELLITE (passive) FIXED-SATELLITE (space-to-Earth) RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE		Passive sensors (satellite)	P
240 – 241 GHz EARTH EXPLORATION-SATELLITE (passive)RADIOLOCATION	**240 – 241 GHz** EARTH EXPLORATION-SATELLITE (passive)RADIOLOCATION		Passive sensors (satellite)	P
241 – 242.2 GHz RADIO ASTRONOMY RADIOLOCATION Amateur	**241 – 242.28 GHz** RADIO ASTRONOMY RADIOLOCATION Amateur	5.149,	Amateur Amateur-satellite Radio astronomy	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
Amateur-satellite 5.138, 5.149	Amateur-satellite			
242.2 – 244.2 GHz RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.138, 5.149	**242.2 – 244.2 GHz** RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite	5.138, 5.149 RN035	Amateur Amateur-satellite Non-specific SRDs Radio astronomy	P
244.2 – 247.2 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.138, 5.149	**244.2 – 247.2 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite	5.138, 5.149 RN035	Passive sensors (satellite) Amateur Amateur-satellite Radio astronomy	P
247.2 – 248 GHz RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.149	**247.2 – 248 GHz** RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite	5.149	Amateur Amateur-satellite Radio astronomy	P
248 – 250 GHz AMATEUR AMATEUR-SATELLITE Radio Astronomy 5.149	**248 – 250 GHz** AMATEUR AMATEUR-SATELLITE Radio Astronomy	5.149	Amateur Amateur-satellite Radio astronomy	NG
250 – 252 GHz EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340, 5.563A	**250 – 252 GHz** EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive)	5.340, 5.563A	Earth exploration-satellite Radio astronomy	P
252 – 265 GHz FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY	**252 – 265 GHz** FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY	5.149, 5.554	Radio astronomy	P

Region 1	National allocation			
Frequency band – services - footnotes	**Frequency band - services**	**Footnotes**	**Possible apllications**	**Category**
RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149, 5.554	RADIONAVIGATION RADIONAVIGATION-SATELLITE			
265 – 275 GHz FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149, 5.563A	**265 – 275 GHz** FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY	5.149, 5.563A	Radio astronomy	P
275 – 3000 GHz (Not allocated) 5.564A, 5.565	**275 – 3000 GHz** (Not allocated)	5.565		

Annex 1

Relevant footnotes (Extract from Article 5 of the Radio Regulations)

5.53	Administrations authorizing the use of frequencies below 8.3 kHz shall ensure that no harmful interference is caused to services to which the bands above 8.3 kHz are allocated. (WRC-12)
5.54	Administrations conducting scientific research using frequencies below 8.3 kHz are urged to advise other administrations that may be concerned in order that such research may be afforded all practicable protection from harmful interference. (WRC-12)
5.54A	Use of the 8.3-11.3 kHz frequency band by stations in the meteorological aids service is limited to passive use only. In the band 9-11.3 kHz, meteorological aids stations shall not claim protection from stations of the radionavigation service submitted for notification to the Bureau prior to 1 January 2013. For sharing between stations of the meteorological aids service and stations in the radionavigation service submitted for notification after this date, the most recent version of Recommendation ITU-R RS.1881 should be applied. (WRC-12)
5.56	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, Kyrgyzstan, Tajikistan and Turkmenistan, the frequencies 25 kHz and 50 kHz will be used for this purpose under the same conditions.
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.
5.60	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.
5.67A	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**.

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.
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.
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.
5.79	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. Also, these bands can be used for NAVDAT system, according to the latest version of ITU-R M.2010 Recommendation, being the subject to the provisions of the agreement between the affected administrations. NAVDAT broadcasting stations are limited to coastal stations.
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)**).
5.80A	The maximum equivalent isotropically radiated power (e.i.r.p.) of stations in the amateur service using frequencies in the band 472-479 kHz shall not exceed 1 W. Administrations may increase this limit of e.i.r.p. to 5 W in portions of their territory which are at a distance of over 800 km from the borders of Algeria, Saudi Arabia, Azerbaijan, Bahrain, Belarus, China, Comoros, Djibouti, Egypt, United Arab Emirates, the Russian Federation, Iran (Islamic Republic of), Iraq, Jordan, Kazakhstan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Oman, Uzbekistan, Qatar, Syrian Arab Republic, Kyrgyzstan, Somalia, Sudan, Tunisia, Ukraine and Yemen. In this frequency band, stations in the amateur service shall not cause harmful interference to, or claim protection from, stations of the aeronautical radionavigation service. (WRC-12)
5.82	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 frequency 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.

	In using the frequency band 472-479 kHz for the amateur service, administrations shall ensure that no harmful interference is caused to the frequency 490 kHz. (WRC-12)
5.82A	The use of the band 495-505 kHz is limited to radiotelegraphy. (WRC-07)
5.82B	Administrations authorizing the use of frequencies in the band 495-505 kHz by services other than the maritime mobile service shall ensure that no harmful interference is caused to the maritime mobile service in this band or to the services having allocations in the adjacent bands, noting in particular the conditions of use of the frequencies 490 kHz and 518 kHz, as prescribed in Articles **31** and **52**.
5.82C	The 495-505 kHz frequency band is used for the international NAVDAT system, in accordance with the latest version of ITU-R Recommendation M.2010. NAVDAT broadcast stations are limited to coastal stations.
5.82D	When establishing coast stations in the NAVDAT system on the frequencies 500 kHz and 4 226 kHz, the conditions for the use of the frequencies 500 kHz and 4 226 kHz are prescribed in Articles 31 and 52. Administrations are strongly recommended to coordinate the NAVDAT systems operating characteristics in accordance with the procedures of the International Maritime Organization (IMO) (see Resolution 364 (WRC-23)). (WRC-23)
5.84	The conditions for the use of the frequency 518 kHz by the maritime mobile service are prescribed in Articles 31 and 52.
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 of 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.
5.96	In Germany, Armenia, Austria, Azerbaijan, Belarus, Denmark, Estonia, the Russian Federation, Finland, Georgia, Hungary, Ireland, Iceland, Israel, Kazakhstan, Latvia, Liechtenstein, Lithuania, Malta, Moldova, Norway, Uzbekistan, Poland, Kyrgyzstan, Slovakia, the Czech Rep., the United Kingdom, Sweden, Switzerland, Tajikistan, Turkmenistan and Ukraine, administrations may allocate up to 200 kHz to their amateur service in the 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)
5.100	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 1 850-2 045 kHz, 2 194-2 498 kHz, 2 502-2 625 kHz and 2 650-2 850 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.
5.108	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.
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 used for the automatic connection system (ACS), as described in the most recent version of Recommendation ITU-R M.541. (WRC-23)
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 thesecases emissions must be confined in a band of ±3 kHz about the frequency.
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.
5.115	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.
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 aiddevices which are designed to operate over short distances within the induction field.
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).
5.130	The conditions for the use of the carrier frequencies 4 125 kHz and 6 215 kHz are prescribed in Articles 31 and 52.
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.
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 Appendices 15 and 17). (WRC-23)
5.132B	*Alternative allocation:* in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency band 4 438-4 488 kHz is allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. (WRC-12)
5.133A	*Alternative allocation:* in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency bands 5 250-5 275 kHz and 26 200-26 350 kHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)
5.133B	Stations in the amateur service using the frequency band 5 351.5-5 366.5 kHz shall not exceed a maximum radiated power of 15 W (e.i.r.p.). However, in Region 2 in Mexico, stations in the amateur service using the frequency band 5 351.5-5 366.5 kHz shall not exceed a maximum radiated power of 20 W (e.i.r.p.). In the following Region 2 countries: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Dominica, El Salvador, Ecuador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, Saint Kitts and Nevis, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Uruguay, Venezuela, as well as the overseas territories of the Netherlands in Region 2, stations in the amateur service using the frequency band 5 351.5-5 366.5 kHz shall not exceed a maximum radiated power of 25 W (e.i.r.p.). (WRC-15)
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-19).
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.
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.
5.137A	The frequencies 6 337.5 kHz, 8 443 kHz, 12 663.5 kHz, 16 909.5 kHz and 22 450.5 kHz are the regional frequencies for the transmission of maritime safety information (MSI) by means of the NAVDAT system (see Appendices 15 and 17). (WRC-23)

5.138	The following bands: 6765-6 795 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 authorization 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.
5.138A	Until 29 March 2009, the band 6 765-7 000 kHz is allocated to the fixed service on a primary basis and to the land mobile service on a secondary basis. After this date, this band is allocated to the fixed and the mobile except aeronautical mobile (R) services on a primary basis.
5.141C	In Regions 1 and 3, the band 7 100-7 200 kHz is allocated to the broadcasting service until 29 March 2009 on a primary basis.
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.
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.
5.143E	Until 29 March 2009, the band 7 450-8 100 kHz is allocated to the fixed service on a primary basis and to the land mobile service on a secondary basis.
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.
5.145B	*Alternative allocation:* in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency bands 9 305-9 355 kHz and 16 100-16 200 kHz are allocated to the fixed service on a primary basis. (WRC-12)
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.
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, 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).
5.149A	*Alternative allocation:* in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency band 13 450-13 550 kHz is allocated to the fixed service on a primary basis and to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-12)
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), 2400-2 500 MHz (centre frequency 2 450 MHz), 5725-5 875 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.

5.155	*Additional allocation:* in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Moldova, 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.
5.155A	In Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Moldova, , 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.
5.155B	The band 21 870-21 924 kHz is used by the fixed service for provision of services related to aircraft flight safety.
5.156A	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, Belarus, Moldova and Kyrgyzstan, the frequency band 24 450-24 600 kHz is allocated to the fixed and land mobile services on a primary basis. (WRC-12)
5.159	*Alternative allocation:* in Armenia, Belarus, Moldova and Kyrgyzstan, the frequency band 39-39.5 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-12)
5.159A	The use of the frequency band 40-50 MHz by the Earth exploration-satellite service (active) shall be in accordance with the geographical area restrictions and the operational and technical conditions defined in Resolution 677 (WRC-23). 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-23)
5.161B	*Alternative allocation:* in Albania, Germany, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Cyprus, Vatican, Croatia, Denmark, Spain, Estonia, Finland, France, Greece, Hungary, Ireland, Iceland, Italy, Latvia, North Macedonia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Norway, Uzbekistan, Netherlands, Portugal, Kyrgyzstan, Slovakia, Czech Rep., Romania, United Kingdom, San Marino, Slovenia, Sweden, Switzerland, Turkey and Ukraine, the frequency band 42-42.5 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-15)
5.163	*Additional allocation:* in Armenia, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Moldova, Uzbekistan, Kyrgyzstan, Slovakia, the Czech Rep., 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.
5.166B	In Region 1, stations in the amateur service operating on a secondary basis shall not cause harmful interference to, or claim protection from, stations of the broadcasting service. The field strength generated by an amateur station in Region 1 in the frequency band 50-52 MHz shall not exceed a calculated value of +6 dB(μV/m) at a height of 10 m above

	ground for more than 10% of time along the border of a country with operational analogue broadcasting stations in Region 1 and of neighboring countries with broadcasting stations in Region 3 listed in Nos. 5.167 and 5.168. (WRC-19)
5.166C	In Region 1, stations in the amateur service in the frequency band 50-52 MHz, with the exception of those countries listed in No. 5.169, shall not cause harmful interference to, or claim protection from, wind profiler radars operating in the radiolocation service under No. 5.162A. (WRC-19)
5.169B	Except countries listed under No. 5.169, stations in the amateur service used in Region 1, in all or part of the 50-54 MHz frequency band, shall not cause harmful interference to, or claim protection from, stations of other services used in accordance with the Radio Regulations in Algeria, Armenia, Azerbaijan, Belarus, Egypt, Russian Federation, Iran (Islamic Republic of), Iraq, Kazakhstan, Kyrgyzstan, Libya, Uzbekistan, Palestine* , the Syrian Arab Republic, Sudan, Tunisia and Ukraine. The field strength generated by an amateur station in the frequency band 50-54 MHz shall not exceed a value of +6 dB(μV/m) at a height of 10 m above ground for more than 10% of time along the borders of the countries listed in this provision. (WRC-19)
5.175	*Alternative allocation:* in Armenia, Belarus, the Russian Federation, Kazakhstan, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the frequency bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting service on a primary basis. In Latvia and Lithuania, the frequency bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting and mobile, except aeronautical mobile, services on a primary basis. In Mongolia, the frequency band 76-87.5 MHz is allocated to the broadcasting service on a primary basis; the stations of the broadcasting service shall not cause harmful interference to, or claim protection from, existing or planned fixed and mobile stations in the neighbouring countries. The services to which these frequency 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-23)
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.
5.197A	*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-23). 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.
5.198A	The use of the frequency band 117.975-137 MHz by the aeronautical mobile-satellite (R) service is subject to coordination under No. 9.11A. No. 9.16 does not apply. Such use shall be limited to non-geostationary-satellite systems operated in accordance with international aeronautical standards. Resolution 406 (WRC-23) applies. (WRC-23)
5.198B	

	The use of the frequency band 117.975-137 MHz by the aeronautical mobile (R) service shall have priority over use by the aeronautical mobile-satellite (R) service. (WRC-23)
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 and the aeronautical mobile-satellite service. (WRC-23).
5.203C	The use of the space operation service (space-to-Earth) with non-geostationary satellite short-duration mission systems in the frequency band 137-138 MHz is subject to Resolution 660 (WRC-19). Resolution 32 (WRC-19) applies. These systems shall not cause harmful interference to, or claim protection from, the existing services to which the frequency band is allocated on a primary basis. (WRC-19)
5.206	*Different category of service:* in Armenia, Azerbaijan, Belarus, Bulgaria, Egypt, the Russian Federation, Finland, France, Georgia, Greece, Kazakhstan, Lebanon, Moldova, Mongolia, Uzbekistan, Poland, Kyrgyzstan, the Syrian Arab Republic, Slovakia, the Czech Rep., Romania, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 137-138 MHz to the aeronautical mobile (OR) service is on a primary basis (see No. 5.33). (WRC-2000)
5.208	The use of the band 137-138 MHz by the mobile-satellite service is subject to coordination under No. 9.11A.
5.208A	In making assignments to space stations in the mobile-satellite service in the frequency bands 137- 138 MHz, 387-390 MHz and 400.15-401 MHz and in the maritime mobile-satellite service (space-to-Earth) in the frequency bands 157.1875-157.3375 MHz and 161.7875-161.9375 MHz, administrations shall take all practicable steps to protect the radio astronomy service in the frequency bands 150.05-153 MHz, 322-328.6 MHz, 406.1-410 MHz and 608-614 MHz from harmful interference from unwanted emissions as shown in the most recent version of Recommendation ITU-R RA.769. (WRC-19)
5.208B	In the frequency bands: 137-138 MHz, 157.1875-157.3375 MHz, 161.7875-161.9375 MHz, 387-390 MHz, 400.15-401 MHz, 1 452-1 492 MHz, 1 525-1 610 MHz, 1 613.8-1 626.5 MHz, 2 655-2 690 MHz, 21.4-22 GHz, Resolution 739 (Rev.WRC-19) applies. (WRC-19)
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.

5.209A	The use of the frequency band 137.175-137.825 MHz by non-geostationary-satellite systems in the space operation service identified as short-duration mission in accordance with Appendix 4 is not subject to No. 9.11A. (WRC-19)
5.218	*Additional allocation:* the band 148-149.9 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under No. 9.21. The bandwidth of any individual transmission shall not exceed ± 25 kHz.
5.218A	The frequency band 148-149.9 MHz in the space operation service (Earth-to-space) may be used by nongeostationary-satellite systems with short-duration missions. Non-geostationary-satellite systems in the space operation service used for a short-duration mission in accordance with Resolution 32 (WRC-19) of the Radio Regulations are not subject to agreement under No. 9.21. At the stage of coordination, the provisions of Nos. 9.17 and 9.18 also apply. In the frequency band 148-149.9 MHz, non-geostationary-satellite systems with short-duration missions shall not cause unacceptable interference to, or claim protection from, existing primary services within this frequency band, or impose additional constraints on the space operation and mobile-satellite services. In addition, earth stations in non-geostationary-satellite systems in the space operation service with short-duration missions in the frequency band 148-149.9 MHz shall ensure that the power flux-density does not exceed −149 dB(W/(m2 4 kHz)) for more than 1% of time at the border of the territory of the following countries: Armenia, Azerbaijan, Belarus, China, Korea (Rep. of), Cuba, Russian Federation, India, Iran (Islamic Republic of), Japan, Kazakhstan, Malaysia, Uzbekistan, Kyrgyzstan, Thailand and Viet Nam. In case this power flux-density limit is exceeded, agreement under No. 9.21 is required to be obtained from countries mentioned in this footnote. (WRC-19)
5.219	The use of the frequency band 148-149.9 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. The mobile-satellite service shall not constrain the development and use of the fixed, mobile and space operation services in the frequency band 148-149.9 MHz. The use of the frequency band 148-149.9 MHz by nongeostationary-satellite systems in the space operation service identified as short-duration mission is not subject to No. 9.11A. (WRC-19)
5.220	The use of the bands 149.9-150.05 MHz and 399.9-400.05 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. 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.
5.221	Stations of the mobile-satellite service in the frequency band 148-149.9 MHz shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations in the following countries: Albania, Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Brunei Darussalam, Bulgaria, Cameroon, China, Cyprus, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Croatia, Cuba, Denmark, Djibouti, Egypt, the United Arab Emirates, Eritrea, Spain, Estonia, Eswatini, Ethiopia, the Russian Federation, Finland, France, Gabon, Georgia, Ghana, Greece, Guinea, Guinea Bissau, Hungary, India, Iran (Islamic Republic of), Ireland, Iceland, Israel, Italy, Jamaica, Japan, Jordan, Kazakhstan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malaysia, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Mozambique, Namibia, Norway, New Zealand, Oman, Uganda, Uzbekistan, Pakistan, Panama, Papua New Guinea, Paraguay, the Netherlands, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Kyrgyzstan, Dem. People's Rep. of Korea,

	Slovakia, Romania, the United Kingdom, Senegal, Serbia, Sierra Leone, Singapore, Slovenia, Somalia, Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Tanzania, Chad, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Viet Nam, Yemen, Zambia and Zimbabwe. (WRC-19)
5.225A	*Additional allocation:* in Algeria, Armenia, Azerbaijan, Belarus, China, 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(ЂV/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 Ѓ6 dB (*N* = Ѓ161 dBW/4 kHz), or Ѓ10 dB for applications with greater protection requirements, such as public protection and disaster relief (PPDR (*N* = Ѓ161 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, 162.0125-62.0375 MHz, out-of-band e.i.r.p. of space surveillance radars shall not exceed Ѓ16 dBW. Frequency assignments to the radiolocation service under this allocation in Ukraine shall not be used without the agreement of Moldova. (WRC-12)
5.226	The frequency 156.525 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. 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. In the bands 156-156.4875MHz, 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.
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.

5.228	The use of the frequency bands 156.7625-156.7875 MHz and 156.8125-156.8375 MHz by the mobilesatellite service (Earth-to-space) is limited to the reception of automatic identification system (AIS) emissions of longrange AIS broadcast messages (Message 27, see the most recent version of Recommendation ITU-R M.1371). With the exception of AIS emissions, emissions in these frequency bands by systems operating in the maritime mobile service for communications shall not exceed 1 W. (WRC-12)
5.228A	The frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz may be used by aircraft stations for the purpose of search and rescue operations and other safety-related communications. (WRC-12)
5.228AA	The use of the frequency bands 161.9375-161.9625 MHz and 161.9875-162.0125 MHz by the maritime mobile-satellite (Earth-to-space) service is limited to the systems which operate in accordance with Appendix **18**. (WRC-15)
5.228AB	The use of the frequency bands 157.1875-157.3375 MHz and 161.7875-161.9375 MHz by the maritime mobile-satellite service (Earth-to-space) is limited to non-geostationary-satellite systems operating in accordance with Appendix 18. (WRC-19)
5.228AC	The use of the frequency bands 157.1875-157.3375 MHz and 161.7875-161.9375 MHz by the maritime mobile-satellite service (space-to-Earth) is limited to non-geostationary-satellite systems operating in accordance with Appendix 18. Such use is subject to agreement obtained under No. 9.21 with respect to the terrestrial services in Azerbaijan, Belarus, China, Korea (Rep. of), Cuba, the Russian Federation, the Syrian Arab Republic, the Dem. People's Rep. of Korea, South Africa and Viet Nam. (WRC-19)
5.228B	The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the fixed and land mobile services shall not cause harmful interference to, or claim protection from, the maritime mobile service. (WRC-12)
5.228C	The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the maritime mobile service and the mobile-satellite (Earth-to-space) service is limited to the automatic identification system (AIS) ,including AIS search and rescue transmitters (AIS-SART) and satellite emergency position indicating radio beacons with AIS (EPIRB-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, AIS-SART and EPIRB-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. (WRC-23)
5.228F	The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the mobilesatellite service (Earth-to-space) is limited to the reception of automatic identification system emissions from stations operating in the maritime mobile service. (WRC-12)
5.254	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.
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.
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).
5.260A	In the frequency band 399.9-400.05 MHz, the maximum e.i.r.p. of any emission of earth stations in the mobile-satellite service shall not exceed 5 dBW in any 4 kHz band and the maximum e.i.r.p. of each earth station in the mobile-satellite service shall not exceed 5 dBW in the whole 399.9-400.05 MHz frequency band. Until 22 November 2022, this limit shall not apply to satellite systems for which complete notification information has been received by the Radiocommunication Bureau by 22 November 2019 and that have been brought into use by that date. After 22 November 2022, these limits shall apply to all systems within the mobile-satellite service operating in this frequency band. In the frequency band 399.99-400.02 MHz, the e.i.r.p. limits as specified above shall apply after 22 November 2022 to all systems within the mobile-satellite service. Administrations are requested that their mobilesatellite service satellite links in the 399.99-400.02 MHz frequency band comply with the e.i.r.p. limits as specified above, after 22 November 2019. (WRC-19)
5.260B	In the frequency band 400.02-400.05 MHz, the provisions of No. 5.260A are not applicable for telecommand uplinks within the mobile-satellite service. (WRC-19)
5.261	Emissions shall be confined in a band of $\pm$ 25 kHz about the standard frequency 400.1 MHz.
5.262	*Additional allocation:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Botswana, Colombia, Cuba, Egypt, the United Arab Emirates, Ecuador, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Liberia, Malaysia, Moldova, Oman, Uzbekistan, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, Kyrgyzstan, Singapore, Somalia, Tajikistan, Chad, Turkmenistan and Ukraine, the band 400.05-401 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)
5.263	The band 400.15-401 MHz is also allocated to the space research service in the space-to-space direction for communications with manned space vehicles. In this application, the space research service will not be regarded as a safety service.
5.264	The use of the band 400.15-401 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. The power flux-density limit indicated in Annex 1 of Appendix 5 shall apply until such time as a competent world radiocommunication conference revises it.
5.264A	

	In the frequency band 401-403 MHz, the maximum e.i.r.p. of any emission of each earth station in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 22 dBW in any 4 kHz band for geostationary-satellite systems and non-geostationary-satellite systems with an orbit of apogee equal or greater than 35 786 km. The maximum e.i.r.p. of any emission of each earth station in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 7 dBW in any 4 kHz band for non-geostationary-satellite systems with an orbit of apogee lower than 35 786 km. The maximum e.i.r.p. of each earth station in the meteorological-satellite service and the Earth explorationsatellite service shall not exceed 22 dBW for geostationary-satellite systems and non-geostationary-satellite systems with an orbit of apogee equal or greater than 35 786 km in the whole 401-403 MHz frequency band. The maximum e.i.r.p. of each earth station in the meteorological-satellite service and the Earth exploration-satellite service shall not exceed 7 dBW for non-geostationary-satellite systems with an orbit of apogee lower than 35 786 km in the whole 401-403 MHz frequency band. Until 22 November 2029, these limits shall not apply to satellite systems for which complete notification information has been received by the Radiocommunication Bureau by 22 November 2019 and that have been brought into use by that date. After 22 November 2029, these limits shall apply to all systems within the meteorological-satellite service and the Earth exploration-satellite service operating in this frequency band. (WRC-19)
5.264B	Non-geostationary-satellite systems in the meteorological-satellite service and the Earth explorationsatellite service for which complete notification information has been received by the Radiocommunication Bureau before 28 April 2007 are exempt from provisions of No. 5.264A and may continue to operate in the frequency band 401.898- 402.522 MHz on a primary basis without exceeding a maximum e.i.r.p. level of 12 dBW. (WRC-23)
5.265	In the frequency band 403-410 MHz, Resolution **205 (Rev.WRC-15)** applies. (WRC-19).
5.266	The use of the band 406-406.1 MHz by the mobile-satellite service is limited to low power satellite emergency position-indicating radiobeacons (see also Article 31).
5.267	Any emission capable of causing harmful interference to the authorized uses of the band 406-406.1 MHz is prohibited.
5.268	Use of the frequency band 410-420 MHz by the space research service is limited to space-to-space communication links with an orbiting, manned space vehicle. The power flux-density at the surface of the Earth produced by emissions from transmitting stations of the space research service (space-to-space) in the frequency band 410-420 MHz shall not exceed −153 dB(W/m2) for $0° \le \delta \le 5°$, -153 + 0,077 (δ-5) dB(W/m^2) for $5° \le \delta \le 70°$ and −148 dB(W/m2) for $70° \le \delta \le 90°$, where δ is the angle of arrival of the radio-frequency wave and the reference bandwidth is 4 kHz. In this frequency band, stations of the space research service (space-to-space) shall not claim protection from, nor constrain the use and development of, stations of the fixed and mobile services. No. **4.10** does not apply. (WRC-15)
5.277	*Additional allocation:* in Angola, Armenia, Azerbaijan, Belarus, Cameroon, Congo (Rep. of the), Djibouti, the Russian Federation, Georgia, Hungary, Israel, Kazakhstan, Mali, Moldova, 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.

5.279A	The use of the frequency band 432-438 MHz by sensors in the Earth exploration-satellite service (active) shall be in accordance with Recommendation ITU-R RS.1260-2. Additionally, the Earth exploration-satellite service (active) in the frequency band 432-438 MHz shall not cause harmful interference to the aeronautical radionavigation service in China. The provisions of this footnote in no way diminish the obligation of the Earth exploration-satellite service (active) to operate as a secondary service in accordance with Nos. 5.29 and 5.30. (WRC-19)
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 authorizing 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.
5.286	The band 449.75-450.25 MHz may be used for the space operation service (Earth-to-space) and the space research service (Earth-to-space), subject to agreement obtained under No. 9.21.
5.286A	The use of the bands 454-456 MHz and 459-460 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. (WRC-97)
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-15). 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.
5.287	Use of the frequency bands 457.5125-457.5875 MHz and 467.5125-467.5875 MHz by the maritime mobile service is limited to on-board communication stations. The characteristics of the equipment and the channelling arrangement shall be in accordance with Recommendation ITU-R M.1174-4. The use of these frequency bands in territorial waters is subject to the national regulations of the administration concerned. (WRC-19)
5.289	Earth exploration-satellite service applications, other than the meteorological-satellite service, may also be used in the bands 460-470 MHz and 1 690-1 710 MHz for space-to-Earth transmissions subject to not causing harmful interference to stations operating in accordance with the Table.
5.295A	*Additional allocation:* in Albania, Germany, Andorra, Austria, Belgium, Bosnia and Herzegovina, Bulgaria, Cyprus, Vatican, Croatia, Denmark, Estonia, Finland, France, Georgia, Greece, Hungary, Ireland, Iceland, Latvia, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malta, Moldova, Monaco, Montenegro, Norway, Uzbekistan, Kingdom of the Netherlands, Poland, Portugal, Türkiye, Slovakia, the Czech Republic, Romania, the United Kingdom, San Marino, Serbia, Slovenia, Sweden, Switzerland and Ukraine, the frequency band 470-694 MHz is allocated to the mobile, except aeronautical mobile, service on a secondary basis, subject to agreement obtained under No. 9.21. For the protection of the broadcasting service, stations in the mobile service shall not create a field strength for more than 1% of the time at the highest of the clutter height or 10 m above ground level at the border of the territory of any other administration that

	exceeds the field strength value as calculated using § 4.1.3.2 of Annex 2 to the GE06 Agreement with regard to allowance for multiple interference, Table A.1.10 and the methodology given in the GE06 Agreement. These limits may be exceeded on the territory of any country whose administration has so agreed. This allocation shall in no way adversely affect the broadcast development or undermine new entries of the broadcasting service to the GE06 Plan. (WRC-23)
5.296	Additional allocation: in Albania, Algeria, Germany, Angola, Saudi Arabia, Austria, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cameroon, Vatican, Congo (Rep. of the), Côte d'Ivoire, Croatia, Denmark, Djibouti, Egypt, United Arab Emirates, Spain, Estonia, Eswatini, Finland, France, Gabon, Gambia, Georgia, Ghana, Hungary, Iraq, Ireland, Iceland, Israel, Italy, Jordan, Kenya, Kuwait, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, North Macedonia, Malawi, Mali, Malta, Morocco, Mauritius, Mauritania, Moldova, Monaco, Mozambique, Namibia, Niger, Nigeria, Norway, Oman, Uganda, Palestina, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Slovakia, the Czech Republic, Romania, the United Kingdom, Rwanda, San Marino, Senegal, Serbia, Sudan, South Africa, Sweden, Switzerland, Tanzania, Chad, Togo, Tunisia, Turkey, Ukraine, Zambia and Zimbabwe, the frequency band 470-694 MHz is also allocated on a secondary basis to the land mobile service, intended for applications ancillary to broadcasting and programme-making. Stations of the land mobile service in the countries listed in this footnote shall not cause harmful interference to existing or planned stations operating in accordance with the Table in countries other than those listed in this footnote. (WRC-23)
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).
5.312A	In Region 1, the use of the frequency band 694-790 MHz by the mobile, except aeronautical mobile, service is subject to the provisions of Resolution 760 (Rev.WRC-23). See also Resolution 224 (Rev.WRC-23). (WRC-23)
5.312B	The frequency band 698-960 MHz, or portions thereof, in Region 2, and the frequency band 694-960 MHz, or portions thereof, in Region 1, are identified for use by high-altitude platform stations as International Mobile Telecommunications (IMT) base stations (HIBS). This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. Resolution 213 (WRC-23) shall apply. HIBS shall not claim protection from existing primary services. No. 5.43A does not apply, see resolves 2 of Resolution 213 (WRC-23). Such use of HIBS in the frequency bands 694-728 MHz, 830-835 MHz and 805.3-806.9 MHz is limited to reception by HIBS. (WRC-23)
5.316B	In Region 1, the allocation to the mobile, except aeronautical mobile, service in the frequency band 790-862 MHz is subject to agreement obtained under No. 9.21 with respect to the aeronautical radionavigation service in countries mentioned in No. 5.312. For countries party to the GE06 Agreement, the use of stations of the mobile service is also subject to the successful application of the procedures of that Agreement. Resolutions 224 (Rev.WRC-19) and 749 (Rev.WRC-19) shall apply, as appropriate.

5.317A	The parts of the frequency band 698-960 MHz in Region 2 and the frequency bands 694-790 MHz in Region 1 and 790-960 MHz in Regions 1 and 3 which are allocated to the mobile service on a primary basis are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) – see Resolutions 224 (Rev.WRC-23), 760 (Rev.WRC-23) and 749 (Rev.WRC-23), where applicable. This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-23)
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 (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.
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.
5.328AA	The frequency band 1 087.7-1 092.3 MHz is also allocated to the aeronautical mobile-satellite (R) service (Earth-to-space) on a primary basis, limited to the space station reception of Automatic Dependent Surveillance-Broadcast (ADS-B) emissions from aircraft transmitters that operate in accordance with recognized international aeronautical standards. Stations operating in the aeronautical mobile-satellite (R) service shall not claim protection from stations operating in the aeronautical radionavigation service. Resolution 425 (WRC-19) shall apply. (WRC-19).
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-19) shall also apply; however, in the case of radionavigation-satellite service (space-to-space) networks and systems, Resolution 610 (WRC-19) shall only apply to transmitting space stations. In accordance with No. 5.329A, for systems and networks in the radionavigationsatellite 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).
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-19) shall apply.
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.
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.
5.332A	Administrations authorizing operation of the amateur and amateur-satellite services in the frequency band 1 240-1 300 MHz, or portions thereof, shall ensure that the amateur and amateur-satellite services do not cause harmful interference to radionavigation-satellite service (space-to-Earth) receivers in accordance with No. 5.29 (see the most recent version of Recommendation ITU-R M.2164). The authorizing administration, upon receipt of a report of harmful interference caused by a station of the amateur or amateur-satellite services, shall take all necessary steps to rapidly eliminate such interference. (WRC-23)
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.
5.337	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.
5.338A	In the frequency bands 1 350-1 400 MHz, 1 427-1 452 MHz, 22.55-23.55 GHz, 24.25-27.5 GHz, 30- 31.3 GHz, 49.7-50.2 GHz, 50.4-50.9 GHz, 51.4-52.4 GHz, 52.4-52.6 GHz, 81-86 GHz and 92-94 GHz, Resolution 750 (Rev.WRC-19) applies. (WRC-19)
5.339	In the frequency bands 1 350-1 400 MHz, 1 427-1 452 MHz, 22.55-23.55 GHz, 24.25-27.5 GHz, 30- 31.3 GHz, 49.7-50.2 GHz, 50.4-50.9 GHz, 51.4-52.4 GHz, 52.4-52.6 GHz, 81-86 GHz and 92-94 GHz, Resolution 750 (Rev.WRC-19) applies. (WRC-19)
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 GHz2, 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.
5.341A	In Region 1, the frequency bands 1 427-1 452 MHz and 1 492-1 518 MHz are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution 223 (Rev.WRC-19). This identification does not preclude the use of these frequency bands by any other application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of IMT stations is subject to agreement obtained under No. 9.21 with respect to the aeronautical mobile service used for aeronautical telemetry in accordance with No. 5.342. (WRC-15).
5.345	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-19).
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.
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 authorized 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, 1 610-1 645.5 MHz, 1646.5-1 660.5 MHz, 1 668-1 675 MHz, 1 980-2 010 MHz, 2 170-2 200 MHz, 2 483.5-2 520 MHz and 2 670-2 690 MHz by the mobile-satellite service, see Resolutions 212 (Rev.WRC-19) and 225 (Rev.WRC-07).
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-23) shall apply.)
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 No. 9.11A.
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 I service are also authorized 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 (WRC-2023) shall apply.)
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 No. 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 frequency band 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**. (WRC-12)

5.368	The provisions of No. 4.10 do not apply with respect to the radiodetermination-satellite and mobile-satellite services in the frequency band 1 610-1 626.5 MHz. However, No. 4.10 applies in the frequency band 1 610-1 626.5 MHz with respect to the aeronautical radionavigation-satellite service when operating in accordance with No. 5.366, the aeronautical mobile-satellite (R) service when operating in accordance with No. 5.367, and in the frequency bands 1 614.4225-1 618.725 MHz or 1 616.3-1 620.38 MHz (Earth-to-space) (see resolves 5 of Resolution 365 (WRC-23)) and 1 621.35-1 626.5 MHz with respect to the maritime mobile-satellite service when used for the global maritime distress and safety system (GMDSS). In applying the procedure of Section II of Article 9, the provisions of No. 4.10 do not apply for the frequency bands 1 614.4225-1 618.725 MHz or 1 616.3-1 620.38 MHz (Earth-to-space) (see resolves 5 of Resolution 365 (WRC-23)) and 2 483.59-2 499.91 MHz (space-to-Earth) for the maritime mobile-satellite service when used for the GMDSS with satellite networks or systems for which complete coordination information has been received by the Radiocommunication Bureau before 20 November 2023. Resolution 365 (WRC-23) applies. (WRC-23)
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, Eswatini, 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 band 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 frequency band 1 610.6-1 613.8 MHz by stations of the radiodetermination-satellite and mobile-satellite services (No. 29.13 applies). The equivalent power flux-density (epfd) produced in the frequency band 1 610.6-1 613.8 MHz by all space stations of a non-geostationary-satellite system in the mobile-satellite service (space-to-Earth) operating in frequency band 1 613.8-1 626.5 MHz shall be in compliance with the protection criteria provided in Recommendations ITU-R RA.769-2 and ITU-R RA.1513-2, using the methodology given in Recommendation ITU-R M.1583-1, and the radio astronomy antenna pattern described in Recommendation ITU-R RA.1631-0. (WRC-19)
5.372A	The maritime mobile-satellite service in the frequency bands 1 614.4225-1 618.725 MHz or 1 616.3-1 620.38 MHz (Earth-to-space) (see resolves 5 of Resolution 365 (WRC-23)) and 2 483.59-2 499.91 MHz (space-toEarth) when they are used for the global maritime distress and safety system (GMDSS) is limited to the geostationarysatellite networks identified in Resolution 365 (WRC-23) and their associated earth stations located within a service area from 75°E to 135°E longitude and from 10°N to 55°N latitude. Resolution 365 (WRC-23) applies. (WRC-23)
5.373	Maritime mobile earth stations receiving in the frequency band 1 621.35-1 626.5 MHz shall not impose additional constraints on earth stations operating in the maritime mobile-satellite service or maritime earth stations of the radiodetermination-satellite service operating in accordance with the Radio Regulations in the frequency band 1 610- 1 621.35 MHz or on earth stations operating in the maritime mobile-satellite service operating in

	accordance with the Radio Regulations in the frequency band 1 626.5-1 660.5 MHz, unless otherwise agreed between the notifying administrations. (WRC-19)
5.373A	Maritime mobile earth stations receiving in the frequency band 1 621.35-1 626.5 MHz shall not impose constraints on the assignments of earth stations of the mobile-satellite service (Earth-to-space) and the radiodeterminationsatellite service (Earth-to-space) in the frequency band 1 621.35-1 626.5 MHz in networks for which complete coordination information has been received by the Radiocommunication Bureau before 28 October 2019. (WRC-19)
5.374	Mobile earth stations in the mobile-satellite service operating in the bands 1 631.5-1 634.5 MHz and 1 656.5-1 660 MHz shall not cause harmful interference to stations in the fixed service operating in the countries listed in No. 5.359.
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 authorized 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.
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. (WRC-23)
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 –194 dB(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.
5.379D	For sharing of the band 1 668-1 675 MHz between the mobile-satellite service and the fixed, mobile and space research (passive) services, Resolution 744 (WRC-07) shall apply.
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.
5.382	

	Different category of service: in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Congo (Rep.of the), Egypt, the United Arab Emirates, Eritrea, Ethiopia, the Russian Federation, Guinea, Iraq, Israel, Jordan, Kazakhstan, Kuwait, North Macedonia, Lebanon, Mauritania, Moldova, Mongolia, Oman, Uzbekistan, Poland, Qatar, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, 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.
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-19). 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.
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.
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 (IMT). 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-23). (See also Resolution 223 (WRC-23).)
5.388A	The frequency bands 1 710-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz in Regions 1 and 3 and the frequency bands 1 710-1 980 MHz and 2 110-2 160 MHz in Region 2 are identified for the use by high altitude platform stations as International Mobile Telecommunications (IMT) base stations (HIBS). This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. Resolution 221 (Rev.WRC-23) shall apply. HIBS shall not claim protection from existing primary services. No. 5.43A does not apply. Such use of HIBS in the frequency bands 1 710-1 785 MHz in Regions 1 and 2, and 1 710-1 815 MHz in Region 3 is limited to reception by HIBS, and in the frequency band 2 110-2 170 MHz is limited to transmission from HIBS. (WRC-23)
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 (WRC-12).
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.1154-0, and shall take that Recommendation into account for the introduction of any other type of mobile system.
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.
5.398	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.
5.399	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)
5.402	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.
5.409A	The frequency band 2 500-2 690 MHz in Regions 1 and 2, and the frequency band 2 500-2 655 MHz in Region 3 are identified for use by high-altitude platform stations as International Mobile Telecommunications (IMT) base stations (HIBS). This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. Resolution 218 (WRC-23) shall apply. HIBS shall not claim protection from existing primary services. No. 5.43A does not apply. Such use of HIBS in the frequency bands 2 500-2 510 MHz in Regions 1 and 2, and 2 500-2 535 MHz in Region 3 is limited to reception by HIBS. (WRC-23)
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)
5.413	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.
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.
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.
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.
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.
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.
5.423	In the band 2 700-2 900 MHz, ground-based radars used for meteorological purposes are authorized 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.
5.425	In the band 2 900-3 100 MHz, the use of the shipborne interrogator-transponder (SIT) system 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.
5.430A	The allocation of the frequency band 3 400-3 600 MHz to the mobile, except aeronautical mobile, service is subject to agreement obtained under No. 9.21. This frequency band is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. The provisions of Nos. 9.17 and 9.18 shall also apply in the coordination phase. Before an administration brings into use a (base or mobile) station of the mobile service in this frequency band, it

	shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed −154.5 dB(W/(m2 · 4 kHz)) for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station) and with the assistance of the Bureau if so requested. In case of disagreement, calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the frequency band 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). (WRC-15).
5.434A	The use of the frequency band 3 600-3 800 MHz by the mobile, except aeronautical mobile, service on a primary basis in Region 1 is subject to agreement obtained under No. 9.21 if the power flux-density (pfd) limit below is exceeded. The provisions of Nos. 9.17 and 9.18 shall also apply in the coordination phase. Before an administration in Region 1 brings into use a station in the mobile service in the frequency band 3 600-3 800 MHz, for the protection of stations in the fixed and fixed-satellite services, it shall ensure that the pfd produced at 3 m above ground does not exceed −154.5 dB(W/(m2 □ 4 kHz)) for more than 20% of the time at the border of the territory of any other administration. Stations in the mobile service operating in the frequency band 3 600-3 800 MHz shall not claim more protection from space stations than that provided in Table 21-4 of the Radio Regulations. (WRC-23)
5.436	Use of the frequency band 4 200-4 400 MHz by stations in the aeronautical mobile (R) service is reserved exclusively for wireless avionics intra-communication systems that operate in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution 424 (WRC-15).
5.437	Use of the frequency band 4 200-4 400 MHz by stations in the aeronautical mobile (R) service is reserved exclusively for wireless avionics intra-communication systems that operate in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution 424 (WRC-15).
5.438	Use of the frequency 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. (WRC-15).
5.440	The standard frequency and time signal-satellite service may be authorized 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 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.
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.
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. (WRC-12)
5.443 C	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 Ŕ75 dBW/MHz in the frequency band 5 010-5 030 MHz for any AM(R)S station unwanted emission should be used. (WRC-12)
5.443 D	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. (WRC-12)
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 (WRC-12).
5.444	The 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 5091-5 150 MHz, No. 5.444A and Resolution 114 (Rev.WRC-12) apply.

5.444A	The use of the allocation to the fixed-satellite service (Earth-to-space) in the frequency band 5 091-5 150 MHz is limited to feeder links of non-geostationary satellite systems in the mobile-satellite service and is subject to coordination under No. 9.11A. The use of the frequency band 5 091-5 150 MHz by feeder links of non-geostationary satellite systems in the mobile-satellite service shall be subject to application of Resolution 114 (Rev.WRC-15). Moreover, to ensure that the aeronautical radionavigation service is protected from harmful interference, coordination is required for feeder-link earth stations of the non-geostationary satellite systems in the mobile-satellite service which are separated by less than 450 km from the territory of an administration operating ground stations in the aeronautical radionavigation service. (WRC-15).
5.444B	The use of the 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 (WRC-19); – aeronautical telemetry transmissions from aircraft stations (see No. 1.83) in accordance with Resolution 418 (WRC-19).
5.446A	The use of the bands 5 150-5 350 MHz and 5 470-5 725 MHz by the stations in the mobile service shall be in accordance with Resolution 229 (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.
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 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-19). These stations shall not claim protection from other stations operating in accordance with Article 5. No. 5.43A does not apply.
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/m^2) 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.
5.447F	In the frequency band 5 250-5 350 MHz, stations in the mobile service shall not claim protection from the radiolocation service, the Earth exploration-satellite service (active) and the space research service (active). The radiolocation service, the Earth exploration-satellite service (active) and the space research service (active) shall not impose more stringent conditions upon the mobile service than those stipulated in Resolution 229 (Rev.WRC-19). (WRC-19)
5.448A	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.
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.
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.
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.
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.
5.450A	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 Resolution 229 (Rev.WRC-19).
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.
5.452	Between 5 600 MHz and 5 650 MHz, ground-based radars used for meteorological purposes are authorized to operate on a basis of equality with stations of the maritime radionavigation service.
5.455	*Additional allocation:* in Armenia, Azerbaijan, Belarus, Cuba, the Russian Federation, Georgia, Hungary, Kazakhstan, Moldova, Romania, Uzbekistan, Kyrgyzstan, Tajikistan,

	Turkmenistan and Ukraine, the band 5 670-5 850 MHz is also allocated to the fixed service on a primary basis.
5.457A	In the frequency 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). In the frequency band 5 925-6 425 MHz, earth stations located on board vessels and communicating with space stations of the fixed-satellite service may employ transmit antennas with minimum diameter of 1.2 m and operate without prior agreement of any administration if located at least 330 km away from the low-water mark as officially recognized by the coastal State. All other provisions of Resolution 902 (WRC-03) shall apply. (WRC-15).
5.457E	The frequency bands 6 425-7 125 MHz in Region 1 and 7 025-7 125 MHz in Region 3 are identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. Resolution 220 (WRC-23) applies. The frequency bands are also used for the implementation of wireless access systems (WAS), including radio local area networks (RLANs). (WRC-23)
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.
5.460	No emissions from space research service (Earth-to-space) systems intended for deep space shall be effected in the frequency band 7 190-7 235 MHz. Geostationary satellites in the space research service operating in the frequency 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-15)
5.460A	The use of the frequency band 7 190-7 250 MHz (Earth-to-space) by the Earth exploration-satellite service shall be limited to tracking, telemetry and command for the operation of spacecraft. Space stations operating in the Earth exploration-satellite service (Earth-to-space) in the frequency band 7 190-7 250 MHz shall not claim protection from existing and future stations in the fixed and mobile services, and No. 5.43A does not apply. No. 9.17 applies. Additionally, to ensure protection of the existing and future deployment of fixed and mobile services, the location of earth stations supporting spacecraft in the Earth exploration-satellite service in non-geostationary orbits or geostationary orbit shall maintain a separation distance of at least 10 km and 50 km,

	respectively, from the respective border(s) of neighboring countries, unless a shorter distance is otherwise agreed between the corresponding administrations. (WRC-15).
5.460B	Space stations on the geostationary orbit operating in the Earth exploration-satellite service (Earth-to-space) in the frequency band 7 190-7 235 MHz shall not claim protection from existing and future stations of the space research service, and No. 5.43A does not apply. (WRC-15).
5.461	*Additional allocation:* the frequency 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, with the exception that No. 9.21 shall not apply to the geostationary-satellite networks in the mobile-satellite service for which complete coordination information is received by the Bureau as of 1 January 2025 with respect to nongeostationary-satellite systems for which complete coordination or notification information, according to the case, is received by the Bureau as of 1 January 2025. Non-geostationary-satellite systems for which complete coordination or notification information, according to the case, is received by the Bureau as of 1 January 2025 shall not cause unacceptable interference to and shall not claim protection from geostationary-satellite networks in the mobile-satellite service operating in accordance with these Regulations. No. 5.43A does not apply. (WRC-23)
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.
5.461AA	The use of the frequency band 7 375-7 750 MHz by the maritime mobile-satellite service is limited to geostationary-satellite networks. (WRC-15).
5.461AB	In the frequency band 7 375-7 750 MHz, earth stations in the maritime mobile-satellite service shall not claim protection from, nor constrain the use and development of, stations in the fixed and mobile, except aeronautical mobile, services. No. 5.43A does not apply. (WRC-15).
5.461AC	In the frequency band 7 375-7 750 MHz, non-geostationary-satellite systems operating in the fixed-satellite service for which complete coordination or notification information, according to the case, is received by the Bureau as of 1 January 2025 shall not cause unacceptable interference to and shall not claim protection from geostationary-satellite networks in the maritime mobile-satellite service operating in accordance with these Regulations. No. 5.43A does not apply. (WRC-23)
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 values for angles of arrival (θ), without the consent of the affected administration: -135 dB(W/m2) in a 1 MHz band for $0° \leq \theta < 5°$ -135 + 0.5 (θ Ί 5) dB(W/m2) in a 1 MHz band for $5° \leq \theta < 5°$ -125 dB(W/m2) in a 1 MHz band for $25° \leq \theta \leq 90°$ (WRC-12)
5.463	Aircraft stations are not permitted to transmit in the band 8 025-8 400 MHz.
5.465	

	In the space research service, the use of the band 8 400-8 450 MHz is limited to deep space.
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.
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.
5.472	In the bands 8 850-9 000 MHz and 9 200-9 225 MHz, the maritime radionavigation service is limited to shore-based radars.
5.473A	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.
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).
5.474A	The use of the frequency bands 9 200-9 300 MHz and 9 900-10 400 MHz by the Earth exploration-satellite service (active) is limited to systems requiring necessary bandwidth greater than 600 MHz that cannot be fully accommodated within the frequency band 9 300-9 900 MHz. Such use is subject to agreement to be obtained under No. 9.21 from Algeria, Saudi Arabia, Bahrain, Egypt, Indonesia, Iran (Islamic Republic of), Lebanon and Tunisia. An administration that has not replied under No. 9.52 is considered as not having agreed to the coordination request. In this case, the notifying administration of the satellite system operating in the Earth exploration-satellite service (active) may request the assistance of the Bureau under Sub-Section IID of Article 9. (WRC-15).
5.474B	Stations operating in the Earth exploration-satellite (active) service shall comply with Recommendation ITU-R RS.2066-0. (WRC-15).
5.474C	Stations operating in the Earth exploration-satellite (active) service shall comply with Recommendation ITU-R RS.2065-0. (WRC-15).
5.474D	Stations in the Earth exploration-satellite service (active) shall not cause harmful interference to, or claim protection from, stations of the maritime radionavigation and radiolocation services in the frequency band 9 200-9 300 MHz, the radionavigation and radiolocation services in the frequency band 9 900-10 000 MHz and the radiolocation service in the frequency band 10.0-10.4 GHz. (WRC-15).
5.475	The use of the band 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.
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.

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.
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)
5.478A	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.
5.478B	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.
5.479	The band 9 975-10 025 MHz is also allocated to the meteorological-satellite service on a secondary basis for use by weather radars.
5.482	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.
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.
5.484	In Region 1, the use of the band 10.7-11.7 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service.
5.484A	The use of the frequency 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), 17.3-17.7 GHz (space-to-Earth) in Region 2, 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. In Region 2, No. 22.2 shall continue to apply in the frequency band 17.3-17.7 GHz. (WRC-23)
5.484B	Resolution 155 (WRC-15) shall apply. (WRC-15).
5.487	In the band 11.7-12.5 GHz in Regions 1 and 3, the fixed, fixed-satellite, mobile, except aeronautical mobile, and broadcasting services, in accordance with their respective allocations, shall not cause harmful interference to, or claim protection from, broadcasting-satellite stations operating in accordance with the Regions 1 and 3 Plan in Appendix 30.
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.
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.
5.496A	The frequency band 12.75-13.25 GHz (Earth-to-space) may be used by earth stations in motion, limited to earth stations on aircraft and vessels, communicating with geostationary space stations in the fixed-satellite service. Resolution 121 (WRC-23) shall apply. (WRC-23)
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.
5.499A	The use of the frequency band 13.4-13.65 GHz by the fixed-satellite service (space-to-Earth) is limited to geostationary-satellite systems and is subject to agreement obtained under No. 9.21 with respect to satellite systems operating in the space research service (space-to-space) to relay data from space stations in the geostationary-satellite orbit to associated space stations in non-geostationary satellite orbits for which advance

	publication information has been received by the Bureau by 27 November 2015. (WRC-15).
5.499B	Administrations shall not preclude the deployment and operation of transmitting earth stations in the standard frequency and time signal-satellite service (Earth-to-space) allocated on a secondary basis in the frequency band 13.4-13.65 GHz due to the primary allocation to FSS (space-to-Earth). (WRC-15).
5.499C	The allocation of the frequency band 13.4-13.65 GHz to the space research service on a primary basis is limited to: – satellite systems operating in the space research service (space-to-space) to relay data from space stations in the geostationary-satellite orbit to associated space stations in non-geostationary satellite orbits for which advance publication information has been received by the Bureau by 27 November 2015, – active spaceborne sensors, – satellite systems operating in the space research service (space-to-Earth) to relay data from space stations in the geostationary-satellite orbit to associated earth stations. Other uses of the frequency band by the space research service are on a secondary basis. (WRC-15).
5.499D	In the frequency band 13.4-13.65 GHz, satellite systems in the space research service (space-to-Earth) and/or the space research service (space-to-space) shall not cause harmful interference to, nor claim protection from, stations in the fixed, mobile, radiolocation and Earth exploration-satellite (active) services. (WRC-15).
5.499E	In the frequency band 13.4-13.65 GHz, geostationary-satellite networks in the fixed-satellite service (space to-Earth) shall not claim protection from space stations in the Earth exploration-satellite service (active) operating in accordance with these Regulations, and No. 5.43A does not apply. The provisions of No. 22.2 do not apply to the Earth exploration-satellite service (active) with respect to the fixed-satellite service (space-to-Earth) in this frequency band. (WRC-15).
5.501A	The allocation of the band 13.65-13.75 GHz to the space research service on a primary basis is limited to active spaceborne sensors. Other uses of the band by the space research service are on a secondary basis.
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.
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.
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.
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.
5.504B	Aircraft earth stations operating in the aeronautical mobile-satellite service in the frequency band 14-14.5 GHz shall comply with the provisions of Annex 1, Part C of Recommendation ITU-R M.1643-0, with respect to any radio astronomy station performing observations in the 14.47-14.5 GHz frequency band located on the territory of Spain, France, India, Italy, the United Kingdom and South Africa. (WRC-15).

5.506A	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-23). 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.
5.506B	Earth stations located on board vessels communicating with space stations in the fixed-satellite service may operate in the frequency band 14-14.5 GHz without the need for prior agreement from Cyprus and Malta, within the minimum distance given in Resolution 902 (WRC-23) from these countries.
5.510A	The allocation of the frequency band 14.8-15.35 GHz to the space research service on a primary basis is limited to satellite systems operating in the space-to-space, space-to-Earth and Earth-to-space directions at distances from the Earth of less than 2 × 106 km in accordance with Resolution 678 (WRC-23). Other uses of the frequency band by the space research service are on a secondary basis. The use of the frequency band 14.8-15.35 GHz by the space research service (space-to-Earth) (Earth-to-space) is on a secondary basis with respect to the terrestrial services in Algeria, Saudi Arabia, Bahrain, Korea (Rep. of), Egypt, the United Arab Emirates, the United States, India, Iraq, Japan, Kuwait, Libya, Morocco, Mauritania, Oman, Qatar, the Syrian Arab Republic, Tunisia and Yemen. (WRC-23)
5.511A	Use of the frequency band 15.43-15.63 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links of non-geostationary systems in the mobile-satellite service, subject to coordination under No. 9.11A. (WRC-15).
5.511C	Stations operating in the aeronautical radionavigation service shall limit the effective e.i.r.p. in accordance with Recommendation ITU-R S.1340-0. The minimum coordination distance required to protect the aeronautical radionavigation stations (No. 4.10 applies) from harmful interference from feeder-link earth stations and the maximum e.i.r.p. transmitted towards the local horizontal plane by a feeder-link earth station shall be in accordance with Recommendation ITU-R S.1340-0.
5.511E	In the frequency band 15.4-15.7 GHz, stations operating in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the aeronautical radionavigation service. (WRC-12)
5.511 F	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 Ґ156 dB(W/m2) in a 50 MHz bandwidth in the frequency band 15.35-15.4 GHz, at any radio astronomy observatory site for more than 2 per cent of the time. (WRC-12)
5.511G	Stations in the aeronautical mobile (OR) service operating in the frequency band 15.41-15.7 GHz shall not cause harmful interference to the radio astronomy service operating in the frequency band 15.35-15.4 GHz. The aggregate power flux-density (pfd) received from stations in the aeronautical mobile (OR) service operating in the frequency band 15.41-15.7 GHz at any radio astronomy station operating in the frequency band 15.35-15.4 GHz shall be in compliance with the protection criteria provided in Recommendations ITU-R RA.769-2 and ITU-R RA.1513-2, unless specifically agreed by the affected administration(s). (WRC-23)

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.
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.
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.
5.516B	The following bands are identified for use by high-density applications in the fixed-satellite service: 17.3-17.7 GHz (space-to-Earth) in Region 1, 18.3-19.3 GHz (space-to-Earth) in Region 2, 19.7-20.2 GHz (space-to-Earth) in all Regions, 39.5-40 GHz (space-to-Earth) in Region 1, 40-40.5 GHz (space-to-Earth) in all Regions, 40.5-42 GHz (space-to-Earth) in Region 2, 47.5-47.9 GHz (space-to-Earth) in Region 1, 48.2-48.54 GHz (space-to-Earth) in Region 1, 49.44-50.2 GHz (space-to-Earth) in Region 1, and 27.5-27.82 GHz (Earth-to-space) in Region 1, 28.35-28.45 GHz (Earth-to-space) in Region 2, 28.45-28.94 GHz (Earth-to-space) in all Regions, 28.94-29.1 GHz (Earth-to-space) in Region 2 and 3, 29.25-29.46 GHz (Earth-to-space) in Region 2, 29.46-30 GHz (Earth-to-space) in all Regions, 48.2-50.2 GHz (Earth-to-space) in Region 2.

	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 Radio Regulations among users of the bands. Administrations should take this into account when considering regulatory provisions in relation to these bands. See Resolution 143 (Rev. WRC-19).
5.517A	The operation of earth stations in motion communicating with geostationary fixed-satellite service space stations within the frequency bands 17.7-19.7 GHz (space-to-Earth) and 27.5-29.5 GHz (Earth-to-space) shall be subject to the application of Resolution 169 (WRC-23).
5.517B	The operation of aeronautical and maritime earth stations in motion communicating with non-geostationary space stations in the fixed-satellite service in the frequency bands 17.7-18.6 GHz, 18.8-19.3 GHz and 19.7-20.2 GHz (space-to-Earth) and 27.5-29.1 GHz and 29.5-30 GHz (Earth-to-space) shall be subject to the application of Resolution 123 (WRC-23). (WRC-23)
5.519	*Additional allocation:* the bands 18-18.3 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.
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.
5.521A	For use of the frequency bands 18.1-18.6 GHz, 18.8-20.2 GHz and 27.5-30 GHz, or parts thereof, by space stations in the inter-satellite service, Resolution 679 (WRC-23) shall apply. Such use is limited to space research, space operation and/or Earth exploration-satellite applications, and also transmissions of data originating from industrial and medical activities in space. When using these frequencies, administrations shall ensure that this inter-satellite service is used only for the aforementioned purposes and is not subject to coordination under No. 9.11A. For use of the frequency bands 18.1-18.6 GHz, 18.8-20.2 GHz, 27.5-29.1 GHz and 29.5-30 GHz by space stations, the allocation is limited to inter-satellite links between non-geostationary satellites or between non-geostationary satellites and geostationary satellites. For use of the frequency band 29.1-29.5 GHz by space stations, the allocation is limited to inter-satellite links between non-geostationary satellites and geostationary satellites. No. 4.10 does not apply. (WRC-23)
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.
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.
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.
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 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.
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.
5.523DA	In order to protect feeder links of non-geostationary networks in the mobile-satellite service in the frequency band 19.3-19.7 GHz, the power flux-density values produced at the surface of the Earth for all angles of arrival by a space station in the inter-satellite service operating in this band in accordance with Resolution 679 (WRC-23) shall not exceed −140 dB(W/m2) in any 1 MHz within 150 km of any of the above feeder-link earth stations recorded in the Master International Frequency Register. (WRC-23)
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.
5.525	In order to facilitate interregional coordination between networks in the mobile-satellite and fixed-satellite services, carriers in the mobile-satellite service that are most susceptible to interference shall, to the extent practicable, be located in the higher parts of the bands 19.7-20.2 GHz and 29.5-30 GHz.
5.526	In the bands 19.7-20.2 GHz and 29.5-30 GHz in Region 2, and in the bands 20.1-20.2 GHz and 29.9-30 GHz in Regions 1 and 3, networks which are both in the fixed-satellite service and in the mobile-satellite service may include links between earth stations at specified or unspecified points or while in motion, through one or more satellites for point-to-point and point-to-multipoint communications.
5.527	In the bands 19.7-20.2 GHz and 29.5-30 GHz, the provisions of No. 4.10 do not apply with respect to the mobile-satellite service.
5.527A	The operation of earth stations in motion communicating with the FSS is subject to Resolution 156 (Rev. WRC-23). (WRC-15).

5.528	The allocation to the mobile-satellite service is intended for use by networks which use narrow spot-beam antennas and other advanced technology at the space stations. Administrations operating systems in the mobile-satellite service in the band 19.7-20.1 GHz in Region 2 and in the band 20.1-20.2 GHz shall take all practicable steps to ensure the continued availability of these bands for administrations operating fixed and mobile systems in accordance with the provisions of No. 5.524.
5.529A	In the frequency bands 20.2-21.2 GHz and 30-31 GHz, non-geostationary-satellite systems for which complete coordination or notification information, according to the case, is received by the Bureau as of 1 January 2025 shall not cause unacceptable interference to and shall not claim protection from geostationary-satellite networks in the mobile-satellite service operating in accordance with these Regulations. No. 5.43A does not apply. (WRC-23)
5.531A	The use of the aeronautical mobile (OR) service in the frequency band 22-22.2 GHz is limited to non-safety applications. (WRC-23)
5.531B	Aircraft stations in the aeronautical mobile (OR) service operating in the frequency band 22-22.2 GHz are subject to agreement obtained under No. 9.21 with respect to the fixed service and shall not cause harmful interference to, nor claim protection from, the fixed service. The following power flux-density values shall be used as a threshold for coordination under No. 9.21: -110 dB(W/(m2 · MHz)) for $0° \leq \theta \leq 12.6°$ $2.86\ \theta - 146$ dB(W/(m2 · MHz)) for $12.6° < \theta \leq 15°$ $0.87\ \theta - 116$ dB(W/(m2 · MHz)) for $15° < \theta \leq 30°$ $0.067\ \theta - 92$ dB(W/(m2 · MHz)) for $30° < \theta \leq 90°$ where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees. This criterion should be applied at the border of the territory of another administration for any aircraft station located at an altitude of up to 15 km above the ground. In conducting the calculations, the most recent version of Recommendation ITU-R P.525 should be used. (WRC-23)
5.531C	Stations in the aeronautical mobile (OR) service operating in the frequency band 22-22.2 GHz shall not cause harmful interference to the radio astronomy service operating in the frequency band 22.21-22.5 GHz. The aggregate power flux-density (pfd) received from these stations at any radio astronomy station operating in the frequency band 22.21-22.5 GHz shall be in compliance with the protection criteria provided in Recommendations ITU-R RA.769-2 and ITU-R RA.1513-2, unless specifically agreed by the affected administration(s). (WRC-23)
5.531D	The use of the aeronautical mobile (OR) service in the frequency band 22-22.2 GHz outside national boundaries shall not cause harmful interference to, or claim protection from, services in other countries operating in accordance with the Table of Frequency Allocations. (WRC-23)
5.531F	In order to protect stations of the Earth exploration-satellite service (passive) operating in the frequency band 22.21-22.5 GHz, the unwanted equivalent isotropically radiated power (e.i.r.p.) of stations operating in the aeronautical mobile (OR) service shall not exceed −23 dBW in any 100 MHz band in the frequency band 22.21-22.5 GHz. (WRC-23)

5.530A	Unless otherwise agreed between the administrations concerned, any station in the fixed or mobile services of an administration shall not produce a power flux-density in excess of -120.4 dB(W/(m2 · MHz)) at 3 m above the ground of any point of the territory of any other administration in Regions 1 and 3 for more than 20% of the time. In conducting the calculations, administrations should use the most recent version of Recommendation ITU-R P.452 (see also the most recent version of Recommendation ITU-R BO.1898). (WRC-15).
5.530B	In the band 21.4-22 GHz, in order to facilitate the development of the broadcasting-satellite service, administrations in Regions 1 and 3 are encouraged not to deploy stations in the mobile service and are encouraged to limit the deployment of stations in the fixed service to point-to-point links. (WRC-12)
5.532	The use of the band 22.21-22.5 GHz by the Earth exploration-satellite (passive) and space research (passive) services shall not impose constraints upon the fixed and mobile, except aeronautical mobile, services.
5.532A	The location of earth stations in the space research service shall maintain a separation distance of at least 54 km from the respective border(s) of neighbouring countries to protect the existing and future deployment of fixed and mobile services unless a shorter distance is otherwise agreed between the corresponding administrations. Nos. **9.17** and **9.18** do not apply. (WRC-12)
5.532B	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 fixedsatellite service (Earth-to-space) is limited to earth stations using a minimum antenna diameter of 4.5 m. (WRC-12)
5.532AB	The frequency band 24.25-27.5 GHz is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Resolution 242 (WRC-23) applies.
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.
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 the most recent version of Recommendation ITU-R SA.1862. Resolution 242 (WRC-23) applies.

5.536B	In Algeria, Saudi Arabia, Austria, Bahrain, Belgium, Brazil, China, Korea (Rep. of), Denmark, Egypt, United Arab Emirates, Estonia, Finland, Hungary, India, Iran (Islamic Republic of), Irak, Ireland, Israel, Italy, Jordan, Kenya, Kuwait, Lebanon, Libya, Lithuania, Moldova, Norway, Oman, Uganda, Pakistan, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the Czech Rep., Romania, the United Kingdom, Singapore, Somalia, Slovenia, Sudan, Sweden, 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. Resolution 242 (WRC-23) applies.
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.
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.
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.
5.543B	The allocation to the fixed service in the frequency band 31-31.3 GHz is identified for worldwide use by high-altitude platform stations (HAPS). This identification does not preclude the use of this frequency band by other fixed-service applications or by other services to which this frequency band is allocated on a co-primary basis, and does not establish priority in the Radio Regulations. Such use of the fixed-service allocation by HAPS shall be in accordance with the provisions of Resolution 167 (WRC-23).

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.
5.546	*Different category of service:* in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Djibouti, 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, Somalia, 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-23)
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-2012)). 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.
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.
5.548	In designing systems for the inter-satellite service in the frequency band 32.3-33 GHz, for the radionavigation service in the frequency band 32-33 GHz, and for the space research service (deep space) in the frequency 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 (Rev.WRC-23)). (WRC-23)
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.
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.
5.550B	The frequency band 37-43.5 GHz, or portions thereof, is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. Because of the potential deployment of FSS earth stations within the frequency range 37.5-42.5 GHz and high-density applications in the fixed-satellite service in the frequency bands 39.5-40 GHz in Region 1, 40-40.5 GHz in all Regions and 40.5-42 GHz in Region 2 (see No. 5.516B), administrations should further take into account potential constraints to IMT in these frequency bands, as appropriate. Resolution 243 (Rev. WRC-23) applies. (WRC-23)

5.550C	The use of the frequency bands 37.5-39.5 GHz (space-to-Earth), 39.5-42.5 GHz (space-to-Earth), 47.2- 50.2 GHz (Earth-to-space) and 50.4-51.4 GHz (Earth-to-space) by a non-geostationary-satellite system in the fixedsatellite service is subject to the application of the provisions of No. 9.12 for coordination with other non-geostationarysatellite systems in the fixed-satellite service but not with non-geostationary-satellite systems in other services. Resolution 770 (WRC-19) shall also apply, and No. 22.2 shall continue to apply. (WRC-19)
5.550CA	Non-geostationary-satellite systems in the fixed-satellite service operating with an apogee altitude above 407 km and below 2 000 km in the frequency band 37.5-38 GHz shall not exceed an unwanted emission e.i.r.p. density of −21 dB(W/100 MHz) per space station for angles greater than 65.0° from nadir relative to the space station in the fixedsatellite service in the frequency band 36-37 GHz in order to protect the Earth exploration-satellite service (passive) operating in the latter frequency band. (WRC-23)
5.550D	The allocation to the fixed service in the frequency band 38-39.5 GHz is identified for worldwide use by administrations wishing to implement high-altitude platform stations (HAPS). In the HAPS-to-ground direction, the HAPS ground station shall not claim protection from stations in the fixed, mobile and fixed-satellite services; and No. 5.43A does not apply. This identification does not preclude the use of this frequency band by other fixed-service applications or by other services to which this frequency band is allocated on a co-primary basis and does not establish priority in the Radio Regulations. Furthermore, the development of the fixed-satellite, fixed and mobile services shall not be unduly constrained by HAPS. Such use of the fixed-service allocation by HAPS shall be in accordance with the provisions of Resolution 168 (WRC-23).
5.550E	The use of the frequency bands 39.5-40 GHz and 40-40.5 GHz by non-geostationary-satellite systems in the mobile-satellite service (space-to-Earth) and by non-geostationary-satellite systems in the fixed-satellite service (space-to-Earth) is subject to the application of the provisions of No. 9.12 for coordination with other non-geostationarysatellite systems in the fixed-satellite and mobile-satellite services but not with non-geostationary-satellite systems in other services. No. 22.2 shall continue to apply for non-geostationary-satellite-systems. (WRC-19)
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 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/m2) in 1 GHz and –246 dB(W/m2) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a single-dish telescope; and - -209 dB(W/m2) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a very long baseline interferometry station. These epfd values shall be evaluated using the methodology given in Recommendation ITU-R S.1586-1 and the reference antenna pattern and the maximum gain of an antenna in the radio astronomy service given in Recommendation ITU-R RA.1631-0 and shall apply over the whole sky and for elevation angles higher than the minimum operating angle 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.
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 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.
5.552	The allocation of the spectrum for the fixed-satellite service in the bands 42.5-43.5 GHz and 47.2-50.2 GHz for Earth-to-space transmission is greater than that in the band 37.5-39.5 GHz for space-to-Earth transmission in order to accommodate feeder links to broadcasting satellites. Administrations are urged to take all practicable steps to reserve the band 47.2-49.2 GHz for feeder links for the broadcasting-satellite service operating in the band 40.5-42.5 GHz.
5.552A	The allocation to the fixed service in the frequency bands 47.2-47.5 GHz and 47.9-48.2 GHz is identified for use by high-altitude platform stations (HAPS). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated on a co-primary basis, and does not establish priority in the Radio Regulations. Such use of the fixed-service allocation in the frequency bands 47.2-47.5 GHz and 47.9-48.2 GHz by HAPS shall be in accordance with the provisions of Resolution 122 (Rev.WRC-19).
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).

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.
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.
5.555	*Additional allocation:* the band 48.94-49.04 GHz is also allocated to the radio astronomy service on a primary basis.
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.
5.555C	The use of the frequency band 51.4-52.4 GHz by the fixed-satellite service (Earth-to-space) is limited to geostationary-satellite networks. The earth stations shall be limited to gateway earth stations with a minimum antenna diameter of 2.4 metres. (WRC-19)
5.556	In the bands 51.4-54.25 GHz, 58.2-59 GHz and 64-65 GHz, radio astronomy observations may be carried out under national arrangements.
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.
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).
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).
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.
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).
5.559AA	The frequency band 66-71 GHz is identified for use by administrations wishing to implement the terrestrial component of International Mobile Telecommunications (IMT).

	This identification does not preclude the use of this frequency band by any application of the services to which this frequency band is allocated and does not establish priority in the Radio Regulations. Resolution 241 (WRC-23) applies.
5.559B	The use of the frequency band 77.5-78 GHz by the radiolocation service shall be limited to short-range radar for ground-based applications, including automotive radars. The technical characteristics of these radars are provided in the most recent version of Recommendation ITU-R M.2057. The provisions of No. 4.10 do not apply. (WRC-15).
5.560	In the band 78-79 GHz radars located on space stations may be operated on a primary basis in the Earth exploration-satellite service and in the space research service.
5.561	In the band 74-76 GHz, stations in the fixed, mobile and broadcasting services shall not cause harmful interference to stations of the fixed-satellite service or stations of the broadcasting-satellite service operating in accordance with the decisions of the appropriate frequency assignment planning conference for the broadcasting-satellite service.
5.561A	The 81-81.5 GHz band is also allocated to the amateur and amateur-satellite services on a secondary basis.
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.
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.
5.562B	In the bands 105-109.5 GHz, 111.8-114.25 GHz and 217-226 GHz, the use of this allocation is limited to space-based radio astronomy only.
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.
5.562E	The allocation to the Earth exploration-satellite service (active) is limited to the band 133.5-134 GHz.
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 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.

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.
5.563AA	In the frequency band 235-238 GHz, stations in the Earth exploration-satellite service (passive) shall not claim protection from stations in the fixed and mobile services. (WRC-23)
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.
5.564A	For the operation of fixed and land mobile service applications in frequency bands in the range 275- 450 GHz: The frequency bands 275-296 GHz, 306-313 GHz, 318-333 GHz and 356-450 GHz are identified for use by administrations for the implementation of land mobile and fixed service applications, where no specific conditions are necessary to protect Earth exploration-satellite service (passive) applications. The frequency bands 296-306 GHz, 313-318 GHz and 333-356 GHz may only be used by fixed and land mobile service applications when specific conditions to ensure the protection of Earth exploration-satellite service (passive) applications are determined in accordance with Resolution 731 (Rev.WRC-23). In those portions of the frequency range 275-450 GHz where radio astronomy applications are used, specific conditions (e.g. minimum separation distances and/or avoidance angles) may be necessary to ensure protection of radio astronomy sites from land mobile and/or fixed service applications, on a case-by-case basis in accordance with Resolution 731 (Rev.WRC-23). The use of the above-mentioned frequency bands by land mobile and fixed service applications does not preclude use by, and does not establish priority over, any other applications of radio services in the range of 275-450 GHz. (WRC-23)
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 2

National footnotes

RN001	Frequencies 78 kHz and 120 kHz with ±10 kHz bandwidth can be used by cable multi-channel broadcasting equipment under condition that all necessary measures are undertaken in this equipment to protect it from interference from other radio services.
RN002	Within the band 148.5 – 283.5 kHz separate frequencies are used by aeronautical radionavigation service provided that no interference is caused to broadcasting service and safety of flights.
RN003	Frequency band 405 – 415 kHz can be used by aeronautical mobile service on a secondary basis.
RN004	Frequency band 505 – 526.5 kHz can be used by aeronautical mobile service provided that no interference is caused to maritime mobile and aeronautical radionavigation services.
RN005	Within the band 526.5 – 1606.5 kHz separate frequencies can be used by aeronautical radionavigation service provided that no interference is caused to broadcasting service and safety of flights.
RN006	Frequency bands 5900 – 5950 kHz, 7300 – 7350 kHz, 9400 – 9500 kHz, 11600 – 11650 kHz, 12050 – 12100 kHz, 13570 – 13600 kHz, 13800 – 13870 kHz, 15600 – 15800 kHz, 17480 – 17550 kHz and 18900 – 19020 kHz are reserved for broadcasting service in conformity with provisions of the Radio Regulations. Conditions, under which broadcasting service can use these bands, will be adopted additionally.
RN007	Not used
RN008	Not used
RN009	Frequency bands 12330 – 13200 kHz, 16360 – 17410 kHz, 18780 – 18900 kHz and 19680 – 19800 kHz can be used by land mobile stations provided that no interference is caused to maritime mobile service.
RN010	Frequency bands 22720 – 22855 kHz, 25110 – 25210 kHz and 26100 – 26175 kHz can be used by fixed and land mobile services provided that no interference is caused to maritime mobile service.
RN011	Frequency band 23200 – 23350 kHz can be used by land mobile service provided that no interference is caused to fixed and aeronautical mobile services.
RN012	Frequency band 26.96 – 27.41 MHz can be used by radio equipment in the "Citizen's Band" (CB) on a secondary basis, with technical parameters according to Decision ECC/DEC/(11) 03.
RN013	Frequencies 26945 kHz and 26960 kHz can be used by alarm systems with power up to 2 W on a secondary basis.

RN013A	For land mobile systems in the bands allocated to the land mobile service in the range 29.7 - 470 MHz, the provisions of CEPT Recommendation T/R 25-08 are applicable.
RN013B	Within frequency bands 30.075 – 30.300 MHz/39.775 – 40.000 MHz it is permitted the use on a primary basis of "wireless telephone" systems on the territory of Republic of Moldova, according technical parameters: 30.075 – 30.300 MHz (transmitting frequencies for the fixed unit); 39.775 – 40.000 MHz (transmitting frequencies for the portable unit) – Pe.r.p.max. = 50 mW; – Channel bandwith – 25 kHz; – Channel spacing – 9.7 MHz; Capacity – 10 channels (automatic scaning)
RN014	In the frequency bands 174-230 MHz and 470-694 MHz, the provisions of the Geneva Regional Agreement 2006 apply.
RN015	Not used
RN016	Portions of the 70.0-70.5 MHz band can be used by the amateur service on a secondary basis.
RN017	Frequency bands 66 – 73 MHz and 87.5 – 108 MHz are designated for mono and stereo FM broadcasting.
RN017A	The frequency bands 73-74.8 MHz and 75.2-76.0 MHz may be used by land mobile communications networks in accordance with Decision ECC/DEC(19)02.
RN018	Band 9 – 1000 MHz can be used by cable broadcasting networks for providing TV programs, radio broadcasting and transport data provided that requirements for external interference are respected and no interference is caused to other radiocommunication stations operating in accordance with the Table. Use of such networks, satisfying the requirements, can not serve as a basis for any requests with respect to interference caused by other radiocommunication stations and can not claim restriction on operation of other radiocommunication stations.
RN018A	The frequency band 146 - 174 MHz may be used by land mobile communications networks in accordance with Decision ECC/DEC(19)02.
RN018B	Frequency 146.225 MHz can be used by Moldavian railway in ervicesion of radiocommunications at the Ungheni Custom station, with maximum transmitter power 8W.
RN019	Within frequency bands 150.05 – 156.7625 MHz and 156.8375 – 168.5 MHz it is permitted to use alarm systems on a primary basis with the following conditions: - maximum transmitter power is 5 W; - channel spacing is 12.5 kHz or 25 kHz. - frequencies shall be coordinated in accordance with procedure in force.
RN020	Channels AIS 1 (161.975 MHz), AIS 2 (162.025 MHz), as well as Channel 70 (156.525 MHz) are designated for AMRD Group A devices, and channel 2006 (160.900 MHz) is

	designated for AMRD Group B devices, according to the provisions of the ECC Decision (22)02.
RN021	Frequency band 163.2 – 164.2 MHz is used by the land mobile stations of civil aviation in airports to provide technological and internal communications.
RN022	Not used
RN023	Parts of the frequency band 214 – 240 MHz can be used for digital terrestrial broadcasting, in conformity with Geneva Regional Agreement 2006 and Wiesbaden 95 (rev. Constanta 2007) and Maastricht 2002 (rev. Constanta 2007).
RN023A	The frequency bands 1427-1452 MHz, 1452-1492 MHz and 1492-1518 MHz are designated for the implementation of supplemental downlink in mobile / fixed communications networks (MFCN), in accordance with the provisions of Decisions ECC/DEC/(17)06 and ECC/DEC(13)03. The provisions of Recommendation ECC/REC(15)01 also apply.
RN024	Within frequency bands 299.6 – 300.0 MHz, 300.525 – 301.125 MHz, 305.825 – 307.0 MHz, 308.0 – 308.4 MHz, 335.6 – 336.0 MHz, 336.525 – 337.125 MHz, 341.825 – 343.0 MHz and 344.0 – 344.4 MHz separate frequencies can be used by non-governmental users subject to agreement with competent state security entities.
RN025	Frequency band 384.75 – 385 MHz paired with 394.75 – 395 MHz is designated to be used in conformity with ERC Decision ERC/DEC/(06)05.
RN025A	Frequency band 380 – 470 MHz can be used by PPDR systems, in conformity with ERC Decision ERC/DEC/(08)05.
RN026	Not used
RN026A	It is permitted to use medical implants with reduced power with technical parameters in conformity with Decision ECC/DEC(01)17
RN027	Frequency bands 406.1 – 430 MHz and 440-470 MHz may be used by land mobile communications networks in accordance with Decision ECC/DEC(19)02.
RN028	Not used
RN029	It is allowed to use personal mobile radio stations PMR446 within the frequency band 446-446,2 MHz in conformity with provisions of Decision ECC/DEC(15)05.
RN029A	Frequency bands 451-457.5 MHz paired with 461-467.5 MHz are intended for the deployment of advanced broadband mobile communications technologies based on the principle of technological neutrality.
RN030	The frequency band 694-790 MHz is designated for the deployment of mobile / fixed communications networks (MFCNs) in accordance with Decision ECC/DEC/(15)01. Recommendation ECC/REC/(15)01, Resolution 760 (WRC-23) and Resolution 224 (rev. WRC-23) are also applicable.

RN031	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. Resolutions 224 (Rev.WRC-23) and 749 (WRC-23) shall apply.
RN032	Not used
RN033	Frequencies 865 MHz, 867 MHz and 869 MHz can be used on the secondary basis by Automatic Vehicle Identification for Railways in the railway nework, with maximum transmitter power 2 W.
RN034	Starting from January 1, 2024, the paired frequency bands 874.4-880 MHz and 919.4-925 MHz, as well as the unpaired frequency band 1900-1910 MHz are designated for non-exclusive use by radio mobile railway systems (RMR), in accordance with the provisions of Decision ECC/DEC/(20)02.
RN035	It is permitted to use short range devices on a secondary basis in the bands and with technical parameters indicated in corresponding annexes and appendixes of Recommendation ERC/REC 70-03.
RN036	The operation of terminal equipment within fixed and mobile communications networks operated under the control of terrestrial networks is allowed according to the provisions of Decision ECC/DEC(22)01.
RN037	The frequency bands 880-915 MHz, 925-960 MHz, 1710-1785 MHz and 1805-1880 MHz are designated for the deployment of mobile/fixed communications networks (MFCNs) according to Decisions ERC/DEC/(94)01, ERC/DEC /(97)02 and ECC/DEC/(06)13. The provisions of CEPT Recommendations ECC/REC(05)08, ECC/REC(08)02 and Decisions ECC/DEC(22)01 and ECC/DEC(22)07 are also applicable.
RN037A	It is permitted to use on board vessels GSM systems in the frequency bands 880-915/925-960 MHz and 1710-1785/1805-1880 MHz, UMTS systems in the frequency bands 1920-1980/2110-2170 MHz and LTE systems in the frequency bands 1710-1785/1805-1880 MHz and 2500-2570/2620-2690 MHz in conformity with provisions of ECC Decision ECC/DEC/(08)08.
RN038	Frequency 1030 MHz is used by terrestrial air traffic control equipment and frequency 1090 MHz is used by on-board air traffic control equipment.
RN039	The 2010 - 2025 MHz band is permitted for the usage of portable or mobile portable video links and wireless cameras used for program production and special events, subject to the technical provisions stipulated for the respective frequency band in the Recomendation ERC / REC 25- 10.
RN040	Not used
RN041	Not used

RN042	In the band 1592 – 1622.5 MHz separate frequencies with ±1 MHz bandwidth are used by on-board equipment to avoid aircraft collisions.
RN043	Not used
RN044	Frequency bands 1610-1626.5 MHz and 2483.5-2500 MHz can be used by systems of the mobile-satellite service, in conformity with Decision ECC/DEC(09)02.
RN044A	Frequency bands 1710 – 1785 MHz and 1805 – 1880 MHz are allocated for implementation and operation of land systems which provide electronic communication services and, in conformity with relevant CEPT Recommendations and Decisions, these systems are defined by the central body.
RN044B	It is permitted to use the airborne GSM and LTE systems in the frequency bands 1710-1785 MHz and 1805-1880 MHz, and airborne UMTS systems in the frequency bands 1920-1980 MHz and 2110-2170 MHz in conformity with provisions of ECC Decision ECC/DEC/(06)07.
RN045	It is permitted to use Digital European Cordless Telecommunications system (DECT) in the band 1880 – 1900 MHz on the territory of Republic of Moldova, in conformity with ERC Decision ERC/DEC/(94)03. In some localities band 1880 – 1885 MHz can be used subject to solving the electromagnetical compatibility problem with existing radio relay links. New assignments in the band 1880 – 1900 MHz for other radio relay links are not permitted.
RN046	The frequency bands 1900-1980 MHz and 2110-2170 MHz are designated for the deployment of mobile / fixed communications networks (MFCNs), including the terrestrial component of IMT, in accordance with Decision ECC/DEC/(06)01. The provisions of CEPT Recommendation ERC/REC/(01)01 are also applicable.
RN047	Frequency band 1940 – 2060 MHz can be used by existing aeronautical radionavigation applications (radio altimeters) till the end of their lifetime. Elaboration and purchasing abroad new aeronautical radionavigation applications in this band is prohibited.
RN047A	The frequency bands 1980-2010 MHz and 2170-2200 MHz are designated for use by mobile satellite service systems, including those supplemented by the complementary ground component in accordance with Decision ECC/DEC/(06)09.
RN047B	The frequency band 2300-2400 MHz may be used for the deployment of mobile / fixed communications networks (MFCNs) in accordance with the provisions of Decision ECC/DEC/(14)02. The provisions of Recommendation ECC/REC/(14) 04 and Recommendation ECC/REC(15)04 also apply.
RN048	In the frequency bands 2200 – 2292 MHz it is permitted the implementation of microwave video distribution systems (MMDS/MVDS).
RN048A	The frequency band 2500-2690 MHz is designated for the implementation of wide-band radio access systems, taking into consideration the Decisions ECC/DEC(02)06 and ECC/DEC(05)05 and Recommandation CEPT/ECC/REC(11)05.
RN048B	The frequency band 3400 - 3800 MHz is designated for the implementation of mobile / fixed communications networks (MFCN), in accordance with the provisions of Decision

	ECC/DEC(11)06. The provisions of Recommendations ECC/REC/(15)01 and ECC/REC(20)03 are also applicable.
RN048BA	The frequency band 3800-4200 MHz is designated, on a non-exclusive basis, for the deployment, with secondary status, of low/medium power terrestrial wireless broadband systems (WBB LMP) providing local-area network connectivity, according to Decision ECC/ DEC(24)01";
RN048C	The use of the band 5725 – 5875 MHz by wide-band fixed radio access systems is subject to the provisions of Recommendation CEPT/ECC/REC/(06)04.
RN048D	The use of the band 5925 – 6425 MHz by wide-band fixed systems is subject to the provisions of Recommendation CEPT/ERC/REC 14-01. For transborder fixed links, on the basis of agreement between administrations, also Recommendation ITU-R F.383 can be applied.
RN048E	The use of the band 6425 - 7125 MHz by fixed systems is subject to the provisions of Recommendation CEPT/ERC/REC 14-02. For transborder fixed links, on the basis of agreement between administrations, also Recommendation ITU-R F.384 can be applied.
RN048F	The use of the band 7125 – 8500 MHz by fixed systems is subject to the provisions of Recommendation CEPT/ECC/REC/(02)06. For transborder fixed links, on the basis of agreement between administrations, also Recommendations ITU-R F.385 şi ITU-R F.386 can be applied.
RN048G	In the frequency bands 4940-4990 MHz and 5150-5250 MHz it is permitted the implementation of BBDR (Broad Band Disaster Relief) systems, in conformity with Recommendation ECC/REC/(08)04 provisions.
RN048H	For Wireless Access Systems including Radio Local Area Networks (WAS/RLANs) operating in the frequency bands 5150 – 5350 MHz and 5470 – 5725 MHz are applied provisions of ECC Decision ECC/DEC/(04)08 and Resolution 229 (Rev. WRC-19). For Wireless Access Systems, including Radio Local Area Networks (WAS/RLAN) operating in the frequency band 5945-6425 MHz, are applied provisions of Decision ECC/DEC(20)01.
RN048I	For Intelligent Transport Systems in the frequency band 5875-5935 MHz are applied provisions of ECC Decision ECC/DEC/(08)01.
RN049	Parts of the bands 7722 – 7750 MHz and 8500 – 8700 MHz can be used for radio links of fixed and mobile television cameras with transmitter power up to 1 W subject to coordination of locations of these stations in conformity with procedure in force.
RN049A	The use of ultra-wideband (UWB) applications in parts of the frequency bands below 10.6 GHz is permitted in accordance with the provisions of CEPT Decision ECC/DEC/(06)04.
RN050	The use of the band 10.0 – 10.68 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendation CEPT/ECC/REC 12-05.
RN050A	The frequency band 10.2-10.68 GHz can be used by low power radiolocation stations, which are using Doppler's effect for measurements of velocity of moving terrestrial objects.

RN050B	The parts of frequency bands 27.5 – 29.5 GHz and 31.8-33.4 GHz are designated for the implementation of fixed point-to-multipoint radio access systems, in accordance with the provisions of Recommendation CEPT/ERC/REC/(11)01.
RN051	The use of the band 10.7-11.7 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendations CEPT/ERC/REC 12-06 şi ITU-R F.387.
RN052	The use of the band 12.75 – 13.25 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendation CEPT/ECC/REC 12-02. For transborder fixed links, on the basis of agreement between administrations, also Recommendation ITU-R F.497 can be applied.
RN053	Separate frequencies in the band 13.56 – 13.62 GHz can be used by low power radiolocation stations, which are using Doppler's effect for measurements of velocity of moving terrestrial objects.
RN053A	The use of the band 14.4 – 15.35 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendation ITU-R F.636.
RN053B	The use of fixed ground stations within the non-geostationary satellite oribt systems (NGSO) authorized in the Republic of Moldova is allowed, operating in the fixed satellite service in the frequency bands 14.0-14.5 GHz and 10.7-12.75 GHz, according to the provisions of Decision ECC/DEC/ (17)04;
RN053C	The use of Earth Stations In-Motion (ESIM) within the geostationary satellite systems (GSO) authorized in the Republic of Moldova is allowed, operating in the fixed satellite service in the frequency bands 14.0-14.5 GHz and 10.7-12.75 GHz, according to the provisions of Decision ECC/ DEC(18)04;
RN053D	The use of Earth Stations In-Motion (ESIM) within the non-geostationary satellite systems (NGSO) authorized in the Republic of Moldova is allowed, operating in the fixed satellite service in the frequency bands 14.0-14.5 GHz and 10.7-12.75 GHz, according to the provisions of the Decision ECC/DEC(18)05;
RN053E	The use of Earth Stations on board Vessels (ESV) within the satellite systems authorized in the Republic of Moldova is allowed, operating in the fixed satellite service in the frequency bands 14.0-14.5 GHz (Earth-space), 10.7-11.7 GHz (space-Earth) and 12.5-12.75 GHz (space-Earth), according to the provisions of Decision ECC/DEC(05)10;
RN053F	The use of Aircraft Earth Stations (AES) within the satellite systems authorized in the Republic of Moldova is allowed, operating in the fixed satellite service in the frequency bands 14.0-14.5 GHz (Earth-space), 10.7-11.7 GHz (space-Earth) and 12.5-12.75 GHz (space-Earth), according to the provisions of Decision ECC/DEC(05)11;
RN053G	The use of low e.ir.p. satellite terminals (LEST) within the satellite systems, authorized in the Republic of Moldova is allowed, operating in the fixed satellite service in the frequency bands 10.70-12.75 GHz or 19.70-20.20 GHz (space-Earth) and 14.00- 14.25 GHz or 29.50-30.00 GHz (Earth-space), according to the provisions of Decision ECC/DEC(06)02;
RN053H	The use of high e.i.r.p. satellite terminals (HEST) within the satellite systems, authorized in the Republic of Moldovais allowed, operating in the fixed satellite service in the frequency bands 10.70-12.75 GHz or 19.70-20.20 GHz (space-Earth) and 14.00- 14.25

	GHz or 29.50-30.00 GHz (Earth-space), according to the provisions of Decision ECC/DEC(06)03;
RN054	For transborder fixed links, on the basis of agreement between administrations, Recommendation ITU-R F.595 can be applied.
RN054A	The use of Earth stations on mobile platforms (ESOMPs) within the authorized satellite systems in the Republic of Moldova is allowed, in the frequency bands 17.3-20.2 GHz and 27.5-30 GHz in accordance with the provisions of Decision ECC/DEC/(13)01 and in bands 17.3-20.2 GHz, 27.5-29.1 GHz and 29.5-30.0 GHz in accordance with the provisions of Decision ECC/DEC/(15)04.
RN055	The use of the band 22 – 29.5 GHz by fixed systems is subject to the provisions of Recommendation CEPT T/R 13-02. For transborder fixed links, on the basis of agreement between administrations, also Recommendations ITU-R F.637 and ITU-R F.748 can be applied.
RN055A	The 24.25-27.5 GHz frequency band is designated for the implementation of mobile / fixed communications networks (MFCNs), in accordance with the provisions of Decision ECC/DEC(18)06. Recommendation ECC/REC (19)01 is also applicable.
RN056	The frequency band 27.5 – 29.5 GHz can be used, in conformity with Decision ECC/DEC/(05)01.
RN057	The use of the band 31.0 – 31.3 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendation CEPT/ECC/REC/(02)02.
RN058	The use of the band 31.8 – 33.4 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendations CEPT/ERC/REC/(01)02, ECC/REC/(11)01.
RN059	The frequency band 37 – 40.5 GHz can be used in conformity with Decision ERC/DEC/(00)02 and Recommendation CEPT T/R 12-01.
RN060	In the frequency band 40.5 – 43.5 GHz it is permitted implementation of multimedia wireless systems (MWS), in conformity with Recommendation CEPT/ECC/REC/(01)04. Also, using the frequency band 40.5 – 43.5 GHz, the provisions of Decision ECC/DEC/(23)01 shall be applied.
RN060A	The frequency band 40.5 - 43.5 GHz is identified for the implementation and operation of mobile/fixed communications networks (MFCN) in accordance with the CEPT Decisions CEPT ECC/DEC/(22)06 and CEPT Recommendations ECC/REC/(22)01 and CEPT ECC/REC/(22)02.
RN060B	The provisions of Decision ECC/DEC(21)01 apply to the use of the bands 47.2-50.2 GHz and 50.4-52.4 GHz by the fixed satellite service is (Earth-space);
RN061	The use of the band 48.5 – 50.2 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendation CEPT/ERC/REC 12-10.
RN062	The use of the band 51.4 – 52.6 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendation CEPT/ERC/REC 12-11.

RN063	The use of the band 55.78 – 57 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendation CEPT/ERC/REC 12-12.
RN064	The use of the band 57.0 – 59.0 GHz by wide-band fixed radio access systems is subject to the provisions of Decision ECC/DEC(09)01.
RN064A	In frequency band 57 – 64 GHz can be used point-to-point radio access systems, in conformity with Recommendation ECC/REC/(09)01.
RN064B	The frequency band 63 – 64 GHz is designated for the implementation of Intelligent Transport Systemes (ITS), in conformity with Decision ECC/DEC/(09)01.
RN065	The use of the band 64 – 66 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendation CEPT/ECC/REC/(05)02.
RN065A	The frequency band 66-71 GHz is identified for the implementation and operation of terrestrial systems for the provision of electronic communications services, the systems being determined by the specialized central body in accordance with the CEPT Decisions and Recommendations relevant to these bands.
RN066	The use of the bands 71-76 GHz and 81-86 GHz by wide-band fixed radio access systems is subject to the provisions of Recommendation CEPT/ECC/REC/(05)07.
RN066A	The provisions of Decision ECC/DEC/(21)02 apply to the use of High Definition Ground Based Synthetic Aperture Radar (HD-GBSAR) in the 76-77 GHz frequency band.
RN067	For short range radars in the frequency band 77-81 GHz are applied provisions of ECC Decision ECC/DEC/(04)03.
RN068	For fixed systems in the frequency band 92-95 GHz are applied provisions of ECC Recommendation ECC/REC/(14)01.

Annex 3

List of abbreviations

ADS-B	Automatic dependent surveillance–broadcast
AES	Aircraft Earth Stations
AIS	Automatic Identification System
ALD	Assistive listening device
ALS	Assistive listening systems
AMRD	Autonomous marine radio device
BBDR	Broad Band Disaster Relief radio applications
BWA	Broadband Wireless Access
BFWA	Broadband Fixed Wireless Access
WAC	World Administrative Conference
CB	Citizen Band
CEPT	Conference of European Post and Telecommunications
WRC	World Radio Communication Conference
DA2GC	Direct Air-to-Ground Communications
DEC	ECC Decision
DECT	Digital Enhanced Cordless Telecommunication
DVB-T	Digital Video Broadcasting — Terrestrial
DSC	Digital Selective Calling
ECC	Electronic Communication Committee
EPIRB	Emergency Position-Indicating Radiobeacon
ERC	European Radiocommunication Committee
ESV	Earth station on board vessel
GALILEO	European Global Navigation Satellite System
GBAS	Ground-Based Augmentation System
GLONASS	Russian Global Navigation Satellite System
GMDSS	Global Maritime Distress Safety System
GNSS	Global Navigation Satellite System
GPS	American Global Navigation Satellite System
GSO ESOMP	Earth Stations On Mobile Platforms operating with GeoStationary Orbit satellites
GSM-R	GSM for Railways

HEST	High E.i.r.p. Satellite Terminals
HD-GBSAR	High Definition Ground Based Synthetic Aperture Radar
HIBS	High Altitude IMT Base Stations
ILS	Instrument Landing System (aviation)
IMT	International Mobile Telecommunications
ISM	Industrial, Scientific and Medical applications
ITU	International Telecommunication Union
ITS	Intelligent Transport Systems
LEST	Low E.i.r.p. Satellite Terminals
MBANS	Medical Body Area Networks
MBR	Maritime Broadband Radio
MCA	Mobile Communications Services on Board Aircraft
MCV	Mobile Communication Services on Board Vessels
MFCN	Mobile/Fixed Communications Networks
MMDS, MVDS	Multimedia distribution system, Multipoint video distribution system
MRE	Radioelectronic applications
MWS	Multimedia Wireless System
NAVTEX	Narrow-band direct-printing telegraphy system for transmission of navigational and meteorological warnings and urgent information to ships
NGSO ESOMP	Earth Stations On Mobile Platforms operating with Non-GeoStationary Orbit satellites
PMR	Personal Mobile Radio
PAMR	Public Access Mobile Radio
PMSE	Program making/ special events
PPDR	Public Protection and Disaster Relief
RFID	Radio Frequency Identification
RMR	Railway Mobile Radio
RR	Radio Regulations
SAR	Search and Rescue communications
S – PCS	Satellite Personal Communication System
SIT/SUT	Satellite Interactive Terminal / Satellite User Terminal

SRR	Short Range Radar
T-DAB	Terrestrial-Digital Audio Broadcasting
TTT	Transport and traffic telemetry
VOR ULP-WMCE	VHF Omni-directional RangeUltra-Low Power Wireless Medical Capsule Endoscopy
UMTS	Universal Mobile Telecommunication System
WAS/RLAN	Wireless Access Systems including Radio Local Area Networks
WBB LMP	Low/medium power terrestrial wireless broadband systems
WIA	Wireless Industrial Applications