



Trinidad and Tobago Frequency Allocation Table (8.3 kHz – 3000 GHz)

Maintenance History		
Date	Change Details	Version
November 30, 2004	Final approved version of the TTFAT (88 MHz – 5850 MHz)	1.0
October 16, 2009	Draft revision of the first approved version of the TTFAT (9 kHz – 1000 GHz) for first round of consultation	1.1
February 5, 2010	Final approved version of the TTFAT (9 kHz – 1000 GHz)	2.0
December 10, 2014	Draft revision of the second approved version of the TTFAT (8.3 kHz – 3000 GHz) for first round of consultation (CANCELLED)	2.1
January 16, 2019	Draft revision of the second approved version of the TTFAT (8.3 kHz – 3000 GHz), revised based on WRC-15, for first round of consultation (RESTARTED)	2.1
August 22, 2019	Revised consultative document based on comments received from first round of consultation	2.2
November 06, 2019	Final approved version of the TTFAT (8.3 kHz – 3000 GHz)	3.0

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List of Abbreviations

ADS-B	automatic dependent surveillance-broadcast
AIS	automatic identification system
BWA	broadband wireless access
CB	Citizen Band
dBW	decibel watt
DSC	digital selective calling
ENG	electronic news gathering
ERP	effective radiated power
EIRP (alt. e.i.r.p.)	equivalent isotropic radiated power
FRS/GMRS	Family Radio Service/General Mobile Radio Service
GHz	gigahertz
GMDSS	Global Maritime Distress and Safety System
Hz	hertz
HAPS	high-altitude platform station
IMO	International Maritime Organization
IMT	International Mobile Telecommunications
ISM	Industrial, Scientific and Medical
ITU	International Telecommunication Union
ITU-R	International Telecommunication Union Radiocommunication Bureau
kHz	kilohertz
kW	kilowatt
WLAN	wireless local area network
OB	outside broadcast
MSI	maritime safety information
MHz	megahertz
NAVTEX	navigational telex
PFD (alt. pfd)	power flux-density
PPDR	public protection and disaster relief

PSTN	public switched telecommunications network
RFID	radio-frequency identification
RNSS	radio navigation satellite service
SART	search and rescue transponder
SCADA	supervisory control and data acquisition
SIT	shipborne interrogator transponder
STL	studio transmitter link
TATT	Telecommunications Authority of Trinidad and Tobago
TTFAT	Trinidad and Tobago Frequency Allocation Table
WARC Mar	World Administrative Radio Conference to Deal with Matters Relating to the Maritime Mobile Service (Geneva, 1967)
WARC-71	World Administrative Radio Conference for Space Telecommunications (Geneva, 1971)
WMARC-74	World Maritime Administrative Radio Conference (Geneva, 1974)
WARC SAT-77	World Broadcasting-Satellite Administrative Radio Conference (Geneva, 1977)
WARC-Aer2	World Administrative Radio Conference on the Aeronautical Mobile (R) Service (Geneva, 1978)
WARC-79	World Administrative Radio Conference (Geneva, 1979)
WARC Mob-83	World Administrative Radio Conference for the Mobile Services (Geneva, 1983)
WARC HFBC-84	World Administrative Radio Conference for the Planning of the HF Bands Allocated to the Broadcasting Service (Geneva, 1984)
WARC Orb-85	World Administrative Radio Conference on the Use of the Geostationary-Satellite Orbit and the Planning of Space Services Utilizing It (First Session – Geneva, 1985)
WARC HFBC-87	World Administrative Radio Conference for the Planning of the HF Bands Allocated to the Broadcasting Service (Geneva, 1987)
WARC Mob-87	World Administrative Radio Conference for the Mobile Services (Geneva, 1987)
WARC Orb-88	World Administrative Radio Conference on the Use of the Geostationary-Satellite Orbit and the Planning of Space Services Utilizing It (Second Session – Geneva, 1988)
WARC-92	World Administrative Radio Conference for Dealing with Frequency Allocations in Certain Parts of the Spectrum (Malaga-Torremolinos, 1992)

WiFi	Wireless Fidelity
WRC-95	World Radiocommunication Conference (Geneva, 1995)
WRC-97	World Radiocommunication Conference (Geneva, 1997)
WRC-2000	World Radiocommunication Conference (Istanbul, 2000)
WRC-03	World Radiocommunication Conference (Geneva, 2003)
WRC-07	World Radiocommunication Conference (Geneva, 2007)
WRC-12	World Radiocommunication Conference (Geneva, 2012)
WRC-15	World Radiocommunication Conference (Geneva, 2015)
WRC-19	World Radiocommunication Conference (Sharm el-Sheikh, 2019)

1. Introduction

1.1 Rationale

The Convention of the International Telecommunication Union (ITU), which establishes a binding, global framework for international telecommunications, was ratified by Trinidad and Tobago in 1992. The provisions of the Convention are complemented by the ITU's International Telecommunication Regulations and the Radio Regulations.

The Telecommunications Authority of Trinidad and Tobago (the Authority) is mandated by the Telecommunications Act, Chap. 47:31 (the Act) to ensure compliance with the Convention, as well as to plan, supervise, regulate and manage the use of the radio frequency spectrum (hereafter called spectrum) for Trinidad and Tobago.

The Authority has various spectrum plans which serve to identify frequency ranges allocated for the provision of specific radiocommunications services, the licensing process and any specific licensing conditions. These spectrum plans are developed based on allocations specified in this document, the *Trinidad and Tobago Frequency Allocation Table (8.3 kHz – 3000 GHz)* (TTFAT).

1.2 Purpose

The Authority has developed the TTFAT to compile frequency allocations for the applicable Region from Article 5 of the ITU Radio Regulations, as well as allocations specific to Trinidad and Tobago. The TTFAT includes TT footnotes that contain additional information which is relevant to Trinidad and Tobago only, in response to specific domestic spectrum requirements.

1.3 Background

Spectrum is defined as the entire range of electromagnetic frequencies used to provide communications. This spectrum is used by radiocommunications systems, such as cellular mobile, radio, radar and television. In order to utilise spectrum fairly and effectively, and to mitigate harmful interference amongst radio services, the range of frequencies within this spectrum must be planned, and portions (i.e., frequency bands) must be allocated to specific radio services.

Spectrum planning from a global perspective is spearheaded by the Radiocommunications Bureau of the ITU (ITU-R). Its Radio Regulations, to which countries are signatory, contain a Table of Frequency Allocations for radio services. The world is divided into three Regions: Regions 1, 2 and 3, as can be seen in the world map in Appendix I. The ITU-R Table of Frequency Allocations reflects this, with three separate columns, each column representing the allocations for the respective Region. The Republic of Trinidad and Tobago falls under Region 2.

Every three to four years, a World Radio Conference (WRC) is held by the ITU-R, to review the Radio Regulations and modify the Table of Frequency Allocations as necessary. The last WRC was held in Geneva from October 26 to November 30, 2015 (WRC-15) and, arising out of this meeting, modifications were made to the table, as reflected in the latest version of the Radio Regulations (ITU Radiocommunication Sector (ITU-R) 2016).

Countries are encouraged to conform to the ITU-R Table of Frequency Allocations, especially where there is potential for a radiocommunications service to cause harmful interference to another radiocommunications service within neighbouring countries. Notwithstanding this, countries can vary from the ITU-R Table of Frequency Allocations to accommodate specific national spectrum requirements, provided the radiocommunications service does not impair the operation of radiocommunications services in neighbouring countries.

1.4 Objectives

The TTFAT:

- i. specifies the usable frequency range for radio services, in accordance with the ITU-R Table of Frequency Allocations, as reflected in the latest version of the Radio Regulations (ITU Radiocommunication Sector (ITU-R) 2016).
- ii. identifies the types of radio services and the frequency bands in which they are permitted to operate, in accordance with the ITU-R Table of Frequency Allocations for Region 2.
- iii. specifies any detailed permissions and/or conditions for the use of frequency bands by radiocommunications services within Trinidad and Tobago.

1.5 Relevant Legislation

The sections of the Act that inform this document are:

Section (18)(1)(i):

“Subject to the provisions of this Act, the Authority may exercise such functions and powers as are imposed on it by this Act and in particular –

Plan, supervise, regulate and manage the use of the radio frequency spectrum, including –

- (i) the licensing and registration of radio frequencies and call signs to be used by all stations operating in Trinidad and Tobago or on any ship, aircraft, or other vessel or satellite registered in Trinidad and Tobago;
- (ii) the allocation, assignment and reallocation or reassignment of frequency bands where necessary.”

Section 41(1):

“The Authority shall regulate the use of the spectrum in order to promote the economic and orderly utilisation of frequencies for the operation of all means of telecommunications and to recover the cost incurred in the management of the spectrum.”

Section 41(2):

“The Authority shall develop a spectrum plan in order to regulate the use of the spectrum.”

Section 41(3):

“The National Spectrum Plan shall be made available to the public in the manner prescribed by the Authority.”

Section 41(4):

“The National Spectrum Plan shall state how the spectrum shall be used and the procedures for licensing frequency bands.”

1.6 Review Cycle

This document will be revised periodically to meet changing needs, taking account of technological advancements. The Authority will review this document, as necessary and in consultation with stakeholders, to ensure that it is guided by relevant policy guidelines and objectives.

Questions or concerns regarding the maintenance of this document may be directed to the Authority via e-mail to info@tatt.org.tt.

1.7 Consultation Process

In accordance with its *Procedures for Consultation in the Telecommunications and Broadcasting Sectors of Trinidad and Tobago* (ver. 2.0, 2010) (Consultation Procedures), the Authority has sought the views of the general public and industry stakeholders on this document.

It should be noted that version 2.1 of this document was released in December 2014 for the first round of consultation but was suspended, due firstly to expected changes to the TTFAT after the International Telecommunication Union World Radiocommunication Conference, 2015 (WRC-15), held from October 26 to November 30, 2015, and then to the revisions to the 700 MHz band plan, as reflected in the *Spectrum Plan for the Accommodation of Public Mobile Telecommunications Services* (the Spectrum Plan), November, 2017.

In 2019, the document was revised and re-issued for consultation over the period February 28 to March 29, 2019. The revisions made to the Frequency Allocation Table and corresponding TT footnotes as a result of this public consultation were captured in version 2.2 of the document.

The document was re-issued for a second round of consultation over the period August 22 to September 23, 2019. The comments and recommendations received from that round of consultation and the Authority's corresponding decisions on these comments and suggestions were compiled in the decisions on recommendations (DoRs) in Appendix IV.

Modifications were made to this section (i.e., 1.7 Consultation Process) and to address any grammar, sentence structure or formatting issues. The content of the document remains unchanged, based on the comments and recommendations received from the second round of public consultation.

1.8 Other Relevant Documents

Other relevant policies, plans and regulations to be read along with this document include:

- i. *Spectrum Plan for the Accommodation of Land Mobile Telecommunications Systems* (ver. 1.0, 2014)
- ii. *Spectrum Plan for the Accommodation of Point-to-Point Radiocommunications Systems* (ver. 1.0, 2014)
- iii. *Spectrum Plan for the Accommodation of Public Mobile Telecommunications Services* (ver. 4.0, 2017)
- iv. *Spectrum Plan for the Accommodation of Broadband Wireless Access Services* (ver. 2.0, 2008)
- v. *Spectrum Plan for the Accommodation of Radio and Television Broadcast Auxiliary Services* (ver. 0.2, 2015)
- vi. *Schedule B-Schedule of Devices Eligible for Use under a Class Licence* (2018)
- vii. *Class Licensing Regime* (ver. 1.0, 2008)

2. Trinidad and Tobago Frequency Allocation Table (TTFAT)

The TTFAT is divided into two columns. The left column indicates the current ITU-R Region 2 frequency allocations, while the right column indicates the Trinidad and Tobago frequency allocations. This table has been updated to include modifications to the ITU-R table arising out of WRC-15, as specified in Article 5 of the ITU-R Radio Regulations (ITU Radiocommunication Sector (ITU-R) 2016). The 2016 revision of the Radio Regulations incorporates the decisions of the World Radiocommunication Conferences of 1995 (WRC-95), 1997 (WRC-97), 2000 (WRC-2000), 2003 (WRC-03), 2007 (WRC-07), 2012 (WRC-12) and 2015 (WRC-15).

Footnote references are included in the TTFAT in the lower right corner. The footnotes themselves are listed below the table. References which appear to the right of the name of a radio service are applicable only to that particular service. References which appear below the allocated radio service or services for a specified frequency band apply to the whole of the allocation concerned.

Footnote references from the ITU-R Radio Regulations relevant to ITU-R Region 2 have been included in the left column. In the right column of the table, international ITU-R footnote references have been listed, along with Trinidad and Tobago footnote references. These TT footnotes contain additional information which is relevant to Trinidad and Tobago only. The TT footnotes have been developed to respond to specific domestic spectrum requirements.

The spectrum is subdivided into progressively smaller bands, with each band in a separate row. Frequencies are specified in the unit of hertz (Hz).

2.1 Categories of Services

Where a band is allocated to more than one service, either on a worldwide or regional basis, such services are listed in the following categories, in this order:

- i. Primary services are in all capital letters (example: FIXED).
- ii. Secondary services are in sentence case (example: Mobile).
- iii. Additional remarks are in sentence case (example: MOBILE except aeronautical mobile).

Stations of a secondary service:

- i. shall not cause harmful interference to stations of a primary service to which frequencies are already assigned or to which frequencies may be assigned at a later date.
- ii. 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.
- iii. 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.

Appendix II contains a list of terms and definitions which are relevant to the TTFAT. These terms and definitions were extracted from the ITU-R Radio Regulations, which can be consulted for a more comprehensive listing.

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
Below 8.3 (Not allocated) 5.53 5.54	Below 8.3 (Not allocated) 5.53 5.54
8.3 – 9 METEOROLOGICAL AIDS 5.54A 5.54B 5.54C	8.3 – 9 METEOROLOGICAL AIDS 5.54A 5.54B 5.54C
9 – 11.3 METEOROLOGICAL AIDS 5.54A RADIONAVIGATION	9 – 11.3 METEOROLOGICAL AIDS 5.54A RADIONAVIGATION
11.3 – 14 RADIONAVIGATION	11.3 – 14 RADIONAVIGATION
14 – 19.95 FIXED MARITIME MOBILE 5.57 5.55 5.56	14 – 19.95 FIXED MARITIME MOBILE 5.57 5.55 5.56
19.95 – 20.05 STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)	19.95 – 20.05 STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)
20.05 – 70 FIXED MARITIME MOBILE 5.57 5.56 5.58	20.05 – 70 FIXED MARITIME MOBILE 5.57 TT45 5.56 5.58
70 – 90 FIXED MARITIME MOBILE 5.57 MARITIME RADIONAVIGATION 5.60 Radiolocation 5.61	70 – 90 FIXED MARITIME MOBILE 5.57 MARITIME RADIONAVIGATION 5.60 Radiolocation 5.61
90 – 110 RADIONAVIGATION 5.62 Fixed 5.64	90 – 110 RADIONAVIGATION 5.62 Fixed 5.64

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
110 – 130 FIXED MARITIME MOBILE MARITIME RADIONAVIGATION 5.60 Radiolocation 5.61 5.64	110 – 130 FIXED MARITIME MOBILE MARITIME RADIONAVIGATION 5.60 Radiolocation 5.61 5.64
130 – 135.7 FIXED MARITIME MOBILE 5.64	130 – 135.7 FIXED MARITIME MOBILE 5.64
135.7 – 137.8 FIXED MARITIME MOBILE Amateur 5.67A 5.64	135.7 – 137.8 FIXED MARITIME MOBILE Amateur 5.67A 5.64
137.8 – 160 FIXED MARITIME MOBILE 5.64	137.8 – 160 FIXED MARITIME MOBILE 5.64
160 – 190 FIXED	160 – 190 FIXED TT48
190 – 200 AERONAUTICAL RADIONAVIGATION	190 – 200 AERONAUTICAL RADIONAVIGATION
200 – 275 AERONAUTICAL RADIONAVIGATION Aeronautical mobile	200 – 275 AERONAUTICAL RADIONAVIGATION Aeronautical mobile
275 – 285 AERONAUTICAL RADIONAVIGATION Aeronautical mobile Maritime radionavigation (radiobeacons)	275 – 285 AERONAUTICAL RADIONAVIGATION Aeronautical mobile Maritime radionavigation (radiobeacons)
285 – 315 AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons) 5.73	285 – 315 AERONAUTICAL RADIONAVIGATION MARITIME RADIONAVIGATION (radiobeacons) 5.73
315 – 325 MARITIME RADIONAVIGATION (radiobeacons) 5.73 Aeronautical radionavigation	315 – 325 MARITIME RADIONAVIGATION (radiobeacons) 5.73 Aeronautical radionavigation

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
325 – 335 AERONAUTICAL RADIONAVIGATION Aeronautical mobile Maritime radionavigation (radiobeacons)	325 – 335 AERONAUTICAL RADIONAVIGATION Aeronautical mobile Maritime radionavigation (radiobeacons)
335 – 405 AERONAUTICAL RADIONAVIGATION Aeronautical mobile	335 – 405 AERONAUTICAL RADIONAVIGATION Aeronautical mobile
405 – 415 RADIONAVIGATION 5.76 Aeronautical mobile	405 – 415 RADIONAVIGATION 5.76 Aeronautical mobile
415 – 472 MARITIME MOBILE 5.79 Aeronautical radionavigation 5.77 5.80 5.78 5.82	415 – 472 MARITIME MOBILE 5.79 Aeronautical radionavigation 5.77 5.80 5.78 5.82
472 – 479 MARITIME MOBILE 5.79 Amateur 5.80A Aeronautical radionavigation 5.77 5.80 5.80B 5.82	472 – 479 MARITIME MOBILE 5.79 Amateur 5.80A Aeronautical radionavigation 5.77 5.80 5.80B 5.82
479 – 495 MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.77 5.80 5.82	479 – 495 MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.77 5.80 5.82
495 – 505 MARITIME MOBILE	495 – 505 MARITIME MOBILE
505 – 510 MARITIME MOBILE 5.79	505 – 510 MARITIME MOBILE 5.79
510 – 525 MARITIME MOBILE 5.79A 5.84 AERONAUTICAL RADIONAVIGATION	510 – 525 MARITIME MOBILE 5.79A 5.84 AERONAUTICAL RADIONAVIGATION
525 – 535 BROADCASTING 5.86 AERONAUTICAL RADIONAVIGATION	525 – 535 BROADCASTING 5.86 AERONAUTICAL RADIONAVIGATION
535 – 605 BROADCASTING	535 – 605 BROADCASTING
1605 – 1625 BROADCASTING 5.89 5.90	1605 – 1625 BROADCASTING 5.89 5.90

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
1625 – 1705 FIXED MOBILE BROADCASTING 5.89 Radiolocation 5.90	1625 – 1705 FIXED MOBILE BROADCASTING 5.89 Radiolocation 5.90
1705 – 1800 FIXED MOBILE RADIOLOCATION AERONAUTICAL RADIONAVIGATION	1705 – 1800 FIXED MOBILE RADIOLOCATION AERONAUTICAL RADIONAVIGATION
1800 – 1850 AMATEUR	1800 – 1850 AMATEUR
1850 – 2000 AMATEUR FIXED MOBILE except aeronautical mobile RADIOLOCATION RADIONAVIGATION 5.102	1850 – 2000 AMATEUR FIXED MOBILE except aeronautical mobile RADIOLOCATION RADIONAVIGATION 5.102
2000 – 2065 FIXED MOBILE	2000 – 2065 FIXED MOBILE
2065 – 2107 MARITIME MOBILE 5.105 5.106	2065 – 2107 MARITIME MOBILE 5.105 5.106
2107 – 2170 FIXED MOBILE	2107 – 2170 FIXED MOBILE
2170 – 2173.5 MARITIME MOBILE	2170 – 2173.5 MARITIME MOBILE
2173.5 – 2190.5 MOBILE (distress and calling) 5.108 5.109 5.110 5.111	2173.5 – 2190.5 MOBILE (distress and calling) 5.108 5.109 5.110 5.111
2190.5 – 2194 MARITIME MOBILE	2190.5 – 2194 MARITIME MOBILE

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
2194 – 2300 FIXED MOBILE 5.112	2194 – 2300 FIXED MOBILE 5.112
2300 – 2495 FIXED MOBILE BROADCASTING 5.113	2300 – 2495 FIXED MOBILE BROADCASTING 5.113
2495 – 2501 STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)	2495 – 2501 STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz)
2501 – 2502 STANDARD FREQUENCY AND TIME SIGNAL Space Research	2501 – 2502 STANDARD FREQUENCY AND TIME SIGNAL Space Research
2502 – 2505 STANDARD FREQUENCY AND TIME SIGNAL	2502 – 2505 STANDARD FREQUENCY AND TIME SIGNAL
2505 – 2850 FIXED MOBILE	2505 – 2850 FIXED MOBILE
2850 – 3025 AERONAUTICAL MOBILE (R) 5.111 5.115	2850 – 3025 AERONAUTICAL MOBILE (R) 5.111 5.115
3025 – 3155 AERONAUTICAL MOBILE (OR)	3025 – 3155 AERONAUTICAL MOBILE (OR)
3155 – 3200 FIXED MOBILE except aeronautical mobile (R) 5.116 5.117	3155 – 3200 FIXED MOBILE except aeronautical mobile (R) TT50 5.116 5.117
3200 – 3230 FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113 5.116	3200 – 3230 FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113 5.116

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
3230 – 3400 FIXED MOBILE except aeronautical mobile BROADCASTING 5.113 5.116 5.118	3230 – 3400 FIXED MOBILE except aeronautical mobile BROADCASTING 5.113 5.116 5.118
3400 – 3500 AERONAUTICAL MOBILE (R)	3400 – 3500 AERONAUTICAL MOBILE (R)
3500 – 3750 AMATEUR 5.119	3500 – 3750 AMATEUR 5.119
3750 – 4000 AMATEUR FIXED MOBILE except aeronautical mobile (R) 5.122 5.125	3750 – 4000 AMATEUR FIXED MOBILE except aeronautical mobile (R) 5.122 5.125
4000 – 4063 FIXED MARITIME MOBILE 5.127 5.126	4000 – 4063 FIXED MARITIME MOBILE 5.127 5.126
4063 – 4438 MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131 5.132 5.128	4063 – 4438 MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131 5.132 5.128
4438 – 4488 FIXED MOBILE except aeronautical mobile (R) RADIOLOCATION 5.132A	4438 – 4488 FIXED MOBILE except aeronautical mobile (R) RADIOLOCATION 5.132A
4488 – 4650 FIXED MOBILE except aeronautical mobile (R)	4488 – 4650 FIXED MOBILE except aeronautical mobile (R)
4650 – 4700 AERONAUTICAL MOBILE (R)	4650 – 4700 AERONAUTICAL MOBILE (R)
4700 – 4750 AERONAUTICAL MOBILE (OR)	4700 – 4750 AERONAUTICAL MOBILE (OR)
4750 – 4850 FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113	4750 – 4850 FIXED MOBILE except aeronautical mobile (R) BROADCASTING 5.113

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
4850 – 4995 FIXED LAND MOBILE BROADCASTING 5.113	4850 – 4995 FIXED LAND MOBILE BROADCASTING 5.113
4995 – 5003 STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz)	4995 – 5003 STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz)
5003 – 5005 STANDARD FREQUENCY AND TIME SIGNAL Space research	5003 – 5005 STANDARD FREQUENCY AND TIME SIGNAL Space research
5005 – 5060 FIXED BROADCASTING 5.113	5005 – 5060 FIXED BROADCASTING 5.113
5060 – 5250 FIXED Mobile except aeronautical mobile 5.133	5060 – 5250 FIXED Mobile except aeronautical mobile 5.133
5250 – 5275 FIXED MOBILE except aeronautical mobile RADIOLOCATION 5.132A	5250 – 5275 FIXED MOBILE except aeronautical mobile RADIOLOCATION 5.132A
5275 – 5351.5 FIXED MOBILE except aeronautical mobile	5275 – 5351.5 FIXED MOBILE except aeronautical mobile TT37
5351.5 – 5366.5 FIXED MOBILE except aeronautical mobile Amateur 5.133B	5351.5 – 5366.5 FIXED MOBILE except aeronautical mobile Amateur 5.133B TT37
5366.5 – 5450 FIXED MOBILE except aeronautical mobile	5366.5 – 5450 FIXED MOBILE except aeronautical mobile TT37
5450 – 5480 AERONAUTICAL MOBILE (R)	5450 – 5480 AERONAUTICAL MOBILE (R)

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
5480 – 5680 AERONAUTICAL MOBILE (R) 5.111 5.115	5480 – 5680 AERONAUTICAL MOBILE (R) 5.111 5.115
5680 – 5730 AERONAUTICAL MOBILE (OR) 5.111 5.115	5680 – 5730 AERONAUTICAL MOBILE (OR) 5.111 5.115
5730 – 5900 FIXED MOBILE except aeronautical mobile (R)	5730 – 5900 FIXED MOBILE except aeronautical mobile (R)
5900 – 5950 BROADCASTING 5.134 5.136	5900 – 5950 BROADCASTING 5.134 5.136
5950 – 6200 BROADCASTING	5950 – 6200 BROADCASTING
6200 – 6525 MARITIME MOBILE 5.109 5.110 5.130 5.132 5.137	6200 – 6525 MARITIME MOBILE 5.109 5.110 5.130 5.132 5.137
6525 – 6685 AERONAUTICAL MOBILE (R)	6525 – 6685 AERONAUTICAL MOBILE (R)
6685 – 6765 AERONAUTICAL MOBILE (OR)	6685 – 6765 AERONAUTICAL MOBILE (OR)
6765 – 7000 FIXED MOBILE except aeronautical mobile (R) 5.138	6765 – 7000 FIXED MOBILE except aeronautical mobile (R) 5.138
7000 – 7100 AMATEUR AMATEUR-SATELLITE 5.140 5.141 5.141A	7000 – 7100 AMATEUR AMATEUR-SATELLITE 5.140 5.141 5.141A
7100 – 7200 AMATEUR 5.141A 5.141B	7100 – 7200 AMATEUR 5.141A 5.141B
7200 – 7300 AMATEUR 5.142	7200 – 7300 AMATEUR 5.142

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
7300 – 7400 BROADCASTING 5.134 5.143 5.143A 5.143B 5.143C 5.143D	7300 – 7400 BROADCASTING 5.134 5.143 5.143A 5.143B 5.143C 5.143D
7400 – 7450 FIXED MOBILE except aeronautical mobile (R)	7400 – 7450 FIXED MOBILE except aeronautical mobile (R) TT50
7450 – 8100 FIXED MOBILE except aeronautical mobile (R) 5.144	7450 – 8100 FIXED MOBILE except aeronautical mobile (R) TT50 5.144
8100 – 8195 FIXED MARITIME MOBILE	8100 – 8195 FIXED MARITIME MOBILE
8195 – 8815 MARITIME MOBILE 5.109 5.110 5.132 5.145 5.111	8195 – 8815 MARITIME MOBILE 5.109 5.110 5.132 5.145 5.111
8815 – 8965 AERONAUTICAL MOBILE (R)	8815 – 8965 AERONAUTICAL MOBILE (R)
8965 – 9040 AERONAUTICAL MOBILE (OR)	8965 – 9040 AERONAUTICAL MOBILE (OR)
9040 – 9400 FIXED	9040 – 9400 FIXED
9400 – 9500 BROADCASTING 5.134 5.146	9400 – 9500 BROADCASTING 5.134 5.146
9500 – 9900 BROADCASTING 5.147	9500 – 9900 BROADCASTING 5.147
9900 – 9995 FIXED	9900 – 9995 FIXED
9995 – 10003 STANDARD FREQUENCY AND TIME SIGNAL (10000kHz) 5.111	9995 – 10003 STANDARD FREQUENCY AND TIME SIGNAL (10000kHz) 5.111

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
10003 – 10005 STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111	10003 – 10005 STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111
10005 – 10100 AERONAUTICAL MOBILE (R) 5.111	10005 – 10100 AERONAUTICAL MOBILE (R) 5.111
10100 – 10150 FIXED Amateur	10100 – 10150 FIXED Amateur
10150 – 11175 FIXED Mobile except aeronautical mobile (R)	10150 – 11175 FIXED Mobile except aeronautical mobile (R)
11175 – 11275 AERONAUTICAL MOBILE (OR)	11175 – 11275 AERONAUTICAL MOBILE (OR)
11275 – 11400 AERONAUTICAL MOBILE (R)	11275 – 11400 AERONAUTICAL MOBILE (R)
11400 – 11600 FIXED	11400 – 11600 FIXED
11600 – 11650 BROADCASTING 5.134 5.146	11600 – 11650 BROADCASTING 5.134 5.146
11650 – 12050 BROADCASTING 5.147	11650 – 12050 BROADCASTING 5.147
12050 – 12100 BROADCASTING 5.134 5.146	12050 – 12100 BROADCASTING 5.134 5.146
12100 – 12230 FIXED	12100 – 12230 FIXED
12230 – 13200 MARITIME MOBILE 5.109 5.110 5.132 5.145	12230 – 13200 MARITIME MOBILE 5.109 5.110 5.132 5.145
13200 – 13260 AERONAUTICAL MOBILE (OR)	13200 – 13260 AERONAUTICAL MOBILE (OR)

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
13260 – 13360 AERONAUTICAL MOBILE (R)	13260 – 13360 AERONAUTICAL MOBILE (R)
13360 – 13410 FIXED RADIO ASTRONOMY 5.149	13360 – 13410 FIXED RADIO ASTRONOMY 5.149
13410 – 13450 FIXED Mobile except aeronautical mobile (R)	13410 – 13450 FIXED Mobile except aeronautical mobile (R)
13450 – 13550 FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A	13450 – 13550 FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A
13550 – 13570 FIXED Mobile except aeronautical mobile (R) 5.150	13550 – 13570 FIXED Mobile except aeronautical mobile (R) TT44 5.150
13570 – 13600 BROADCASTING 5.134 5.151	13570 – 13600 BROADCASTING 5.134 5.151
13600 – 13800 BROADCASTING	13600 – 13800 BROADCASTING
13800 – 13870 BROADCASTING 5.134 5.151	13800 – 13870 BROADCASTING 5.134 5.151
13870 – 14000 FIXED Mobile except aeronautical mobile (R)	13870 – 14000 FIXED Mobile except aeronautical mobile (R)
14000 – 14250 AMATEUR AMATEUR-SATELLITE	14000 – 14250 AMATEUR AMATEUR-SATELLITE
14250 – 14350 AMATEUR 5.152	14250 – 14350 AMATEUR 5.152

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
14350 – 14990 FIXED Mobile except aeronautical mobile (R)	14350 – 14990 FIXED Mobile except aeronautical mobile (R)
14990 – 15005 STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz) 5.111	14990 – 15005 STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz) 5.111
15005 – 15010 STANDARD FREQUENCY AND TIME SIGNAL Space research	15005 – 15010 STANDARD FREQUENCY AND TIME SIGNAL Space research
15010 – 15100 AERONAUTICAL MOBILE (OR)	15010 – 15100 AERONAUTICAL MOBILE (OR)
15100 – 15600 BROADCASTING	15100 – 15600 BROADCASTING
15600 – 15800 BROADCASTING 5.134 5.146	15600 – 15800 BROADCASTING 5.134 5.146
15800 – 16100 FIXED 5.153	15800 – 16100 FIXED 5.153
16100 – 16200 FIXED RADIOLOCATION 5.145A	16100 – 16200 FIXED RADIOLOCATION 5.145A
16200 – 16360 FIXED	16200 – 16360 FIXED
16360 – 17410 MARITIME MOBILE 5.109 5.110 5.132 5.145	16360 – 17410 MARITIME MOBILE 5.109 5.110 5.132 5.145
17410 – 17480 FIXED	17410 – 17480 FIXED
17480 – 17550 BROADCASTING 5.134 5.146	17480 – 17550 BROADCASTING 5.134 5.146
17550 – 17900 BROADCASTING	17550 – 17900 BROADCASTING

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
17900 – 17970 AERONAUTICAL MOBILE (R)	17900 – 17970 AERONAUTICAL MOBILE (R)
17970 – 18030 AERONAUTICAL MOBILE (OR)	17970 – 18030 AERONAUTICAL MOBILE (OR)
18030 – 18052 FIXED	18030 – 18052 FIXED
18052 – 18068 FIXED Space research	18052 – 18068 FIXED Space research
18068 – 18168 AMATEUR AMATEUR-SATELLITE 5.154	18068 – 18168 AMATEUR AMATEUR-SATELLITE 5.154
18168 – 18780 FIXED Mobile except aeronautical mobile	18168 – 18780 FIXED Mobile except aeronautical mobile
18780 – 18900 MARITIME MOBILE	18780 – 18900 MARITIME MOBILE
18900 – 19020 BROADCASTING 5.134 5.146	18900 – 19020 BROADCASTING 5.134 5.146
19020 – 19680 FIXED	19020 – 19680 FIXED
19680 – 19800 MARITIME MOBILE 5.132	19680 – 19800 MARITIME MOBILE 5.132
19800 – 19990 FIXED	19800 – 19990 FIXED
19990 – 19995 STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111	19990 – 19995 STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
1995 – 20010 STANDARD FREQUENCY AND TIME SIGNAL (20000 kHz) 5.111	1995 – 20010 STANDARD FREQUENCY AND TIME SIGNAL (20000 kHz) 5.111
20010 – 21000 FIXED Mobile	20010 – 21000 FIXED Mobile
21000 – 21450 AMATEUR AMATEUR-SATELLITE	21000 – 21450 AMATEUR AMATEUR-SATELLITE
21450 – 21850 BROADCASTING	21450 – 21850 BROADCASTING
21850 – 21870 FIXED 5.155A 5.155	21850 – 21870 FIXED 5.155A 5.155
21870 – 21924 FIXED 5.155B	21870 – 21924 FIXED 5.155B
21924 – 22000 AERONAUTICAL MOBILE (R)	21924 – 22000 AERONAUTICAL MOBILE (R)
22000 – 22855 MARITIME MOBILE 5.132 5.156	22000 – 22855 MARITIME MOBILE 5.132 5.156
22855 – 23000 FIXED 5.156	22855 – 23000 FIXED 5.156
23000 – 23200 FIXED Mobile except aeronautical mobile (R) 5.156	23000 – 23200 FIXED Mobile except aeronautical mobile (R) 5.156
23200 – 23350 FIXED 5.156A AERONAUTICAL MOBILE (OR)	23200 – 23350 FIXED 5.156A AERONAUTICAL MOBILE (OR)
23350 – 24000 FIXED MOBILE except aeronautical mobile 5.157	23350 – 24000 FIXED MOBILE except aeronautical mobile 5.157

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
24000 – 24450 FIXED LAND MOBILE	24000 – 24450 FIXED LAND MOBILE
24450 – 24650 FIXED LAND MOBILE RADIOLOCATION 5.132A	24450 – 24650 FIXED LAND MOBILE RADIOLOCATION 5.132A
24650 – 24890 FIXED LAND MOBILE	24650 – 24890 FIXED LAND MOBILE
24890 – 24990 AMATEUR AMATEUR-SATELLITE	24890 – 24990 AMATEUR AMATEUR-SATELLITE
24990 – 25005 STANDARD FREQUENCY AND TIME SIGNAL (25000kHz)	24990 – 25005 STANDARD FREQUENCY AND TIME SIGNAL (25000kHz)
25005 – 25010 STANDARD FREQUENCY AND TIME SIGNAL Space research	25005 – 25010 STANDARD FREQUENCY AND TIME SIGNAL Space research
25010 – 25070 FIXED MOBILE except aeronautical mobile	25010 – 25070 FIXED MOBILE except aeronautical mobile
25070 – 25210 MARITIME MOBILE	25070 – 25210 MARITIME MOBILE
25210 – 25550 FIXED MOBILE except aeronautical mobile	25210 – 25550 FIXED MOBILE except aeronautical mobile
25550 – 25670 RADIO ASTRONOMY 5.149	25550 – 25670 RADIO ASTRONOMY 5.149
25670 – 26100 BROADCASTING	25670 – 26100 BROADCASTING
26100 – 26175 MARITIME MOBILE 5.132	26100 – 26175 MARITIME MOBILE 5.132

ITU Region 2 Allocations	Trinidad and Tobago Allocations
kHz	kHz
26175 – 26200 FIXED MOBILE except aeronautical mobile	26175 – 26200 FIXED MOBILE except aeronautical mobile
26200 – 26420 FIXED MOBILE except aeronautical mobile RADIOLOCATION 5.132A	26200 – 26420 FIXED MOBILE except aeronautical mobile RADIOLOCATION 5.132A
26420 – 27500 FIXED MOBILE except aeronautical mobile 5.150	26420 – 27500 FIXED MOBILE except aeronautical mobile TT35 5.150

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
27.5 – 28 METEOROLOGICAL AIDS FIXED MOBILE	27.5 – 28 METEOROLOGICAL AIDS FIXED MOBILE
28 – 29.7 AMATEUR AMATEUR-SATELLITE	28 – 29.7 AMATEUR AMATEUR-SATELLITE
29.7 – 30.005 FIXED MOBILE	29.7 – 30.005 FIXED MOBILE
30.005 – 30.01 SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH	30.005 – 30.01 SPACE OPERATION (satellite identification) FIXED MOBILE SPACE RESEARCH
30.01 – 37.5 FIXED MOBILE	30.01 – 37.5 FIXED MOBILE

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
37.5 – 38.25 FIXED MOBILE Radio astronomy 5.149	37.5 – 38.25 FIXED MOBILE Radio astronomy 5.149
38.25 – 39.986 FIXED MOBILE	38.25 – 39.986 FIXED MOBILE
39.986 – 40.02 FIXED MOBILE Space research	39.986 – 40.02 FIXED MOBILE Space research
40.02 – 40.98 FIXED MOBILE 5.150	40.02 – 40.98 FIXED MOBILE 5.150
40.98 – 41.015 FIXED MOBILE Space research 5.160 5.161	40.98 – 41.015 FIXED MOBILE Space research 5.160 5.161
41.015 – 42 FIXED MOBILE 5.160 5.161 5.161A	41.015 – 42 FIXED MOBILE 5.160 5.161 5.161A
42 – 42.5 FIXED MOBILE 5.161	42 – 42.5 FIXED MOBILE 5.161
42.5 – 44 FIXED MOBILE 5.160 5.161 5.161A	42.5 – 44 FIXED MOBILE 5.160 5.161 5.161A

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
44 – 47 FIXED MOBILE 5.162 5.162A	44 – 47 FIXED MOBILE 5.162 5.162A
47 – 50 FIXED MOBILE	47 – 50 FIXED MOBILE
50 – 54 AMATEUR 5.162A 5.167 5.167A 5.168 5.170	50 – 54 AMATEUR 5.162A 5.167 5.167A 5.168 5.170
54 – 68 BROADCASTING Fixed Mobile 5.172	54 – 68 BROADCASTING Fixed Mobile TT2 TT5 TT7 5.172
68 – 72 BROADCASTING Fixed Mobile 5.173	68 – 72 BROADCASTING Fixed Mobile TT2 TT7 5.173
72 – 73 FIXED MOBILE	72 – 73 FIXED MOBILE
73 – 74.6 RADIO ASTRONOMY 5.178	73 – 74.6 RADIO ASTRONOMY 5.178
74.6 – 74.8 FIXED MOBILE	74.6 – 74.8 FIXED MOBILE
74.8 – 75.2 AERONAUTICAL RADIONAVIGATION 5.180 5.181	74.8 – 75.2 AERONAUTICAL RADIONAVIGATION 5.180 5.181
75.2 – 75.4 FIXED MOBILE 5.179	75.2 – 75.4 FIXED MOBILE 5.179

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
75.4 – 76 FIXED MOBILE	75.4 – 76 FIXED MOBILE
76 – 88 BROADCASTING Fixed Mobile 5.185	76 – 88 BROADCASTING Fixed Mobile TT2 TT7 5.185
88 – 100 BROADCASTING	88 – 100 BROADCASTING TT2
100 – 108 BROADCASTING 5.192 5.194	100 – 108 BROADCASTING TT2 5.192 5.194
108 – 117.975 AERONAUTICAL RADIONAVIGATION 5.197 5.197A	108 – 117.975 AERONAUTICAL RADIONAVIGATION 5.197 5.197A
117.975 – 137 AERONAUTICAL MOBILE (R) 5.111 5.200 5.201 5.202	117.975 – 137 AERONAUTICAL MOBILE (R) 5.111 5.200 5.201 5.202
137 – 137.025 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) 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	137 – 137.025 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) 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

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
137.025 – 137.175 SPACE OPERATION (space-to-Earth) 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 SPACE OPERATION (space-to-Earth) 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
137.175 – 137.825 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) 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	137.175 – 137.825 SPACE OPERATION (space-to-Earth) METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) Fixed Mobile except aeronautical mobile (R) TT52 5.204 5.205 5.206 5.207 5.208
137.825 – 138 SPACE OPERATION (space-to-Earth) 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	137.825 – 138 SPACE OPERATION (space-to-Earth) 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
138 – 143.6 FIXED MOBILE RADIOLOCATION Space research (space-to-Earth)	138 – 143.6 FIXED MOBILE TT40 TT50

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
143.6 – 143.65 FIXED MOBILE RADIOLOCATION SPACE RESEARCH (space-to-Earth)	143.6 – 143.65 FIXED MOBILE TT40 TT50
143.65 – 144 FIXED MOBILE RADIOLOCATION Space research (space-to-Earth)	143.65 – 144 FIXED MOBILE TT40
144 – 146 AMATEUR AMATEUR-SATELLITE 5.216	144 – 146 AMATEUR AMATEUR-SATELLITE 5.216
146 – 148 AMATEUR 5.217	146 – 148 AMATEUR TT52 5.217
148 – 149.9 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.209 5.218 5.219 5.221	148 – 149.9 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.209 TT40 TT50 5.218 5.219 5.221
149.9 – 150.05 MOBILE-SATELLITE (Earth-to-space) 5.209 5.220	149.9 – 150.05 MOBILE-SATELLITE (Earth-to-space) 5.209 5.220
150.05 – 154 FIXED MOBILE 5.225	150.05 – 154 FIXED MOBILE TT4 TT40 TT52 5.225
154 – 156.4875 FIXED MOBILE 5.226	154 – 156.4875 FIXED MOBILE TT3 TT40 TT50 5.226
156.4875 – 156.5625 MARITIME MOBILE (distress and calling via DSC) 5.111 5.226 5.227	156.4875 – 156.5625 MARITIME MOBILE (distress and calling via DSC) TT3 5.111 5.226 5.227
156.5625 – 156.7625 FIXED MOBILE 5.226	156.5625 – 156.7625 FIXED MOBILE TT3 5.226

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
156.7625 – 156.7875 MARITIME MOBILE (distress and calling) MOBILE-SATELLITE (Earth-to-space) 5.111 5.226 5.228	156.7625 – 156.7875 MARITIME MOBILE (distress and calling) MOBILE-SATELLITE (Earth-to-space) 5.111 5.226 5.228
156.7875 – 156.8125 MARITIME MOBILE (distress and calling) 5.111 5.226	156.7875 – 156.8125 MARITIME MOBILE (distress and calling) 5.111 5.226
156.8125 – 156.8375 MARITIME MOBILE MOBILE-SATELLITE (Earth-to-space) 5.111 5.226 5.228	156.8125 – 156.8375 MARITIME MOBILE MOBILE-SATELLITE (Earth-to-space) 5.111 5.226 5.228
156.8375 – 161.9375 FIXED MOBILE 5.226	156.8375 – 161.9375 FIXED MOBILE TT3 TT40 TT50 5.226
161.9375 – 161.9625 FIXED MOBILE Maritime mobile-satellite (Earth-to-space) 5.228AA 5.226	161.9375 – 161.9625 FIXED MOBILE Maritime mobile-satellite (Earth-to-space) 5.228AA TT50 5.226
161.9625 – 161.9875 AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELITE (Earth-to-space) 5.228C 5.228D	161.9625 – 161.9875 AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELITE (Earth-to-space) 5.228C 5.228D
161.9875 – 162.0125 FIXED MOBILE Maritime mobile-satellite (Earth-to-space) 5.228AA 5.226	161.9875 – 162.0125 FIXED MOBILE Maritime mobile-satellite (Earth-to-space) 5.228AA 5.226
162.0125 – 162.0375 AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELITE (Earth-to-space) 5.228C 5.228D	162.0125 – 162.0375 AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELITE (Earth-to-space) TT40 5.228C 5.228D
162.0375 – 174 FIXED MOBILE 5.226 5.230 5.231	162.0375 – 174 FIXED MOBILE TT4 TT40 TT50 5.226 5.230 5.231

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
174 – 216 BROADCASTING Fixed Mobile 5.234	174 – 216 BROADCASTING TT2 TT6 TT7
216 – 220 FIXED MARITIME MOBILE Radiolocation 5.241 5.242	216 – 220 FIXED MARITIME MOBILE Radiolocation 5.241 5.242
220 – 225 AMATEUR FIXED MOBILE Radiolocation 5.241	220 – 225 AMATEUR FIXED MOBILE Radiolocation 5.241
225 – 235 FIXED MOBILE	225 – 235 FIXED MOBILE
235 – 267 FIXED MOBILE 5.111 5.252 5.254 5.256 5.256A	235 – 267 FIXED MOBILE 5.111 5.252 5.254 5.256 5.256A
267 – 272 FIXED MOBILE Space Operation (space-to-Earth) 5.254 5.257	267 – 272 FIXED MOBILE Space Operation (space-to-Earth) 5.254 5.257
272 – 273 SPACE OPERATION (space-to-Earth) FIXED MOBILE 5.254	272 – 273 SPACE OPERATION (space-to-Earth) FIXED MOBILE 5.254
273 – 312 FIXED MOBILE 5.254	273 – 312 FIXED MOBILE 5.254
312 – 315 FIXED MOBILE Mobile-satellite (Earth-to-space) 5.254 5.255	312 – 315 FIXED MOBILE Mobile-satellite (Earth-to-space) 5.254 5.255 TT42

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
315 – 322 FIXED MOBILE 5.254	315 – 322 FIXED MOBILE 5.254
322 – 328.6 FIXED MOBILE RADIO ASTRONOMY 5.149	322 – 328.6 FIXED MOBILE RADIO ASTRONOMY 5.149
328.6 – 335.4 AERONAUTICAL RADIONAVIGATION 5.258 5.259	328.6 – 335.4 AERONAUTICAL RADIONAVIGATION 5.258 5.259
335.4 – 387 FIXED MOBILE 5.254	335.4 – 387 FIXED MOBILE TT9 TT10 5.254
387 – 390 FIXED MOBILE Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.254 5.255	387 – 390 FIXED MOBILE Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.254 5.255 TT10
390 – 399.9 FIXED MOBILE 5.254	390 – 399.9 FIXED MOBILE TT10 5.254
399.9 – 400.05 MOBILE-SATELLITE (Earth-to-space) 5.209 5.220	399.9 – 400.05 MOBILE-SATELLITE (Earth-to-space) 5.209 5.220
400.05 – 400.15 STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz) 5.261 5.262	400.05 – 400.15 STANDARD FREQUENCY AND TIME SIGNAL- SATELLITE (400.1 MHz) 5.261 5.262

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
400.15 – 401 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) 5.263 Space Operation (space-to-Earth) 5.262 5.264	400.15 – 401 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) 5.208A 5.208B 5.209 SPACE RESEARCH (space-to-Earth) 5.263 Space Operation (space-to-Earth) 5.262 5.264
401 – 402 METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile	401 – 402 METEOROLOGICAL AIDS SPACE OPERATION (space-to-Earth) EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile
402 – 403 METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile	402 – 403 METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile TT48
403 – 406 METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile 5.265	403 – 406 METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile TT48 5.265
406 – 406.1 MOBILE-SATELLITE (Earth-to-space) 5.265 5.266 5.267	406 – 406.1 MOBILE-SATELLITE (Earth-to-space) 5.265 5.266 5.267
406.1 – 410 FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149 5.265	406.1 – 410 FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY TT40 5.149 5.265
410 – 420 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) 5.268	410 – 420 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) 5.268 TT40

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
420 – 430 FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271	420 – 430 FIXED MOBILE except aeronautical mobile Radiolocation TT34 TT49 5.269 5.270 5.271
430 – 432 RADIOLOCATION Amateur 5.271 5.276 5.278 5.279	430 – 432 RADIOLOCATION Amateur TT46 5.271 5.276 5.278 5.279
432 – 438 RADIOLOCATION Amateur Earth exploration-satellite (active) 5.279A 5.271 5.276 5.278 5.279 5.281 5.282	432 – 438 RADIOLOCATION Amateur Earth exploration-satellite (active) 5.279A TT42 TT45 TT46 5.271 5.276 5.278 5.279 5.281 5.282
438 – 440 RADIOLOCATION Amateur 5.271 5.276 5.278 5.279	438 – 440 RADIOLOCATION Amateur 5.271 5.276 5.278 5.279
440 – 450 FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271 5.284 5.285 5.286	440 – 450 FIXED MOBILE except aeronautical mobile Radiolocation TT34 5.269 5.270 5.271 5.284 5.285 5.286
450 – 455 FIXED MOBILE 5.286AA 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E	450 – 455 FIXED MOBILE 5.286AA TT40 TT11 TT14 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E
455 – 456 FIXED MOBILE 5.286AA MOBILE-SATELLITE (Earth-to-space) 5.209 5.286A 5.286B 5.286C	455 – 456 FIXED MOBILE 5.286AA TT40 TT14
456 – 459 FIXED MOBILE 5.286AA 5.271 5.287 5.288	456 – 459 FIXED MOBILE 5.286AA TT40 TT14 5.271 5.287 5.288

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
459 – 460 FIXED MOBILE 5.286AA MOBILE-SATELLITE (Earth-to-space) 5.209 5.286A 5.286B 5.286C	459 – 460 FIXED MOBILE 5.286AA <p style="text-align: right;">TT40 TT11 TT14</p>
460 – 470 FIXED MOBILE 5.286AA Meteorological-satellite (space-to-Earth) 5.287 5.288 5.289 5.290	460 – 470 FIXED MOBILE 5.286AA Meteorological-satellite (space-to-Earth) <p style="text-align: right;">TT4 TT12 TT14 TT15 TT40 TT54 5.287 5.288 5.289 5.290</p>
470 – 512 BROADCASTING Fixed Mobile <p style="text-align: right;">5.292 5.293</p>	470 – 512 BROADCASTING FIXED MOBILE <p style="text-align: right;">TT2 TT7</p>
512 – 608 BROADCASTING <p style="text-align: right;">5.295 5.297</p>	512 – 608 BROADCASTING <p style="text-align: right;">TT2 TT7 TT57 5.295 5.297</p>
608 – 614 RADIO ASTRONOMY Mobile-satellite except aeronautical mobile-satellite (Earth-to-space)	608 – 614 BROADCASTING <p style="text-align: right;">TT7</p>
614 – 698 BROADCASTING Fixed Mobile <p style="text-align: right;">5.293 5.308 5.308A 5.309 5.311A</p>	614 – 698 BROADCASTING Fixed Mobile <p style="text-align: right;">TT2 TT7 TT32 TT57 5.293 5.308 5.308A 5.309 5.311A</p>
698 – 806 MOBILE 5.317A BROADCASTING Fixed <p style="text-align: right;">5.293 5.309 5.311A</p>	698 – 806 MOBILE 5.317A BROADCASTING Fixed <p style="text-align: right;">TT16 TT17 5.293 5.309 5.311A</p>
806 – 890 FIXED MOBILE 5.317A BROADCASTING <p style="text-align: right;">5.317 5.318</p>	806 – 890 FIXED MOBILE 5.317A BROADCASTING <p style="text-align: right;">TT19 TT20 TT41 TT50 5.317 5.318</p>

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
890 – 902 FIXED MOBILE except aeronautical mobile 5.317A Radiolocation 5.318 5.325	890 – 902 FIXED MOBILE except aeronautical mobile 5.317A Radiolocation TT19 TT20 TT21
902 – 928 FIXED Amateur Mobile except aeronautical mobile 5.325A Radiolocation 5.150 5.325 5.326	902 – 928 FIXED Amateur Mobile except aeronautical mobile 5.325A Radiolocation TT39 TT42 TT44 TT45 5.150 5.325 5.326
928 – 942 FIXED MOBILE except aeronautical mobile 5.317A Radiolocation 5.325	928 – 942 FIXED MOBILE except aeronautical mobile 5.317A Radiolocation TT22
942 – 960 FIXED MOBILE 5.317A	942 – 960 FIXED TT22
960 – 1164 AERONAUTICAL MOBILE (R) 5.327A AERONAUTICAL RADIONAVIGATION 5.328 5.328AA	960 – 1164 AERONAUTICAL MOBILE (R) 5.327A AERONAUTICAL RADIONAVIGATION 5.328 5.328AA
1164 – 1215 AERONAUTICAL RADIONAVIGATION 5.328 RADIONAVIGATION-SATELLITE (space-to- Earth) (space-to-space) 5.328B 5.328A	1164 – 1215 AERONAUTICAL RADIONAVIGATION 5.328 RADIONAVIGATION-SATELLITE (space-to- Earth) (space-to-space) 5.328B 5.328A
1215 – 1240 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to- Earth) (space-to-space) 5.328B 5.329 5.329A SPACE RESEARCH (active) 5.330 5.331 5.332	1215 – 1240 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to- Earth) (space-to-space) 5.328B 5.329 5.329A 5.330 5.331 5.332

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
1240 – 1300 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A SPACE RESEARCH (active) Amateur 5.282 5.330 5.331 5.332 5.335 5.335A	1240 – 1300 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION-SATELLITE(space-to-Earth) (space-to-space) 5.328B 5.329 5.329A SPACE RESEARCH (active) Amateur 5.282 5.330 5.331 5.332 5.335 5.335A
1300 – 1350 RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.337 RADIONAVIGATION-SATELLITE (Earth-to-space) 5.149 5.337A	1300 – 1350 RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.337 RADIONAVIGATION-SATELLITE (Earth-to-space) 5.149 5.337A
1350 – 1400 RADIOLOCATION 5.338A 5.149 5.334 5.339	1350 – 1400 RADIOLOCATION 5.338A TT48 5.149 5.334 5.339
1400 – 1427 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341	1400 – 1427 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341
1427 – 1429 SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile 5.341A 5.341B 5.341C 5.338A 5.341	1427 – 1429 SPACE OPERATION (Earth-to-space) FIXED MOBILE except aeronautical mobile 5.341A 5.341B 5.341C TT38
1429 – 1452 FIXED MOBILE 5.341B 5.341C 5.343 5.338A 5.341	1429 – 1452 FIXED MOBILE 5.341B 5.341C 5.343 TT38
1452 – 1492 FIXED MOBILE 5.341B 5.343 5.346A BROADCASTING BROADCASTING-SATELLITE 5.208B 5.341 5.344 5.345	1452 – 1492 MOBILE 5.341B 5.343 5.346A BROADCASTING BROADCASTING-SATELLITE 5.208B TT23 5.341 5.344 5.345

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
<p>1610 – 1610.6 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) 5.341 5.364 5.366 5.367 5.368 5.370 5.372</p>	<p>1610 – 1610.6 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) 5.341 5.364 5.366 5.367 5.368 5.370 5.372</p>
<p>1610.6 – 1613.8 MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) 5.149 5.341 5.364 5.366 5.367 5.368 5.370 5.372</p>	<p>1610.6 – 1613.8 MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) TT43 5.149 5.341 5.364 5.366 5.367 5.368 5.370 5.372</p>
<p>1613.8 – 1626.5 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) Mobile-satellite (space-to-Earth) 5.208B 5.341 5.364 5.365 5.366 5.367 5.368 5.370 5.372</p>	<p>1613.8 – 1626.5 MOBILE-SATELLITE (Earth-to-space) 5.351A AERONAUTICAL RADIONAVIGATION RADIODETERMINATION-SATELLITE (Earth-to-space) Mobile-satellite (space-to-Earth) 5.208B TT43 TT53 5.341 5.364 5.365 5.366 5.367 5.368 5.370 5.372</p>
<p>1626.5 – 1660 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</p>	<p>1626.5 – 1660 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</p>
<p>1660 – 1660.5 MOBILE-SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY 5.149 5.341 5.351 5.354 5.362A 5.376A</p>	<p>1660 – 1660.5 MOBILE SATELLITE (Earth-to-space) 5.351A RADIO ASTRONOMY 5.149 5.341 5.351 5.354 5.362A 5.376A</p>

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
1660.5 – 1668 RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A	1660.5 – 1668 RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A
1668 – 1668.4 MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A	1668 – 1668.4 MOBILE-SATELLITE (Earth-to-space) 5.351A 5.379B 5.379C RADIO ASTRONOMY SPACE RESEARCH (passive) Fixed Mobile except aeronautical mobile 5.149 5.341 5.379 5.379A
1668.4 – 1670 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 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
1670 – 1675 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 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
1675 – 1690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.341	1675 – 1690 METEOROLOGICAL AIDS FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.341

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
1690 – 1700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) 5.289 5.341 5.381	1690 – 1700 METEOROLOGICAL AIDS METEOROLOGICAL-SATELLITE (space-to-Earth) 5.289 5.341 5.381
1700 – 1710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289 5.341	1700 – 1710 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.289 5.341
1710 – 1930 FIXED MOBILE 5.384A 5.388A 5.388B 5.149 5.341 5.385 5.386 5.387 5.388	1710 – 1930 FIXED MOBILE 5.384A 5.388A 5.388B TT24 TT26 5.149 5.341 5.385 5.386 5.387 5.388
1930 – 1970 FIXED MOBILE 5.388A 5.388B Mobile-satellite (Earth-to-space) 5.388	1930 – 1970 FIXED MOBILE 5.388A 5.388B Mobile-satellite (Earth-to-space) TT26 5.388
1970 – 1980 FIXED MOBILE 5.388A 5.388B 5.388	1970 – 1980 FIXED MOBILE 5.388A 5.388B TT26 5.388
1980 – 2010 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A 5.388 5.389A 5.389B 5.389F	1980 – 2010 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.351A TT26 TT27 5.388 5.389A 5.389B 5.389F
2010 – 2025 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.388 5.389C 5.389E	2010 – 2025 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) TT27 5.388 5.389C 5.389E

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
2025 – 2110 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 FIXED TT28
2110 – 2120 FIXED MOBILE 5.388A 5.388B SPACE RESEARCH (deep space)(Earth-to-space) 5.388	2110 – 2120 FIXED MOBILE 5.388A 5.388B SPACE RESEARCH (deep space)(Earth-to-space) TT24 5.388
2120 – 2160 FIXED MOBILE 5.388A 5.388B Mobile-satellite (space-to-Earth) 5.388	2120 – 2160 FIXED MOBILE 5.388A 5.388B Mobile-satellite (space-to-Earth) TT24 5.388
2160 – 2170 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.388 5.389C 5.389E	2160 – 2170 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) TT27 5.388 5.389C 5.389E
2170 – 2200 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A 5.388 5.389A 5.389F	2170 – 2200 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A TT27 5.388 5.389A 5.389F

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
2200 – 2290 SPACE OPERATION (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	2200 – 2290 FIXED MOBILE 5.391 TT31
2290 – 2300 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth)	2290 – 2300 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (deep space) (space-to-Earth) TT31
2300 – 2450 FIXED MOBILE 5.384A RADIOLOCATION Amateur 5.150 5.282 5.393 5.394 5.396	2300 – 2450 FIXED MOBILE RADIOLOCATION Amateur TT29 TT32 TT39 TT51 TT55 5.150 5.282 5.393 5.394 5.396
2450 – 2483.5 FIXED MOBILE RADIOLOCATION 5.150	2450 – 2483.5 FIXED MOBILE RADIOLOCATION TT29 TT39 TT51 TT55 5.150
2483.5 – 2500 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A RADIOLOCATION RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398 5.150 5.402	2483.5 – 2500 FIXED MOBILE MOBILE-SATELLITE (space-to-Earth) 5.351A RADIOLOCATION RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398 5.150 5.402
2500 – 2520 FIXED 5.410 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A	2500 – 2520 FIXED MOBILE except aeronautical mobile 5.384A TT32

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
2520 – 2655 FIXED 5.410 FIXED-SATELLITE (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 5.339 5.418B 5.418C	2520 – 2655 FIXED MOBILE except aeronautical mobile 5.384A TT32 5.339 5.418B 5.418C
2655 – 2670 FIXED 5.410 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.415 MOBILE except aeronautical mobile 5.384A BROADCASTING-SATELLITE 5.413 5.416 Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149 5.208B	2655 – 2670 FIXED MOBILE except aeronautical mobile 5.384A TT32 5.149 5.208B
2670 – 2690 FIXED 5.410 FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.208B 5.415 MOBILE except aeronautical mobile 5.384A Earth exploration-satellite (passive) Radio astronomy Space research (passive) 5.149	2670 – 2690 FIXED MOBILE except aeronautical mobile 5.384A TT32 5.149
2690 – 2700 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.422	2690 – 2700 EARTH EXPLORATION-SATELLITE (Passive) RADIO ASTRONOMY SPACE RESEARCH (Passive) 5.340 5.422
2700 – 2900 AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423 5.424	2700 – 2900 AERONAUTICAL RADIONAVIGATION 5.337 Radiolocation 5.423 5.424
2900 – 3100 RADIOLOCATION 5.424A RADIONAVIGATION 5.426 5.425 5.427	2900 – 3100 RADIOLOCATION 5.424A RADIONAVIGATION 5.426 5.425 5.427

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
3100 – 3300 RADIOLOCATION Earth exploration-satellite (active) Space research (active) 5.149 5.428	3100 – 3300 RADIOLOCATION Earth exploration-satellite (active) Space research (active) 5.149 5.428
3300 – 3400 RADIOLOCATION Amateur Fixed Mobile 5.149 5.429C 5.429D	3300 – 3400 RADIOLOCATION Amateur Fixed Mobile 5.149 5.429C 5.429D
3400 – 3500 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.431A 5.431B Amateur Radiolocation 5.433 5.282	3400 – 3500 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.431A 5.431B TT32 5.282
3500 – 3600 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.431B Radiolocation 5.433 5.282	3500 – 3600 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.431B TT32
3600 – 3700 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.434 Radiolocation 5.433	3600 – 3700 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.434 Radiolocation 5.433
3700 – 4200 FIXED FIXED-SATELLITE (space to-Earth) MOBILE except aeronautical mobile	3700 – 4200 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile TT33
4200 – 4400 AERONAUTICAL MOBILE (R) 5.436 AERONAUTICAL RADIONAVIGATION 5.438 5.437 5.439 5.440	4200 – 4400 AERONAUTICAL MOBILE (R) 5.436 AERONAUTICAL RADIONAVIGATION 5.438 5.437 5.439 5.440

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
4400 – 4500 FIXED MOBILE 5.440A	4400 – 4500 FIXED MOBILE TT38
4500 – 4800 FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE 5.440A	4500 – 4800 FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE TT38
4800 – 4990 FIXED MOBILE 5.440A 5.441A 5.441B 5.442 Radio astronomy 5.149 5.339 5.443	4800 – 4990 FIXED MOBILE 5.440A 5.441A 5.441B 5.442 Radio astronomy TT38
4990 – 5000 FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY Space research (passive) 5.149	4990 – 5000 FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY Space research (passive) TT38
5000 – 5010 AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space)	5000 – 5010 AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (Earth-to-space)
5010 – 5030 AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.443B	5010 – 5030 AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.443B
5030 – 5091 AERONAUTICAL MOBILE (R) 5.443C AERONAUTICAL MOBILE-SATELLITE (R) 5.443D AERONAUTICAL RADIONAVIGATION 5.444	5030 – 5091 AERONAUTICAL MOBILE (R) 5.443C AERONAUTICAL MOBILE-SATELLITE (R) 5.443D AERONAUTICAL RADIONAVIGATION 5.444

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
5091 – 5150 FIXED-SATELLITE (Earth-to-space) 5.444A AERONAUTICAL MOBILE 5.444B AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION 5.444	5091 – 5150 FIXED-SATELLITE (Earth-to-space) 5.444A AERONAUTICAL MOBILE 5.444B AERONAUTICAL MOBILE-SATELLITE (R) 5.443AA AERONAUTICAL RADIONAVIGATION 5.444
5150 – 5250 FIXED-SATELLITE (Earth-to-space) 5.447A MOBILE except aeronautical mobile 5.446A 5.446B AERONAUTICAL RADIONAVIGATION 5.446 5.446C 5.447 5.447B 5.447C	5150 – 5250 FIXED-SATELLITE (Earth-to-space) 5.447A MOBILE except aeronautical mobile 5.446A 5.446B AERONAUTICAL RADIONAVIGATION TT29 TT30 5.447B
5250 – 5255 EARTH EXPLORATION-SATELLITE (active) MOBILE except aeronautical mobile 5.446A 5.447F RADIOLOCATION SPACE RESEARCH (active) 5.447E 5.448 5.448A	5250 – 5255 EARTH EXPLORATION-SATELLITE (active) MOBILE except aeronautical mobile 5.446A 5.447F RADIOLOCATION SPACE RESEARCH (active) TT29 5.447E 5.448 5.448A
5255 – 5350 EARTH EXPLORATION-SATELLITE (active) MOBILE except aeronautical mobile 5.446A 5.447F RADIOLOCATION SPACE RESEARCH (active) 5.447E 5.448 5.448A	5255 – 5350 EARTH EXPLORATION-SATELLITE (active) MOBILE except aeronautical mobile 5.446A 5.447F RADIOLOCATION SPACE RESEARCH (active) TT29 5.447E 5.448 5.448A
5350 – 5460 EARTH EXPLORATION-SATELLITE (active) 5.448B RADIOLOCATION 5.448D AERONAUTICAL RADIONAVIGATION 5.449 SPACE RESEARCH (active) 5.448C	5350 – 5460 EARTH EXPLORATION-SATELLITE (active) 5.448B RADIOLOCATION 5.448D AERONAUTICAL RADIONAVIGATION 5.449 SPACE RESEARCH (active) 5.448C
5460 – 5470 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION 5.448D RADIONAVIGATION 5.449 SPACE RESEARCH (active) 5.448B	5460 – 5470 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION 5.448D RADIONAVIGATION 5.449 SPACE RESEARCH (active) 5.448B

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
5470 – 5570 EARTH EXPLORATION-SATELLITE (active) MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION 5.450B MARITIME RADIONAVIGATION SPACE RESEARCH (active) 5.448B 5.450 5.451	5470 – 5570 EARTH EXPLORATION-SATELLITE (active) MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION 5.450B MARITIME RADIONAVIGATION SPACE RESEARCH (active) TT29 TT39 5.448B 5.451
5570 – 5650 MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION 5.450B MARITIME RADIONAVIGATION 5.450 5.451 5.452	5570 – 5650 MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION 5.450B MARITIME RADIONAVIGATION TT29 TT39 5.450 5.451 5.452
5650 – 5725 MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION Amateur Space research (deep space) 5.282 5.451 5.453 5.454 5.455	5650 – 5725 MOBILE except aeronautical mobile 5.446A 5.450A RADIOLOCATION Amateur Space research (deep space) TT29 TT39 5.282 5.451 5.453 5.454 5.455
5725 – 5830 RADIOLOCATION Amateur 5.150 5.453 5.455	5725 – 5830 RADIOLOCATION Amateur TT29 TT39 TT55 5.150 5.453 5.455
5830 – 5850 RADIOLOCATION Amateur Amateur-satellite (space-to-Earth) 5.150 5.453 5.455	5830 – 5850 RADIOLOCATION Amateur Amateur-satellite (space-to-Earth) TT29 TT39 TT55 5.150 5.453 5.455
5850 – 5925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Amateur Radiolocation 5.150	5850 – 5925 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE Amateur Radiolocation TT38 5.150

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
5925 – 6700 FIXED 5.457 FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B MOBILE 5.457C 5.149 5.440 5.458	5925 – 6700 FIXED 5.457 FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B MOBILE 5.457C TT36 TT38 5.149 5.440 5.458
6700 – 7075 FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441 MOBILE 5.458 5.458A 5.458B	6700 – 7075 FIXED FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441 MOBILE TT36 5.458 5.458A 5.458B
7075 – 7145 FIXED MOBILE 5.458 5.459	7075 – 7145 FIXED MOBILE TT36 TT38 5.458 5.459
7145 – 7190 FIXED MOBILE SPACE RESEARCH (Earth-to-space) 5.460 5.458 5.459	7145 – 7190 FIXED MOBILE SPACE RESEARCH (deep space) (Earth-to-space) TT38 5.458 5.459
7190 – 7235 EARTH EXPLORATION-SATELLITE (Earth-to-space) 5.460A 5.460B FIXED MOBILE SPACE RESEARCH (Earth-to-space) 5.460 5.458 5.459	7190 – 7235 FIXED MOBILE TT38 5.458 5.459
7235 – 7250 EARTH EXPLORATION-SATELLITE (Earth-to-space) 5.460A FIXED MOBILE 5.458	7235 – 7250 FIXED MOBILE TT38 5.458
7250 – 7300 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE 5.461	7250 – 7300 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE TT38 5.461

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
7300 – 7375 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile 5.461	7300 – 7375 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile TT38 5.461
7375 – 7450 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth) 5.461AA 5.461AB	7375 – 7450 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth) TT38 5.461AA 5.461AB
7450 – 7550 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 5.461A	7450 – 7550 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 TT38 5.461A
7550 – 7750 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth)	7550 – 7750 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile MARITIME MOBILE-SATELLITE (space-to-Earth) TT38 5.461AA 5.461AB
7750 – 7900 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B MOBILE except aeronautical mobile	7750 – 7900 FIXED METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B MOBILE except aeronautical mobile TT38
7900 – 8025 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.461	7900 – 8025 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE TT38 5.461

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
8025 – 8175 EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 <p style="text-align: right;">5.462A</p>	8025 – 8175 EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 <p style="text-align: right;">TT38 5.462A</p>
8175 – 8215 EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) MOBILE 5.463 <p style="text-align: right;">5.462A</p>	8175 – 8215 EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) MOBILE 5.463 <p style="text-align: right;">TT38 5.462A</p>
8215 – 8400 EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 <p style="text-align: right;">5.462A</p>	8215 – 8400 EARTH EXPLORATION-SATELLITE (space-to-Earth) FIXED FIXED-SATELLITE (Earth-to-space) MOBILE 5.463 <p style="text-align: right;">TT38 5.462A</p>
8400 – 8500 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.465 5.466	8400 – 8500 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.465 5.466 <p style="text-align: right;">TT38</p>
8500 – 8550 RADIOLOCATION <p style="text-align: right;">5.468 5.469</p>	8500 – 8550 RADIOLOCATION <p style="text-align: right;">5.468 5.469</p>
8550 – 8650 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) <p style="text-align: right;">5.468 5.469 5.469A</p>	8550 – 8650 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) <p style="text-align: right;">5.468 5.469 5.469A</p>
8650 – 8750 RADIOLOCATION <p style="text-align: right;">5.468 5.469</p>	8650 – 8750 RADIOLOCATION <p style="text-align: right;">5.468 5.469</p>

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
8750 – 8850 RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.470 <p style="text-align: right;">5.471</p>	8750 – 8850 RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.470 <p style="text-align: right;">5.471</p>
8850 – 9000 RADIOLOCATION MARITIME RADIONAVIGATION 5.472 <p style="text-align: right;">5.473</p>	8850 – 9000 RADIOLOCATION MARITIME RADIONAVIGATION 5.472 <p style="text-align: right;">5.473</p>
9000 – 9200 RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.337 <p style="text-align: right;">5.471 5.473A</p>	9000 – 9200 RADIOLOCATION AERONAUTICAL RADIONAVIGATION 5.337 <p style="text-align: right;">5.471 5.473A</p>
9200 – 9300 EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C RADIOLOCATION MARITIME RADIONAVIGATION 5.472 <p style="text-align: right;">5.473 5.474 5.474D</p>	9200 – 9300 EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C RADIOLOCATION MARITIME RADIONAVIGATION 5.472 <p style="text-align: right;">5.473 5.474 5.474D</p>
9300 – 9500 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active) <p style="text-align: right;">5.427 5.474 5.475 5.475A 5.475B 5.476A</p>	9300 – 9500 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active) <p style="text-align: right;">5.427 5.474 5.475 5.475A 5.475B 5.476A</p>
9500 – 9800 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active) <p style="text-align: right;">5.476A</p>	9500 – 9800 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION RADIONAVIGATION SPACE RESEARCH (active) <p style="text-align: right;">5.476A</p>
9800 – 9900 RADIOLOCATION Earth exploration-satellite (active) Fixed Space research (active) <p style="text-align: right;">5.477 5.478 5.478A 5.478B</p>	9800 – 9900 RADIOLOCATION Earth exploration-satellite (active) Fixed Space research (active) <p style="text-align: right;">5.477 5.478 5.478A 5.478B</p>

ITU Region 2 Allocations	Trinidad and Tobago Allocations
MHz	MHz
<p>9900 – 10000 EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C RADIOLOCATION Fixed 5.474D 5.477 5.478 5.479</p>	<p>9900 – 10000 EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C RADIOLOCATION Fixed 5.474D 5.477 5.478 5.479</p>

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
10 – 10.4 EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C RADIOLOCATION Amateur 5.474D 5.479 5.480	10 – 10.4 EARTH EXPLORATION-SATELLITE (active) 5.474A 5.474B 5.474C RADIOLOCATION Amateur TT38 TT56 5.474D 5.479 5.480
10.4 – 10.45 RADIOLOCATION Amateur 5.480	10.4 – 10.45 RADIOLOCATION Amateur TT38 5.480
10.45 – 10.5 RADIOLOCATION Amateur Amateur-satellite 5.481	10.45 – 10.5 RADIOLOCATION Amateur Amateur-satellite TT38 5.481
10.5 – 10.55 FIXED MOBILE RADIOLOCATION	10.5 – 10.55 FIXED MOBILE RADIOLOCATION TT38
10.55 – 10.6 FIXED MOBILE except aeronautical mobile Radiolocation	10.55 – 10.6 FIXED MOBILE except aeronautical mobile Radiolocation TT38
10.6 – 10.68 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation 5.149 5.482 5.482A	10.6 – 10.68 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) Radiolocation TT38 5.149 5.482 5.482A

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
10.68 – 10.7 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.483	10.68 – 10.7 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.483
10.7 – 10.95 FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE except aeronautical mobile	10.7 – 10.95 FIXED FIXED-SATELLITE (space-to-Earth) 5.441 MOBILE except aeronautical mobile TT38
10.95 – 11.2 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B Mobile except aeronautical mobile	10.95 – 11.2 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B Mobile except aeronautical mobile TT38
11.2 – 11.45 FIXED FIXED-SATELLITE (space-to-Earth) 5.441 Mobile except aeronautical mobile	11.2 – 11.45 FIXED FIXED-SATELLITE (space-to-Earth) 5.441 Mobile except aeronautical mobile TT38
11.45 – 11.7 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B Mobile except aeronautical mobile	11.45 – 11.7 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B Mobile except aeronautical mobile TT38
11.7 – 12.1 FIXED 5.486 FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B 5.488 Mobile except aeronautical mobile 5.485	11.7 – 12.1 FIXED 5.486 FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B 5.488 Mobile except aeronautical mobile 5.485
12.1 – 12.2 FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B 5.488 5.485 5.489	12.1 – 12.2 FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B 5.488 5.485 5.489

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
<p>13.75 – 14 FIXED-SATELLITE (Earth-to-space) 5.484A RADIOLOCATION Earth exploration-satellite Standard frequency and time signal-satellite (Earth-to-space) Space research 5.499 5.500 5.501 5.502 5.503</p>	<p>13.75 – 14 FIXED-SATELLITE (Earth-to-space) 5.484A RADIOLOCATION Earth exploration-satellite Standard frequency and time signal-satellite (Earth-to-space) Space research 5.499 5.500 5.501 5.502 5.503</p>

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
<p>14 – 14.25 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 5.504C 5.506A Space research 5.504A 5.505</p>	<p>14 – 14.25 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 5.504C 5.506A Space research 5.504A 5.505</p>
<p>14 – 14.25 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 5.504C 5.506A Space research 5.504A 5.505</p>	<p>14 – 14.25 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 5.504C 5.506A Space research 5.504A 5.505</p>
<p>14.25 – 14.3 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</p>	<p>14.25 – 14.3 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</p>
<p>14.3 – 14.4 FIXED-SATELLITE (Earth-to-space) 5.457A 5.484A 5.484B 5.506 5.506B Mobile-satellite (Earth-to-space) 5.506A Radionavigation-satellite 5.504A</p>	<p>14.3 – 14.4 FIXED-SATELLITE (Earth-to-space) 5.457A 5.484A 5.484B 5.506 5.506B Mobile-satellite (Earth-to-space) 5.506A Radionavigation-satellite 5.504A</p>
<p>14.4 – 14.47 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 Space research (space-to-Earth) 5.504A</p>	<p>14.4 – 14.47 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 Space research (space-to-Earth) 5.504A</p>

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
14.47 – 14.5 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 <div style="text-align: right;">5.149 5.504A</div>	14.47 – 14.5 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 <div style="text-align: right;">5.149 5.504A</div>
14.5 – 14.75 FIXED FIXED-SATELLITE (Earth-to-space) 5.509B 5.509C 5.509D 5.509E 5.509F 5.510 MOBILE Space research 5.509G	14.5 – 14.75 FIXED FIXED-SATELLITE (Earth-to-space) 5.509B 5.509C 5.509D 5.509E 5.509F 5.510 MOBILE Space research 5.509G <div style="text-align: right;">TT38</div>
14.75 – 14.8 FIXED FIXED-SATELLITE (Earth-to-space) 5.510 MOBILE Space research 5.509G	14.75 – 14.8 FIXED FIXED-SATELLITE (Earth-to-space) 5.510 MOBILE Space research 5.509G <div style="text-align: right;">TT38</div>
14.8 – 15.35 FIXED MOBILE Space research <div style="text-align: right;">5.339</div>	14.8 – 15.35 FIXED MOBILE Space research <div style="text-align: right;">TT38 5.339</div>
15.35 – 15.4 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) <div style="text-align: right;">5.340 5.511</div>	15.35 – 15.4 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) <div style="text-align: right;">5.340 5.511</div>
15.4 – 15.43 RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION	15.4 – 15.43 RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION
15.43 – 15.63 FIXED-SATELLITE (Earth-to-space) 5.511A RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION <div style="text-align: right;">5.511C</div>	15.43 – 15.63 FIXED-SATELLITE (Earth-to-space) 5.511A RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION <div style="text-align: right;">5.511C</div>

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
15.63 – 15.7 RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION	15.63 – 15.7 RADIOLOCATION 5.511E 5.511F AERONAUTICAL RADIONAVIGATION
15.7 – 16.6 RADIOLOCATION 5.512 5.513	15.7 – 16.6 RADIOLOCATION 5.512 5.513
16.6 – 17.1 RADIOLOCATION Space research (deep space) (Earth-to-space) 5.512 5.513	16.6 – 17.1 RADIOLOCATION Space research (deep space) (Earth-to-space) 5.512 5.513
17.1 – 17.2 RADIOLOCATION 5.512 5.513	17.1 – 17.2 RADIOLOCATION 5.512 5.513
17.2 – 17.3 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.512 5.513 5.513A	17.2 – 17.3 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.512 5.513 5.513A
17.3 – 17.7 FIXED-SATELLITE (Earth-to-space) 5.516 BROADCASTING-SATELLITE Radiolocation 5.514 5.515	17.3 – 17.7 FIXED-SATELLITE (Earth-to-space) 5.516 BROADCASTING-SATELLITE Radiolocation 5.514 5.515
17.7 – 17.8 FIXED FIXED-SATELLITE (space-to-Earth) 5.517 (Earth-to-space) 5.516 BROADCASTING-SATELLITE Mobile 5.515	17.7 – 17.8 FIXED FIXED-SATELLITE (space-to-Earth) 5.517 (Earth- to-space) 5.516 BROADCASTING-SATELLITE Mobile 5.515
17.8 – 18.1 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE 5.519	17.8 – 18.1 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516 MOBILE 5.519

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
18.1 – 18.4 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520 MOBILE <p style="text-align: right;">5.519 5.521</p>	18.1 – 18.4 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520 MOBILE <p style="text-align: right;">5.519 5.521</p>
18.4 – 18.6 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B MOBILE	18.4 – 18.6 FIXED FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B MOBILE
18.6 – 18.8 EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) 5.516B 5.522B MOBILE except aeronautical mobile SPACE RESEARCH (passive) <p style="text-align: right;">5.522A</p>	18.6 – 18.8 EARTH EXPLORATION-SATELLITE (passive) FIXED FIXED-SATELLITE (space-to-Earth) 5.516B 5.522B MOBILE except aeronautical mobile SPACE RESEARCH (passive) <p style="text-align: right;">5.522A</p>
18.8 – 19.3 FIXED FIXED-SATELLITE (space-to-Earth) 5.516.B 5.523A MOBILE	18.8 – 19.3 FIXED FIXED-SATELLITE (space-to-Earth) 5.516.B 5.523A MOBILE
19.3 – 19.7 FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E MOBILE	19.3 – 19.7 FIXED FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E MOBILE
19.7 – 20.1 FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B 5.516B 5.527A MOBILE-SATELLITE (space-to-Earth) <p style="text-align: right;">5.524 5.525 5.526 5.527 5.528 5.529</p>	19.7 – 20.1 FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B 5.516B 5.527A MOBILE-SATELLITE (space-to-Earth) <p style="text-align: right;">5.524 5.525 5.526 5.527 5.528 5.529</p>
20.1 – 20.2 FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B 5.516B 5.527A MOBILE-SATELLITE (space-to-Earth) <p style="text-align: right;">5.524 5.525 5.526 5.527 5.528</p>	20.1 – 20.2 FIXED-SATELLITE (space-to-Earth) 5.484A 5.484B 5.516B 5.527A MOBILE-SATELLITE (space-to-Earth) <p style="text-align: right;">5.524 5.525 5.526 5.527 5.528</p>

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
20.2 – 21.2 FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Standard frequency and time signal-satellite (space-to-Earth) 5.524	20.2 – 21.2 FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) Standard frequency and time signal-satellite (space-to-Earth) 5.524
21.2 – 21.4 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)	21.2 – 21.4 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive)
21.4 – 22 FIXED MOBILE 5.530A	21.4 – 22 FIXED MOBILE 5.530A
22 – 22.21 FIXED MOBILE except aeronautical mobile 5.149	22 – 22.21 FIXED MOBILE except aeronautical mobile TT47 5.149
22.21 – 22.5 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) 5.149 5.532	22.21 – 22.5 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY SPACE RESEARCH (passive) TT47 5.149 5.532
22.5 – 22.55 FIXED MOBILE	22.5 – 22.55 FIXED MOBILE TT47
22.55 – 23.15 FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (Earth-to-space) 5.532A 5.149	22.55 – 23.15 FIXED INTER-SATELLITE 5.338A MOBILE SPACE RESEARCH (Earth-to-space) 5.532A TT47 5.149

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
23.15 – 23.55 FIXED INTER-SATELLITE 5.338A MOBILE	23.15 – 23.55 FIXED INTER-SATELLITE 5.338A MOBILE TT47
23.55 – 23.6 FIXED MOBILE	23.55 – 23.6 FIXED MOBILE TT47
23.6 – 24 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	23.6 – 24 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) TT47 5.340
24 – 24.05 AMATEUR AMATEUR-SATELLITE 5.150	24 – 24.05 AMATEUR AMATEUR-SATELLITE TT47 5.150
24.05 – 24.25 RADIOLOCATION Amateur Earth exploration-satellite (active) 5.150	24.05 – 24.25 RADIOLOCATION Amateur Earth exploration-satellite (active) TT39 TT47 5.150
24.25 – 24.45 RADIONAVIGATION	24.25 – 24.45 RADIONAVIGATION TT47
24.45 – 24.65 INTER-SATELLITE RADIONAVIGATION 5.533	24.45 – 24.65 INTER-SATELLITE RADIONAVIGATION TT47 5.533
24.65 – 24.75 INTER-SATELLITE RADIOLOCATION-SATELLITE (Earth-to-space)	24.65 – 24.75 INTER-SATELLITE RADIOLOCATION-SATELLITE (Earth-to-space) TT47
24.75 – 25.25 FIXED-SATELLITE (Earth-to-space) 5.535	24.75 – 25.25 FIXED-SATELLITE (Earth-to-space) 5.535 TT47

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
25.25 – 25.5 FIXED INTER-SATELLITE 5.536 MOBILE Standard frequency and time signal-satellite (Earth-to-space)	25.25 – 25.5 FIXED INTER-SATELLITE 5.536 MOBILE Standard frequency and time signal-satellite (Earth-to-space) TT32 TT47
25.5 – 27 EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536B FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (space-to-Earth) 5.536C Standard frequency and time signal-satellite (Earth-to-space) 5.536A	25.5 – 27 EARTH EXPLORATION-SATELLITE (space-to Earth) 5.536B FIXED INTER-SATELLITE 5.536 MOBILE SPACE RESEARCH (space-to-Earth) 5.536C Standard frequency and time signal-satellite (Earth-to-space) TT32 TT47 5.536A
27 – 27.5 FIXED FIXED-SATELLITE (Earth-to-space) INTER-SATELLITE 5.536 5.537 MOBILE	27 – 27.5 FIXED FIXED-SATELLITE (Earth-to-space) INTER-SATELLITE 5.536 5.537 MOBILE TT32 TT47
27.5 – 28.5 FIXED 5.537A FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 MOBILE 5.538 5.540	27.5 – 28.5 FIXED 5.537A FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539 MOBILE TT32 TT47 5.538 5.540
28.5 – 29.1 FIXED FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.523A 5.539 MOBILE Earth exploration-satellite (Earth-to-space) 5.541 5.540	28.5 – 29.1 FIXED FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.523A 5.539 MOBILE Earth exploration-satellite (Earth-to-space) 5.541 TT47 5.540

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
29.1 – 29.5 FIXED FIXED-SATELLITE (Earth-to-space) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A MOBILE Earth exploration-satellite (Earth-to-space) 5.541 5.540	29.1 – 29.5 FIXED FIXED-SATELLITE (Earth-to-space) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A MOBILE Earth exploration-satellite (Earth-to-space) 5.541 5.540
29.5 – 29.9 FIXED-SATELLITE (Earth-to-space) 5.484A 5.484B 5.516B 5.527A 5.539 MOBILE-SATELLITE (Earth-to-space) Earth exploration-satellite (Earth-to-space) 5.541 5.525 5.526 5.527 5.529 5.540	29.5 – 29.9 FIXED-SATELLITE (Earth-to-space) 5.484A 5.484B 5.516B 5.527A 5.539 MOBILE-SATELLITE (Earth-to-space) Earth exploration-satellite (Earth-to-space) 5.541 5.525 5.526 5.527 5.529 5.540
29.9 – 30 FIXED-SATELLITE (Earth-to-space) 5.484A 5.484B 5.516B 5.527A 5.539 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 FIXED-SATELLITE (Earth-to-space) 5.484A 5.484B 5.516B 5.527A 5.539 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
30 – 31 FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE-SATELLITE (Earth-to-space) Standard frequency and time signal-satellite (space-to-Earth) 5.542	30 – 31 FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE-SATELLITE (Earth-to-space) Standard frequency and time signal-satellite (space- to-Earth) 5.542
31 – 31.3 FIXED 5.338A 5.543A MOBILE Standard frequency and time signal-satellite (space-to-Earth) Space research 5.544 5.545 5.149	31 – 31.3 FIXED 5.338A 5.543A MOBILE Standard frequency and time signal-satellite (space- to-Earth) Space research 5.544 5.545 5.149
31.3 – 31.5 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	31.3 – 31.5 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
31.5 – 31.8 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	31.5 – 31.8 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
31.8 – 32 FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.547B 5.548	31.8 – 32 FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.547B 5.548
32 – 32.3 FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.547C 5.548	32 – 32.3 FIXED 5.547A RADIONAVIGATION SPACE RESEARCH (deep space) (space-to-Earth) 5.547 5.547C 5.548
32.3 – 33 FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.547D 5.548	32.3 – 33 FIXED 5.547A INTER-SATELLITE RADIONAVIGATION 5.547 5.547D 5.548
33 – 33.4 FIXED 5.547A RADIONAVIGATION 5.547 5.547E	33 – 33.4 FIXED 5.547A RADIONAVIGATION 5.547 5.547E
33.4 – 34.2 RADIOLOCATION 5.549	33.4 – 34.2 RADIOLOCATION 5.549
34.2 – 34.7 RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space) 5.549	34.2 – 34.7 RADIOLOCATION SPACE RESEARCH (deep space) (Earth-to-space) 5.549
34.7 – 35.2 RADIOLOCATION Space research 5.550 5.549	34.7 – 35.2 RADIOLOCATION Space research 5.550 5.549

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
35.2 – 35.5 METEOROLOGICAL AIDS RADIOLOCATION 5.549	35.2 – 35.5 METEOROLOGICAL AIDS RADIOLOCATION 5.549
35.5 – 36 METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.549 5.549A	35.5 – 36 METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) 5.549 5.549A
36 – 37 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.149 5.550A	36 – 37 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.149 5.550A
37 – 37.5 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.547	37 – 37.5 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) 5.547
37.5 – 38 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) Earth exploration-satellite (space-to-Earth) 5.547	37.5 – 38 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE except aeronautical mobile SPACE RESEARCH (space-to-Earth) Earth exploration-satellite (space-to-Earth) 5.547
38 – 39.5 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Earth exploration-satellite (space-to-Earth) 5.547	38 – 39.5 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Earth exploration-satellite (space-to-Earth) 5.547

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
39.5 – 40 FIXED FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) Earth exploration-satellite (space-to-Earth) 5.547	39.5 – 40 FIXED FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) Earth exploration-satellite (space-to-Earth) 5.547
40 – 40.5 EARTH EXPLORATION-SATELLITE (Earth-to-space) FIXED FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (Earth-to-space) Earth exploration-satellite (space-to-Earth)	40 – 40.5 EARTH EXPLORATION-SATELLITE (Earth-to-space) FIXED FIXED-SATELLITE (space-to-Earth) 5.516B MOBILE MOBILE-SATELLITE (space-to-Earth) SPACE RESEARCH (Earth-to-space) Earth exploration-satellite (space-to-Earth)
40.5 – 41 FIXED FIXED-SATELLITE (space-to-Earth) 5.516B BROADCASTING BROADCASTING-SATELLITE Mobile Mobile-satellite (space-to-Earth) 5.547	40.5 – 41 FIXED FIXED-SATELLITE (space-to-Earth) 5.516B BROADCASTING BROADCASTING-SATELLITE Mobile Mobile-satellite (space-to-Earth) 5.547
41 – 42.5 FIXED FIXED-SATELLITE (space-to-Earth) 5.516B BROADCASTING BROADCASTING-SATELLITE Mobile 5.547 5.551F 5.551H 5.551I	41 – 42.5 FIXED FIXED-SATELLITE (space-to-Earth) 5.516B BROADCASTING BROADCASTING-SATELLITE Mobile 5.547 5.551F 5.551H 5.551I
42.5 – 43.5 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149 5.547	42.5 – 43.5 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149 5.547

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
43.5 – 47 MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554	43.5 – 47 MOBILE 5.553 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554
47 – 47.2 AMATEUR AMATEUR-SATELLITE	47 – 47.2 AMATEUR AMATEUR-SATELLITE
47.2 – 47.5 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A	47.2 – 47.5 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A
47.5 – 47.9 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE	47.5 – 47.9 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE
47.9 – 48.2 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A	47.9 – 48.2 FIXED FIXED-SATELLITE (Earth-to-space) 5.552 MOBILE 5.552A
48.2 – 50.2 FIXED FIXED-SATELLITE (Earth-to-space) 5.516B 5.338A 5.552 MOBILE 5.149 5.340 5.555	48.2 – 50.2 FIXED FIXED-SATELLITE (Earth-to-space) 5.516B 5.338A 5.552 MOBILE 5.149 5.340 5.555
50.2 – 50.4 EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340	50.2 – 50.4 EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340
50.4 – 51.4 FIXED FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE Mobile-satellite (Earth-to-space)	50.4 – 51.4 FIXED FIXED-SATELLITE (Earth-to-space) 5.338A MOBILE Mobile-satellite (Earth-to-space)

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
51.4 – 52.6 FIXED 5.338A MOBILE 5.547 5.556	51.4 – 52.6 FIXED 5.338A MOBILE 5.547 5.556
52.6 – 54.25 EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340 5.556	52.6 – 54.25 EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340 5.556
54.25 – 55.78 EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.556A SPACE RESEARCH (passive) 5.556B	54.25 – 55.78 EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.556A SPACE RESEARCH (passive) 5.556B
55.78 – 56.9 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 EARTH EXPLORATION-SATELLITE (passive) FIXED 5.557A INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547 5.557
56.9 – 57 EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.558A MOBILE 5.558 SPACE RESEARCH (passive) 5.547 5.557	56.9 – 57 EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.558A MOBILE 5.558 SPACE RESEARCH (passive) 5.547 5.557
57 – 58.2 EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) 5.547 5.557	57 – 58.2 EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 SPACE RESEARCH (passive) TT58 5.547 5.557

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
58.2 – 59 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) 5.547 5.556	58.2 – 59 EARTH EXPLORATION-SATELLITE (passive) FIXED MOBILE SPACE RESEARCH (passive) TT58 5.547 5.556
59 – 59.3 EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559 SPACE RESEARCH (passive)	59 – 59.3 EARTH EXPLORATION-SATELLITE (passive) FIXED INTER-SATELLITE 5.556A MOBILE 5.558 RADIOLOCATION 5.559 SPACE RESEARCH (passive) TT58
59.3 – 64 FIXED INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 5.138	59.3 – 64 FIXED INTER-SATELLITE MOBILE 5.558 RADIOLOCATION 5.559 TT39 TT58 5.138
64 – 65 FIXED INTER-SATELLITE MOBILE except aeronautical mobile 5.547 5.556	64 – 65 FIXED INTER-SATELLITE MOBILE except aeronautical mobile 5.547 5.556
65 – 66 EARTH EXPLORATION-SATELLITE FIXED INTER-SATELLITE MOBILE except aeronautical mobile SPACE RESEARCH 5.547	65 – 66 EARTH EXPLORATION-SATELLITE FIXED INTER-SATELLITE MOBILE except aeronautical mobile SPACE RESEARCH 5.547
66 – 71 INTER-SATELLITE MOBILE 5.553 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554	66 – 71 INTER-SATELLITE MOBILE 5.553 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.554

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
71 – 74 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)	71 – 74 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE MOBILE-SATELLITE (space-to-Earth)
74 – 76 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE BROADCASTING BROADCASTING-SATELLITE Space research (space-to-Earth)	74 – 76 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE BROADCASTING BROADCASTING-SATELLITE Space research (space-to-Earth)
5.561	5.561
76 – 77.5 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth)	76 – 77.5 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth)
5.149	TT47 5.149
77.5 – 78 AMATEUR AMATEUR-SATELLITE RADIOLOCATION 5.559B Radio astronomy Space research (space-to-Earth)	77.5 – 78 AMATEUR AMATEUR-SATELLITE RADIOLOCATION 5.559B Radio astronomy Space research (space-to-Earth)
5.149	5.149
78 – 79 RADIOLOCATION Amateur Amateur-satellite Radio astronomy Space research (space-to-Earth)	78 – 79 RADIOLOCATION Amateur Amateur-satellite Radio astronomy Space research (space-to-Earth)
5.149 5.560	5.149 5.560

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
79 – 81 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth) 5.149	79 – 81 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite Space research (space-to-Earth) 5.149
81 – 84 FIXED 5.338A FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Space research (space-to-Earth) 5.149 5.561A	81 – 84 FIXED 5.338A FIXED-SATELLITE (Earth-to-space) MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY Space research (space-to-Earth) 5.149 5.561A
84 – 86 FIXED 5.338A FIXED-SATELLITE (Earth-to-space) 5.561B MOBILE RADIO ASTRONOMY 5.149	84 – 86 FIXED 5.338A FIXED-SATELLITE (Earth-to-space) 5.561B MOBILE RADIO ASTRONOMY 5.149
86 – 92 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	86 – 92 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
92 – 94 FIXED 5.338A MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	92 – 94 FIXED 5.338A MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149
94 – 94.1 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) Radio astronomy 5.562 5.562A	94 – 94.1 EARTH EXPLORATION-SATELLITE (active) RADIOLOCATION SPACE RESEARCH (active) Radio astronomy 5.562 5.562A

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
94.1 – 95 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	94.1 – 95 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149
95 – 100 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554	95 – 100 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554
100 – 102 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341	100 – 102 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341
102 – 105 FIXED MOBILE RADIO ASTRONOMY 5.149 5.341	102 – 105 FIXED MOBILE RADIO ASTRONOMY 5.149 5.341
105 – 109.5 FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341	105 – 109.5 FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341
109.5 – 111.8 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341	109.5 – 111.8 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
111.8 – 114.25 FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341	111.8 – 114.25 FIXED MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341
114.25 – 116 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341	114.25 – 116 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341
116 – 119.98 EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.341	116 – 119.98 EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.341
119.98 – 122.25 EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.138 5.341	119.98 – 122.25 EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562C SPACE RESEARCH (passive) 5.138 5.341
122.25 – 123 FIXED INTER-SATELLITE MOBILE 5.558 Amateur 5.138	122.25 – 123 FIXED INTER-SATELLITE MOBILE 5.558 Amateur 5.138
123 – 130 FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio astronomy 5.562D 5.149 5.554	123 – 130 FIXED-SATELLITE (space-to-Earth) MOBILE-SATELLITE (space-to-Earth) RADIONAVIGATION RADIONAVIGATION-SATELLITE Radio astronomy 5.562D 5.149 5.554

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
130 – 134 EARTH EXPLORATION-SATELLITE (active) 5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149 5.562A	130 – 134 EARTH EXPLORATION-SATELLITE (active) 5.562E FIXED INTER-SATELLITE MOBILE 5.558 RADIO ASTRONOMY 5.149 5.562A
134 – 136 AMATEUR AMATEUR-SATELLITE Radio astronomy	134 – 136 AMATEUR AMATEUR-SATELLITE Radio astronomy
136 – 141 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.149	136 – 141 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.149
141 – 148.5 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	141 – 148.5 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149
148.5 – 151.5 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	148.5 – 151.5 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340
151.5 – 155.5 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149	151.5 – 155.5 FIXED MOBILE RADIO ASTRONOMY RADIOLOCATION 5.149

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
185 – 190 EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)	185 – 190 EARTH EXPLORATION-SATELLITE (passive) INTER-SATELLITE 5.562H SPACE RESEARCH (passive)
190 – 191.8 EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340	190 – 191.8 EARTH EXPLORATION-SATELLITE (passive) SPACE RESEARCH (passive) 5.340
191.8 – 200 FIXED INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.341 5.554	191.8 – 200 FIXED INTER-SATELLITE MOBILE 5.558 MOBILE-SATELLITE RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.341 5.554
200 – 209 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341 5.563A	200 – 209 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.341 5.563A
209 – 217 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.341	209 – 217 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.341
217 – 226 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341	217 – 226 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY SPACE RESEARCH (passive) 5.562B 5.149 5.341
226 – 231.5 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340	226 – 231.5 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
231.5 – 232 FIXED MOBILE Radiolocation	231.5 – 232 FIXED MOBILE Radiolocation
232 – 235 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation	232 – 235 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE Radiolocation
235 – 238 EARTH EXPLORATION-SATELLITE (passive) FIXED-SATELLITE (space-to-Earth) SPACE RESEARCH (passive) 5.563A 5.563B	235 – 238 EARTH EXPLORATION-SATELLITE (passive) FIXED-SATELLITE (space-to-Earth) SPACE RESEARCH (passive) 5.563A 5.563B
238 – 240 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE	238 – 240 FIXED FIXED-SATELLITE (space-to-Earth) MOBILE RADIOLOCATION RADIONAVIGATION RADIONAVIGATION-SATELLITE
240 – 241 FIXED MOBILE RADIOLOCATION	240 – 241 FIXED MOBILE RADIOLOCATION
241 – 248 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.138 5.149	241 – 248 RADIO ASTRONOMY RADIOLOCATION Amateur Amateur-satellite 5.138 5.149
248 – 250 AMATEUR AMATEUR-SATELLITE Radio astronomy 5.149	248 – 250 AMATEUR AMATEUR-SATELLITE Radio astronomy 5.149

ITU Region 2 Allocations	Trinidad and Tobago Allocations
GHz	GHz
250 – 252 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.563A	250 – 252 EARTH EXPLORATION-SATELLITE (passive) RADIO ASTRONOMY SPACE RESEARCH (passive) 5.340 5.563A
252 – 265 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554	252 – 265 FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) RADIO ASTRONOMY RADIONAVIGATION RADIONAVIGATION-SATELLITE 5.149 5.554
265 – 275 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.563A	265 – 275 FIXED FIXED-SATELLITE (Earth-to-space) MOBILE RADIO ASTRONOMY 5.149 5.563A
275 – 3000 (Not allocated) 5.565	275 – 3000 (Not allocated) 5.565

2.2 ITU-R Region 2 Table of Frequency Allocation Footnotes

ITU Footnote	Description
5.53	Administrations authorizing the use of frequencies below 8.3 kHz shall ensure that no harmful interference is caused thereby to the services to which the bands above 8.3 kHz are allocated. (WRC-12)
5.54	Administrations conducting scientific research using frequencies below 8.3 kHz are urged to advise other administrations that may be concerned in order that such research may be afforded all practicable protection from harmful interference. (WRC-12)
5.54A	Use of the 8.3-11.3 kHz frequency band by stations in the meteorological aids service is limited to passive use only. In the band 9-11.3 kHz, meteorological aids stations shall not claim protection from stations of the radionavigation service submitted for notification to the Bureau prior to 1 January 2013. For sharing between stations of the meteorological aids service and stations in the radionavigation service submitted for notification after this date, the most recent version of Recommendation ITU-R RS.1881 should be applied. (WRC-12)
5.54B	<i>Additional allocation:</i> in Algeria, Saudi Arabia, Bahrain, Egypt, the United Arab Emirates, the Russian Federation, Iran (Islamic Republic of), Iraq, Kuwait, Lebanon, Morocco, Qatar, the Syrian Arab Republic, Sudan and Tunisia, the frequency band 8.3-9 kHz is also allocated to the radionavigation, fixed and mobile services on a primary basis. (WRC-15)
5.54C	<i>Additional allocation:</i> in China, the frequency band 8.3-9 kHz is also allocated to the maritime radionavigation and maritime mobile services on a primary basis. (WRC-12)
5.55	<i>Additional allocation:</i> in Armenia, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the band 14-17 kHz is also allocated to the radionavigation service on a primary basis. (WRC-15)
5.56	The stations of services to which the bands 14-19.95 kHz and 20.05-70 kHz and in Region 1 also the bands 72-84 kHz and 86-90 kHz are allocated may transmit standard frequency and time signals. Such stations shall be afforded protection from harmful interference. In Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, the frequencies 25 kHz and 50 kHz will be used for this purpose under the same conditions. (WRC-12)
5.57	The use of the bands 14-19.95 kHz, 20.05-70 kHz and 70-90 kHz (72-84 kHz and 86-90 kHz in Region 1) by the maritime mobile service is limited to coast radiotelegraph stations (A1A and F1B only). Exceptionally, the use of class J2B or J7B emissions is authorized subject to the necessary bandwidth not exceeding that normally used for class A1A or F1B emissions in the band concerned.
5.58	<i>Additional allocation:</i> in Armenia, Azerbaijan, the Russian Federation, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, the band 67-70 kHz is also allocated to the radionavigation service on a primary basis. (WRC-2000)
5.59	<i>Different category of service:</i> in Bangladesh and Pakistan, the allocation of the bands 70-72 kHz and 84-86 kHz to the fixed and maritime mobile services is on a primary basis (see No. 5.33). (WRC-2000)
5.60	In the bands 70-90 kHz (70-86 kHz in Region 1) and 110-130 kHz (112-130 kHz in Region 1), pulsed radionavigation systems may be used on condition that they do not cause harmful interference to other services to which these bands are allocated.

ITU Footnote	Description
5.61	In Region 2, the establishment and operation of stations in the maritime radionavigation service in the bands 70-90 kHz and 110-130 kHz shall be subject to agreement obtained under No. 9.21 with administrations whose services, operating in accordance with the Table, may be affected. However, stations of the fixed, maritime mobile and radiolocation services shall not cause harmful interference to stations in the maritime radionavigation service established under such agreements.
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.
5.63	(SUP – WRC-97)
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.
5.65	<i>Different category of service:</i> in Bangladesh, the allocation of the bands 112-117.6 kHz and 126-129 kHz to the fixed and maritime mobile services is on a primary basis (see No. 5.33). (WRC-2000)
5.66	<i>Different category of service:</i> in Germany, the allocation of the band 115-117.6 kHz to the fixed and maritime mobile services is on a primary basis (see No. 5.33) and to the radionavigation service on a secondary basis (see No. 5.32).
5.67	<i>Additional allocation:</i> in Mongolia, Kyrgyzstan and Turkmenistan, the band 130-148.5 kHz is also allocated to the radionavigation service on a secondary basis. Within and between these countries this service shall have an equal right to operate. (WRC-07)
5.67A	Stations in the amateur service using frequencies in the band 135.7-137.8 kHz shall not exceed a maximum radiated power of 1 W (e.i.r.p.) and shall not cause harmful interference to stations of the radionavigation service operating in countries listed in No. 5.67 . (WRC-07)
5.67B	The use of the band 135.7-137.8 kHz in Algeria, Egypt, Iran (Islamic Republic of), Iraq, Lebanon, Syrian Arab Republic, Sudan, South Sudan and Tunisia is limited to the fixed and maritime mobile services. The amateur service shall not be used in the above-mentioned countries in the band 135.7-137.8 kHz, and this should be taken into account by the countries authorizing such use. (WRC-12)
5.68	<i>Alternative allocation:</i> in Congo (Rep. of the), the Dem. Rep. of the Congo and South Africa, the frequency band 160-200 kHz is allocated to the fixed service on a primary basis. (WRC-15)
5.69	<i>Additional allocation:</i> in Somalia, the band 200-255 kHz is also allocated to the aeronautical radionavigation service on a primary basis.
5.70	<i>Alternative allocation:</i> in Angola, Botswana, Burundi, the Central African Rep., Congo (Rep. of the), Ethiopia, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Nigeria, Oman, the Dem. Rep. of the Congo, South Africa, Swaziland, Tanzania, Chad, Zambia and Zimbabwe, the band 200-283.5 kHz is allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)
5.71	<i>Alternative allocation:</i> in Tunisia, the band 255-283.5 kHz is allocated to the broadcasting service on a primary basis.

ITU Footnote	Description
5.72	(SUP – WRC-12)
5.73	The band 285-325 kHz (283.5-325 kHz in Region 1) in the maritime radionavigation service may be used to transmit supplementary navigational information using narrow-band techniques, on condition that no harmful interference is caused to radiobeacon stations operating in the radionavigation service. (WRC-97)
5.74	<i>Additional Allocation:</i> 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	<i>Different category of service:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Moldova, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine and the Black Sea areas of Romania, the allocation of the band 315-325 kHz to the maritime radionavigation service is on a primary basis under the condition that in the Baltic Sea area, the assignment of frequencies in this band to new stations in the maritime or aeronautical radionavigation services shall be subject to prior consultation between the administrations concerned. (WRC-07)
5.76	The frequency 410 kHz is designated for radio direction-finding in the maritime radionavigation service. The other radionavigation services to which the band 405-415 kHz is allocated shall not cause harmful interference to radio direction-finding in the band 406.5-413.5 kHz.
5.77	<i>Different category of service:</i> in Australia, China, the French overseas communities of Region 3, Korea (Rep. of), India, Iran (Islamic Republic of), Japan, Pakistan, Papua New Guinea and Sri Lanka, the allocation of the frequency band 415-495 kHz to the aeronautical radionavigation service is on a primary basis. In Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Latvia, Uzbekistan and Kyrgyzstan, the allocation of the frequency band 435-495 kHz to the aeronautical radionavigation service is on a primary basis. Administrations in all the aforementioned countries shall take all practical steps necessary to ensure that aeronautical radionavigation stations in the frequency band 435-495 kHz do not cause interference to reception by coast stations of transmissions from ship stations on frequencies designated for ship stations on a worldwide basis. (WRC-12)
5.78	<i>Different category of service:</i> in Cuba, the United States of America and Mexico, the allocation of the band 415-435 kHz to the aeronautical radionavigation service is on a primary basis.
5.79	The use of the bands 415-495 kHz and 505-526.5 kHz (505-510 kHz in Region 2) by the maritime mobile service is limited to radiotelegraphy.
5.79A	When establishing coast stations in the NAVTEX service on the frequencies 490 kHz, 518 kHz and 4 209.5 kHz, administrations are strongly recommended to coordinate the operating characteristics in accordance with the procedures of the International Maritime Organization (IMO) (see Resolution 339 (Rev.WRC-07)). (WRC-07)
5.80	In Region 2, the use of the band 435-495 kHz by the aeronautical radionavigation service is limited to non-directional beacons not employing voice transmission.
5.80A	The maximum equivalent isotropically radiated power (e.i.r.p.) of stations in the amateur service using frequencies in the band 472-479 kHz shall not exceed 1 W. Administrations may increase this limit of e.i.r.p. to 5W 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)

ITU Footnote	Description
5.80B	The use of the frequency band 472-479 kHz in Algeria, Saudi Arabia, Azerbaijan, Bahrain, Belarus, China, Comoros, Djibouti, Egypt, United Arab Emirates, the Russian Federation, Iraq, Jordan, Kazakhstan, Kuwait, Lebanon, Libya, Mauritania, Oman, Uzbekistan, Qatar, Syrian Arab Republic, Kyrgyzstan, Somalia, Sudan, Tunisia and Yemen is limited to the maritime mobile and aeronautical radionavigation services. The amateur service shall not be used in the above-mentioned countries in this frequency band, and this should be taken into account by the countries authorizing such use. (WRC-12)
5.81	(SUP – WRC-2000)
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	(SUP – WRC-12)
5.82B	(SUP – WRC-12)
5.83	(SUP – WRC-07)
5.84	The conditions for the use of the frequency 518 kHz by the maritime mobile service are prescribed in Articles 31 and 52. (WRC-07)
5.85	Not used.
5.86	In Region 2, in the band 525-535 kHz the carrier power of broadcasting stations shall not exceed 1 kW during the day and 250 W at night.
5.87	<i>Additional allocation:</i> in Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Niger and Swaziland, the band 526.5-535 kHz is also allocated to the mobile service on a secondary basis. (WRC-12)
5.87A	<i>Additional allocation:</i> in Uzbekistan, the band 526.5-1 606.5 kHz is also allocated to the radionavigation service on a primary basis. Such use is subject to agreement obtained under No. 9.21 with administrations concerned and limited to ground-based radiobeacons in operation on 27 October 1997 until the end of their lifetime. (WRC-97)
5.88	<i>Additional allocation:</i> in China, the band 526.5-535 kHz is also allocated to the aeronautical radionavigation service on a secondary basis.
5.89	In Region 2, the use of the band 1 605-1 705 kHz by stations of the broadcasting service is subject to the Plan established by the Regional Administrative Radio Conference (Rio de Janeiro, 1988). The examination of frequency assignments to stations of the fixed and mobile services in the band 1 625-1 705 kHz shall take account of the allotments appearing in the Plan established by the Regional Administrative Radio Conference (Rio de Janeiro, 1988).
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.

ITU Footnote	Description
5.91	<i>Additional allocation:</i> in the Philippines and Sri Lanka, the band 1 606.5-1 705 kHz is also allocated to the broadcasting service on a secondary basis. (WRC-97)
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.
5.93	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Mongolia, Nigeria, Uzbekistan, Poland, Kyrgyzstan, Slovakia, Tajikistan, Chad, Turkmenistan and Ukraine, the frequency bands 1 625-1 635 kHz, 1 800-1 810 kHz and 2 160-2 170 kHz are also allocated to the fixed and land mobile services on a primary basis, subject to agreement obtained under No. 9.21. (WRC-15)
5.94	Not used.
5.95	Not used.
5.96	In Germany, Armenia, Austria, Azerbaijan, Belarus, Croatia, 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 frequency bands 1 715-1 800 kHz and 1 850-2 000 kHz. However, when allocating the frequency bands within this range to their amateur service, administrations shall, after prior consultation with administrations of neighbouring countries, take such steps as may be necessary to prevent harmful interference from their amateur service to the fixed and mobile services of other countries. The mean power of any amateur station shall not exceed 10 W. (WRC-15)
5.97	In Region 3, the Loran system operates either on 1 850 kHz or 1 950 kHz, the bands occupied being 1 825-1 875 kHz and 1 925-1 975 kHz respectively. Other services to which the band 1 800-2 000 kHz is allocated may use any frequency therein on condition that no harmful interference is caused to the Loran system operating on 1 850 kHz or 1 950 kHz.
5.98	<i>Alternative allocation:</i> in Armenia, Azerbaijan, Belarus, Belgium, Cameroon, Congo (Rep. of the), Denmark, Egypt, Eritrea, Spain, Ethiopia, the Russian Federation, Georgia, Greece, Italy, Kazakhstan, Lebanon, Lithuania, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Tunisia, Turkmenistan and Turkey, the frequency band 1 810-1 830 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-15)
5.99	<i>Additional allocation:</i> in Saudi Arabia, Austria, Iraq, Libya, Uzbekistan, Slovakia, Romania, Slovenia, Chad, and Togo, the band 1 810-1 830 kHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)
5.100	In Region 1, the authorization to use the band 1 810-1 830 kHz by the amateur service in countries situated totally or partially north of 40° N shall be given only after consultation with the countries mentioned in Nos. 5.98 and 5.99 to define the necessary steps to be taken to prevent harmful interference between amateur stations and stations of other services operating in accordance with Nos. 5.98 and 5.99.
5.101	(SUP – WRC-12)
5.102	<i>Alternative allocation:</i> in Bolivia, Chile, Paraguay and Peru, the frequency band 1 850-2 000 kHz is allocated to the fixed, mobile except aeronautical mobile, radiolocation and radionavigation services on a primary basis. (WRC-15)

ITU Footnote	Description
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.
5.105	In Region 2, except in Greenland, coast stations and ship stations using radiotelephony in the band 2 065-2 107 kHz shall be limited to class J3E emissions and to a peak envelope power not exceeding 1 kW. Preferably, the following carrier frequencies should be used: 2 065.0 kHz, 2 079.0 kHz, 2 082.5 kHz, 2 086.0 kHz, 2 093.0 kHz, 2 096.5 kHz, 2 100.0 kHz and 2 103.5 kHz. In Argentina and Uruguay, the carrier frequencies 2 068.5 kHz and 2 075.5 kHz are also used for this purpose, while the frequencies within the band 2 072-2 075.5 kHz are used as provided in No. 52.165 .
5.106	In Regions 2 and 3, provided no harmful interference is caused to the maritime mobile service, the frequencies between 2 065 kHz and 2 107 kHz may be used by stations of the fixed service communicating only within national borders and whose mean power does not exceed 50 W. In notifying the frequencies, the attention of the Bureau should be drawn to these provisions.
5.107	<i>Additional allocation:</i> in Saudi Arabia, Eritrea, Ethiopia, Iraq, Libya, Somalia and Swaziland, the band 2 160-2 170 kHz is also allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. The mean power of stations in these services shall not exceed 50 W. (WRC-12)
5.108	The carrier frequency 2 182 kHz is an international distress and calling frequency for radiotelephony. The conditions for the use of the band 2 173.5-2 190.5 kHz are prescribed in Articles 31 and 52 . (WRC-07)
5.109	The frequencies 2 187.5 kHz, 4 207.5 kHz, 6 312 kHz, 8 414.5 kHz, 12 577 kHz and 16 804.5 kHz are international distress frequencies for digital selective calling. The conditions for the use of these frequencies are prescribed in Article 31 .
5.110	The frequencies 2 174.5 kHz, 4 177.5 kHz, 6 268 kHz, 8 376.5 kHz, 12 520 kHz and 16 695 kHz are international distress frequencies for narrow-band direct-printing telegraphy. The conditions for the use of these frequencies are prescribed in Article 31 .
5.111	The carrier frequencies 2 182 kHz, 3 023 kHz, 5 680 kHz, 8 364 kHz and the frequencies 121.5 MHz, 156.525 MHz, 156.8 MHz and 243 MHz may also be used, in accordance with the procedures in force for terrestrial radiocommunication services, for search and rescue operations concerning manned space vehicles. The conditions for the use of the frequencies are prescribed in Article 31 . The same applies to the frequencies 10 003 kHz, 14 993 kHz and 19 993 kHz, but in each of these cases emissions must be confined in a band of ± 3 kHz about the frequency. (WRC-07)
5.112	<i>Alternative allocation:</i> in Denmark and Sri Lanka, the band 2 194-2 300 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)
5.113	For the conditions for the use of the bands 2 300-2 495 kHz (2 498 kHz in Region 1), 3 200-3 400 kHz, 4 750-4 995 kHz and 5 005-5 060 kHz by the broadcasting service, see Nos. 5.16 to 5.20 , 5.21 and 23.3 to 23.10 .
5.114	<i>Alternative allocation:</i> in Denmark and Iraq, the band 2 502-2 625 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

ITU Footnote	Description
5.115	The carrier (reference) frequencies 3 023 kHz and 5 680 kHz may also be used, in accordance with Article 31, by stations of the maritime mobile service engaged in coordinated search and rescue operations. (WRC-07)
5.116	<p>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.</p> <p>It should be noted that frequencies in the range 3 000 kHz to 4 000 kHz are suitable for hearing aid devices which are designed to operate over short distances within the induction field.</p>
5.117	<i>Alternative allocation:</i> in Côte' d'Ivoire, Denmark, Egypt, Liberia, Sri Lanka and Togo, the band 3 155-3 200 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)
5.118	<i>Additional allocation:</i> in the United States, Mexico, Peru and Uruguay, the band 3 230-3 400 kHz is also allocated to the radiolocation service on a secondary basis. (WRC-03)
5.119	<i>Additional allocation:</i> in Peru, the frequency band 3 500-3 750 kHz is also allocated to the fixed and mobile services on a primary basis. (WRC-15)
5.120	(SUP – WRC-2000)
5.121	Not used.
5.122	<i>Alternative allocation:</i> in Bolivia, Chile, Ecuador, Paraguay and Peru, the frequency band 3 750-4 000 kHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-15)
5.123	<i>Additional allocation:</i> in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the band 3 900-3 950 kHz is also allocated to the broadcasting service on a primary basis, subject to agreement obtained under No. 9.21.
5.124	(SUP - WRC-2000)
5.125	<i>Additional allocation:</i> in Greenland, the band 3 950-4 000 kHz is also allocated to the broadcasting service on a primary basis. The power of the broadcasting stations operating in this band shall not exceed that necessary for a national service and shall in no case exceed 5 kW.
5.126	In Region 3, the stations of those services to which the band 3 995-4 005 kHz is allocated may transmit standard frequency and time signals.
5.127	The use of the band 4 000-4 063 kHz by the maritime mobile service is limited to ship stations using radiotelephony (see No. 52.220 and Appendix 17).
5.128	Frequencies in the bands 4 063-4 123 kHz and 4 130-4 438 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W, on condition that harmful interference is not caused to the maritime mobile service. In addition, in Afghanistan, Argentina, Armenia, Azerbaijan, Belarus, Botswana, Burkina Faso, the Central African Rep., China, the Russian Federation, Georgia, India, Kazakhstan, Mali, Niger, Pakistan, Kyrgyzstan, Tajikistan, Chad, Turkmenistan and Ukraine, in the bands 4 063-4 123 kHz, 4 130-4 133 kHz and 4 408-4 438 kHz, stations in the fixed service, with a mean power not exceeding 1 kW, can be operated on condition that they are situated at least 600 km from the coast and that harmful interference is not caused to the maritime mobile service. (WRC-12)

ITU Footnote	Description
5.129	(SUP - WRC-07)
5.130	The conditions for the use of the carrier frequencies 4 125 kHz and 6 215 kHz are prescribed in Articles 31 and 52. (WRC-07)
5.131	The frequency 4 209.5 kHz is used exclusively for the transmission by coast stations of meteorological and navigational warnings and urgent information to ships by means of narrow-band direct-printing techniques. (WRC-97)
5.132	The frequencies 4 210 kHz, 6 314 kHz, 8 416.5 kHz, 12 579 kHz, 16 806.5 kHz, 19 680.5 kHz, 22 376 kHz and 26 100.5 kHz are the international frequencies for the transmission of maritime safety information (MSI) (see Appendix 17).
5.132A	Stations in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the fixed or mobile services. Applications of the radiolocation service are limited to oceanographic radars operating in accordance with Resolution 612 (Rev.WRC-12). (WRC-12)
5.132B	<i>Alternative allocation:</i> in Armenia, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 4 438-4 488 kHz is allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis. (WRC-15)
5.133	<i>Different category of service:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Latvia, Lithuania, Niger, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the allocation of the band 5 130-5 250 kHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 5.33). (WRC-12)
5.133A	<i>Alternative allocation:</i> in Armenia, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency bands 5 250-5 275 kHz and 26 200-26 350 kHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-15)
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-07). (WRC-07)
5.135	(SUP - WRC-97)

ITU Footnote	Description
5.136	<i>Additional allocation:</i> frequencies in the band 5 900-5 950 kHz may be used by stations in the following services, communicating only within the boundary of the country in which they are located: fixed service (in all three Regions), land mobile service (in Region 1), mobile except aeronautical mobile (R) service (in Regions 2 and 3), on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)
5.137	On condition that harmful interference is not caused to the maritime mobile service, the bands 6 200-6 213.5 kHz and 6 220.5-6 525 kHz may be used exceptionally by stations in the fixed service, communicating only within the boundary of the country in which they are located, with a mean power not exceeding 50 W. At the time of notification of these frequencies, the attention of the Bureau will be drawn to the above conditions.
5.138	The following bands: 6 765-6 795 kHz (centre frequency 6 780 kHz), 433.05-434.79 MHz (centre frequency 433.92 MHz) in Region 1 except in the countries mentioned in No. 5.280, 61-61.5 GHz (centre frequency 61.25 GHz), 122-123 GHz (centre frequency 122.5 GHz), and 244-246 GHz (centre frequency 245 GHz) are designated for industrial, scientific and medical (ISM) applications. The use of these frequency bands for ISM applications shall be subject to special 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	(SUP-WRC-12)
5.139	(SUP-WRC-12)
5.140	<i>Additional allocation:</i> in Angola, Iraq, Somalia and Togo, the frequency band 7 000-7 050 kHz is also allocated to the fixed service on a primary basis. (WRC-15)
5.141	<i>Alternative allocation:</i> in Egypt, Eritrea, Ethiopia, Guinea, Libya, Madagascar and Niger, the band 7 000-7 050 kHz is allocated to the fixed service on a primary basis. (WRC-12)
5.141A	<i>Additional allocation:</i> in Uzbekistan and Kyrgyzstan, the bands 7 000-7 100 kHz and 7 100-7 200 kHz are also allocated to the fixed and land mobile services on a secondary basis. (WRC-03)
5.141B	<i>Additional allocation:</i> in Algeria, Saudi Arabia, Australia, Bahrain, Botswana, Brunei Darussalam, China, Comoros, Korea (Rep. of), Diego Garcia, Djibouti, Egypt, United Arab Emirates, Eritrea, Guinea, Indonesia, Iran (Islamic Republic of), Japan, Jordan, Kuwait, Libya, Mali, Morocco, Mauritania, Niger, New Zealand, Oman, Papua New Guinea, Qatar, the Syrian Arab Republic, Singapore, Sudan, South Sudan, Tunisia, Viet Nam and Yemen, the frequency band 7 100-7 200 kHz is also allocated to the fixed and the mobile, except aeronautical mobile (R), services on a primary basis. (WRC-15)
5.141C	(SUP-WRC-12)
5.142	The use of the band 7 200-7 300 kHz in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3. (WRC-12)

ITU Footnote	Description
5.143	<i>Additional allocation:</i> frequencies in the band 7 300-7 350 kHz may be used by stations in the fixed service and in the land mobile service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)
5.143A	In Region 3, frequencies in the band 7 350-7 450 kHz may be used by stations in the fixed service on a primary basis and land mobile service on a secondary basis, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-12)
5.143B	In Region 1, 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 on condition that harmful interference is not caused to the broadcasting service. The total radiated power of each station shall not exceed 24 dBW. (WRC-12)
5.143C	<i>Additional allocation:</i> in Algeria, Saudi Arabia, Bahrain, Comoros, Djibouti, Egypt, United Arab Emirates, Iran (Islamic Republic of), Jordan, Kuwait, Libya, Morocco, Mauritania, Niger, Oman, Qatar, the Syrian Arab Republic, Sudan, South Sudan, Tunisia and Yemen, the bands 7 350-7 400 kHz and 7 400-7 450 kHz are also allocated to the fixed service on a primary basis. (WRC-12)
5.143D	In Region 2, frequencies in the band 7 350-7 400 kHz may be used by stations in the fixed service and in the land mobile service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies for these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-12)
5.143E	(SUP-WRC-12)
5.144	In Region 3, the stations of those services to which the band 7 995-8 005 kHz is allocated may transmit standard frequency and time signals.
5.145	The conditions for the use of the carrier frequencies 8 291 kHz, 12 290 kHz and 16 420 kHz are prescribed in Articles 31 and 52. (WRC-07)
5.145A	Stations in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the fixed service. Applications of the radiolocation service are limited to oceanographic radars operating in accordance with Resolution 612 (Rev.WRC-12). (WRC-12)
5.145B	<i>Alternative allocation:</i> in Armenia, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency bands 9 305-9 355 kHz and 16 100-16 200 kHz are allocated to the fixed service on a primary basis. (WRC-15)
5.146	<i>Additional allocation:</i> frequencies in the bands 9 400-9 500 kHz, 11 600-11 650 kHz, 12 050-12 100 kHz, 15 600-15 800 kHz, 17 480-17 550 kHz and 18 900-19 020 kHz may be used by stations in the fixed service, communicating only within the boundary of the country in which they are located, on condition that harmful interference is not caused to the broadcasting service. When using frequencies in the fixed service, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)
5.148	(SUP - WRC-97)

ITU Footnote	Description																																																			
5.149	<p>In making assignments to stations of other services to which the bands:</p> <table border="0"> <tr> <td>13 360-13 410 kHz,</td> <td>4 950-4 990 MHz,</td> <td>102-109.5 GHz,</td> </tr> <tr> <td>25 550-25 670 kHz,</td> <td>4 990-5 000 MHz,</td> <td>111.8-114.25 GHz,</td> </tr> <tr> <td>37.5-38.25 MHz,</td> <td>6 650-6 675.2 MHz,</td> <td>128.33-128.59 GHz,</td> </tr> <tr> <td>73-74.6 MHz in Regions 1 and 3,</td> <td>10.6-10.68 GHz,</td> <td>129.23-129.49 GHz,</td> </tr> <tr> <td>150.05-153 MHz in Region 1,</td> <td>14.47-14.5 GHz,</td> <td>130-134 GHz,</td> </tr> <tr> <td>322-328.6 MHz,</td> <td>22.01-22.21 GHz,</td> <td>136-148.5 GHz,</td> </tr> <tr> <td>406.1-410 MHz,</td> <td>22.21-22.5 GHz,</td> <td>151.5-158.5 GHz,</td> </tr> <tr> <td>608-614 MHz in Regions 1 and 3,</td> <td>22.81-22.86 GHz,</td> <td>168.59-168.93 GHz,</td> </tr> <tr> <td>1 330-1 400 MHz,</td> <td>23.07-23.12 GHz,</td> <td>171.11-171.45 GHz,</td> </tr> <tr> <td>1 610.6-1 613.8 MHz,</td> <td>31.2-31.3 GHz,</td> <td>172.31-172.65 GHz,</td> </tr> <tr> <td>1 660-1 670 MHz,</td> <td>31.5-31.8 GHz in Regions 1 and 3,</td> <td>173.52-173.85 GHz,</td> </tr> <tr> <td>1 718.8-1 722.2 MHz,</td> <td>36.43-36.5 GHz,</td> <td>195.75-196.15 GHz,</td> </tr> <tr> <td>2 655-2 690 MHz,</td> <td>42.5-43.5 GHz,</td> <td>209-226 GHz,</td> </tr> <tr> <td>3 260-3 267 MHz,</td> <td>48.94-49.04 GHz,</td> <td>241-250 GHz,</td> </tr> <tr> <td>3 332-3 339 MHz,</td> <td>76-86 GHz,</td> <td>252-275 GHz</td> </tr> <tr> <td>3 345.8-3 352.5 MHz,</td> <td>92-94 GHz,</td> <td></td> </tr> <tr> <td>4 825-4 835 MHz,</td> <td>94.1-100 GHz,</td> <td></td> </tr> </table> <p>are allocated, administrations are urged to take all practicable steps to protect the radio astronomy service from harmful interference. Emissions from spaceborne or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos. 4.5 and 4.6 and Article 29). (WRC-07)</p>	13 360-13 410 kHz,	4 950-4 990 MHz,	102-109.5 GHz,	25 550-25 670 kHz,	4 990-5 000 MHz,	111.8-114.25 GHz,	37.5-38.25 MHz,	6 650-6 675.2 MHz,	128.33-128.59 GHz,	73-74.6 MHz in Regions 1 and 3,	10.6-10.68 GHz,	129.23-129.49 GHz,	150.05-153 MHz in Region 1,	14.47-14.5 GHz,	130-134 GHz,	322-328.6 MHz,	22.01-22.21 GHz,	136-148.5 GHz,	406.1-410 MHz,	22.21-22.5 GHz,	151.5-158.5 GHz,	608-614 MHz in Regions 1 and 3,	22.81-22.86 GHz,	168.59-168.93 GHz,	1 330-1 400 MHz,	23.07-23.12 GHz,	171.11-171.45 GHz,	1 610.6-1 613.8 MHz,	31.2-31.3 GHz,	172.31-172.65 GHz,	1 660-1 670 MHz,	31.5-31.8 GHz in Regions 1 and 3,	173.52-173.85 GHz,	1 718.8-1 722.2 MHz,	36.43-36.5 GHz,	195.75-196.15 GHz,	2 655-2 690 MHz,	42.5-43.5 GHz,	209-226 GHz,	3 260-3 267 MHz,	48.94-49.04 GHz,	241-250 GHz,	3 332-3 339 MHz,	76-86 GHz,	252-275 GHz	3 345.8-3 352.5 MHz,	92-94 GHz,		4 825-4 835 MHz,	94.1-100 GHz,	
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5.149A	<p><i>Alternative allocation:</i> in Armenia, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 13 450-13 550 kHz is allocated to the fixed service on a primary basis and to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-15)</p>																																																			
5.150	<p>The following bands:</p> <table border="0"> <tr> <td>13 553-13 567 kHz</td> <td>(centre frequency 13 560 kHz),</td> </tr> <tr> <td>26 957-27 283 kHz</td> <td>(centre frequency 27 120 kHz),</td> </tr> <tr> <td>40.66-40.70 MHz</td> <td>(centre frequency 40.68 MHz),</td> </tr> <tr> <td>902-928 MHz</td> <td>in Region 2 (centre frequency 915 MHz),</td> </tr> <tr> <td>2 400-2 500 MHz</td> <td>(centre frequency 2 450 MHz),</td> </tr> <tr> <td>5 725-5 875 MHz</td> <td>(centre frequency 5 800 MHz), and</td> </tr> <tr> <td>24-24.25 GHz</td> <td>(centre frequency 24.125 GHz)</td> </tr> </table> <p>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.</p>	13 553-13 567 kHz	(centre frequency 13 560 kHz),	26 957-27 283 kHz	(centre frequency 27 120 kHz),	40.66-40.70 MHz	(centre frequency 40.68 MHz),	902-928 MHz	in Region 2 (centre frequency 915 MHz),	2 400-2 500 MHz	(centre frequency 2 450 MHz),	5 725-5 875 MHz	(centre frequency 5 800 MHz), and	24-24.25 GHz	(centre frequency 24.125 GHz)																																					
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5.151	<p><i>Additional allocation:</i> frequencies in the bands 13 570-13 600 kHz and 13 800-13 870 kHz may be used by stations in the fixed service and in the mobile except aeronautical mobile (R) service, communicating only within the boundary of the country in which they are located, on the condition that harmful interference is not caused to the broadcasting service. When using frequencies in these services, administrations are urged to use the minimum power required and to take account of the seasonal use of frequencies by the broadcasting service published in accordance with the Radio Regulations. (WRC-07)</p>																																																			

ITU Footnote	Description
5.152	<i>Additional allocation:</i> in Armenia, Azerbaijan, China, Côte d'Ivoire, the Russian Federation, Georgia, Iran (Islamic Republic of), Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 14 250-14 350 kHz is also allocated to the fixed service on a primary basis. Stations of the fixed service shall not use a radiated power exceeding 24 dBW. (WRC-03)
5.153	In Region 3, the stations of those services to which the band 15 995-16 005 kHz is allocated may transmit standard frequency and time signals.
5.154	<i>Additional allocation:</i> in Armenia, Azerbaijan, the Russian Federation, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 18 068-18 168 kHz is also allocated to the fixed service on a primary basis for use within their boundaries, with a peak envelope power not exceeding 1 kW. (WRC-03)
5.155	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the band 21 850-21 870 kHz is also allocated to the aeronautical mobile (R) service on a primary basis. (WRC-07)
5.155A	In Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, Tajikistan, Turkmenistan and Ukraine, the use of the band 21 850-21 870 kHz by the fixed service is limited to provision of services related to aircraft flight safety. (WRC-07)
5.155B	The band 21 870-21 924 kHz is used by the fixed service for provision of services related to aircraft flight safety.
5.156	<i>Additional allocation:</i> in Nigeria, the band 22 720-23 200 kHz is also allocated to the meteorological aids service (radiosondes) on a primary basis.
5.156A	The use of the band 23 200-23 350 kHz by the fixed service is limited to provision of services related to aircraft flight safety.
5.157	The use of the band 23 350-24 000 kHz by the maritime mobile service is limited to inter-ship radiotelegraphy.
5.158	<i>Alternative allocation:</i> in Armenia, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 24 450-24 600 kHz is allocated to the fixed and land mobile services on a primary basis. (WRC-15)
5.159	<i>Alternative allocation:</i> in Armenia, Belarus, Moldova, Uzbekistan and Kyrgyzstan, the frequency band 39-39.5 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-15)
5.160	<i>Additional allocation:</i> in Botswana, Burundi, Dem. Rep. of the Congo and Rwanda, the band 41-44 MHz is also allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)
5.161	<i>Additional allocation:</i> in Iran (Islamic Republic of) and Japan, the band 41-44 MHz is also allocated to the radiolocation service on a secondary basis.
5.161A	<i>Additional allocation:</i> in Korea (Rep. of) and the United States, the frequency bands 41.015-41.665 MHz and 43.35-44 MHz are also allocated to the radiolocation service on a primary basis. Stations in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the fixed or mobile services. Applications of the radiolocation service are limited to oceanographic radars operating in accordance with Resolution 612 (Rev.WRC-12). (WRC-12)

ITU Footnote	Description
5.161B	<i>Alternative allocation:</i> in Albania, Germany, Armenia, Austria, Belarus, Belgium, Bosnia and Herzegovina, Cyprus, Vatican, Croatia, Denmark, Spain, Estonia, Finland, France, Greece, Hungary, Ireland, Iceland, Italy, Latvia, The Former Yugoslav Rep. of Macedonia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Monaco, Montenegro, Norway, Uzbekistan, Netherlands, 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)
5.162	<i>Additional allocation:</i> in Australia, the band 44-47 MHz is also allocated to the broadcasting service on a primary basis. (WRC-12)
5.162A	<i>Additional allocation:</i> in Germany, Austria, Belgium, Bosnia and Herzegovina, China, Vatican, Denmark, Spain, Estonia, the Russian Federation, Finland, France, Ireland, Iceland, Italy, Latvia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Lithuania, Luxembourg, Monaco, Montenegro, Norway, the Netherlands, Poland, Portugal, the Czech Rep., the United Kingdom, Serbia, Slovenia, Sweden and Switzerland the band 46-68 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with Resolution 217 (WRC-97). (WRC-12)
5.163	<i>Additional allocation:</i> in Armenia, Belarus, the Russian Federation, Georgia, Hungary, Kazakhstan, Latvia, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the bands 47-48.5 MHz and 56.5-58 MHz are also allocated to the fixed and land mobile services on a secondary basis. (WRC-12)
5.164	<i>Additional allocation:</i> in Albania, Algeria, Germany, Austria, Belgium, Bosnia and Herzegovina, Botswana, Bulgaria, Côte d'Ivoire, Croatia, Denmark, Spain, Estonia, Finland, France, Gabon, Greece, Ireland, Israel, Italy, Jordan, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Madagascar, Mali, Malta, Morocco, Mauritania, Monaco, Montenegro, Nigeria, Norway, the Netherlands, Poland, Syrian Arab Republic, Slovakia, Czech Rep., Romania, the United Kingdom, Serbia, Slovenia, Sweden, Switzerland, Swaziland, Chad, Togo, Tunisia and Turkey, the frequency band 47-68 MHz, in South Africa the frequency band 47-50 MHz, and in Latvia the frequency band 48.5-56.5 MHz, are also allocated to the land mobile service on a primary basis. However, stations of the land mobile service in the countries mentioned in connection with each frequency band referred to in this footnote shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations of countries other than those mentioned in connection with the frequency band. (WRC-15)
5.165	<i>Additional allocation:</i> in Angola, Cameroon, Congo (Rep. of the), Madagascar, Mozambique, Niger, Somalia, Sudan, South Sudan, Tanzania and Chad, the band 47-68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)
5.166	(SUP - WRC-15)
5.167	<i>Alternative allocation:</i> in Bangladesh, Brunei Darussalam, India, Iran (Islamic Republic of), Pakistan and Singapore, the frequency band 50-54 MHz is allocated to the fixed, mobile and broadcasting services on a primary basis. (WRC-15)
5.167A	<i>Additional allocation:</i> in Indonesia and Thailand, the frequency band 50-54 MHz is also allocated to the fixed, mobile and broadcasting services on a primary basis. (WRC-15)
5.168	<i>Additional allocation:</i> in Australia, China and the Dem. People's Rep. of Korea, the band 50-54 MHz is also allocated to the broadcasting service on a primary basis.
5.169	<i>Alternative allocation:</i> in Botswana, Lesotho, Malawi, Namibia, the Dem. Rep. of the Congo, Rwanda, South Africa, Swaziland, Zambia and Zimbabwe, the band 50-54 MHz is allocated to the amateur service on a primary basis. In Senegal, the band 50-51 MHz is allocated to the amateur service on a primary basis. (WRC-12)

ITU Footnote	Description
5.170	<i>Additional allocation:</i> in New Zealand, the band 51-53 MHz is also allocated to the fixed and mobile services on a primary basis.
5.171	<i>Additional allocation:</i> in Botswana, Lesotho, Malawi, Mali, Namibia, Dem. Rep. of the Congo, Rwanda, South Africa, Swaziland, Zambia and Zimbabwe, the band 54-68 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)
5.172	<i>Different category of service:</i> in the French overseas departments and communities in Region 2 and Guyana, the allocation of the frequency band 54-68 MHz to the fixed and mobile services is on a primary basis (see No. 5.33). (WRC-15)
5.173	<i>Different category of service:</i> in the French overseas departments and communities in Region 2 and Guyana, the allocation of the frequency band 68-72 MHz to the fixed and mobile services is on a primary basis (see No. 5.33). (WRC-15)
5.174	(SUP - WRC-07)
5.175	<i>Alternative allocation:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Moldova, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting service on a primary basis. In Latvia and Lithuania, the bands 68-73 MHz and 76-87.5 MHz are allocated to the broadcasting and mobile, except aeronautical mobile, services on a primary basis. The services to which these bands are allocated in other countries and the broadcasting service in the countries listed above are subject to agreements with the neighbouring countries concerned. (WRC-07)
5.176	<i>Additional allocation:</i> in Australia, China, Korea (Rep. of), the Philippines, the Dem. People's Rep. of Korea and Samoa, the band 68-74 MHz is also allocated to the broadcasting service on a primary basis. (WRC-07)
5.177	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 73-74 MHz is also allocated to the broadcasting service on a primary basis, subject to agreement obtained under No. 9.21. (WRC-07)
5.178	<i>Additional allocation:</i> in Colombia, Cuba, El Salvador, Guatemala, Guyana, Honduras and Nicaragua, the band 73-74.6 MHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-12)
5.179	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, China, the Russian Federation, Georgia, Kazakhstan, Lithuania, Mongolia, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the bands 74.6-74.8 MHz and 75.2-75.4 MHz are also allocated to the aeronautical radionavigation service, on a primary basis, for ground-based transmitters only. (WRC-12)
5.180	The frequency 75 MHz is assigned to marker beacons. Administrations shall refrain from assigning frequencies close to the limits of the guardband to stations of other services which, because of their power or geographical position, might cause harmful interference or otherwise place a constraint on marker beacons. Every effort should be made to improve further the characteristics of airborne receivers and to limit the power of transmitting stations close to the limits 74.8 MHz and 75.2 MHz.
5.181	<i>Additional allocation:</i> in Egypt, Israel and the Syrian Arab Republic, the band 74.8-75.2 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. 9.21. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedure invoked under No. 9.21. (WRC-03)

ITU Footnote	Description
5.182	<i>Additional allocation:</i> in Western Samoa, the band 75.4-87 MHz is also allocated to the broadcasting service on a primary basis.
5.183	<i>Additional allocation:</i> in China, Korea (Rep. of), Japan, the Philippines and the Dem. People's Rep. of Korea, the band 76-87 MHz is also allocated to the broadcasting service on a primary basis.
5.184	(SUP - WRC-07)
5.185	<i>Different category of service:</i> in the United States, the French overseas departments and communities in Region 2, Guyana and Paraguay, the allocation of the frequency band 76-88 MHz to the fixed and mobile services is on a primary basis (see No. 5.33). (WRC-15)
5.186	(SUP - WRC-97)
5.187	<i>Alternative allocation:</i> in Albania, the band 81-87.5 MHz is allocated to the broadcasting service on a primary basis and used in accordance with the decisions contained in the Final Acts of the Special Regional Conference (Geneva, 1960).
5.188	<i>Additional allocation:</i> in Australia, the band 85-87 MHz is also allocated to the broadcasting service on a primary basis. The introduction of the broadcasting service in Australia is subject to special agreements between the administrations concerned.
5.189	Not used.
5.190	<i>Additional allocation:</i> in Monaco, the band 87.5-88 MHz is also allocated to the land mobile service on a primary basis, subject to agreement obtained under No. 9.21. (WRC-97)
5.191	Not used.
5.192	<i>Additional allocation:</i> in China and Korea (Rep. of), the band 100-108 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-97)
5.193	Not used.
5.194	<i>Additional allocation:</i> in Azerbaijan, Kyrgyzstan, Somalia and Turkmenistan, the band 104-108 MHz is also allocated to the mobile, except aeronautical mobile (R), service on a secondary basis. (WRC-07)
5.195	Not used.
5.196	Not used.
5.197	<i>Additional allocation:</i> in the Syrian Arab Republic, the band 108-111.975 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. 9.21. In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedures invoked under No. 9.21. (WRC-12)

ITU Footnote	Description
5.197A	<i>Additional allocation:</i> the band 108-117.975 MHz is also allocated on a primary basis to the Aeronautical mobile (R) service, limited to systems operating in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution 413 (Rev.WRC-07)*. The use of the band 108-112 MHz by the aeronautical mobile (R) service shall be limited to systems composed of ground-based transmitters and associated receivers that provide navigational information in support of air navigation functions in accordance with recognized international aeronautical standards. (WRC-07)
5.198	(SUP - WRC-07)
5.199	(SUP - WRC-07)
5.200	In the band 117.975-137 MHz, the frequency 121.5 MHz is the aeronautical emergency frequency and, where required, the frequency 123.1 MHz is the aeronautical frequency auxiliary to 121.5 MHz. Mobile stations of the maritime mobile service may communicate on these frequencies under the conditions laid down in Article 31 for distress and safety purposes with stations of the aeronautical mobile service. (WRC-07)
5.201	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, Bulgaria, Estonia, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Iraq (Republic of), Japan, Kazakhstan, Moldova, Mongolia, Mozambique, Uzbekistan, Papua New Guinea, Poland, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the frequency band 132-136 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-15)
5.202	<i>Additional allocation:</i> in Saudi Arabia, Armenia, Azerbaijan, Belarus, Bulgaria, the United Arab Emirates, the Russian Federation, Georgia, Iran (Islamic Republic of), Jordan, Oman, Uzbekistan, Poland, the Syrian Arab Republic, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the frequency band 136-137 MHz is also allocated to the aeronautical mobile (OR) service on a primary basis. In assigning frequencies to stations of the aeronautical mobile (OR) service, the administration shall take account of the frequencies assigned to stations in the aeronautical mobile (R) service. (WRC-15)
5.203	(SUP - WRC-07)
5.203A	(SUP - WRC-07)
5.203B	(SUP - WRC-07)
5.204	<i>Different category of service:</i> in Afghanistan, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, China, Cuba, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Kuwait, Montenegro, Oman, Pakistan, the Philippines, Qatar, Serbia, Singapore, Thailand and Yemen, the band 137-138 MHz is allocated to the fixed and mobile, except aeronautical mobile (R), services on a primary basis (see No. 5.33). (WRC-07)
5.205	<i>Different category of service:</i> in Israel and Jordan, the allocation of the band 137-138 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. 5.33).
5.206	<i>Different category of service:</i> 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)

* *Note by the Secretariat:* This Resolution was revised by WRC-12.

ITU Footnote	Description
5.207	<i>Additional allocation:</i> in Australia, the band 137-144 MHz is also allocated to the broadcasting service on a primary basis until that service can be accommodated within regional broadcasting allocations.
5.208	The use of the band 137-138 MHz by the mobile-satellite service is subject to coordination under No. 9.11A. (WRC-97)
5.208A	In making assignments to space stations in the mobile-satellite service in the bands 137-138 MHz, 387-390 MHz and 400.15-401 MHz, administrations shall take all practicable steps to protect the radio astronomy service in the bands 150.05-153 MHz, 322-328.6 MHz, 406.1-410 MHz and 608-614 MHz from harmful interference from unwanted emissions. The threshold levels of interference detrimental to the radio astronomy service are shown in the relevant ITU-R Recommendation. (WRC-07)
5.208B*	<p>In the bands:</p> <p style="text-align: center;">137-138 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,</p> <p>Resolution 739 (Rev.WRC-15) applies. (WRC-15)</p>
5.209	The use of the bands 137-138 MHz, 148-150.05 MHz, 399.9-400.05 MHz, 400.15-401 MHz, 454-456 MHz and 459-460 MHz by the mobile-satellite service is limited to non-geostationary-satellite systems. (WRC-97)
5.210	<i>Additional allocation:</i> in Italy, the Czech Rep. and the United Kingdom, the bands 138-143.6 MHz and 143.65-144 MHz are also allocated to the space research service (space-to-Earth) on a secondary basis. (WRC-07)
5.211	<i>Additional allocation:</i> in Germany, Saudi Arabia, Austria, Bahrain, Belgium, Denmark, the United Arab Emirates, Spain, Finland, Greece, Guinea, Ireland, Israel, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Liechtenstein, Luxembourg, Mali, Malta, Montenegro, Norway, the Netherlands, Qatar, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sweden, Switzerland, Tanzania, Tunisia and Turkey, the frequency band 138-144 MHz is also allocated to the maritime mobile and land mobile services on a primary basis. (WRC-15)
5.212	<i>Alternative allocation:</i> in Angola, Botswana, Cameroon, the Central African Rep., Congo (Rep. of the), Gabon, Gambia, Ghana, Guinea, Iraq, Jordan, Lesotho, Liberia, Libya, Malawi, Mozambique, Namibia, Niger, Oman, Uganda, Syrian Arab Republic, the Dem. Rep. of the Congo, Rwanda, Sierra Leone, South Africa, Swaziland, Chad, Togo, Zambia and Zimbabwe, the band 138-144 MHz is allocated to the fixed and mobile services on a primary basis. (WRC-12)
5.213	<i>Additional allocation:</i> in China, the band 138-144 MHz is also allocated to the radiolocation service on a primary basis.
5.214	<i>Additional allocation:</i> in Eritrea, Ethiopia, Kenya, The Former Yugoslav Republic of Macedonia, Montenegro, Serbia, Somalia, Sudan, South Sudan and Tanzania, the band 138-144 MHz is also allocated to the fixed service on a primary basis. (WRC-12)

* This provision was previously numbered as No. 5.347A. It was renumbered to preserve the sequential order.

ITU Footnote	Description
5.215	Not used.
5.216	<i>Additional allocation:</i> in China, the band 144-146 MHz is also allocated to the aeronautical mobile (OR) service on a secondary basis.
5.217	<i>Alternative allocation:</i> in Afghanistan, Bangladesh, Cuba, Guyana and India, the band 146-148 MHz is allocated to the fixed and mobile services on a primary basis.
5.218	<i>Additional allocation:</i> the band 148-149.9 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under No. 9.21 . The bandwidth of any individual transmission shall not exceed ± 25 kHz.
5.219	The use of the band 148-149.9 MHz by the mobile-satellite service is subject to coordination under No. 9.11A . The mobile-satellite service shall not constrain the development and use of the fixed, mobile and space operation services in the band 148-149.9 MHz.
5.220	The use of the frequency bands 149.9-150.05 MHz and 399.9-400.05 MHz by the mobile-satellite service is subject to coordination under No. 9.11A . (WRC-15)
5.221	Stations of the mobile-satellite service in the frequency band 148-149.9 MHz shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations in the following countries: Albania, Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Bangladesh, Barbados, Belarus, Belgium, Benin, Bosnia and Herzegovina, Botswana, Brunei Darussalam, Bulgaria, Cameroon, China, Cyprus, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Croatia, Cuba, Denmark, Djibouti, Egypt, the United Arab Emirates, Eritrea, Spain, Estonia, 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, The Former Yugoslav Republic of Macedonia, Lesotho, Latvia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Malaysia, Mali, Malta, Mauritania, Moldova, Mongolia, Montenegro, Mozambique, Namibia, Norway, New Zealand, Oman, Uganda, Uzbekistan, Pakistan, Panama, Papua New Guinea, Paraguay, the Netherlands, the Philippines, Poland, Portugal, Qatar, the Syrian Arab Republic, Kyrgyzstan, Dem. People's Rep. of Korea, Slovakia, Romania, the United Kingdom, Senegal, Serbia, Sierra Leone, Singapore, Slovenia, Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Swaziland, Tanzania, Chad, Togo, Tonga, Trinidad and Tobago, Tunisia, Turkey, Ukraine, Viet Nam, Yemen, Zambia and Zimbabwe. (WRC-15)
5.222	(SUP - WRC-15)
5.223	(SUP - WRC-15)
5.224	(SUP - WRC-97)
5.224A	(SUP - WRC-15)
5.224B	(SUP - WRC-15)
5.225	<i>Additional allocation:</i> in Australia and India, the band 150.05-153 MHz is also allocated to the radio astronomy service on a primary basis.

ITU Footnote	Description
5.225A	<p><i>Additional allocation:</i> in Algeria, Armenia, Azerbaijan, Belarus, China, the Russian Federation, France, Iran (Islamic Republic of), Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Ukraine and Viet Nam, the frequency band 154-156 MHz is also allocated to the radiolocation service on a primary basis. The usage of the frequency band 154-156 MHz by the radiolocation service shall be limited to space-object detection systems operating from terrestrial locations. The operation of stations in the radiolocation service in the frequency band 154-156 MHz shall be subject to agreement obtained under No. 9.21. For the identification of potentially affected administrations in Region 1, the instantaneous field-strength value of 12 dB(μV/m) for 10% of the time produced at 10 m above ground level in the 25 kHz reference frequency band at the border of the territory of any other administration shall be used. For the identification of potentially affected administrations in Region 3, the interference-to-noise ratio (I/N) value of -6 dB (N = -161 dBW/4 kHz), or -10 dB for applications with greater protection requirements, such as public protection and disaster relief (PPDR (N = -161 dBW/4 kHz)), for 1% of the time produced at 60 m above ground level at the border of the territory of any other administration shall be used. In the frequency bands 156.7625-156.8375 MHz, 156.5125-156.5375 MHz, 161.9625-161.9875 MHz, 162.0125-162.0375 MHz, out-of-band e.i.r.p. of space surveillance radars shall not exceed -16 dBW. Frequency assignments to the radiolocation service under this allocation in Ukraine shall not be used without the agreement of Moldova. (WRC-12)</p>
5.226	<p>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.</p> <p>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.</p> <p>In the bands 156-156.4875 MHz, 156.5625-156.7625 MHz, 156.8375-157.45 MHz, 160.6-160.975 MHz and 161.475-162.05 MHz, each administration shall give priority to the maritime mobile service on only such frequencies as are assigned to stations of the maritime mobile service by the administration (see Articles 31 and 52, and Appendix 18).</p> <p>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.</p> <p>However, the frequencies 156.8 MHz and 156.525 MHz and the frequency bands in which priority is given to the maritime mobile service may be used for radiocommunications on inland waterways subject to agreement between interested and affected administrations and taking into account current frequency usage and existing agreements. (WRC-07)</p>
5.227	<p><i>Additional allocation:</i> the bands 156.4875-156.5125 MHz and 156.5375-156.5625 MHz are also allocated to the fixed and land mobile services on a primary basis. The use of these bands by the fixed and land mobile services shall not cause harmful interference to nor claim protection from the maritime mobile VHF radiocommunication service. (WRC-07)</p>
5.227A	(SUP - WRC-12)
5.228	<p>The use of the frequency bands 156.7625-156.7875 MHz and 156.8125-156.8375 MHz by the mobile-satellite service (Earth-to-space) is limited to the reception of automatic identification system (AIS) emissions of long-range AIS broadcast messages (Message 27, see the most recent version of Recommendation ITU-R M.1371). With the exception of AIS emissions, emissions in these frequency bands by systems operating in the maritime mobile service for communications shall not exceed 1 W. (WRC-12)</p>

ITU Footnote	Description
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)
5.228C	The use of the frequency bands 161.9625-161.9875 MHz and 162.0125-162.0375 MHz by the maritime mobile service and the mobile-satellite (Earth-to-space) service is limited to the automatic identification system (AIS). The use of these frequency bands by the aeronautical mobile (OR) service is limited to AIS emissions from search and rescue aircraft operations. The AIS operations in these frequency bands shall not constrain the development and use of the fixed and mobile services operating in the adjacent frequency bands. (WRC-12)
5.228D	The frequency bands 161.9625-161.9875 MHz (AIS 1) and 162.0125-162.0375 MHz (AIS 2) may continue to be used by the fixed and mobile services on a primary basis until 1 January 2025, at which time this allocation shall no longer be valid. Administrations are encouraged to make all practicable efforts to discontinue the use of these bands by the fixed and mobile services prior to the transition date. During this transition period, the maritime mobile service in these frequency bands has priority over the fixed, land mobile and aeronautical mobile services. (WRC-12)
5.229	<i>Alternative allocation:</i> in Morocco, the band 162-174 MHz is allocated to the broadcasting service on a primary basis. The use of this band shall be subject to agreement with administrations having services, operating or planned, in accordance with the Table which are likely to be affected. Stations in existence on 1 January 1981, with their technical characteristics as of that date, are not affected by such agreement.
5.230	<i>Additional allocation:</i> in China, the band 163-167 MHz is also allocated to the space operation service (space-to-Earth) on a primary basis, subject to agreement obtained under No. 9.21.
5.231	<i>Additional allocation:</i> in Afghanistan and China, the band 167-174 MHz is also allocated to the broadcasting service on a primary basis. The introduction of the broadcasting service into this band shall be subject to agreement with the neighbouring countries in Region 3 whose services are likely to be affected. (WRC-12)
5.232	(SUP - WRC-15)
5.233	<i>Additional allocation:</i> in China, the band 174-184 MHz is also allocated to the space research (space-to-Earth) and the space operation (space-to-Earth) services on a primary basis, subject to agreement obtained under No. 9.21. These services shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations.
5.234	(SUP - WRC-15)
5.235	<i>Additional allocation:</i> in Germany, Austria, Belgium, Denmark, Spain, Finland, France, Israel, Italy, Liechtenstein, Malta, Monaco, Norway, the Netherlands, the United Kingdom, Sweden and Switzerland, the band 174-223 MHz is also allocated to the land mobile service on a primary basis. However, the stations of the land mobile service shall not cause harmful interference to, or claim protection from, broadcasting stations, existing or planned, in countries other than those listed in this footnote.
5.236	Not used.
5.237	<i>Additional allocation:</i> in Congo (Rep. of the), Egypt, Eritrea, Ethiopia, Gambia, Guinea, Libya, Mali, Sierra Leone, Somalia and Chad, the band 174-223 MHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-12)

ITU Footnote	Description
5.238	<i>Additional allocation:</i> in Bangladesh, India, Pakistan and the Philippines, the band 200-216 MHz is also allocated to the aeronautical radionavigation service on a primary basis.
5.239	Not used.
5.240	<i>Additional allocation:</i> in China and India, the band 216-223 MHz is also allocated to the aeronautical radionavigation service on a primary basis and to the radiolocation service on a secondary basis.
5.241	In Region 2, no new stations in the radiolocation service may be authorized in the band 216-225 MHz. Stations authorized prior to 1 January 1990 may continue to operate on a secondary basis.
5.242	<i>Additional allocation:</i> in Canada, the band 216-220 MHz is also allocated to the land mobile service on a primary basis.
5.243	<i>Additional allocation:</i> in Somalia, the band 216-225 MHz is also allocated to the aeronautical radionavigation service on a primary basis, subject to not causing harmful interference to existing or planned broadcasting services in other countries.
5.244	(SUP - WRC-97)
5.245	<i>Additional allocation:</i> in Japan, the band 222-223 MHz is also allocated to the aeronautical radionavigation service on a primary basis and to the radiolocation service on a secondary basis.
5.246	<i>Alternative allocation:</i> in Spain, France, Israel and Monaco, the band 223-230 MHz is allocated to the broadcasting and land mobile services on a primary basis (see No. 5.33) on the basis that, in the preparation of frequency plans, the broadcasting service shall have prior choice of frequencies; and allocated to the fixed and mobile, except land mobile, services on a secondary basis. However, the stations of the land mobile service shall not cause harmful interference to, or claim protection from, existing or planned broadcasting stations in Morocco and Algeria.
5.247	<i>Additional allocation:</i> in Saudi Arabia, Bahrain, the United Arab Emirates, Jordan, Oman, Qatar and Syrian Arab Republic, the band 223-235 MHz is also allocated to the aeronautical radionavigation service on a primary basis.
5.248	Not used.
5.249	Not used.
5.250	<i>Additional allocation:</i> in China, the band 225-235 MHz is also allocated to the radio astronomy service on a secondary basis.
5.251	<i>Additional allocation:</i> in Nigeria, the band 230-235 MHz is also allocated to the aeronautical radionavigation service on a primary basis, subject to agreement obtained under No. 9.21.
5.252	<i>Alternative allocation:</i> in Botswana, Lesotho, Malawi, Mozambique, Namibia, South Africa, Swaziland, Zambia and Zimbabwe, the bands 230-238 MHz and 246-254 MHz are allocated to the broadcasting service on a primary basis, subject to agreement obtained under No. 9.21.
5.253	Not used.
5.254	The bands 235-322 MHz and 335.4-399.9 MHz may be used by the mobile-satellite service, subject to agreement obtained under No. 9.21, on condition that stations in this service do not cause harmful interference to those of other services operating or planned to be operated in accordance with the Table of Frequency Allocations except for the additional allocation made in footnote No. 5.256A. (WRC-03)

ITU Footnote	Description
5.255	The bands 312-315 MHz (Earth-to-space) and 387-390 MHz (space-to-Earth) in the mobile-satellite service may also be used by non-geostationary-satellite systems. Such use is subject to coordination under No. 9.11A .
5.256	The frequency 243 MHz is the frequency in this band for use by survival craft stations and equipment used for survival purposes. (WRC-07)
5.256A	<i>Additional allocation:</i> in China, the Russian Federation and Kazakhstan, the frequency band 258-261 MHz is also allocated to the space research service (Earth-to-space) and space operation service (Earth-to-space) on a primary basis. Stations in the space research service (Earth-to-space) and space operation service (Earth-to-space) shall not cause harmful interference to, or claim protection from, or constrain the use and development of, the mobile service systems and mobile-satellite service systems operating in the frequency band. Stations in space research service (Earth-to-space) and space operation service (Earth-to-space) shall not constrain the future development of fixed service systems of other countries. (WRC-15)
5.257	The band 267-272 MHz may be used by administrations for space telemetry in their countries on a primary basis, subject to agreement obtained under No. 9.21 .
5.258	The use of the band 328.6-335.4 MHz by the aeronautical radionavigation service is limited to Instrument Landing Systems (glide path).
5.259	<i>Additional allocation:</i> in Egypt and the Syrian Arab Republic, the band 328.6-335.4 MHz is also allocated to the mobile service on a secondary basis, subject to agreement obtained under No. 9.21 . In order to ensure that harmful interference is not caused to stations of the aeronautical radionavigation service, stations of the mobile service shall not be introduced in the band until it is no longer required for the aeronautical radionavigation service by any administration which may be identified in the application of the procedure invoked under No. 9.21 . (WRC-12)
5.260	(SUP - WRC-15)
5.261	Emissions shall be confined in a band of ± 25 kHz about the standard frequency 400.1 MHz.
5.262	<i>Additional allocation:</i> 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.
5.265	In the frequency band 403-410 MHz, Resolution 205 (Rev.WRC-15) applies. (WRC-15)
5.266	The use of the band 406-406.1 MHz by the mobile-satellite service is limited to low power satellite emergency position-indicating radiobeacons (see also Article 31). (WRC-07)
5.267	Any emission capable of causing harmful interference to the authorized uses of the band 406-406.1 MHz is prohibited.

ITU Footnote	Description
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 $-153 \text{ dB(W/m}^2\text{)}$ for $0^\circ \leq \delta \leq 5^\circ$, $-153 + 0.077 (\delta - 5) \text{ dB(W/m}^2\text{)}$ for $5^\circ \leq \delta \leq 70^\circ$ and $-148 \text{ dB(W/m}^2\text{)}$ for $70^\circ \leq \delta \leq 90^\circ$, where δ is the angle of arrival of the radio-frequency wave and the reference bandwidth is 4 kHz. In this frequency band, stations of the space research service (space-to-space) shall not claim protection from, nor constrain the use and development of, stations of the fixed and mobile services. No. 4.10 does not apply. (WRC-15)
5.269	<i>Different category of service:</i> in Australia, the United States, India, Japan and the United Kingdom, the allocation of the bands 420-430 MHz and 440-450 MHz to the radiolocation service is on a primary basis (see No. 5.33).
5.270	<i>Additional allocation:</i> in Australia, the United States, Jamaica and the Philippines, the bands 420-430 MHz and 440-450 MHz are also allocated to the amateur service on a secondary basis.
5.271	<i>Additional allocation:</i> in Belarus, China, India, Kyrgyzstan and Turkmenistan, the band 420-460 MHz is also allocated to the aeronautical radionavigation service (radio altimeters) on a secondary basis. (WRC-07)
5.272	(SUP - WRC-12)
5.273	(SUP - WRC-12)
5.274	<i>Alternative allocation:</i> in Denmark, Norway, Sweden and Chad, the bands 430-432 MHz and 438-440 MHz are allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)
5.275	<i>Additional allocation:</i> in Croatia, Estonia, Finland, Libya, The Former Yugoslav Republic of Macedonia, Montenegro and Serbia, the frequency bands 430-432 MHz and 438-440 MHz are also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-15)
5.276	<i>Additional allocation:</i> in Afghanistan, Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Burkina Faso, Djibouti, Egypt, the United Arab Emirates, Ecuador, Eritrea, Ethiopia, Greece, Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Italy, Jordan, Kenya, Kuwait, Libya, Malaysia, Niger, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, Switzerland, Thailand, Togo, Turkey and Yemen, the frequency band 430-440 MHz is also allocated to the fixed service on a primary basis and the frequency bands 430-435 MHz and 438-440 MHz are also allocated, except in Ecuador, to the mobile, except aeronautical mobile, service on a primary basis. (WRC-15)
5.277	<i>Additional allocation:</i> in Angola, Armenia, Azerbaijan, Belarus, Cameroon, Congo (Rep. of the), Djibouti, the Russian Federation, Georgia, Hungary, Israel, Kazakhstan, Mali, Mongolia, Uzbekistan, Poland, the Dem. Rep. of the Congo, Kyrgyzstan, Slovakia, Romania, Rwanda, Tajikistan, Chad, Turkmenistan and Ukraine, the band 430-440 MHz is also allocated to the fixed service on a primary basis. (WRC-12)
5.278	<i>Different category of service:</i> in Argentina, Colombia, Costa Rica, Cuba, Guyana, Honduras, Panama and Venezuela, the allocation of the band 430-440 MHz to the amateur service is on a primary basis (see No. 5.33).
5.279	<i>Additional allocation:</i> in Mexico, the bands 430-435 MHz and 438-440 MHz are also allocated on a primary basis to the land mobile service, subject to agreement obtained under No. 9.21.

ITU Footnote	Description
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.1260-1. 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-15)
5.280	In Germany, Austria, Bosnia and Herzegovina, Croatia, The Former Yugoslav Republic of Macedonia, Liechtenstein, Montenegro, Portugal, Serbia, Slovenia and Switzerland, the band 433.05-434.79 MHz (centre frequency 433.92 MHz) is designated for industrial, scientific and medical (ISM) applications. Radiocommunication services of these countries operating within this band must accept harmful interference which may be caused by these applications. ISM equipment operating in this band is subject to the provisions of No. 15.13 . (WRC-07)
5.281	<i>Additional allocation:</i> in the French overseas departments and communities in Region 2 and India, the band 433.75-434.25 MHz is also allocated to the space operation service (Earth-to-space) on a primary basis. In France and in Brazil, the band is allocated to the same service on a secondary basis.
5.282	In the bands 435-438 MHz, 1 260-1 270 MHz, 2 400-2 450 MHz, 3 400-3 410 MHz (in Regions 2 and 3 only) and 5 650-5 670 MHz, the amateur-satellite service may operate subject to not causing harmful interference to other services operating in accordance with the Table (see No. 5.43). Administrations 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.
5.283	<i>Additional allocation:</i> in Austria, the band 438-440 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis.
5.284	<i>Additional allocation:</i> in Canada, the band 440-450 MHz is also allocated to the amateur service on a secondary basis.
5.285	<i>Different category of service:</i> in Canada, the allocation of the band 440-450 MHz to the radiolocation service is on a primary basis (see No. 5.33).
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 frequency 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 frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-15)
5.286B	The use of the band 454-455 MHz in the countries listed in No. 5.286D , 455-456 MHz and 459-460 MHz in Region 2, and 454-456 MHz and 459-460 MHz in the countries listed in No. 5.286E , by stations in the mobile-satellite service, shall not cause harmful interference to, or claim protection from, stations of the fixed or mobile services operating in accordance with the Table of Frequency Allocations. (WRC-97)

ITU Footnote	Description
5.286C	The use of the band 454-455 MHz in the countries listed in No. 5.286D , 455-456 MHz and 459-460 MHz in Region 2, and 454-456 MHz and 459-460 MHz in the countries listed in No. 5.286E , by stations in the mobile-satellite service, shall not constrain the development and use of the fixed and mobile services operating in accordance with the Table of Frequency Allocations. (WRC-97)
5.286D	<i>Additional allocation:</i> in Canada, the United States and Panama, the band 454-455 MHz is also allocated to the mobile-satellite service (Earth-to-space) on a primary basis. (WRC-07)
5.286E	<i>Additional allocation:</i> in Cape Verde, Nepal and Nigeria, the bands 454-456 MHz and 459-460 MHz are also allocated to the mobile-satellite (Earth-to-space) service on a primary basis. (WRC-07)
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.1174-3. The use of these frequency bands in territorial waters is subject to the national regulations of the administration concerned. (WRC-15)
5.288	In the territorial waters of the United States and the Philippines, the preferred frequencies for use by on-board communication stations shall be 457.525 MHz, 457.550 MHz, 457.575 MHz and 457.600 MHz paired, respectively, with 467.750 MHz, 467.775 MHz, 467.800 MHz and 467.825 MHz. The characteristics of the equipment used shall conform to those specified in Recommendation ITU-R M.1174-3. (WRC-15)
5.289	Earth exploration-satellite service applications, other than the meteorological-satellite service, may also be used in the bands 460-470 MHz and 1 690-1 710 MHz for space-to-Earth transmissions subject to not causing harmful interference to stations operating in accordance with the Table.
5.290	<i>Different category of service:</i> in Afghanistan, Azerbaijan, Belarus, China, the Russian Federation, Japan, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 460-470 MHz to the meteorological-satellite service (space-to-Earth) is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21 . (WRC-12)
5.291	<i>Additional allocation:</i> in China, the band 470-485 MHz is also allocated to the space research (space-to-Earth) and the space operation (space-to-Earth) services on a primary basis subject to agreement obtained under No. 9.21 and subject to not causing harmful interference to existing and planned broadcasting stations.
5.291A	<i>Additional allocation:</i> in Germany, Austria, Denmark, Estonia, Liechtenstein, the Czech Rep., Serbia and Switzerland, the frequency band 470-494 MHz is also allocated to the radiolocation service on a secondary basis. This use is limited to the operation of wind profiler radars in accordance with Resolution 217 (WRC-97) . (WRC-15)
5.292	<i>Different category of service:</i> in Argentina, Uruguay and Venezuela, the allocation of the frequency band 470-512 MHz to the mobile service is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21 . (WRC-15)
5.293	<i>Different category of service:</i> in Canada, Chile, Cuba, the United States, Guyana, Jamaica and Panama, the allocation of the frequency bands 470-512 MHz and 614-806 MHz to the fixed service is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21 . In the Bahamas, Barbados, Canada, Chile, Cuba, the United States, Guyana, Jamaica, Mexico and Panama, the allocation of the frequency bands 470-512 MHz and 614-698 MHz to the mobile service is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21 . In Argentina and Ecuador, the allocation of the frequency band 470-512 MHz to the fixed and mobile services is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21 . (WRC-15)

ITU Footnote	Description
5.294	<i>Additional allocation:</i> in Saudi Arabia, Cameroon, Côte d'Ivoire, Egypt, Ethiopia, Israel, Libya, the Syrian Arab Republic, Chad and Yemen, the frequency band 470-582 MHz is also allocated to the fixed service on a secondary basis. (WRC-15)
5.295	In the Bahamas, Barbados, Canada, the United States and Mexico, the frequency band 470-608 MHz, or portions thereof, is identified for International Mobile Telecommunications (IMT) – see Resolution 224 (Rev.WRC-15) . This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. Mobile service stations of the IMT system within the frequency band are subject to agreement obtained under No. 9.21 and shall not cause harmful interference to, or claim protection from, the broadcasting service of neighbouring countries. Nos. 5.43 and 5.43A apply. In Mexico, the use of IMT in this frequency band will not start before 31 December 2018 and may be extended if agreed by the neighbouring countries. (WRC-15)
5.296	<i>Additional allocation:</i> in Albania, Germany, Angola, Saudi Arabia, Austria, Bahrain, Belgium, Benin, Bosnia and Herzegovina, Botswana, Bulgaria, Burkina Faso, Burundi, Cameroon, Vatican, Congo (Rep. of the), Côte d'Ivoire, Croatia, Denmark, Djibouti, Egypt, United Arab Emirates, Spain, Estonia, Finland, France, Gabon, Georgia, Ghana, Hungary, Iraq, Ireland, Iceland, Israel, Italy, Jordan, Kenya, Kuwait, Lesotho, Latvia, The Former Yugoslav Republic of Macedonia, Lebanon, Libya, Liechtenstein, Lithuania, Luxembourg, Malawi, Mali, Malta, Morocco, Mauritius, Mauritania, Moldova, Monaco, Mozambique, Namibia, Niger, Nigeria, Norway, Oman, Uganda, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Slovakia, the Czech Republic, the United Kingdom, Rwanda, San Marino, Serbia, Sudan, South Africa, Sweden, Switzerland, Swaziland, 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-15)
5.296A	In Micronesia, the Solomon Islands, Tuvalu and Vanuatu, the frequency band 470-698 MHz, or portions thereof, and in Bangladesh, Maldives and New Zealand, the frequency band 610-698 MHz, or portions thereof, are identified for use by these administrations wishing to implement International Mobile Telecommunications (IMT) – see Resolution 224 (Rev.WRC-15) . This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. The mobile allocation in this frequency band shall not be used for IMT systems unless subject to agreement obtained under No. 9.21 and shall not cause harmful interference to, or claim protection from, the broadcasting service of neighbouring countries. Nos. 5.43 and 5.43A apply. (WRC-15)
5.297	<i>Additional allocation:</i> in Canada, Costa Rica, Cuba, El Salvador, the United States, Guatemala, Guyana and Jamaica, the frequency band 512-608 MHz is also allocated to the fixed and mobile services on a primary basis, subject to agreement obtained under No. 9.21 . In the Bahamas, Barbados and Mexico, the frequency band 512-608 MHz is also allocated to the mobile service on a primary basis, subject to agreement obtained under No. 9.21 . (WRC-15)
5.298	<i>Additional allocation:</i> in India, the band 549.75-550.25 MHz is also allocated to the space operation service (space-to-Earth) on a secondary basis.
5.299	Not used.
5.300	<i>Additional allocation:</i> in Saudi Arabia, Cameroon, Egypt, United Arab Emirates, Israel, Jordan, Libya, Oman, Qatar, the Syrian Arab Republic and Sudan, the frequency band 582-790 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-15)
5.301	Not used.

ITU Footnote	Description
5.302	(SUP - WRC-12)
5.303	Not used.
5.304	<i>Additional allocation:</i> in the African Broadcasting Area (see Nos. 5.10 to 5.13), the band 606-614 MHz is also allocated to the radio astronomy service on a primary basis.
5.305	<i>Additional allocation:</i> in China, the band 606-614 MHz is also allocated to the radio astronomy service on a primary basis.
5.306	<i>Additional allocation:</i> 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.
5.307	<i>Additional allocation:</i> in India, the band 608-614 MHz is also allocated to the radio astronomy service on a primary basis.
5.308	<i>Additional allocation:</i> in Belize and Colombia, the frequency band 614-698 MHz is also allocated to the mobile service on a primary basis. Stations of the mobile service within the frequency band are subject to agreement obtained under No. 9.21 . (WRC-15)
5.308A	In the Bahamas, Barbados, Belize, Canada, Colombia, the United States and Mexico, the frequency band 614-698 MHz, or portions thereof, is identified for International Mobile Telecommunications (IMT) – see Resolution 224 (Rev.WRC-15) . This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. Mobile service stations of the IMT system within the frequency band are subject to agreement obtained under No. 9.21 and shall not cause harmful interference to or claim protection from the broadcasting service of neighbouring countries. Nos. 5.43 and 5.43A apply. In Belize and Mexico, the use of IMT in this frequency band will not start before 31 December 2018 and may be extended if agreed by the neighbouring countries. (WRC-15)
5.309	<i>Different category of service:</i> in El Salvador, the allocation of the frequency band 614-806 MHz to the fixed service is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21 . (WRC-15)
5.310	(SUP - WRC-97)
5.311	(SUP - WRC-07)
5.311A	For the frequency band 620-790 MHz, see also Resolution 549 (WRC-07) . (WRC-07)
5.312	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the frequency band 645-862 MHz, in Bulgaria the frequency bands 646-686 MHz, 726-758 MHz, 766-814 MHz and 822-862 MHz, and in Poland the frequency band 860-862 MHz until 31 December 2017, are also allocated to the aeronautical radionavigation service on a primary basis. (WRC-15)
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 (WRC-15) . See also Resolution 224 (Rev.WRC-15) . (WRC-15)
5.313	(SUP - WRC-97)

ITU Footnote	Description
5.313A	The frequency band, or portions of the frequency band 698-790 MHz, in Australia, Bangladesh, Brunei Darussalam, Cambodia, China, Korea (Rep. of), Fiji, India, Indonesia, Japan, Kiribati, Lao P.D.R., Malaysia, Myanmar (Union of), New Zealand, Pakistan, Papua New Guinea, the Philippines, Solomon Islands, Samoa, Singapore, Thailand, Tonga, Tuvalu, Vanuatu and Viet Nam, are identified for use by these administrations wishing to implement 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. In China, the use of IMT in this frequency band will not start until 2015. (WRC-15)
5.313B	(SUP - WRC-15)
5.314	(SUP - WRC-15)
5.315	(SUP - WRC-15)
5.316	(SUP - WRC-15)
5.316A	(SUP - WRC-15)
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-15) and 749 (Rev.WRC-15) shall apply, as appropriate. (WRC-15)
5.317	<i>Additional allocation:</i> in Region 2 (except Brazil, the United States and Mexico), the frequency band 806-890 MHz is also allocated to the mobile-satellite service on a primary basis, subject to agreement obtained under No. 9.21 . The use of this service is intended for operation within national boundaries. (WRC-15)
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-15) , 760 (WRC-15) and 749 (Rev.WRC-15) , 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-15)
5.318	<i>Additional allocation:</i> in Canada, the United States and Mexico, the bands 849-851 MHz and 894-896 MHz are also allocated to the aeronautical mobile service on a primary basis, for public correspondence with aircraft. The use of the band 849-851 MHz is limited to transmissions from aeronautical stations and the use of the band 894-896 MHz is limited to transmissions from aircraft stations.
5.319	<i>Additional allocation:</i> in Belarus, the Russian Federation and Ukraine, the bands 806-840 MHz (Earth-to-space) and 856-890 MHz (space-to-Earth) are also allocated to the mobile-satellite, except aeronautical mobile-satellite (R), service. The use of these bands by this service shall not cause harmful interference to, or claim protection from, services in other countries operating in accordance with the Table of Frequency Allocations and is subject to special agreements between the administrations concerned.
5.320	<i>Additional allocation:</i> in Region 3, the bands 806-890 MHz and 942-960 MHz are also allocated to the mobile-satellite, except aeronautical mobile-satellite (R), service on a primary basis, subject to agreement obtained under No. 9.21 . The use of this service is limited to operation within national boundaries. In seeking such agreement, appropriate protection shall be afforded to services operating in accordance with the Table, to ensure that no harmful interference—is caused to such services.

ITU Footnote	Description
5.321	(SUP - WRC-07)
5.322	In Region 1, in the band 862-960 MHz, stations of the broadcasting service shall be operated only in the African Broadcasting Area (see Nos. 5.10 to 5.13) excluding Algeria, Burundi, Egypt, Spain, Lesotho, Libya, Morocco, Malawi, Namibia, Nigeria, South Africa, Tanzania, Zimbabwe and Zambia, subject to agreement obtained under No. 9.21 . (WRC-12)
5.323	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 862-960 MHz, in Bulgaria the bands 862-890.2 MHz and 900-935.2 MHz, in Poland the band 862-876 MHz until 31 December 2017, and in Romania the bands 862-880 MHz and 915-925 MHz, are also allocated to the aeronautical radionavigation service on a primary basis. Such use is subject to agreement obtained under No. 9.21 with administrations concerned and limited to ground-based radiobeacons in operation on 27 October 1997 until the end of their lifetime. (WRC-12)
5.324	Not used.
5.325	<i>Different category of service:</i> in the United States, the allocation of the band 890-942 MHz to the radiolocation service is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21 .
5.325A	<i>Different category of service:</i> in Argentina, Brazil, Costa Rica, Cuba, Dominican Republic, El Salvador, Ecuador, the French overseas departments and communities in Region 2, Guatemala, Mexico, Paraguay, Uruguay and Venezuela, the frequency band 902-928 MHz is allocated to the land mobile service on a primary basis. In Colombia, the frequency band 902-905 MHz is allocated to the land mobile service on a primary basis. (WRC-15)
5.326	<i>Different category of service:</i> in Chile, the band 903-905 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis, subject to agreement obtained under No. 9.21 .
5.327	<i>Different category of service:</i> in Australia, the allocation of the band 915-928 MHz to the radiolocation service is on a primary basis (see No. 5.33).
5.327A	The use of the frequency band 960-1 164 MHz by the aeronautical mobile (R) service is limited to systems that operate in accordance with recognized international aeronautical standards. Such use shall be in accordance with Resolution 417 (Rev.WRC-15) . (WRC-15)
5.328	The use of the band 960-1 215 MHz by the aeronautical radionavigation service is reserved on a worldwide basis for the operation and development of airborne electronic aids to air navigation and any directly associated ground-based facilities. (WRC-2000)
5.328A	Stations in the radionavigation-satellite service in the band 1 164-1 215 MHz shall operate in accordance with the provisions of Resolution 609 (Rev.WRC-07) and shall not claim protection from stations in the aeronautical radionavigation service in the band 960-1 215 MHz. No. 5.43A does not apply. The provisions of No. 21.18 shall apply. (WRC-07)
5.328AA	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-15) shall apply. (WRC-15)

ITU Footnote	Description
5.328B	The use of the bands 1 164-1 300 MHz, 1 559-1 610 MHz and 5 010-5 030 MHz by systems and networks in the radionavigation-satellite service for which complete coordination or notification information, as appropriate, is received by the Radiocommunication Bureau after 1 January 2005 is subject to the application of the provisions of Nos. 9.12 , 9.12A and 9.13 . Resolution 610 (WRC-03) shall also apply; however, in the case of radionavigation-satellite service (space-to-space) networks and systems, Resolution 610 (WRC-03) shall only apply to transmitting space stations. In accordance with No. 5.329A , for systems and networks in the radionavigation-satellite service (space-to-space) in the bands 1 215-1 300 MHz and 1 559-1 610 MHz, the provisions of Nos. 9.7 , 9.12 , 9.12A and 9.13 shall only apply with respect to other systems and networks in the radionavigation-satellite service (space-to-space). (WRC-07)
5.329	Use of the radionavigation-satellite service in the band 1 215-1 300 MHz shall be subject to the condition that no harmful interference is caused to, and no protection is claimed from, the radionavigation service authorized under No. 5.331 . Furthermore, the use of the radionavigation-satellite service in the band 1 215-1 300 MHz shall be subject to the condition that no harmful interference is caused to the radiolocation service. No. 5.43 shall not apply in respect of the radiolocation service. Resolution 608 (WRC-03)* shall apply. (WRC-03)
5.329A	Use of systems in the radionavigation-satellite service (space-to-space) operating in the bands 1 215-1 300 MHz and 1 559-1 610 MHz is not intended to provide safety service applications, and shall not impose any additional constraints on radionavigation-satellite service (space-to-Earth) systems or on other services operating in accordance with the Table of Frequency Allocations. (WRC-07)
5.330	<i>Additional allocation:</i> in Angola, Saudi Arabia, Bahrain, Bangladesh, Cameroon, China, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guyana, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Nepal, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the band 1 215-1 300 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)
5.331	<i>Additional allocation:</i> in Algeria, Germany, Saudi Arabia, Australia, Austria, Bahrain, Belarus, Belgium, Benin, Bosnia and Herzegovina, Brazil, Burkina Faso, Burundi, Cameroon, China, Korea (Rep. of), Croatia, Denmark, Egypt, the United Arab Emirates, Estonia, the Russian Federation, Finland, France, Ghana, Greece, Guinea, Equatorial Guinea, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Ireland, Israel, Jordan, Kenya, Kuwait, The Former Yugoslav Republic of Macedonia, Lesotho, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Madagascar, Mali, Mauritania, Montenegro, Nigeria, Norway, Oman, Pakistan, the Netherlands, Poland, Portugal, Qatar, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the United Kingdom, Serbia, Slovenia, Somalia, Sudan, South Sudan, Sri Lanka, South Africa, Sweden, Switzerland, Thailand, Togo, Turkey, Venezuela and Viet Nam, the band 1 215-1 300 MHz is also allocated to the radionavigation service on a primary basis. In Canada and the United States, the band 1 240-1 300 MHz is also allocated to the radionavigation service, and use of the radionavigation service shall be limited to the aeronautical radionavigation service. (WRC-12)
5.332	In the band 1 215-1 260 MHz, active spaceborne sensors in the Earth exploration-satellite and space research services shall not cause harmful interference to, claim protection from, or otherwise impose constraints on operation or development of the radiolocation service, the radionavigation-satellite service and other services allocated on a primary basis. (WRC-2000)
5.333	(SUP - WRC-97)
5.334	<i>Additional allocation:</i> in Canada and the United States, the band 1 350-1 370 MHz is also allocated to the aeronautical radionavigation service on a primary basis. (WRC-03)

* *Note by the Secretariat:* This Resolution was revised by WRC-15.

ITU Footnote	Description
5.335	In Canada and the United States in the band 1 240-1 300 MHz, active spaceborne sensors in the earth exploration-satellite and space research services shall not cause interference to, claim protection from, or otherwise impose constraints on operation or development of the aeronautical radionavigation service. (WRC-97)
5.335A	In the band 1 260-1 300 MHz, active spaceborne sensors in the Earth exploration-satellite and space research services shall not cause harmful interference to, claim protection from, or otherwise impose constraints on operation or development of the radiolocation service and other services allocated by footnotes on a primary basis. (WRC-2000)
5.336	Not used.
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. (WRC-2000)
5.338	In Kyrgyzstan, Slovakia and Turkmenistan, existing installations of the radionavigation service may continue to operate in the band 1 350-1 400 MHz. (WRC-12)
5.338A	In the frequency bands 1 350-1 400 MHz, 1 427-1 452 MHz, 22.55-23.55 GHz, 30-31.3 GHz, 49.7-50.2 GHz, 50.4-50.9 GHz, 51.4-52.6 GHz, 81-86 GHz and 92-94 GHz, Resolution 750 (Rev.WRC-15) applies. (WRC-15)
5.339	The bands 1 370-1 400 MHz, 2 640-2 655 MHz, 4 950-4 990 MHz and 15.20-15.35 GHz are also allocated to the space research (passive) and Earth exploration-satellite (passive) services on a secondary basis.
5.339A	(SUP - WRC-07)

ITU Footnote	Description
5.340	<p>All emissions are prohibited in the following bands:</p> <p>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)</p>
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-15) . This identification does not preclude the use of these frequency bands by any other application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of IMT stations is subject to agreement obtained under No. 9.21 with respect to the aeronautical mobile service used for aeronautical telemetry in accordance with No. 5.342 . (WRC-15)
5.341B	In Region 2, the frequency band 1 427-1 518 MHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution 223 (Rev.WRC-15) . This identification does not preclude the use of this frequency band by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-15)

² **5.340.1** The allocation to the Earth exploration-satellite service (passive) and the space research service (passive) in the band 50.2-50.4 GHz should not impose undue constraints on the use of the adjacent bands by the primary allocated services in those bands. (WRC-97)

ITU Footnote	Description
5.341C	The frequency bands 1 427-1 452 MHz and 1 492-1 518 MHz are identified for use by administrations in Region 3 wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution 223 (Rev.WRC-15) . The use of these frequency bands by the above administrations for the implementation of IMT in the frequency bands 1 429-1 452 MHz and 1 492-1 518 MHz is subject to agreement obtained under No. 9.21 from countries using stations of the aeronautical mobile service. This identification does not preclude the use of these frequency bands by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-15)
5.342	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Uzbekistan, Kyrgyzstan and Ukraine, the frequency band 1 429-1 535 MHz is also allocated to the aeronautical mobile service on a primary basis, exclusively for the purposes of aeronautical telemetry within the national territory. As of 1 April 2007, the use of the frequency band 1 452-1 492 MHz is subject to agreement between the administrations concerned. (WRC-15)
5.343	In Region 2, the use of the band 1 435-1 535 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service.
5.344	<i>Alternative allocation:</i> in the United States, the band 1 452-1 525 MHz is allocated to the fixed and mobile services on a primary basis (see also No. 5.343).
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 (-ARC-92)* .
5.346	Not used.
5.347	(SUP - WRC-07)
5.347A**	(SUP - WRC-07)
5.348	The use of the band 1 518-1 525 MHz by the mobile-satellite service is subject to coordination under No. 9.11A . In the band 1 518-1 525 MHz stations in the mobile-satellite service shall not claim protection from the stations in the fixed service. No. 5.43A does not apply. (WRC-03)
5.348A	In the band 1 518-1 525 MHz, the coordination threshold in terms of the power flux-density levels at the surface of the Earth in application of No. 9.11A for space stations in the mobile-satellite (space-to-Earth) service, with respect to the land mobile service use for specialized mobile radios or used in conjunction with public switched telecommunication networks (PSTN) operating within the territory of Japan, shall be -150 dB(W/m ²) in any 4 kHz band for all angles of arrival, instead of those given in Table 5-2 of Appendix 5 . In the band 1 518-1 525 MHz stations in the mobile-satellite service shall not claim protection from stations in the mobile service in the territory of Japan. No. 5.43A does not apply. (WRC-03)
5.348B	In the band 1 518-1 525 MHz, stations in the mobile-satellite service shall not claim protection from aeronautical mobile telemetry stations in the mobile service in the territory of the United States (see Nos. 5.343 and 5.344) and in the countries listed in No. 5.342 . No. 5.43A does not apply. (WRC-03)
5.348C	(SUP - WRC-07)

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

** *Note by the Secretariat:* This provision has been modified by WRC-07, and subsequently renumbered No. **5.208B** in order to preserve the sequential order.

ITU Footnote	Description
5.349	<i>Different category of service:</i> in Saudi Arabia, Azerbaijan, Bahrain, Cameroon, Egypt, France, Iran (Islamic Republic of), Iraq, Israel, Kazakhstan, Kuwait, The Former Yugoslav Republic of Macedonia, Lebanon, Morocco, Qatar, Syrian Arab Republic, Kyrgyzstan, Turkmenistan and Yemen, the allocation of the band 1 525-1 530 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 5.33). (WRC-07)
5.350	<i>Additional allocation:</i> in Azerbaijan, Kyrgyzstan and Turkmenistan, the band 1 525-1 530 MHz is also allocated to the aeronautical mobile service on a primary basis. (WRC-2000)
5.351	The bands 1 525-1 544 MHz, 1 545-1 559 MHz, 1 626.5-1 645.5 MHz and 1 646.5-1 660.5 MHz shall not be used for feeder links of any service. In exceptional circumstances, however, an earth station at a specified fixed point in any of the mobile-satellite services may be 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, 1 646.5-1 660.5 MHz, 1 668-1 675 MHz, 1 980-2 010 MHz, 2 170-2 200 MHz, 2 483.5-2 520 MHz and 2 670-2 690 MHz by the mobile-satellite service, see Resolutions 212 (Rev.WRC-07) and 22- (Rev.WRC-07). (WRC-07)
5.352	(SUP - WRC-97)
5.352A	In the frequency band 1 525-1 530 MHz, stations in the mobile-satellite service, except stations in the maritime mobile-satellite service, shall not cause harmful interference to, or claim protection from, stations of the fixed service in Algeria, Saudi Arabia, Egypt, France and French overseas communities of Region 3, Guinea, India, Israel, Italy, Jordan, Kuwait, Mali, Morocco, Mauritania, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syrian Arab Republic, Viet Nam and Yemen notified prior to 1 April 1998. (WRC-15)
5.353	(SUP - WRC-97)
5.353A	In applying the procedures of Section II of Article 9 to the mobile-satellite service in the bands 1 530-1 544 MHz and 1 626.5-1 645.5 MHz, priority shall be given to accommodating the spectrum requirements for distress, urgency and safety communications of the Global Maritime Distress and Safety System (GMDSS). Maritime mobile-satellite distress, urgency and safety communications shall have priority access and immediate availability over all other mobile satellite communications operating within a network. Mobile-satellite systems shall not cause unacceptable interference to, or claim protection from, distress, urgency and safety communications of the GMDSS. Account shall be taken of the priority of safety-related communications in the other mobile-satellite services. (The provisions of Resolution 222 (WRC-2000)* shall apply.) (WRC-2000)
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.
5.355	<i>Additional allocation:</i> in Bahrain, Bangladesh, Congo (Rep. of the), Djibouti, Egypt, Eritrea, Iraq, Israel, Kuwait, Qatar, Syrian Arab Republic, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the bands 1 540-1 559 MHz, 1 610-1 645.5 MHz and 1 646.5-1 660 MHz are also allocated to the fixed service on a secondary basis. (WRC-12)
5.356	The use of the band 1 544-1 545 MHz by the mobile-satellite service (space-to-Earth) is limited to distress and safety communications (see Article 31).
5.357	Transmissions in the band 1 545-1 555 MHz from terrestrial aeronautical stations directly to aircraft stations, or between aircraft stations, in the aeronautical mobile (R) service are also authorized when such transmissions are used to extend or supplement the satellite-to-aircraft links.

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

ITU Footnote	Description
5.357A	In applying the procedures of Section II of Article 9 to the mobile-satellite service in the frequency 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-12) shall apply.) (WRC-12)
5.358	(SUP - WRC-97)
5.359	<i>Additional allocation:</i> in Germany, Saudi Arabia, Armenia, Azerbaijan, Belarus, Benin, Cameroon, the Russian Federation, France, Georgia, Guinea, Guinea-Bissau, Jordan, Kazakhstan, Kuwait, Lithuania, Mauritania, Uganda, Uzbekistan, Pakistan, Poland, the Syrian Arab Republic, Kyrgyzstan, the Dem. People's Rep. of Korea, Romania, Tajikistan, Tunisia, Turkmenistan and Ukraine, the frequency bands 1 550-1 559 MHz, 1 610-1 645.5 MHz and 1 646.5-1 660 MHz are also allocated to the fixed service on a primary basis. Administrations are urged to make all practicable efforts to avoid the implementation of new fixed-service stations in these frequency bands. (WRC-15)
5.360 to 5.362	(SUP - WRC-97)
5.362A	In the United States, in the bands 1 555-1 559 MHz and 1 656.5-1 660.5 MHz, the aeronautical mobile-satellite (R) service 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. (WRC-97)
5.362B	(SUP - WRC-15)
5.362C	(SUP - WRC-15)
5.363	(SUP - WRC-07)
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.

ITU Footnote	Description
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	<i>Additional allocation:</i> 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	With respect to the radiodetermination-satellite and mobile-satellite services the provisions of No. 4.10 do not apply in the band 1 610-1 626.5 MHz, with the exception of the aeronautical radionavigation-satellite service.
5.369	<i>Different category of service:</i> in Angola, Australia, China, Eritrea, Ethiopia, India, Iran (Islamic Republic of), Israel, Lebanon, Liberia, Madagascar, Mali, Pakistan, Papua New Guinea, Syrian Arab Republic, the Dem. Rep. of the Congo, Sudan, South Sudan, Togo and Zambia, the allocation of the band 1 610-1 626.5 MHz to the radiodetermination-satellite service (Earth-to-space) is on a primary basis (see No. 5.33), subject to agreement obtained under No. 9.21 from countries not listed in this provision. (WRC-12)
5.370	<i>Different category of service:</i> in Venezuela, the allocation to the radiodetermination-satellite service in the band 1 610-1 626.5 MHz (Earth-to-space) is on a secondary basis.
5.371	<i>Additional allocation:</i> 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 band 1 610.6-1 613.8 MHz by stations of the radiodetermination-satellite and mobile-satellite services (No. 29.13 applies).
5.373	Not used.
5.373A	(SUP - WRC-97)
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 . (WRC-97)
5.375	The use of the band 1 645.5-1 646.5 MHz by the mobile-satellite service (Earth-to-space) and for inter-satellite links is limited to distress and safety communications (see Article 31).
5.376	Transmissions in the band 1 646.5-1 656.5 MHz from aircraft stations in the aeronautical mobile (R) service directly to terrestrial aeronautical stations, or between aircraft stations, are also 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. (WRC-97)
5.377	(SUP - WRC-03)
5.378	Not used.
5.379	<i>Additional allocation:</i> in Bangladesh, India, Indonesia, Nigeria and Pakistan, the band 1 660.5-1 668.4 MHz is also allocated to the meteorological aids service on a secondary basis.

ITU Footnote	Description
5.379A	Administrations are urged to give all practicable protection in the band 1 660.5-1 668.4 MHz for future research in radio astronomy, particularly by eliminating air-to-ground transmissions in the meteorological aids service in the band 1 664.4-1 668.4 MHz as soon as practicable.
5.379B	The use of the band 1 668-1 675 MHz by the mobile-satellite service is subject to coordination under No. 9.11A . In the band 1 668-1 668.4 MHz, Resolution 904 (WRC-07) shall apply. (WRC-07)
5.379C	In order to protect the radio astronomy service in the band 1 668-1 670 MHz, the aggregate power flux-density values produced by mobile earth stations in a network of the mobile-satellite service operating in this band shall not exceed $-181 \text{ dB(W/m}^2\text{)}$ in 10 MHz and $-194 \text{ dB(W/m}^2\text{)}$ in any 20 kHz at any radio astronomy station recorded in the Master International Frequency Register, for more than 2% of integration periods of 2 000 s. (WRC-03)
5.379D	For sharing of the band 1 668.4-1 675 MHz between the mobile-satellite service and the fixed and mobile services, Resolution 744 (Rev.WRC-07) shall apply. (WRC-07)
5.379E	In the band 1 668.4-1 675 MHz, stations in the mobile-satellite service shall not cause harmful interference to stations in the meteorological aids service in China, Iran (Islamic Republic of), Japan and Uzbekistan. In the band 1 668.4-1 675 MHz, administrations are urged not to implement new systems in the meteorological aids service and are encouraged to migrate existing meteorological aids service operations to other bands as soon as practicable. (WRC-03)
5.380	(SUP - WRC-07)
5.380A	In the band 1 670-1 675 MHz, stations in the mobile-satellite service shall not cause harmful interference to, nor constrain the development of, existing earth stations in the meteorological-satellite service notified before 1 January 2004. Any new assignment to these earth stations in this band shall also be protected from harmful interference from stations in the mobile-satellite service. (WRC-07)
5.381	<i>Additional allocation:</i> in Afghanistan, Cuba, India, Iran (Islamic Republic of) and Pakistan, the band 1 690-1 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)
5.382	<i>Different category of service:</i> 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, the Former Yugoslav Republic of Macedonia, Lebanon, Mauritania, Moldova, Mongolia, Oman, Uzbekistan, Poland, Qatar, the Syrian Arab Republic, Kyrgyzstan, Somalia, Tajikistan, Turkmenistan, Ukraine and Yemen, the allocation of the frequency band 1 690-1 700 MHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. 5.33), and in the Dem. People's Rep. of Korea, the allocation of the frequency band 1 690-1 700 MHz to the fixed service is on a primary basis (see No. 5.33) and to the mobile, except aeronautical mobile, service on a secondary basis. (WRC-15)
5.383	Not used.
5.384	<i>Additional allocation:</i> in India, Indonesia and Japan, the band 1 700-1 710 MHz is also allocated to the space research service (space-to-Earth) on a primary basis. (WRC-97)
5.384A	The frequency bands 1 710-1 885 MHz, 2 300-2 400 MHz and 2 500-2 690 MHz, or portions thereof, are identified for use by administrations wishing to implement International Mobile Telecommunications (IMT) in accordance with Resolution 223 (Rev.WRC-15) . This identification does not preclude the use of these frequency bands by any application of the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-15)

ITU Footnote	Description
5.385	<i>Additional allocation:</i> the band 1 718.8-1 722.2 MHz is also allocated to the radio astronomy service on a secondary basis for spectral line observations. (WRC-2000)
5.386	<i>Additional allocation:</i> the frequency band 1 750-1 850 MHz is also allocated to the space operation (Earth-to-space) and space research (Earth-to-space) services in Region 2 (except in Mexico), in Australia, Guam, India, Indonesia and Japan on a primary basis, subject to agreement obtained under No. 9.21 , having particular regard to troposcatter systems. (WRC-15)
5.387	<i>Additional allocation:</i> in Belarus, Georgia, Kazakhstan, Kyrgyzstan, Romania, Tajikistan and Turkmenistan, the band 1 770-1 790 MHz is also allocated to the meteorological-satellite service on a primary basis, subject to agreement obtained under No. 9.21 . (WRC-12)
5.388	The frequency 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 frequency bands by other services to which they are allocated. The frequency bands should be made available for IMT in accordance with Resolution 212 (Rev.WRC-15) (see also Resolution 223 (Rev.WRC-15)). (WRC-15)
5.388A	In Regions 1 and 3, the bands 1 885-1 980 MHz, 2 010-2 025 MHz and 2 110-2 170 MHz and, in Region 2, the bands 1 885-1 980 MHz and 2 110-2 160 MHz may be used by high altitude platform stations as base stations to provide International Mobile Telecommunications (IMT), in accordance with Resolution 221 (Rev.WRC-07) . Their use by IMT applications using high altitude platform stations as base stations does not preclude the use of these bands by any station in the services to which they are allocated and does not establish priority in the Radio Regulations. (WRC-12)
5.388B	In Algeria, Saudi Arabia, Bahrain, Benin, Burkina Faso, Cameroon, Comoros, Côte d'Ivoire, China, Cuba, Djibouti, Egypt, United Arab Emirates, Eritrea, Ethiopia, Gabon, Ghana, India, Iran (Islamic Republic of), Israel, Jordan, Kenya, Kuwait, Libya, Mali, Morocco, Mauritania, Nigeria, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, Senegal, Singapore, Sudan, South Sudan, Tanzania, Chad, Togo, Tunisia, Yemen, Zambia and Zimbabwe, for the purpose of protecting fixed and mobile services, including IMT mobile stations, in their territories from co-channel interference, a high altitude platform station (HAPS) operating as an IMT base station in neighbouring countries, in the bands referred to in No. 5.388A , shall not exceed a co-channel power flux-density of $-127 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ at the Earth's surface outside a country's borders unless explicit agreement of the affected administration is provided at the time of the notification of HAPS. (WRC-12)
5.389	Not used.
5.389A	The use of the bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobile-satellite service is subject to coordination under No. 9.11A and to the provisions of Resolution 716 (Rev.WRC-2000) *. (WRC-07)
5.389B	The use of the band 1 980-1 990 MHz by the mobile-satellite service shall not cause harmful interference to or constrain the development of the fixed and mobile services in Argentina, Brazil, Canada, Chile, Ecuador, the United States, Honduras, Jamaica, Mexico, Peru, Suriname, Trinidad and Tobago, Uruguay and Venezuela.
5.389C	The use of the bands 2 010-2 025 MHz and 2 160-2 170 MHz in Region 2 by the mobile-satellite service is subject to coordination under No. 9.11A and to the provisions—of Resolution 716 (Rev.WRC-2000) . (WRC-07)
5.389D	(SUP - WRC-03)
5.389E	The use of the bands 2 010-2 025 MHz and 2 160-2 170 MHz by the mobile-satellite service in Region 2 shall not cause harmful interference to or constrain the development of the fixed and mobile services in Regions 1 and 3.

ITU Footnote	Description
5.389F	In Algeria, Benin, Cape Verde, Egypt, Iran (Islamic Republic of), Mali, Syrian Arab Republic and Tunisia, the use of the bands 1 980-2 010 MHz and 2 170-2 200 MHz by the mobile-satellite service shall neither cause harmful interference to the fixed and mobile services, nor hamper the development of those services prior to 1 January 2005, nor shall the former service request protection from the latter services. (WRC-2000)
5.390	(SUP - WRC-07)
5.391	In making assignments to the mobile service in the frequency 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. (WRC-15)
5.392	Administrations are urged to take all practicable measures to ensure that space-to-space transmissions between two or more non-geostationary satellites, in the space research, space operations and Earth exploration-satellite services in the bands 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 geo-stationary and non-geostationary satellites.
5.392A	(SUP - WRC-07)
5.393	<i>Additional allocation:</i> in Canada, the United States and India, the frequency band 2 310-2 360 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial sound broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution 528 (Rev.WRC-15) , with the exception of <i>resolves</i> 3 in regard to the limitation on broadcasting-satellite systems in the upper 25 MHz. (WRC-15)
5.394	In the United States, the use of the band 2 300-2 390 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services. In Canada, the use of the band 2 360-2 400 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile services. (WRC-07)
5.395	In France and Turkey, the use of the band 2 310-2 360 MHz by the aeronautical mobile service for telemetry has priority over other uses by the mobile service. (WRC-03)
5.396	Space stations of the broadcasting-satellite service in the band 2 310-2 360 MHz operating in accordance with No. 5.393 that may affect the services to which this band is allocated in other countries shall be coordinated and notified in accordance with Resolution 33 (Rev.WRC-97)* . Complementary terrestrial broadcasting stations shall be subject to bilateral coordination with neighbouring countries prior to their bringing into use.
5.397	(SUP - WRC-12)
5.398	In respect of the radiodetermination-satellite service in the band 2 483.5-2 500 MHz, the provisions of No. 4.10 do not apply.
5.398A	<i>Different category of service:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Kazakhstan, Uzbekistan, Kyrgyzstan, Tajikistan and Ukraine, the band 2 483.5-2 500 MHz is allocated on a primary basis to the radiolocation service. The radiolocation stations in these countries shall not cause harmful interference to, or claim protection from, stations of the fixed, mobile and mobile-satellite services operating in accordance with the Radio Regulations in the frequency band 2 483.5-2 500 MHz. (WRC-12)

* *Note by the Secretariat:* This Resolution was revised by WRC-03 and WRC-15.

ITU Footnote	Description
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)
5.400	(SUP - WRC-12)
5.401	In Angola, Australia, Bangladesh, China, Eritrea, Ethiopia, India, Iran (Islamic Republic of), Lebanon, Liberia, Libya, Madagascar, Mali, Pakistan, Papua New Guinea, Syrian Arab Republic, Dem. Rep. of the Congo, Sudan, Swaziland, Togo and Zambia, the frequency band 2 483.5-2 500 MHz was already allocated on a primary basis to the radiodetermination-satellite service before WRC-12, subject to agreement obtained under No. 9.21 from countries not listed in this provision. Systems in the radiodetermination-satellite service for which complete coordination information has been received by the Radiocommunication Bureau before 18 February 2012 will retain their regulatory status, as of the date of receipt of the coordination request information. (WRC-15)
5.402	The use of the band 2 483.5-2 500 MHz by the mobile-satellite and the radiodetermination-satellite services is subject to the coordination under No. 9.11A. Administrations are urged to take all practicable steps to prevent harmful interference to the radio astronomy service from emissions in the 2 483.5-2 500 MHz band, especially those caused by second-harmonic radiation that would fall into the 4 990-5 000 MHz band allocated to the radio astronomy service worldwide.
5.403	Subject to agreement obtained under No. 9.21, the band 2 520-2 535 MHz may also be used for the mobile-satellite (space-to-Earth), except aeronautical mobile-satellite, service for operation limited to within national boundaries. The provisions of No. 9.11A apply. (WRC-07)
5.404	<i>Additional allocation:</i> in India and Iran (Islamic Republic of), the band 2 500-2 516.5 MHz may also be used for the radiodetermination-satellite service (space-to-Earth) for operation limited to within national boundaries, subject to agreement obtained under No. 9.21.
5.405	(SUP – WRC-12)
5.407	In the band 2 500-2 520 MHz, the power flux-density at the surface of the Earth from space stations operating in the mobile-satellite (space-to-Earth) service shall not exceed $-152 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ in Argentina, unless otherwise agreed by the administrations concerned.
5.408	(SUP - WRC-2000)
5.409	(SUP - WRC-07)
5.410	The band 2 500-2 690 MHz may be used for tropospheric scatter systems in Region 1, subject to agreement obtained under No. 9.21. No. 9.21 does not apply to tropospheric scatter links situated entirely outside Region 1. Administrations shall make all practicable efforts to avoid developing new tropospheric scatter systems in this band. When planning new tropospheric scatter radio-relay links in this band, all possible measures shall be taken to avoid directing the antennas of these links towards the geostationary-satellite orbit. (WRC-12)
5.411	(SUP - WRC-07)
5.412	<i>Alternative allocation:</i> in Kyrgyzstan and Turkmenistan, the band 2 500-2 690 MHz is allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-12)

ITU Footnote	Description						
5.413	In the design of systems in the broadcasting-satellite service in the bands between 2 500 MHz and 2 690 MHz, administrations are urged to take all necessary steps to protect the radio astronomy service in the band 2 690-2 700 MHz.						
5.414	The allocation of the frequency band 2 500-2 520 MHz to the mobile-satellite service (space-to-Earth) is subject to coordination under No. 9.11A. (WRC-07)						
5.414A	<p>In Japan and India, the use of the bands 2 500-2 520 MHz and 2 520-2 535 MHz, under No. 5.403, by a satellite network in the mobile-satellite service (space-to-Earth) is limited to operation within national boundaries and subject to the application of No. 9.11A. The following pfd values shall be used as a threshold for coordination under No. 9.11A, for all conditions and for all methods of modulation, in an area of 1 000 km around the territory of the administration notifying the mobile-satellite service network:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">-136 dB(W/(m² · MHz))</td> <td style="text-align: center;">for 0° ≤ θ ≤ 5°</td> </tr> <tr> <td style="text-align: center;">-136 + 0.55 (θ - 5) dB(W/(m² · MHz))</td> <td style="text-align: center;">for 5° < θ ≤ 25°</td> </tr> <tr> <td style="text-align: center;">-125 dB(W/(m² · MHz))</td> <td style="text-align: center;">for 25° < θ ≤ 90°</td> </tr> </table> <p>where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees. Outside this area Table 21-4 of Article 21 shall apply. Furthermore, the coordination thresholds in Table 5-2 of Annex 1 to Appendix 5 of the Radio Regulations (Edition of 2004), in conjunction with the applicable provisions of Articles 9 and 11 associated with No. 9.11A, shall apply to systems for which complete notification information has been received by the Radiocommunications Bureau by 14 November 2007 and that have been brought into use by that date. (WRC-07)</p>	-136 dB(W/(m ² · MHz))	for 0° ≤ θ ≤ 5°	-136 + 0.55 (θ - 5) dB(W/(m ² · MHz))	for 5° < θ ≤ 25°	-125 dB(W/(m ² · MHz))	for 25° < θ ≤ 90°
-136 dB(W/(m ² · MHz))	for 0° ≤ θ ≤ 5°						
-136 + 0.55 (θ - 5) dB(W/(m ² · MHz))	for 5° < θ ≤ 25°						
-125 dB(W/(m ² · MHz))	for 25° < θ ≤ 90°						
5.415	The use of the bands 2 500-2 690 MHz in Region 2 and 2 500-2 535 MHz and 2 655-2 690 MHz in Region 3 by the fixed-satellite service is limited to national and regional systems, subject to agreement obtained under No. 9.21, giving particular attention to the broadcasting-satellite service in Region 1. (WRC-07)						
5.415A	<i>Additional allocation:</i> in India and Japan, subject to agreement obtained under No. 9.21, the band 2 515-2 535 MHz may also be used for the aeronautical mobile-satellite service (space-to-Earth) for operation limited to within their national boundaries. (WRC-2000)						
5.416	The use of the band 2 520-2 670 MHz by the broadcasting-satellite service is limited to national and regional systems for community reception, subject to agreement obtained under No. 9.21. The provisions of No. 9.19 shall be applied by administrations in this band in their bilateral and multilateral negotiations. (WRC-07)						
5.417	(SUP - WRC-2000)						
5.417A	(SUP - WRC-15)						
5.417B	(SUP - WRC-15)						
5.417C	(SUP - WRC-15)						
5.417D	(SUP - WRC-15)						

ITU Footnote	Description						
5.418	<p><i>Additional allocation:</i> in India, the frequency band 2 535-2 655 MHz is also allocated to the broadcasting-satellite service (sound) and complementary terrestrial broadcasting service on a primary basis. Such use is limited to digital audio broadcasting and is subject to the provisions of Resolution 528 (Rev.WRC-15). The provisions of No. 5.416 and Table 21-4 of Article 21, do not apply to this additional allocation. Use of non-geostationary-satellite systems in the broadcasting-satellite service (sound) is subject to Resolution 539 (Rev.WRC-15). Geostationary broadcasting-satellite service (sound) systems for which complete Appendix 4 coordination information has been received after 1 June 2005 are limited to systems intended for national coverage. The power flux-density at the Earth's surface produced by emissions from a geostationary broadcasting satellite service (sound) space station operating in the frequency band 2 630-2 655 MHz, and for which complete Appendix 4 coordination information has been received after 1 June 2005, shall not exceed the following limits, for all conditions and for all methods of modulation:</p> <table style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: center;">-130 dB(W/(m² · MHz))</td> <td style="text-align: center;">for 0° ≤ θ ≤ 5°</td> </tr> <tr> <td style="text-align: center;">-130 + 0.4 (θ - 5) dB(W/(m² · MHz))</td> <td style="text-align: center;">for 5° < θ ≤ 25°</td> </tr> <tr> <td style="text-align: center;">-122 dB(W/(m² · MHz))</td> <td style="text-align: center;">for 25° < θ ≤ 90°</td> </tr> </table> <p>where θ is the angle of arrival of the incident wave above the horizontal plane, in degrees. These limits may be exceeded on the territory of any country whose administration has so agreed. As an exception to the limits above, the pfd value of -122 dB(W/(m² · MHz)) shall be used as a threshold for coordination under No. 9.11 in an area of 1 500 km around the territory of the administration notifying the broadcasting-satellite service (sound) system.</p> <p>In addition, an administration listed in this provision shall not have simultaneously two overlapping frequency assignments, one under this provision and the other under No. 5.416 for systems for which complete Appendix 4 coordination information has been received after 1 June 2005. (WRC-15)</p>	-130 dB(W/(m ² · MHz))	for 0° ≤ θ ≤ 5°	-130 + 0.4 (θ - 5) dB(W/(m ² · MHz))	for 5° < θ ≤ 25°	-122 dB(W/(m ² · MHz))	for 25° < θ ≤ 90°
-130 dB(W/(m ² · MHz))	for 0° ≤ θ ≤ 5°						
-130 + 0.4 (θ - 5) dB(W/(m ² · MHz))	for 5° < θ ≤ 25°						
-122 dB(W/(m ² · MHz))	for 25° < θ ≤ 90°						
5.418A	<p>In certain Region 3 countries listed in No. 5.418, use of the band 2 630-2 655 MHz by non-geostationary-satellite systems in the broadcasting-satellite service (sound) 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. 9.12A, in respect of geostationary-satellite networks for which complete Appendix 4 coordination information, or notification information, is considered to have been received after 2 June 2000, and No. 22.2 does not apply. No. 22.2 shall continue to apply with respect to geostationary-satellite networks for which complete Appendix 4 coordination information, or notification information, is considered to have been received before 3 June 2000. (WRC-03)</p>						
5.418B	<p>Use of the band 2 630-2 655 MHz by non-geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. 5.418, for which complete Appendix 4 coordination information, or notification information, has been received after 2 June 2000, is subject to the application of the provisions of No. 9.12. (WRC-03)</p>						
5.418C	<p>Use of the band 2 630-2 655 MHz by geostationary-satellite networks for which complete Appendix 4 coordination information, or notification information, has been received after 2 June 2000 is subject to the application of the provisions of No. 9.13 with respect to non-geostationary-satellite systems in the broadcasting-satellite service (sound), pursuant to No. 5.418 and No. 22.2 does not apply. (WRC-03)</p>						
5.419	<p>When introducing systems of the mobile-satellite service in the band 2 670-2 690 MHz, administrations shall take all necessary steps to protect the satellite systems operating in this band prior to 3 March 1992. The coordination of mobile-satellite systems in the band shall be in accordance with No. 9.11A. (WRC-07)</p>						
5.420	<p>The band 2 655-2 670 MHz may also be used for the mobile-satellite (Earth-to-space), except aeronautical mobile-satellite, service for operation limited to within national boundaries, subject to agreement obtained under No. 9.21. The coordination under No. 9.11A applies. (WRC-07)</p>						

ITU Footnote	Description
5.420A	(SUP - WRC-07)
5.421	(SUP - WRC-03)
5.422	<i>Additional allocation:</i> in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, Brunei Darussalam, Congo (Rep. of the), Côte d'Ivoire, Cuba, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Gabon, Georgia, Guinea, Guinea-Bissau, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Mauritania, Mongolia, Montenegro, Nigeria, Oman, Pakistan, the Philippines, Qatar, Syrian Arab Republic, Kyrgyzstan, the Dem. Rep. of the Congo, Romania, Somalia, Tajikistan, Tunisia, Turkmenistan, Ukraine and Yemen, the band 2 690-2 700 MHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985. (WRC-12)
5.423	In the band 2 700-2 900 MHz, ground-based radars used for meteorological purposes are authorized to operate on a basis of equality with stations of the aeronautical radionavigation service.
5.424	<i>Additional allocation:</i> in Canada, the band 2 850-2 900 MHz is also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars.
5.424A	In the band 2 900-3 100 MHz, stations in the radiolocation service shall not cause harmful interference to, nor claim protection from, radar systems in the radionavigation service. (WRC-03)
5.425	In the band 2 900-3 100 MHz, the use of the shipborne interrogator-transponder (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.
5.428	<i>Additional allocation:</i> in Azerbaijan, Kyrgyzstan and Turkmenistan, the frequency band 3 100-3 300 MHz is also allocated to the radionavigation service on a primary basis. (WRC-15)
5.429	<i>Additional allocation:</i> in Saudi Arabia, Bahrain, Bangladesh, Benin, Brunei Darussalam, Cambodia, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Egypt, the United Arab Emirates, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Oman, Uganda, Pakistan, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, the Dem. People's Rep. of Korea, Sudan and Yemen, the frequency band 3 300-3 400 MHz is also allocated to the fixed and mobile services on a primary basis. The countries bordering the Mediterranean shall not claim protection for their fixed and mobile services from the radiolocation service. (WRC-15)
5.429A	<i>Additional allocation:</i> in Angola, Benin, Botswana, Burkina Faso, Burundi, Ghana, Guinea, Guinea-Bissau, Lesotho, Liberia, Malawi, Mauritania, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sudan, South Sudan, South Africa, Swaziland, Tanzania, Chad, Togo, Zambia and Zimbabwe, the frequency band 3 300-3 400 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis. Stations in the mobile service operating in the frequency band 3 300-3 400 MHz shall not cause harmful interference to, or claim protection from, stations operating in the radiolocation service. (WRC-15)

ITU Footnote	Description
5.429B	In the following countries of Region 1 south of 30° parallel north: Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Congo (Rep. of the), Côte d'Ivoire, Egypt, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Malawi, Mauritania, Mozambique, Namibia, Niger, Nigeria, Uganda, the Dem. Rep. of the Congo, Rwanda, Sudan, South Sudan, South Africa, Swaziland, Tanzania, Chad, Togo, Zambia and Zimbabwe, the frequency band 3 300-3 400 MHz is identified for the implementation of International Mobile Telecommunications (IMT). The use of this frequency band shall be in accordance with Resolution 223 (Rev.WRC-15) . The use of the frequency band 3 300-3 400 MHz by IMT stations in the mobile service shall not cause harmful interference to, or claim protection from, systems in the radiolocation service, and administrations wishing to implement IMT shall obtain the agreement of neighbouring countries to protect operations within the radiolocation service. This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-15)
5.429C	<i>Different category of service:</i> in Argentina, Brazil, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Paraguay and Uruguay, the frequency band 3 300-3 400 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis. In Argentina, Brazil, Guatemala, Mexico and Paraguay, the frequency band 3 300-3 400 MHz is also allocated to the fixed service on a primary basis. Stations in the fixed and mobile services operating in the frequency band 3 300-3 400 MHz shall not cause harmful interference to, or claim protection from, stations operating in the radiolocation service. (WRC-15)
5.429D	In the following countries in Region 2: Argentina, Colombia, Costa Rica, Ecuador, Mexico and Uruguay, the use of the frequency band 3 300-3 400 MHz is identified for the implementation of International Mobile Telecommunications (IMT). Such use shall be in accordance with Resolution 223 (Rev.WRC-15) . This use in Argentina and Uruguay is subject to the application of No. 9.21 . The use of the frequency band 3 300-3 400 MHz by IMT stations in the mobile service shall not cause harmful interference to, or claim protection from, systems in the radiolocation service, and administrations wishing to implement IMT shall obtain the agreement of neighbouring countries to protect operations within the radiolocation service. This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-15)
5.429E	<i>Additional allocation :</i> in Papua New Guinea, the frequency band 3 300-3 400 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis. Stations in the mobile service operating in the frequency band 3 300-3 400 MHz shall not cause harmful interference to, or claim protection from, stations operating in the radiolocation service. (WRC-15)
5.429F	In the following countries in Region 3: Cambodia, India, Lao P.D.R., Pakistan, the Philippines and Viet Nam, the use of the frequency band 3 300-3 400 MHz is identified for the implementation of International Mobile Telecommunications (IMT). Such use shall be in accordance with Resolution 223 (Rev.WRC-15) . The use of the frequency band 3 300-3 400 MHz by IMT stations in the mobile service shall not cause harmful interference to, or claim protection from, systems in the radiolocation service. Before an administration brings into use a base or mobile station of an IMT system in this frequency band, it shall seek agreement under No. 9.21 with neighbouring countries to protect the radiolocation service. This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. (WRC-15)
5.430	<i>Additional allocation:</i> in Azerbaijan, Kyrgyzstan and Turkmenistan, the frequency band 3 300-3 400 MHz is also allocated to the radionavigation service on a primary basis. (WRC-15)

ITU Footnote	Description
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 $-154.5 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ 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)
5.431	<i>Additional allocation:</i> in Germany and Israel, the frequency band 3 400-3 475 MHz is also allocated to the amateur service on a secondary basis. (WRC-15)
5.431A	In Region 2, the allocation of the frequency band 3 400-3 500 MHz to the mobile, except aeronautical mobile, service on a primary basis is subject to agreement obtained under No. 9.21 . (WRC-15)
5.431B	In Region 2, the frequency band 3 400-3 600 MHz is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. 9.17 and 9.18 also apply. Before an administration brings into use a base or mobile station of an IMT system, it shall seek agreement under No. 9.21 with other administrations and ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed $-154.5 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service, including IMT systems, 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)
5.432	<i>Different category of service:</i> in Korea (Rep. of), Japan and Pakistan, the allocation of the band 3 400-3 500 MHz to the mobile, except aeronautical mobile, service is on a primary basis (see No. 5.33). (WRC-2000)

ITU Footnote	Description
5.432A	<p>In Korea (Rep. of), Japan and Pakistan, the band 3 400-3 500 MHz is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. 9.17 and 9.18 also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed $-154.5 \text{ dB (W/ (m}^2 \cdot 4 \text{ kHz))}$ for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the band 3 400-3 600 MHz shall not claim more protection from space stations than that provided in Table 21-4 of the Radio Regulations (Edition of 2004). This allocation is effective from 17 November 2010. (WRC-12)</p>
5.432B	<p><i>Different category of service:</i> in Australia, Bangladesh, China, French overseas communities of Region 3, India, Iran (Islamic Republic of), New Zealand, the Philippines and Singapore, the frequency band 3 400-3 500 MHz is allocated to the mobile, except aeronautical mobile, service on a primary basis, subject to agreement obtained under No. 9.21 with other administrations and is identified for International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. 9.17 and 9.18 also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this frequency band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed $-154.5 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the frequency band 3 400-3 500 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)</p>
5.433	<p>In Regions 2 and 3, in the band 3 400-3 600 MHz the radiolocation service is allocated on a primary basis. However, all administrations operating radiolocation systems in this band are urged to cease operations by 1985. Thereafter, administrations shall take all practicable steps to protect the fixed-satellite service and coordination requirements shall not be imposed on the fixed-satellite service.</p>

ITU Footnote	Description
5.433A	In Australia, Bangladesh, China, French overseas communities of Region 3, Korea (Rep. of), India, Iran (Islamic Republic of), Japan, New Zealand, Pakistan and the Philippines, the frequency band 3 500-3 600 MHz 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. At the stage of coordination the provisions of Nos. 9.17 and 9.18 also apply. Before an administration brings into use a (base or mobile) station of the mobile service in this frequency band it shall ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed $-154.5 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service in the frequency band 3 500-3 600 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)
5.434	In Canada, Colombia, Costa Rica and the United States, the frequency band 3 600-3 700 MHz, or portions thereof, is identified for use by these administrations wishing to implement International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. At the stage of coordination the provisions of Nos. 9.17 and 9.18 also apply. Before an administration brings into use a base or mobile station of an IMT system, it shall seek agreement under No. 9.21 with other administrations and ensure that the power flux-density (pfd) produced at 3 m above ground does not exceed $-154.5 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ for more than 20% of time at the border of the territory of any other administration. This limit may be exceeded on the territory of any country whose administration has so agreed. In order to ensure that the pfd limit at the border of the territory of any other administration is met, the calculations and verification shall be made, taking into account all relevant information, with the mutual agreement of both administrations (the administration responsible for the terrestrial station and the administration responsible for the earth station), with the assistance of the Bureau if so requested. In case of disagreement, the calculation and verification of the pfd shall be made by the Bureau, taking into account the information referred to above. Stations of the mobile service, including IMT systems, in the frequency band 3 600-3 700 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)
5.435	In Japan, in the band 3 620-3 700 MHz, the radiolocation service is excluded.
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) . (WRC-15)
5.437	Passive sensing in the Earth exploration-satellite and space research services may be authorized in the frequency band 4 200-4 400 MHz on a secondary basis. (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)
5.439	<i>Additional allocation:</i> in Iran (Islamic Republic of), the band 4 200-4 400 MHz is also allocated to the fixed service on a secondary basis. (WRC-12)
5.440	The standard frequency and time signal-satellite service may be 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 $\pm 2 \text{ MHz}$ of these frequencies, subject to agreement obtained under No. 9.21 .

ITU Footnote	Description
5.440A	In Region 2 (except Brazil, Cuba, French overseas departments and communities, Guatemala, Paraguay, Uruguay and Venezuela), and in Australia, the band 4 400-4 940 MHz may be used for aeronautical mobile telemetry for flight testing by aircraft stations (see No. 1.83). Such use shall be in accordance with Resolution 416 (WRC-07) and shall not cause harmful interference to, nor claim protection from, the fixed-satellite and fixed services. Any such use does not preclude the use of these bands by other mobile service applications or by other services to which these bands are allocated on a co-primary basis and does not establish priority in the Radio Regulations. (WRC-07)
5.441	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. (WRC-2000)
5.441A	In Uruguay, the frequency band 4 800-4 900 MHz, or portions thereof, is identified for the implementation of International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of this frequency band for the implementation of IMT is subject to agreement obtained with neighbouring countries, and IMT stations shall not claim protection from stations of other applications of the mobile service. Such use shall be in accordance with Resolution 223 (Rev.WRC-15) . (WRC-15)
5.441B	In Cambodia, Lao P.D.R. and Viet Nam, the frequency band 4 800-4 990 MHz, or portions thereof, is identified for use by administrations wishing to implement International Mobile Telecommunications (IMT). This identification does not preclude the use of this frequency band by any application of the services to which it is allocated and does not establish priority in the Radio Regulations. The use of this frequency band for the implementation of IMT is subject to agreement obtained under No. 9.21 with concerned administrations, and IMT stations shall not claim protection from stations of other applications of the mobile service. In addition, before an administration brings into use an IMT station in the mobile service, it shall ensure that the power flux-density produced by this station does not exceed $-155 \text{ dB(W/(m}^2 \cdot 1 \text{ MHz))}$ produced up to 19 km above sea level at 20 km from the coast, defined as the low-water mark, as officially recognized by the coastal State. This criterion is subject to review at WRC-19. See Resolution 223 (Rev.WRC-15) . This identification shall be effective after WRC-19. (WRC-15)
5.442	In the frequency 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, Mexico, Paraguay, Uruguay and Venezuela), and in Australia, the frequency band 4 825-4 835 MHz is also allocated to the aeronautical mobile service, limited to aeronautical mobile telemetry for flight testing by aircraft stations. Such use shall be in accordance with Resolution 416 (WRC-07) and shall not cause harmful interference to the fixed service. (WRC-15)
5.443	<i>Different category of service:</i> in Argentina, Australia and Canada, the allocation of the bands 4 825-4 835 MHz and 4 950-4 990 MHz to the radio astronomy service is on a primary basis (see No. 5.33).

ITU Footnote	Description
5.443A	(SUP - WRC-03)
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)
5.443B	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 frequency band 5 030-5 150 MHz by all the space stations within any radionavigation-satellite service system (space-to-Earth) operating in the frequency band 5 010-5 030 MHz shall not exceed -124.5 dB(W/m ²) in a 150 kHz band. In order not to cause harmful interference to the radio astronomy service in the frequency band 4 990-5 000 MHz, radionavigation-satellite service systems operating in the frequency band 5 010-5 030 MHz shall comply with the limits in the frequency band 4 990-5 000 MHz defined in Resolution 741 (Rev.WRC-15) . (WRC-15)
5.443C	The use of the frequency band 5 030-5 091 MHz by the aeronautical mobile (R) service is limited to internationally standardized aeronautical systems. Unwanted emissions from the aeronautical mobile (R) service in the frequency band 5 030-5 091 MHz shall be limited to protect RNSS system downlinks in the adjacent 5 010-5 030 MHz band. Until such time that an appropriate value is established in a relevant ITU-R Recommendation, the e.i.r.p. density limit of -75 dBW/MHz in the frequency band 5 010-5 030 MHz for any AM(R)S station unwanted emission should be used. (WRC-12)
5.443D	In the frequency band 5 030-5 091 MHz, the aeronautical mobile-satellite (R) service is subject to coordination under No. 9.11A . The use of this frequency band by the aeronautical mobile-satellite (R) service is limited to internationally standardized aeronautical systems. (WRC-12)
5.444	The frequency band 5 030-5 150 MHz is to be used for the operation of the international standard system (microwave landing system) for precision approach and landing. In the frequency band 5 030-5 091 MHz, the requirements of this system shall have priority over other uses of this frequency band. For the use of the frequency band 5 091-5 150 MHz, No. 5.444A and Resolution 114 (Rev.WRC-15) apply. (WRC-15)
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 frequency band 5 091-5 150 MHz by the aeronautical mobile service is limited to: <ul style="list-style-type: none"> – systems operating in the aeronautical mobile (R) service and in accordance with international aeronautical standards, limited to surface applications at airports. Such use shall be in accordance with Resolution 748 (Rev.WRC-15); – aeronautical telemetry transmissions from aircraft stations (see No. 1.83) in accordance with Resolution 418 (Rev.WRC-15). (WRC-15)
5.445	Not used.

ITU Footnote	Description
5.446	<i>Additional allocation:</i> in the countries listed in No. 5.369 , the frequency band 5 150-5 216 MHz is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis, subject to agreement obtained under No. 9.21 . In Region 2 (except in Mexico), the frequency band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a primary basis. In Regions 1 and 3, except those countries listed in No. 5.369 and Bangladesh, the frequency band is also allocated to the radiodetermination-satellite service (space-to-Earth) on a secondary basis. The use by the radiodetermination-satellite service is limited to feeder links in conjunction with the radiodetermination-satellite service operating in the frequency bands 1 610-1 626.5 MHz and/or 2 483.5-2 500 MHz. The total power flux-density at the Earth's surface shall in no case exceed -159 dB(W/m ²) in any 4 kHz band for all angles of arrival. (WRC-15)
5.446A	The use of the bands 5 150-5 350 MHz and 5 470-5 725 MHz by the stations in the mobile, except aeronautical mobile, service shall be in accordance with Resolution 229 (Rev.WRC-12) . (WRC-12)
5.446B	In the band 5 150-5 250 MHz, stations in the mobile service shall not claim protection from earth stations in the fixed-satellite service. No. 5.43A does not apply to the mobile service with respect to fixed-satellite service earth stations. (WRC-03)
5.446C	<i>Additional allocation:</i> in Region 1 (except in Algeria, Saudi Arabia, Bahrain, Egypt, United Arab Emirates, Jordan, Kuwait, Lebanon, Morocco, Oman, Qatar, Syrian Arab Republic, Sudan, South Sudan and Tunisia) and in Brazil, the band 5 150-5 250 MHz is also allocated to the aeronautical mobile service on a primary basis, limited to aeronautical telemetry transmissions from aircraft stations (see No. 1.83), in accordance with Resolution 418 (Rev.WRC-12)* . These stations shall not claim protection from other stations operating in accordance with Article 5. No. 5.43A does not apply. (WRC-12)
5.447	<i>Additional allocation:</i> in Côte d'Ivoire, Egypt, Israel, Lebanon, the Syrian Arab Republic and Tunisia, the band 5 150-5 250 MHz is also allocated to the mobile service, on a primary basis, subject to agreement obtained under No. 9.21 . In this case, the provisions of Resolution 229 (Rev.WRC-12) do not apply. (WRC-12)
5.447A	The allocation to the fixed-satellite service (Earth-to-space) is limited to feeder links of non-geostationary-satellite systems in the mobile-satellite service and is subject to coordination under No. 9.11A .
5.447B	<i>Additional allocation:</i> 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. (WRC-97)

* *Note by the Secretariat:* This Resolution was revised by WRC-15.

ITU Footnote	Description
5.447E	<i>Additional allocation:</i> The frequency band 5 250-5 350 MHz is also allocated to the fixed service on a primary basis in the following countries in Region 3: Australia, Korea (Rep. of), India, Indonesia, Iran (Islamic Republic of), Japan, Malaysia, Papua New Guinea, the Philippines, Dem. People's Rep. of Korea, Sri Lanka, Thailand and Viet Nam. The use of this frequency band by the fixed service is intended for the implementation of fixed wireless access systems and shall comply with Recommendation ITU-R F.1613-0. In addition, the fixed service shall not claim protection from the radiodetermination, Earth exploration-satellite (active) and space research (active) services, but the provisions of No. 5.43A do not apply to the fixed service with respect to the Earth exploration-satellite (active) and space research (active) services. After implementation of fixed wireless access systems in the fixed service with protection for the existing radiodetermination systems, no more stringent constraints should be imposed on the fixed wireless access systems by future radiodetermination implementations. (WRC-15)
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). These services shall not impose on the mobile service more stringent protection criteria, based on system characteristics and interference criteria, than those stated in Recommendations ITU-R M.1638-0 and ITU-R RS.1632-0. (WRC-15)
5.448	<i>Additional allocation:</i> in Azerbaijan, Kyrgyzstan, Romania and Turkmenistan, the band 5 250-5 350 MHz is also allocated to the radionavigation service on a primary basis. (WRC-12)
5.448A	The Earth exploration-satellite (active) and space research (active) services in the frequency band 5 250-5 350 MHz shall not claim protection from the radiolocation service. No. 5.43A does not apply. (WRC-03)
5.448B	The Earth exploration-satellite service (active) operating in the band 5 350-5 570 MHz and space research service (active) operating in the band 5 460-5 570 MHz shall not cause harmful interference to the aeronautical radionavigation service in the band 5 350-5 460 MHz, the radionavigation service in the band 5 460-5 470 MHz and the maritime radionavigation service in the band 5 470-5 570 MHz. (WRC-03)
5.448C	The space research service (active) operating in the band 5 350-5 460 MHz shall not cause harmful interference to nor claim protection from other services to which this band is allocated. (WRC-03)
5.448D	In the frequency band 5 350-5 470 MHz, stations in the radiolocation service shall not cause harmful interference to, nor claim protection from, radar systems in the aeronautical radionavigation service operating in accordance with No. 5.449. (WRC-03)
5.449	The use of the band 5 350-5 470 MHz by the aeronautical radionavigation service is limited to airborne radars and associated airborne beacons.
5.450	<i>Additional allocation:</i> in Austria, Azerbaijan, Iran (Islamic Republic of), Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 5 470-5 650 MHz is also allocated to the aeronautical radionavigation service on a primary basis. (WRC-12)
5.450A	In the frequency band 5 470-5 725 MHz, stations in the mobile service shall not claim protection from radiodetermination services. Radiodetermination services shall not impose on the mobile service more stringent protection criteria, based on system characteristics and interference criteria, than those stated in Recommendation ITU-R M.1638-0. (WRC-15)
5.450B	In the frequency band 5 470-5 650 MHz, stations in the radiolocation service, except ground-based radars used for meteorological purposes in the band 5 600-5 650 MHz, shall not cause harmful interference to, nor claim protection from, radar systems in the maritime radionavigation service. (WRC-03)

ITU Footnote	Description
5.451	<i>Additional allocation:</i> in the United Kingdom, the band 5 470-5 850 MHz is also allocated to the land mobile service on a secondary basis. The power limits specified in Nos. 21.2 , 21.3 , 21.4 and 21.5 shall apply in the band 5 725-5 850 MHz.
5.452	Between 5 600 MHz and 5 650 MHz, ground-based radars used for meteorological purposes are authorized to operate on a basis of equality with stations of the maritime radionavigation service.
5.453	<i>Additional allocation:</i> in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Côte d'Ivoire, Djibouti, Egypt, the United Arab Emirates, Gabon, Guinea, Equatorial Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kenya, Kuwait, Lebanon, Libya, Madagascar, Malaysia, Niger, Nigeria, Oman, Uganda, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Sri Lanka, Swaziland, Tanzania, Chad, Thailand, Togo, Viet Nam and Yemen, the band 5 650-5 850 MHz is also allocated to the fixed and mobile services on a primary basis. In this case, the provisions of Resolution 229 (Rev.WRC-12) do not apply. (WRC-12)
5.454	<i>Different category of service:</i> in Azerbaijan, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 5 670-5 725 MHz to the space research service is on a primary basis (see No. 5.33). (WRC-12)
5.455	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, Cuba, the Russian Federation, Georgia, Hungary, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan and Ukraine, the band 5 670-5 850 MHz is also allocated to the fixed service on a primary basis. (WRC-07)
5.456	(SUP - WRC-15)
5.457	In Australia, Burkina Faso, Cote d'Ivoire, Mali and Nigeria, the allocation to the fixed service in the bands 6 440-6 520 MHz (HAPS-to-ground direction) and 6 560-6 640 MHz (ground-to-HAPS direction) may also be used by gateway links for high-altitude platform stations (HAPS) within the territory of these countries. Such use is limited to operation in HAPS gateway links and shall not cause harmful interference to, and shall not claim protection from, existing services, and shall be in compliance with Resolution 150 (WRC-12) . Existing services shall not be constrained in future development by HAPS gateway links. The use of HAPS gateway links in these bands requires explicit agreement with other administrations whose territories are located within 1 000 kilometres from the border of an administration intending to use the HAPS gateway links. (WRC-12)
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)
5.457B	In the frequency bands 5 925-6 425 MHz and 14-14.5 GHz, earth stations located on board vessels may operate with the characteristics and under the conditions contained in Resolution 902 (WRC-03) in Algeria, Saudi Arabia, Bahrain, Comoros, Djibouti, Egypt, United Arab Emirates, Jordan, Kuwait, Libya, Morocco, Mauritania, Oman, Qatar, the Syrian Arab Republic, Sudan, Tunisia and Yemen, in the maritime mobile-satellite service on a secondary basis. Such use shall be in accordance with Resolution 902 (WRC-03) . (WRC-15)

ITU Footnote	Description
5.457C	In Region 2 (except Brazil, Cuba, French overseas departments and communities, Guatemala, Mexico, Paraguay, Uruguay and Venezuela), the frequency band 5 925-6 700 MHz may be used for aeronautical mobile telemetry for flight testing by aircraft stations (see No. 1.83). Such use shall be in accordance with Resolution 416 (WRC-07) and shall not cause harmful interference to, or claim protection from, the fixed-satellite and fixed services. Any such use does not preclude the use of this frequency band by other mobile service applications or by other services to which this frequency band is allocated on a co-primary basis and does not establish priority in the Radio Regulations. (WRC-15)
5.458	In the band 6 425-7 075 MHz, passive microwave sensor measurements are carried out over the oceans. In the band 7 075-7 250 MHz, passive microwave sensor measurements are carried out. Administrations should bear in mind the needs of the Earth exploration-satellite (passive) and space research (passive) services in their future planning of the bands 6 425-7 025 MHz and 7 075-7 250 MHz.
5.458A	In making assignments in the band 6 700-7 075 MHz to space stations of the fixed-satellite service, administrations are urged to take all practicable steps to protect spectral line observations of the radio astronomy service in the band 6 650-6 675.2 MHz from harmful interference from unwanted emissions.
5.458B	The space-to-Earth allocation to the fixed-satellite service in the band 6 700-7 075 MHz is limited to feeder links for non-geostationary satellite systems of the mobile-satellite service and is subject to coordination under No. 9.11A . The use of the band 6 700-7 075 MHz (space-to-Earth) by feeder links for non-geostationary satellite systems in the mobile-satellite service is not subject to No. 22.2 .
5.458C	(SUP - WRC-15)
5.459	<i>Additional allocation:</i> in the Russian Federation, the frequency bands 7 100-7 155 MHz and 7 190-7 235 MHz are also allocated to the space operation service (Earth-to-space) on a primary basis, subject to agreement obtained under No. 9.21 . In the frequency band 7 190-7 235 MHz, with respect to the Earth exploration-satellite service (Earth-to-space), No. 9.21 does not apply. (WRC-15)
5.460	No emissions from space research service (Earth-to-space) systems intended for deep space shall be effected in the frequency band 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 neighbouring countries, unless a shorter distance is otherwise agreed between the corresponding administrations. (WRC-15)
5.460B	Space stations on the geostationary orbit operating in the Earth exploration-satellite service (Earth-to-space) in the frequency band 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	<i>Additional allocation:</i> the bands 7 250-7 375 MHz (space-to-Earth) and 7 900-8 025 MHz (Earth-to-space) are also allocated to the mobile-satellite service on a primary basis, subject to agreement obtained under No. 9.21 .

ITU Footnote	Description									
5.461A	The use of the band 7 450-7 550 MHz by the meteorological-satellite service (space-to-Earth) is limited to geostationary-satellite systems. Non-geostationary meteorological-satellite systems in this band notified before 30 November 1997 may continue to operate on a primary basis until the end of their lifetime. (WRC-97)									
5.461AA	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)									
5.461B	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)									
5.462	(SUP - WRC-97)									
5.462A	<p>In Regions 1 and 3 (except for Japan), in the band 8 025-8 400 MHz, the Earth exploration-satellite service using geostationary satellites shall not produce a power flux-density in excess of the following provisional values for angles of arrival (θ), without the consent of the affected administration:</p> <table border="0"> <tr> <td style="text-align: center;">-135 dB(W/m²) in a 1 MHz band</td> <td style="text-align: center;">for</td> <td style="text-align: center;">$0^\circ \leq \theta < 5^\circ$</td> </tr> <tr> <td style="text-align: center;">-135 + 0.5 ($\theta - 5$) dB(W/m²) in a 1 MHz band</td> <td style="text-align: center;">for</td> <td style="text-align: center;">$5^\circ \leq \theta < 25^\circ$</td> </tr> <tr> <td style="text-align: center;">-125 dB(W/m²) in a 1 MHz band</td> <td style="text-align: center;">for</td> <td style="text-align: center;">$25^\circ \leq \theta \leq 90^\circ$</td> </tr> </table> <p>(WRC-12)</p>	-135 dB(W/m ²) in a 1 MHz band	for	$0^\circ \leq \theta < 5^\circ$	-135 + 0.5 ($\theta - 5$) dB(W/m ²) in a 1 MHz band	for	$5^\circ \leq \theta < 25^\circ$	-125 dB(W/m ²) in a 1 MHz band	for	$25^\circ \leq \theta \leq 90^\circ$
-135 dB(W/m ²) in a 1 MHz band	for	$0^\circ \leq \theta < 5^\circ$								
-135 + 0.5 ($\theta - 5$) dB(W/m ²) in a 1 MHz band	for	$5^\circ \leq \theta < 25^\circ$								
-125 dB(W/m ²) in a 1 MHz band	for	$25^\circ \leq \theta \leq 90^\circ$								
5.463	Aircraft stations are not permitted to transmit in the band 8 025-8 400 MHz. (WRC-97)									
5.464	(SUP - WRC-97)									
5.465	In the space research service, the use of the band 8 400-8 450 MHz is limited to deep space.									
5.466	<i>Different category of service:</i> in Singapore and Sri Lanka, the allocation of the band 8 400-8 500 MHz to the space research service is on a secondary basis (see No. 5.32). (WRC-12)									
5.467	(SUP - WRC-03)									
5.468	<i>Additional allocation:</i> in Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Burundi, Cameroon, China, Congo (Rep. of the), Djibouti, Egypt, the United Arab Emirates, Gabon, Guyana, Indonesia, Iran (Islamic Republic of), Iraq, Jamaica, Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Uganda, Pakistan, Qatar, Syrian Arab Republic, the Dem. People's Rep. of Korea, Senegal, Singapore, Somalia, Sudan, Swaziland, Chad, Togo, Tunisia and Yemen, the frequency band 8 500-8 750 MHz is also allocated to the fixed and mobile services on a primary basis. (WRC-15)									
5.469	<i>Additional allocation:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Hungary, Lithuania, Mongolia, Uzbekistan, Poland, Kyrgyzstan, the Czech Rep., Romania, Tajikistan, Turkmenistan and Ukraine, the band 8 500-8 750 MHz is also allocated to the land mobile and radionavigation services on a primary basis. (WRC-12)									

ITU Footnote	Description
5.469A	In the band 8 550-8 650 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, or constrain the use and development of, stations of the radiolocation service. (WRC-97)
5.470	The use of the band 8 750-8 850 MHz by the aeronautical radionavigation service is limited to airborne Doppler navigation aids on a centre frequency of 8 800 MHz.
5.471	<i>Additional allocation:</i> in Algeria, Germany, Bahrain, Belgium, China, Egypt, the United Arab Emirates, France, Greece, Indonesia, Iran (Islamic Republic of), Libya, the Netherlands, Qatar and Sudan, the frequency bands 8 825-8 850 MHz and 9 000-9 200 MHz are also allocated to the maritime radionavigation service, on a primary basis, for use by shore-based radars only. (WRC-15)
5.472	In the bands 8 850-9 000 MHz and 9 200-9 225 MHz, the maritime radionavigation service is limited to shore-based radars.
5.473	<i>Additional allocation:</i> in Armenia, Austria, Azerbaijan, Belarus, Cuba, the Russian Federation, Georgia, Hungary, Mongolia, Uzbekistan, Poland, Kyrgyzstan, Romania, Tajikistan, Turkmenistan and Ukraine, the bands 8 850-9 000 MHz and 9 200-9 300 MHz are also allocated to the radionavigation service on a primary basis. (WRC-07)
5.473A	In the band 9 000-9 200 MHz, stations operating in the radiolocation service shall not cause harmful interference to, nor claim protection from, systems identified in No. 5.337 operating in the aeronautical radionavigation service, or radar systems in the maritime radionavigation service operating in this band on a primary basis in the countries listed in No. 5.471. (WRC-07)
5.474	In the band 9 200-9 500 MHz, search and rescue transponders (SART) may be used, having due regard to the appropriate ITU-R Recommendation (see also Article 31).
5.474A	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. (WRC-07)

ITU Footnote	Description
5.475A	The use of the band 9 300-9 500 MHz by the Earth exploration-satellite service (active) and the space research service (active) is limited to systems requiring necessary bandwidth greater than 300 MHz that cannot be fully accommodated within the 9 500-9 800 MHz band. (WRC-07)
5.475B	In the band 9 300-9 500 MHz, stations operating in the radiolocation service shall not cause harmful interference to, nor claim protection from, radars operating in the radionavigation service in conformity with the Radio Regulations. Ground-based radars used for meteorological purposes have priority over other radiolocation uses. (WRC-07)
5.476	(SUP - WRC-07)
5.476A	In the band 9 300-9 800 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, nor claim protection from, stations of the radionavigation and radiolocation services. (WRC-07)
5.477	<i>Different category of service:</i> in Algeria, Saudi Arabia, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guyana, India, Indonesia, Iran (Islamic Republic of), Iraq, Jamaica, Japan, Jordan, Kuwait, Lebanon, Liberia, Malaysia, Nigeria, Oman, Uganda, Pakistan, Qatar, Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, South Sudan, Trinidad and Tobago, and Yemen, the allocation of the frequency band 9 800-10 000 MHz to the fixed service is on a primary basis (see No. 5.33). (WRC-15)
5.478	<i>Additional allocation:</i> in Azerbaijan, Mongolia, Kyrgyzstan, Romania, Turkmenistan and Ukraine, the band 9 800-10 000 MHz is also allocated to the radionavigation service on a primary basis. (WRC-07)
5.478A	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. (WRC-07)
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. (WRC-07)
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.
5.480	<i>Additional allocation:</i> in Argentina, Brazil, Chile, Cuba, El Salvador, Ecuador, Guatemala, Honduras, Paraguay, the Netherlands Antilles, Peru and Uruguay, the frequency band 10-10.45 GHz is also allocated to the fixed and mobile services on a primary basis. In Colombia, Costa Rica, Mexico and Venezuela, the frequency band 10-10.45 GHz is also allocated to the fixed service on a primary basis. (WRC-15)
5.481	<i>Additional allocation:</i> in Algeria, Germany, Angola, Brazil, China, Côte d'Ivoire, El Salvador, Ecuador, Spain, Guatemala, Hungary, Japan, Kenya, Morocco, Nigeria, Oman, Uzbekistan, Pakistan, Paraguay, Peru, the Dem. People's Rep. of Korea, Romania and Uruguay, the frequency band 10.45-10.5 GHz is also allocated to the fixed and mobile services on a primary basis. In Costa Rica, the frequency band 10.45-10.5 GHz is also allocated to the fixed service on a primary basis. (WRC-15)

ITU Footnote	Description
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, Kazakhstan, Kuwait, Lebanon, Libya, Morocco, Mauritania, Moldova, Nigeria, Oman, Uzbekistan, Pakistan, Philippines, Qatar, Syrian Arab Republic, Kyrgyzstan, Singapore, Tajikistan, Tunisia, Turkmenistan and Viet Nam, this restriction on the fixed and mobile, except aeronautical mobile, service is not applicable. (WRC-07)
5.482A	For sharing of the band 10.6-10.68 GHz between the Earth exploration-satellite (passive) service and the fixed and mobile, except aeronautical mobile, services, Resolution 751 (WRC-07) applies. (WRC-07)
5.483	<i>Additional allocation:</i> in Saudi Arabia, Armenia, Azerbaijan, Bahrain, Belarus, China, Colombia, Korea (Rep. of), Costa Rica, Egypt, the United Arab Emirates, Georgia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kazakhstan, Kuwait, Lebanon, Mongolia, Qatar, Kyrgyzstan, the Dem. People’s Rep. of Korea, Tajikistan, Turkmenistan and Yemen, the band 10.68-10.7 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. Such use is limited to equipment in operation by 1 January 1985. (WRC-12)
5.484	In Region 1, the use of the band 10.7-11.7 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service.
5.484A	The use of the bands 10.95-11.2 GHz (space-to-Earth), 11.45-11.7 GHz (space-to-Earth), 11.7-12.2 GHz (space-to-Earth) in Region 2, 12.2-12.75 GHz (space-to-Earth) in Region 3, 12.5-12.75 GHz (space-to-Earth) in Region 1, 13.75-14.5 GHz (Earth-to-space), 17.8-18.6 GHz (space-to-Earth), 19.7-20.2 GHz (space-to-Earth), 27.5-28.6 GHz (Earth-to-space), 29.5-30 GHz (Earth-to-space) by a non-geostationary-satellite system in the fixed-satellite service is subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. 5.43A does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)
5.484B	Resolution 155 (WRC-15) shall apply. (WRC-15)
5.485	In Region 2, in the band 11.7-12.2 GHz, transponders on space stations in the fixed-satellite service may be used additionally for transmissions in the broadcasting-satellite service, provided that such transmissions do not have a maximum e.i.r.p. greater than 53 dBW per television channel and do not cause greater interference or require more protection from interference than the coordinated fixed-satellite service frequency assignments. With respect to the space services, this band shall be used principally for the fixed-satellite service.
5.486	<i>Different category of service:</i> in the United States, the allocation of the frequency band 11.7-12.1 GHz to the fixed service is on a secondary basis (see No. 5.32). (WRC-15)
5.487	In the band 11.7-12.5 GHz in Regions 1 and 3, the fixed, fixed-satellite, mobile, except aeronautical mobile, and broadcasting services, in accordance with their respective allocations, shall not cause harmful interference to, or claim protection from, broadcasting-satellite stations operating in accordance with the Regions 1 and 3 Plan in Appendix 30 . (WRC-03)

ITU Footnote	Description
5.487A	<i>Additional allocation:</i> in Region 1, the band 11.7-12.5 GHz, in Region 2, the band 12.2-12.7 GHz and, in Region 3, the band 11.7-12.2 GHz, are also allocated to the fixed-satellite service (space-to-Earth) on a primary basis, limited to non-geostationary systems and subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the broadcasting-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. 5.43A does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-03)
5.488	The use of the band 11.7-12.2 GHz by geostationary-satellite networks in the fixed-satellite service in Region 2 is subject to application of the provisions of No. 9.14 for coordination with stations of terrestrial services in Regions 1, 2 and 3. For the use of the band 12.2-12.7 GHz by the broadcasting-satellite service in Region 2, see Appendix 30. (WRC-03)
5.489	<i>Additional allocation:</i> in Peru, the band 12.1-12.2 GHz is also allocated to the fixed service on a primary basis.
5.490	In Region 2, in the band 12.2-12.7 GHz, existing and future terrestrial radiocommunication services shall not cause harmful interference to the space services operating in conformity with the broadcasting-satellite Plan for Region 2 contained in Appendix 30.
5.491	(SUP - WRC-03)
5.492	Assignments to stations of the broadcasting-satellite service which are in conformity with the appropriate regional Plan or included in the Regions 1 and 3 List in Appendix 30 may also be used for transmissions in the fixed-satellite service (space-to-Earth), provided that such transmissions do not cause more interference, or require more protection from interference, than the broadcasting-satellite service transmissions operating in conformity with the Plan or the List, as appropriate. (WRC-2000)
5.493	The broadcasting-satellite service in the band 12.5-12.75 GHz in Region 3 is limited to a power flux-density not exceeding $-111 \text{ dB (W/ (m}^2 \cdot 27 \text{ MHz))}$ for all conditions and for all methods of modulation at the edge of the service area. (WRC-97)
5.494	<i>Additional allocation:</i> in Algeria, Saudi Arabia, Bahrain, Cameroon, the Central African Rep., Congo (Rep. of the), Côte d'Ivoire, Djibouti, Egypt, the United Arab Emirates, Eritrea, Ethiopia, Gabon, Ghana, Guinea, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Madagascar, Mali, Morocco, Mongolia, Nigeria, Oman, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the frequency band 12.5-12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a primary basis. (WRC-15)
5.495	<i>Additional allocation:</i> in France, Greece, Monaco, Montenegro, Uganda, Romania and Tunisia, the frequency band 12.5-12.75 GHz is also allocated to the fixed and mobile, except aeronautical mobile, services on a secondary basis. (WRC-15)

ITU Footnote	Description
5.496	<i>Additional allocation:</i> in Austria, Azerbaijan, Kyrgyzstan and Turkmenistan, the band 12.5-12.75 GHz is also allocated to the fixed service and the mobile, except aeronautical mobile, service on a primary basis. However, stations in these services shall not cause harmful interference to fixed-satellite service earth stations of countries in Region 1 other than those listed in this footnote. Coordination of these earth stations is not required with stations of the fixed and mobile services of the countries listed in this footnote. The power flux-density limit at the Earth's surface given in Table 21-4 of Article 21, for the fixed-satellite service shall apply on the territory of the countries listed in this footnote. (WRC-2000)
5.497	The use of the band 13.25-13.4 GHz by the aeronautical radionavigation service is limited to Doppler navigation aids.
5.498	(SUP - WRC-97)
5.498A	The Earth exploration-satellite (active) and space research (active) services operating in the band 13.25-13.4 GHz shall not cause harmful interference to, or constrain the use and development of, the aeronautical radionavigation service. (WRC-97)
5.499	<i>Additional allocation:</i> in Bangladesh and India, the band 13.25-14 GHz is also allocated to the fixed service on a primary basis. In Pakistan, the band 13.25-13.75 GHz is allocated to the fixed service on a primary basis. (WRC-12)
5.499A	The use of the frequency band 13.4-13.65 GHz by the fixed-satellite service (space-to-Earth) is limited to geostationary-satellite systems and is subject to agreement obtained under No. 9.21 with respect to satellite systems operating in the space research service (space-to-space) to relay data from space stations in the geostationary-satellite orbit to associated space stations in non-geostationary satellite orbits for which advance publication information has been received by the Bureau by 27 November 2015. (WRC-15)
5.499B	Administrations shall not preclude the deployment and operation of transmitting earth stations in the standard frequency and time signal-satellite service (Earth-to-space) allocated on a secondary basis in the frequency band 13.4-13.65 GHz due to the primary allocation to FSS (space-to-Earth). (WRC-15)
5.499C	<p>The allocation of the frequency band 13.4-13.65 GHz to the space research service on a primary basis is limited to:</p> <ul style="list-style-type: none"> – 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. <p>Other uses of the frequency band by the space research service are on a secondary basis. (WRC-15)</p>
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)

ITU Footnote	Description
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)
5.500	Additional allocation: in Algeria, Angola, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, Egypt, the United Arab Emirates, Gabon, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Madagascar, Malaysia, Mali, Morocco, Mauritania, Niger, Nigeria, Oman, Qatar, the Syrian Arab Republic, Singapore, Sudan, South Sudan, Chad and Tunisia, the band 13.4-14 GHz is also allocated to the fixed and mobile services on a primary basis. In Pakistan, the band 13.4-13.75 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)
5.501	<i>Additional allocation:</i> in Azerbaijan, Hungary, Japan, Kyrgyzstan, Romania and Turkmenistan, the band 13.4-14 GHz is also allocated to the radionavigation service on a primary basis. (WRC-12)
5.501A	The allocation of the frequency band 13.65-13.75 GHz to the space research service on a primary basis is limited to active spaceborne sensors. Other uses of the frequency band by the space research service are on a secondary basis. (WRC-15)
5.501B	In the band 13.4-13.75 GHz, the Earth exploration-satellite (active) and space research (active) services shall not cause harmful interference to, or constrain the use and development of, the radiolocation service. (WRC-97)
5.502	<p>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 diameter smaller than 4.5 m, it shall ensure that the power flux-density produced by this earth station does not exceed:</p> <ul style="list-style-type: none"> – -115 dB(W/(m² · 10 MHz)) for more than 1% of the time produced at 36 m above sea level at the low water mark, as officially recognized by the coastal State; – -115 dB(W/(m² · 10 MHz)) for more than 1% of the time produced 3 m above ground at the border of the territory of an administration deploying or planning to deploy land mobile radars in this band, unless prior agreement has been obtained. <p>For earth stations within the fixed-satellite service having an antenna diameter greater than or equal to 4.5 m, the e.i.r.p. of any emission should be at least 68 dBW and should not exceed 85 dBW. (WRC-03)</p>

ITU Footnote	Description
5.503	<p>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:</p> <ul style="list-style-type: none"> – 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: <ul style="list-style-type: none"> 5) i) $4.7D + 28 \text{ dB(W/40 kHz)}$, 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) $49.2 + 20 \log(D/4.5) \text{ dB(W/40 kHz)}$, 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) $66.2 \text{ dB(W/40 kHz)}$ 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. <p>Automatic power control may be used to increase the e.i.r.p. density in these frequency ranges to compensate for rain attenuation, to the extent that the power flux-density at the fixed-satellite service space station does not exceed the value resulting from use by an earth station of an e.i.r.p. meeting the above limits in clear-sky conditions. (WRC-03)</p>
5.503A	(SUP - WRC-03)
5.504	The use of the band 14-14.3 GHz by the radionavigation service shall be such as to provide sufficient protection to space stations of the fixed-satellite service.
5.504A	In the band 14-14.5 GHz, aircraft earth stations in the secondary aeronautical mobile-satellite service may also communicate with space stations in the fixed-satellite service. The provisions of Nos. 5.29 , 5.30 and 5.31 apply. (WRC-03)
5.504B	Aircraft earth stations operating in the aeronautical mobile-satellite service in the frequency band 14-14.5 GHz shall comply with the provisions of Annex 1, Part C of Recommendation ITU-R M.1643-0, with respect to any radio astronomy station performing observations in the 14.47-14.5 GHz frequency band located on the territory of Spain, France, India, Italy, the United Kingdom and South Africa. (WRC-15)
5.504C	In the frequency band 14-14.25 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, Bahrain, Botswana, Côte d'Ivoire, Egypt, Guinea, India, Iran (Islamic Republic of), Kuwait, Nigeria, Oman, the Syrian Arab Republic and Tunisia by any aircraft earth station in the aeronautical mobile-satellite service shall not exceed the limits given in Annex 1, Part B of Recommendation ITU-R M.1643-0, unless otherwise specifically agreed by the affected administration(s). The provisions of this footnote in no way derogate the obligations of the aeronautical mobile-satellite service to operate as a secondary service in accordance with No. 5.29 . (WRC-15)

ITU Footnote	Description
5.505	<i>Additional allocation:</i> in Algeria, Saudi Arabia, Bahrain, Botswana, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Korea (Rep. of), Djibouti, Egypt, the United Arab Emirates, Gabon, Guinea, India, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Oman, the Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, South Sudan, Swaziland, Chad, Viet Nam and Yemen, the frequency band 14-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-15)
5.506	The band 14-14.5 GHz may be used, within the fixed-satellite service (Earth-to-space), for feeder links for the broadcasting-satellite service, subject to coordination with other networks in the fixed-satellite service. Such use of feeder links is reserved for countries outside Europe.
5.506A	In the band 14-14.5 GHz, ship earth stations with an e.i.r.p. greater than 21 dBW shall operate under the same conditions as earth stations located on board vessels, as provided in Resolution 902 (WRC-03) . This footnote shall not apply to ship earth stations for which the complete Appendix 4 information has been received by the Bureau prior to 5 July 2003. (WRC-03)
5.506B	Earth stations located on board vessels communicating with space stations in the fixed-satellite service may operate in the frequency band 14-14.5 GHz without the need for prior agreement from Cyprus and Malta, within the minimum distance given in Resolution 902 (WRC-03) from these countries. (WRC-15)
5.507	Not used.
5.508	<i>Additional allocation:</i> in Germany, France, Italy, Libya, The Former Yugoslav Rep. of Macedonia and the United Kingdom, the band 14.25-14.3 GHz is also allocated to the fixed service on a primary basis. (WRC-12)
5.508A	In the frequency band 14.25-14.3 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, Bahrain, Botswana, China, Côte d'Ivoire, Egypt, France, Guinea, India, Iran (Islamic Republic of), Italy, Kuwait, Nigeria, Oman, the Syrian Arab Republic, the United Kingdom and Tunisia by any aircraft earth station in the aeronautical mobile-satellite service shall not exceed the limits given in Annex 1, Part B of Recommendation ITU-R M.1643-0, unless otherwise specifically agreed by the affected administration(s). The provisions of this footnote in no way derogate the obligations of the aeronautical mobile-satellite service to operate as a secondary service in accordance with No. 5.29 . (WRC-15)
5.509	(SUP - WRC-07)
5.509A	In the frequency band 14.3-14.5 GHz, the power flux-density produced on the territory of the countries of Saudi Arabia, Bahrain, Botswana, Cameroon, China, Côte d'Ivoire, Egypt, France, Gabon, Guinea, India, Iran (Islamic Republic of), Italy, Kuwait, Morocco, Nigeria, Oman, the Syrian Arab Republic, the United Kingdom, Sri Lanka, Tunisia and Viet Nam by any aircraft earth station in the aeronautical mobile-satellite service shall not exceed the limits given in Annex 1, Part B of Recommendation ITU-R M.1643-0, unless otherwise specifically agreed by the affected administration(s). The provisions of this footnote in no way derogate the obligations of the aeronautical mobile-satellite service to operate as a secondary service in accordance with No. 5.29 . (WRC-15)
5.509B	The use of the frequency bands 14.5-14.75 GHz in countries listed in Resolution 163 (WRC-15) and 14.5-14.8 GHz in countries listed in Resolution 164 (WRC-15) by the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service is limited to geostationary-satellites. (WRC-15)
5.509C	For the use of the frequency bands 14.5-14.75 GHz in countries listed in Resolution 163 (WRC-15) and 14.5-14.8 GHz in countries listed in Resolution 164 (WRC-15) by the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service, the fixed-satellite service earth stations shall have a minimum antenna diameter of 6 m and a maximum power spectral density of -44.5 dBW/Hz at the input of the antenna. The earth stations shall be notified at known locations on land. (WRC-15)

ITU Footnote	Description
5.509D	Before an administration brings into use an earth station in the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service in the frequency bands 14.5-14.75 GHz (in countries listed in Resolution 163 (WRC-15)) and 14.5-14.8 GHz (in countries listed in Resolution 164 (WRC-15)), it shall ensure that the power flux-density produced by this earth station does not exceed $-151.5 \text{ dB(W/(m}^2 \cdot 4 \text{ kHz))}$ produced at all altitudes from 0 m to 19 000 m above sea level at 22 km seaward from all coasts, defined as the low-water mark, as officially recognized by each coastal State. (WRC-15)
5.509E	In the frequency bands 14.50-14.75 GHz in countries listed in Resolution 163 (WRC-15) and 14.50-14.8 GHz in countries listed in Resolution 164 (WRC-15) , the location of earth stations in the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service shall maintain a separation distance of at least 500 km from the border(s) of other countries unless shorter distances are explicitly agreed by those administrations. No. 9.17 does not apply. When applying this provision, administrations should consider the relevant parts of these Regulations and the latest relevant ITU-R Recommendations. (WRC-15)
5.509F	In the frequency bands 14.50-14.75 GHz in countries listed in Resolution 163 (WRC-15) and 14.50-14.8 GHz in countries listed in Resolution 164 (WRC-15) , earth stations in the fixed-satellite service (Earth-to-space) not for feeder links for the broadcasting-satellite service shall not constrain the future deployment of the fixed and mobile services. (WRC-15)
5.509G	The frequency band 14.5-14.8 GHz is also allocated to the space research service on a primary basis. However, such use is limited to the satellite systems operating in the space research service (Earth-to-space) to relay data to space stations in the geostationary-satellite orbit from associated earth stations. Stations in the space research service shall not cause harmful interference to, or claim protection from, stations in the fixed and mobile services and in the fixed-satellite service limited to feeder links for the broadcasting-satellite service and associated space operations functions using the guardbands under Appendix 30A and feeder links for the broadcasting-satellite service in Region 2. Other uses of this frequency band by the space research service are on a secondary basis. (WRC-15)
5.510	Except for use in accordance with Resolution 163 (WRC-15) and Resolution 164 (WRC-15) , the use of the frequency band 14.5-14.8 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. This use is reserved for countries outside Europe. Uses other than feeder links for the broadcasting-satellite service are not authorized in Regions 1 and 2 in the frequency band 14.75-14.8 GHz. (WRC-15)
5.511	<i>Additional allocation:</i> in Saudi Arabia, Bahrain, Cameroon, Egypt, the United Arab Emirates, Guinea, Iran (Islamic Republic of), Iraq, Israel, Kuwait, Lebanon, Oman, Pakistan, Qatar, the Syrian Arab Republic and Somalia, the band 15.35-15.4 GHz is also allocated to the fixed and mobile services on a secondary basis. (WRC-12)
5.511A	Use of the 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)
5.511B	(SUP - WRC-97)
5.511C	Stations operating in the aeronautical radionavigation service shall limit the effective e.i.r.p. in accordance with Recommendation ITU-R S.1340-0. The minimum coordination distance required to protect the aeronautical radionavigation stations (No. 4.10 applies) from harmful interference from feeder-link earth stations and the maximum e.i.r.p. transmitted towards the local horizontal plane by a feeder-link earth station shall be in accordance with Recommendation ITU-R S.1340-0. (WRC-15)
5.511D	(SUP - WRC-15)

ITU Footnote	Description
5.511E	In the frequency band 15.4-15.7 GHz, stations operating in the radiolocation service shall not cause harmful interference to, or claim protection from, stations operating in the aeronautical radionavigation service. (WRC-12)
5.511F	In order to protect the radio astronomy service in the frequency band 15.35-15.4 GHz, radiolocation stations operating in the frequency band 15.4-15.7 GHz shall not exceed the power flux-density level of -156 dB(W/m ²) in a 50 MHz bandwidth in the frequency band 15.35-15.4 GHz, at any radio astronomy observatory site for more than 2 per cent of the time. (WRC-12)
5.512	<i>Additional allocation:</i> in Algeria, Saudi Arabia, Austria, Bahrain, Bangladesh, Brunei Darussalam, Cameroon, Congo (Rep. of the), Egypt, El Salvador, the United Arab Emirates, Eritrea, Finland, Guatemala, India, Indonesia, Iran (Islamic Republic of), Jordan, Kenya, Kuwait, Lebanon, Libya, Malaysia, Mali, Morocco, Mauritania, Montenegro, Nepal, Nicaragua, Niger, Oman, Pakistan, Qatar, Syrian Arab Republic, the Dem. Rep. of the Congo, Singapore, Somalia, Sudan, South Sudan, Chad, Togo and Yemen, the frequency band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-15)
5.513	<i>Additional allocation:</i> in Israel, the band 15.7-17.3 GHz is also allocated to the fixed and mobile services on a primary basis. These services shall not claim protection from or cause harmful interference to services operating in accordance with the Table in countries other than those included in No. 5.512.
5.513A	Spaceborne active sensors operating in the band 17.2-17.3 GHz shall not cause harmful interference to, or constrain the development of, the radiolocation and other services allocated on a primary basis. (WRC-97)
5.514	<i>Additional allocation:</i> in Algeria, Angola, Saudi Arabia, Bahrain, Bangladesh, Cameroon, El Salvador, the United Arab Emirates, Guatemala, India, Iran (Islamic Republic of), Iraq, Israel, Italy, Japan, Jordan, Kuwait, Libya, Lithuania, Nepal, Nicaragua, Nigeria, Oman, Uzbekistan, Pakistan, Qatar, Kyrgyzstan, Sudan and South Sudan, the band 17.3-17.7 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits given in Nos. 21.3 and 21.5 shall apply. (WRC-12)
5.515	In the band 17.3-17.8 GHz, sharing between the fixed-satellite service (Earth-to-space) and the broadcasting-satellite service shall also be in accordance with the provisions of § 1 of Annex 4 of Appendix 30A.
5.516	The use of the band 17.3-18.1 GHz by geostationary-satellite systems in the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service. The use of the band 17.3-17.8 GHz in Region 2 by systems in the fixed-satellite service (Earth-to-space) is limited to geostationary satellites. For the use of the band 17.3-17.8 GHz in Region 2 by feeder links for the broadcasting-satellite service in the band 12.2-12.7 GHz, see Article 11. The use of the bands 17.3-18.1 GHz (Earth-to-space) in Regions 1 and 3 and 17.8-18.1 GHz (Earth-to-space) in Region 2 by non-geostationary-satellite systems in the fixed-satellite service is subject to application of the provisions of No. 9.12 for coordination with other non-geostationary-satellite systems in the fixed-satellite service. Non-geostationary-satellite systems in the fixed-satellite service shall not claim protection from geostationary-satellite networks in the fixed-satellite service operating in accordance with the Radio Regulations, irrespective of the dates of receipt by the Bureau of the complete coordination or notification information, as appropriate, for the non-geostationary-satellite systems in the fixed-satellite service and of the complete coordination or notification information, as appropriate, for the geostationary-satellite networks, and No. 5.43A does not apply. Non-geostationary-satellite systems in the fixed-satellite service in the above bands shall be operated in such a way that any unacceptable interference that may occur during their operation shall be rapidly eliminated. (WRC-2000)
5.516A	In the band 17.3-17.7 GHz, earth stations of the fixed-satellite service (space-to-Earth) in Region 1 shall not claim protection from the broadcasting-satellite service feeder-link earth stations operating under Appendix 30A, nor put any limitations or restrictions on the locations of the broadcasting-satellite service feeder-link earth stations anywhere within the service area of the feeder link. (WRC-03)

ITU Footnote	Description
5.516B	<p>The following bands are identified for use by high-density applications in the fixed-satellite service:</p> <p>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.</p> <p>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 (WRC-03)*. (WRC-03)</p>
5.517	In Region 2, use of the fixed-satellite (space-to-Earth) service in the band 17.7-17.8 GHz shall not cause harmful interference to nor claim protection from assignments in the broadcasting-satellite service operating in conformity with the Radio Regulations. (WRC-07)
5.518	(SUP - WRC-07)
5.519	<i>Additional allocation:</i> 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. (WRC-07)
5.520	The use of the band 18.1-18.4 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links of geostationary-satellite systems in the broadcasting-satellite service. (WRC-2000)
5.521	<i>Alternative allocation:</i> in the United Arab Emirates and Greece, the frequency band 18.1-18.4 GHz is allocated to the fixed, fixed-satellite (space-to-Earth) and mobile services on a primary basis (see No. 5.33). The provisions of No. 5.519 also apply. (WRC-15)
5.522	(SUP - WRC-2000)

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

ITU Footnote	Description
5.522A	The emissions of the fixed service and the fixed-satellite service in the band 18.6-18.8 GHz are limited to the values given in Nos. 21.5A and 21.16.2 , respectively. (WRC-2000)
5.522B	The use of the band 18.6-18.8 GHz by the fixed-satellite service is limited to geostationary systems and systems with an orbit of apogee greater than 20 000 km. (WRC-2000)
5.522C	In the band 18.6-18.8 GHz, in Algeria, Saudi Arabia, Bahrain, Egypt, the United Arab Emirates, Jordan, Lebanon, Libya, Morocco, Oman, Qatar, the Syrian Arab Republic, Tunisia and Yemen, fixed-service systems in operation at the date of entry into force of the Final Acts of WRC-2000 are not subject to the limits of No. 21.5A . (WRC-2000)
5.523	(SUP - WRC-2000)
5.523A	The use of the bands 18.8-19.3 GHz (space-to-Earth) and 28.6-29.1 GHz (Earth-to-space) by geostationary and non-geostationary fixed-satellite service networks is subject to the application of the provisions of No. 9.11A and No. 22.2 does not apply. Administrations having geostationary-satellite networks under coordination prior to 18 November 1995 shall cooperate to the maximum extent possible to coordinate pursuant to No. 9.11A with non-geostationary-satellite networks for which notification information has been received by the Bureau prior to that date, with a view to reaching results acceptable to all the parties concerned. Non-geostationary-satellite networks shall not cause unacceptable interference to geostationary fixed-satellite service networks for which complete Appendix 4 notification information is considered as having been received by the Bureau prior to 18 November 1995. (WRC-97)
5.523B	The use of the band 19.3-19.6 GHz (Earth-to-space) by the fixed-satellite service is limited to feeder links for non-geostationary-satellite systems in the mobile-satellite service. Such use is subject to the application of the provisions of No. 9.11A , and No. 22.2 does not apply.
5.523C	No. 22.2 shall continue to apply in the bands 19.3-19.6 GHz and 29.1-29.4 GHz, between feeder links of non-geostationary mobile-satellite service networks and those fixed-satellite service networks for which complete Appendix 4 coordination information, or notification information, is considered as having been received by the Bureau prior to 18 November 1995. (WRC-97)
5.523D	The use of the band 19.3-19.7 GHz (space-to-Earth) by geostationary fixed-satellite service systems and by feeder links for non-geostationary-satellite systems in the mobile-satellite service is subject to the application of the provisions of No. 9.11A , but not subject to the provisions of No. 22.2 . The use of this band for other non-geostationary fixed-satellite service systems, or for the cases indicated in Nos. 5.523C and 5.523E , is not subject to the provisions of No. 9.11A and shall continue to be subject to Articles 9 (except No. 9.11A) and 11 procedures, and to the provisions of No. 22.2 . (WRC-97)
5.523E	No. 22.2 shall continue to apply in the bands 19.6-19.7 GHz and 29.4-29.5 GHz, between feeder links of non-geostationary mobile-satellite service networks and those fixed-satellite service networks for which complete Appendix 4 coordination information, or notification information, is considered as having been received by the Bureau by 21 November 1997. (WRC-97)

ITU Footnote	Description
5.524	<i>Additional allocation:</i> in Afghanistan, Algeria, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Costa Rica, Egypt, the United Arab Emirates, Gabon, Guatemala, Guinea, India, Iran (Islamic Republic of), Iraq, Israel, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, the Dem. People's Rep. of Korea, Singapore, Somalia, Sudan, South Sudan, Chad, Togo and Tunisia, the frequency band 19.7-21.2 GHz is also allocated to the fixed and mobile services on a primary basis. This additional use shall not impose any limitation on the power flux-density of space stations in the fixed-satellite service in the frequency band 19.7-21.2 GHz and of space stations in the mobile-satellite service in the frequency band 19.7-20.2 GHz where the allocation to the mobile-satellite service is on a primary basis in the latter frequency band. (WRC-15)
5.525	In order to facilitate interregional coordination between networks in the mobile-satellite and fixed-satellite services, carriers in the mobile-satellite service that are most susceptible to interference shall, to the extent practicable, be located in the higher parts of the bands 19.7-20.2 GHz and 29.5-30 GHz.
5.526	In the bands 19.7-20.2 GHz and 29.5-30 GHz in Region 2, and in the bands 20.1-20.2 GHz and 29.9-30 GHz in Regions 1 and 3, networks which are both in the fixed-satellite service and in the mobile-satellite service may include links between earth stations at specified or unspecified points or while in motion, through one or more satellites for point-to-point and point-to-multipoint communications.
5.527	In the bands 19.7-20.2 GHz and 29.5-30 GHz, the provisions of No. 4.10 do not apply with respect to the mobile-satellite service.
5.527A	The operation of earth stations in motion communicating with the FSS is subject to Resolution 156 (WRC-15). (WRC-15)
5.528	The allocation to the mobile-satellite service is intended for use by networks which use narrow spot-beam antennas and other advanced technology at the space stations. Administrations operating systems in the mobile-satellite service in the band 19.7-20.1 GHz in Region 2 and in the band 20.1-20.2 GHz shall take all practicable steps to ensure the continued availability of these bands for administrations operating fixed and mobile systems in accordance with the provisions of No. 5.524.
5.529	The use of the bands 19.7-20.1 GHz and 29.5-29.9 GHz by the mobile-satellite service in Region 2 is limited to satellite networks which are both in the fixed-satellite service and in the mobile-satellite service as described in No. 5.526.
5.530	(SUP – WRC 12)
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 $-120.4 \text{ dB(W/(m}^2 \cdot \text{MHz))}$ 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)
5.530C	(SUP - WRC-15)

ITU Footnote	Description
5.530D	See Resolution 555 (WRC-12)*. (WRC-12)
5.531	<i>Additional allocation:</i> in Japan, the band 21.4-22 GHz is also allocated to the broadcasting service on a primary basis.
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 fixed-satellite service (Earth-to-space) is limited to earth stations using a minimum antenna diameter of 4.5 m. (WRC-12)
5.533	The inter-satellite service shall not claim protection from harmful interference from airport surface detection equipment stations of the radionavigation service.
5.534	(SUP - WRC-03)
5.535	In the band 24.75-25.25 GHz, feeder links to stations of the broadcasting-satellite service shall have priority over other uses in the fixed-satellite service (Earth-to-space). Such other uses shall protect and shall not claim protection from existing and future operating feeder-link networks to such broadcasting satellite stations.
5.535A	The use of the band 29.1-29.5 GHz (Earth-to-space) by the fixed-satellite service is limited to geostationary-satellite systems and feeder links to non-geostationary-satellite systems in the mobile-satellite service. Such use is subject to the application of the provisions of No. 9.11A, but not subject to the provisions of No. 22.2, except as indicated in Nos. 5.523C and 5.523E where such use is not subject to the provisions of No. 9.11A and shall continue to be subject to Articles 9 (except No. 9.11A) and 11 procedures, and to the provisions of No. 22.2. (WRC-97)
5.536	Use of the 25.25-27.5 GHz band by the inter-satellite service is limited to space research and Earth exploration-satellite applications, and also transmissions of data originating from industrial and medical activities in space.
5.536A	Administrations operating earth stations in the Earth exploration-satellite service or the space research service shall not claim protection from stations in the fixed and mobile services operated by other administrations. In addition, earth stations in the Earth exploration-satellite service or in the space research service should be operated taking into account the most recent version of Recommendation ITU-R SA.1862. (WRC-12)
5.536B	In Saudi Arabia, Austria, Bahrain, Belgium, Brazil, China, Korea (Rep. of), Denmark, Egypt, United Arab Emirates, Estonia, Finland, Hungary, India, Iran (Islamic Republic of), Ireland, Israel, Italy, Jordan, Kenya, Kuwait, Lebanon, Libya, Lithuania, Moldova, Norway, Oman, Uganda, Pakistan, the Philippines, Poland, Portugal, the Syrian Arab Republic, Dem. People's Rep. of Korea, Slovakia, the Czech Rep., Romania, the United Kingdom, Singapore, Sweden, Tanzania, Turkey, Viet Nam and Zimbabwe, earth stations operating in the Earth exploration-satellite service in the frequency band 25.5-27 GHz shall not claim protection from, or constrain the use and deployment of, stations of the fixed and mobile services. (WRC-15)

* *Note by the Secretariat:* This Resolution was revised by WRC-15

ITU Footnote	Description
5.536C	In Algeria, Saudi Arabia, Bahrain, Botswana, Brazil, Cameroon, Comoros, Cuba, Djibouti, Egypt, United Arab Emirates, Estonia, Finland, Iran (Islamic Republic of), Israel, Jordan, Kenya, Kuwait, Lithuania, Malaysia, Morocco, Nigeria, Oman, Qatar, Syrian Arab Republic, Somalia, Sudan, South Sudan, Tanzania, Tunisia, Uruguay, Zambia and Zimbabwe, earth stations operating in the space research service in the band 25.5-27 GHz shall not claim protection from, or constrain the use and deployment of, stations of the fixed and mobile services. (WRC-12)
5.537	Space services using non-geostationary satellites operating in the inter-satellite service in the band 27-27.5 GHz are exempt from the provisions of No. 22.2.
5.537A	In Bhutan, Cameroon, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the band 27.9-28.2 GHz may also be used by high altitude platform stations (HAPS) within the territory of these countries. Such use of 300 MHz of the fixed-service allocation by HAPS in the above countries is further limited to operation in the HAPS-to-ground direction and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems or other co-primary services. Furthermore, the development of these other services shall not be constrained by HAPS. See Resolution 145 (Rev.WRC-12). (WRC-12)
5.538	<i>Additional allocation:</i> the bands 27.500-27.501 GHz and 29.999-30.000 GHz are also allocated to the fixed-satellite service (space-to-Earth) on a primary basis for the beacon transmissions intended for up-link power control. Such space-to-Earth transmissions shall not exceed an equivalent isotropically radiated power (e.i.r.p.) of +10 dBW in the direction of adjacent satellites on the geostationary-satellite orbit. (WRC-07)
5.539	The band 27.5-30 GHz may be used by the fixed-satellite service (Earth-to-space) for the provision of feeder links for the broadcasting-satellite service.
5.540	<i>Additional allocation:</i> the band 27.501-29.999 GHz is also allocated to the fixed-satellite service (space-to-Earth) on a secondary basis for beacon transmissions intended for up-link power control.
5.541	In the band 28.5-30 GHz, the earth exploration-satellite service is limited to the transfer of data between stations and not to the primary collection of information by means of active or passive sensors.
5.541A	Feeder links of non-geostationary networks in the mobile-satellite service and geostationary networks in the fixed-satellite service operating in the band 29.1-29.5 GHz (Earth-to-space) shall employ uplink adaptive power control or other methods of fade compensation, such that the earth station transmissions shall be conducted at the power level required to meet the desired link performance while reducing the level of mutual interference between both networks. These methods shall apply to networks for which Appendix 4 coordination information is considered as having been received by the Bureau after 17 May 1996 and until they are changed by a future competent world radiocommunication conference. Administrations submitting Appendix 4 information for coordination before this date are encouraged to utilize these techniques to the extent practicable. (WRC-2000)
5.542	<i>Additional allocation:</i> in Algeria, Saudi Arabia, Bahrain, Brunei Darussalam, Cameroon, China, Congo (Rep. of the), Egypt, the United Arab Emirates, Eritrea, Ethiopia, Guinea, India, Iran (Islamic Republic of), Iraq, Japan, Jordan, Kuwait, Lebanon, Malaysia, Mali, Morocco, Mauritania, Nepal, Oman, Pakistan, Philippines, Qatar, the Syrian Arab Republic, the Dem. People's Rep. of Korea, Somalia, Sudan, South Sudan, Sri Lanka and Chad, the band 29.5-31 GHz is also allocated to the fixed and mobile services on a secondary basis. The power limits specified in Nos. 21.3 and 21.5 shall apply. (WRC-12)
5.543	The band 29.95-30 GHz may be used for space-to-space links in the Earth exploration-satellite service for telemetry, tracking, and control purposes, on a secondary basis.

ITU Footnote	Description
5.543A	In Bhutan, Cameroon, Korea (Rep. of), the Russian Federation, India, Indonesia, Iran (Islamic Republic of), Iraq, Japan, Kazakhstan, Malaysia, Maldives, Mongolia, Myanmar, Uzbekistan, Pakistan, the Philippines, Kyrgyzstan, the Dem. People's Rep. of Korea, Sudan, Sri Lanka, Thailand and Viet Nam, the allocation to the fixed service in the frequency band 31-31.3 GHz may also be used by systems using high altitude platform stations (HAPS) in the ground-to-HAPS direction. The use of the frequency band 31-31.3 GHz by systems using HAPS is limited to the territory of the countries listed above and shall not cause harmful interference to, nor claim protection from, other types of fixed-service systems, systems in the mobile service and systems operated under No. 5.545. Furthermore, the development of these services shall not be constrained by HAPS. Systems using HAPS in the frequency band 31-31.3 GHz shall not cause harmful interference to the radio astronomy service having a primary allocation in the frequency band 31.3-31.8 GHz, taking into account the protection criterion as given in the most recent version of Recommendation ITU-R RA.769. In order to ensure the protection of satellite passive services, the level of unwanted power density into a HAPS ground station antenna in the frequency band 31.3-31.8 GHz shall be limited to -106 dB(W/MHz) under clear-sky conditions, and may be increased up to -100 dB(W/MHz) under rainy conditions to mitigate fading due to rain, provided the effective impact on the passive satellite does not exceed the impact under clear-sky conditions. See Resolution 145 (Rev.WRC-12). (WRC-15)
5.544	In the band 31-31.3 GHz the power flux-density limits specified in Article 21, Table 21-4 shall apply to the space research service.
5.545	<i>Different category of service:</i> in Armenia, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 31-31.3 GHz to the space research service is on a primary basis (see No. 5.33). (WRC-12)
5.546	<i>Different category of service:</i> in Saudi Arabia, Armenia, Azerbaijan, Belarus, Egypt, the United Arab Emirates, Spain, Estonia, the Russian Federation, Georgia, Hungary, Iran (Islamic Republic of), Israel, Jordan, Lebanon, Moldova, Mongolia, Oman, Uzbekistan, Poland, the Syrian Arab Republic, Kyrgyzstan, Romania, the United Kingdom, South Africa, Tajikistan, Turkmenistan and Turkey, the allocation of the band 31.5-31.8 GHz to the fixed and mobile, except aeronautical mobile, services is on a primary basis (see No. 5.33). (WRC-12)
5.547	The bands 31.8-33.4 GHz, 37-40 GHz, 40.5-43.5 GHz, 51.4-52.6 GHz, 55.78-59 GHz and 64-66 GHz are available for high-density applications in the fixed service (see Resolution 75 (WRC-2000)*). Administrations should take this into account when considering regulatory provisions in relation to these bands. Because of the potential deployment of high-density applications in the fixed-satellite service in the bands 39.5-40 GHz and 40.5-42 GHz (see No. 5.516B), administrations should further take into account potential constraints to high-density applications in the fixed service, as appropriate. (WRC-07)
5.547A	Administrations should take practical measures to minimize the potential interference between stations in the fixed service and airborne stations in the radionavigation service in the 31.8-33.4 GHz band, taking into account the operational needs of the airborne radar systems. (WRC-2000)
5.547B	<i>Alternative allocation:</i> in the United States, the band 31.8-32 GHz is allocated to the radionavigation and space research (deep space) (space-to-Earth) services on a primary basis. (WRC-97)
5.547C	<i>Alternative allocation:</i> in the United States, the band 32-32.3 GHz is allocated to the radionavigation and space research (deep space) (space-to-Earth) services on a primary basis. (WRC-03)
5.547D	<i>Alternative allocation:</i> in the United States, the band 32.3-33 GHz is allocated to the inter-satellite and radionavigation services on a primary basis. (WRC-97)

* *Note by the Secretariat:* This Resolution was revised by WRC-12.

ITU Footnote	Description
5.547E	<i>Alternative allocation:</i> in the United States, the band 33-33.4 GHz is allocated to the radionavigation service on a primary basis. (WRC-97)
5.548	In designing systems for the inter-satellite service in the band 32.3-33 GHz, for the radionavigation service in the band 32-33 GHz, and for the space research service (deep space) in the band 31.8-32.3 GHz, administrations shall take all necessary measures to prevent harmful interference between these services, bearing in mind the safety aspects of the radionavigation service (see Recommendation 707). (WRC-03)
5.549	<i>Additional allocation:</i> in Saudi Arabia, Bahrain, Bangladesh, Egypt, the United Arab Emirates, Gabon, Indonesia, Iran (Islamic Republic of), Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Malaysia, Mali, Morocco, Mauritania, Nepal, Nigeria, Oman, Pakistan, the Philippines, Qatar, the Syrian Arab Republic, the Dem. Rep. of the Congo, Singapore, Somalia, Sudan, South Sudan, Sri Lanka, Togo, Tunisia and Yemen, the band 33.4-36 GHz is also allocated to the fixed and mobile services on a primary basis. (WRC-12)
5.549A	In the band 35.5-36.0 GHz, the mean power flux-density at the Earth's surface, generated by any spaceborne sensor in the Earth exploration-satellite service (active) or space research service (active), for any angle greater than 0.8° from the beam centre shall not exceed -73.3 dB(W/m ²) in this band. (WRC-03)
5.550	<i>Different category of service:</i> in Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kyrgyzstan, Tajikistan and Turkmenistan, the allocation of the band 34.7-35.2 GHz to the space research service is on a primary basis (see No. 5.33). (WRC-12)
5.550A	For sharing of the band 36-37 GHz between the Earth exploration-satellite (passive) service and the fixed and mobile services, Resolution 752 (WRC-07) shall apply. (WRC-07)
5.551	(SUP - WRC-97)
5.551A	(SUP - WRC-03)
5.551AA	(SUP - WRC-03)
5.551B	(SUP - WRC-2000)
5.551C	(SUP - WRC-2000)
5.551D	(SUP - WRC-2000)
5.551E	(SUP - WRC-2000)
5.551F	<i>Different category of service:</i> in Japan, the allocation of the band 41.5-42.5 GHz to the mobile service is on a primary basis (see No. 5.33). (WRC-97)
5.551G	(SUP - WRC-03)

ITU Footnote	Description
5.551H	<p>The equivalent power flux-density (epfd) produced in the frequency band 42.5-43.5 GHz by all space stations in any non-geostationary-satellite system in the fixed-satellite service (space-to-Earth), or in the broadcasting-satellite service operating in the frequency band 42-42.5 GHz, shall not exceed the following values at the site of any radio astronomy station for more than 2% of the time:</p> <ul style="list-style-type: none"> –230 dB(W/m²) in 1 GHz and –246 dB(W/m²) in any 500 kHz of the frequency band 42.5-43.5 GHz at the site of any radio astronomy station registered as a single-dish telescope; and –209 dB(W/m²) in any 500 kHz of the frequency band 42.5-43.5 GHz at the site of any radio astronomy station registered as a very long baseline interferometry station. <p>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).</p> <p>These values shall apply at any radio astronomy station that either:</p> <ul style="list-style-type: none"> – 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. <p>Other radio astronomy stations notified after these dates may seek an agreement with administrations that have authorized the space stations. In Region 2, Resolution 743 (WRC-03) shall apply. The limits in this footnote may be exceeded at the site of a radio astronomy station of any country whose administration so agreed. (WRC-15)</p>
5.551I	<p>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 operating in the 42-42.5 GHz band, shall not exceed the following values at the site of any radio astronomy station:</p> <ul style="list-style-type: none"> –137 dB(W/m²) in 1 GHz and –153 dB(W/m²) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a single-dish telescope; and –116 dB(W/m²) in any 500 kHz of the 42.5-43.5 GHz band at the site of any radio astronomy station registered as a very long baseline interferometry station. <p>These values shall apply at the site of any radio astronomy station that either:</p> <ul style="list-style-type: none"> –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. <p>Other radio astronomy stations notified after these dates may seek an agreement with administrations that have authorized the space stations. In Region 2, Resolution 743 (WRC-03) shall apply. The limits in this footnote may be exceeded at the site of a radio astronomy station of any country whose administration so agreed. (WRC-03)</p>

ITU Footnote	Description
5.552	The allocation of the spectrum for the fixed-satellite service in the bands 42.5-43.5 GHz and 47.2-50.2 GHz for Earth-to-space transmission is greater than that in the band 37.5-39.5 GHz for space-to-Earth transmission in order to accommodate feeder links to broadcasting satellites. Administrations are urged to take all practicable steps to reserve the band 47.2-49.2 GHz for feeder links for the broadcasting-satellite service operating in the band 40.5-42.5 GHz.
5.552A	The allocation to the fixed service in the bands 47.2-47.5 GHz and 47.9-48.2 GHz is designated for use by high altitude platform stations. The use of the bands 47.2-47.5 GHz and 47.9-48.2 GHz is subject to the provisions of Resolution 122 (Rev.WRC-07) . (WRC-07)
5.553	In the bands 43.5-47 GHz and 66-71 GHz, stations in the land mobile service may be operated subject to not causing harmful interference to the space radiocommunication services to which these bands are allocated (see No. 5.43). (WRC-2000)
5.554	In the bands 43.5-47 GHz, 66-71 GHz, 95-100 GHz, 123-130 GHz, 191.8-200 GHz and 252-265 GHz, satellite links connecting land stations at specified fixed points are also authorized when used in conjunction with the mobile-satellite service or the radionavigation-satellite service. (WRC-2000)
5.554A	The use of the bands 47.5-47.9 GHz, 48.2-48.54 GHz and 49.44-50.2 GHz by the fixed-satellite service (space-to-Earth) is limited to geostationary satellites. (WRC-03)
5.555	<i>Additional allocation:</i> the band 48.94-49.04 GHz is also allocated to the radio astronomy service on a primary basis. (WRC-2000)
5.555A	(SUP - WRC-03)
5.555B	The power flux-density in the band 48.94-49.04 GHz produced by any geostationary space station in the fixed-satellite service (space-to-Earth) operating in the bands 48.2-48.54 GHz and 49.44-50.2 GHz shall not exceed – 151.8 dB(W/m ²) in any 500 kHz band at the site of any radio astronomy station. (WRC-03)
5.556	In the bands 51.4-54.25 GHz, 58.2-59 GHz and 64-65 GHz, radio astronomy observations may be carried out under national arrangements. (WRC-2000)
5.556A	Use of the bands 54.25-56.9 GHz, 57-58.2 GHz and 59-59.3 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density at all altitudes from 0 km to 1 000 km above the Earth's surface produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, shall not exceed –147 dB(W/(m ² · 100 MHz)) for all angles of arrival. (WRC-97)
5.556B	<i>Additional allocation:</i> in Japan, the band 54.25-55.78 GHz is also allocated to the mobile service on a primary basis for low-density use. (WRC-97)
5.557	<i>Additional allocation:</i> in Japan, the band 55.78-58.2 GHz is also allocated to the radiolocation service on a primary basis. (WRC-97)
5.557A	In the band 55.78-56.26 GHz, in order to protect stations in the Earth exploration-satellite service (passive), the maximum power density delivered by a transmitter to the antenna of a fixed service station is limited to – 26 dB(W/MHz). (WRC-2000)
5.558	In the bands 55.78-58.2 GHz, 59-64 GHz, 66-71 GHz, 122.25-123 GHz, 130-134 GHz, 167-174.8 GHz and 191.8-200 GHz, stations in the aeronautical mobile service may be operated subject to not causing harmful interference to the inter-satellite service (see No. 5.43). (WRC-2000)

ITU Footnote	Description
5.558A	Use of the band 56.9-57 GHz by inter-satellite systems is limited to links between satellites in geostationary-satellite orbit and to transmissions from non-geostationary satellites in high-Earth orbit to those in low-Earth orbit. For links between satellites in the geostationary-satellite orbit, the single entry power flux-density at all altitudes from 0 km to 1 000 km above the Earth's surface, for all conditions and for all methods of modulation, shall not exceed -147 dB(W/(m ² · 100 MHz)) for all angles of arrival. (WRC-97)
5.559	In the band 59-64 GHz, airborne radars in the radiolocation service may be operated subject to not causing harmful interference to the inter-satellite service (see No. 5.43). (WRC-2000)
5.559A	(SUP - WRC-07)
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	The stations of services to which the bands 14-19.95 kHz and 20.05-70 kHz and in Region 1 also the bands 72-84 kHz and 86-90 kHz are allocated may transmit standard frequency and time signals. Such stations shall be afforded protection from harmful interference. In Armenia, Azerbaijan, Belarus, the Russian Federation, Georgia, Kazakhstan, Kyrgyzstan, Tajikistan and Turkmenistan, the frequencies 25 kHz and 50 kHz will be used for this purpose under the same conditions.
5.561	In the band 74-76 GHz, stations in the fixed, mobile and broadcasting services shall not cause harmful interference to stations of the fixed-satellite service or stations of the broadcasting-satellite service operating in accordance with the decisions of the appropriate frequency assignment planning conference for the broadcasting-satellite service. (WRC-2000)
5.561A	The 81-81.5 GHz band is also allocated to the amateur and amateur-satellite services on a secondary basis. (WRC-2000)
5.561B	In Japan, use of the band 84-86 GHz, by the fixed-satellite service (Earth-to-space) is limited to feeder links in the broadcasting-satellite service using the geostationary-satellite orbit. (WRC-2000)
5.562	The use of the band 94-94.1 GHz by the Earth exploration-satellite (active) and space research (active) services is limited to spaceborne cloud radars. (WRC-97)
5.562A	In the bands 94-94.1 GHz and 130-134 GHz, transmissions from space stations of the Earth exploration-satellite service (active) that are directed into the main beam of a radio astronomy antenna have the potential to damage some radio astronomy receivers. Space agencies operating the transmitters and the radio astronomy stations concerned should mutually plan their operations so as to avoid such occurrences to the maximum extent possible. (WRC-2000)
5.562B	In the bands 105-109.5 GHz, 111.8-114.25 GHz, 155.5-158.5 GHz and 217-226 GHz, the use of this allocation is limited to space-based radio astronomy only. (WRC-2000)
5.562C	Use of the band 116-122.25 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, at all altitudes from 0 km to 1 000 km above the Earth's surface and in the vicinity of all geostationary orbital positions occupied by passive sensors, shall not exceed -148 dB (W/ (m ² · MHz)) for all angles of arrival. (WRC-2000)

ITU Footnote	Description
5.562D	<i>Additional allocation:</i> In Korea (Rep. of), the frequency bands 128-130 GHz, 171-171.6 GHz, 172.2-172.8 GHz and 173.3-174 GHz are also allocated to the radio astronomy service on a primary basis. Radio astronomy stations in Korea (Rep. of) operating in the frequency bands referred to in this footnote shall not claim protection from, or constrain the use and development of, services in other countries operating in accordance with the Radio Regulations. (WRC-15)
5.562E	The allocation to the Earth exploration-satellite service (active) is limited to the band 133.5-134 GHz. (WRC-2000)
5.562F	In the band 155.5-158.5 GHz, the allocation to the Earth exploration-satellite (passive) and space research (passive) services shall terminate on 1 January 2018. (WRC-2000)
5.562G	The date of entry into force of the allocation to the fixed and mobile services in the band 155.5-158.5 GHz shall be 1 January 2018. (WRC-2000)
5.562H	Use of the bands 174.8-182 GHz and 185-190 GHz by the inter-satellite service is limited to satellites in the geostationary-satellite orbit. The single-entry power flux-density produced by a station in the inter-satellite service, for all conditions and for all methods of modulation, at all altitudes from 0 to 1 000 km above the Earth's surface and in the vicinity of all geostationary orbital positions occupied by passive sensors, shall not exceed - 144 dB(W/(m ² · MHz)) for all angles of arrival. (WRC-2000)
5.563	(SUP - WRC-03)
5.563A	In the bands 200-209 GHz, 235-238 GHz, 250-252 GHz and 265-275 GHz, ground-based passive atmospheric sensing is carried out to monitor atmospheric constituents. (WRC-2000)
5.563B	The band 237.9-238 GHz is also allocated to the Earth exploration-satellite service (active) and the space research service (active) for spaceborne cloud radars only. (WRC-2000)
5.564	(SUP - WRC-2000)
5.565	<p>The following frequency bands in the range 275-1 000 GHz are identified for use by administrations for passive service applications:</p> <ul style="list-style-type: none"> - 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. <p>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.</p> <p>All frequencies in the range 1 000-3 000 GHz may be used by both active and passive services. (WRC-12)</p>

2.3 Trinidad and Tobago Footnotes

TT Footnote	Description
TT1	(SUP - 2014)
TT2	In the band 88 – 108 MHz, radio broadcast licensees will no longer be permitted to use subcarriers to transmit signals intended for both broadcast and non-broadcast purposes. In the bands 54 – 72 MHz, 76 – 88 MHz, 174 – 216 MHz, 470 – 512 MHz, 512 – 608 MHz and 614 – 632 MHz, TV broadcast licensees will no longer be permitted to use subcarriers on a secondary basis for both broadcast and non-broadcast purposes.
TT3	Government stations may also be authorised as follows: <ol style="list-style-type: none"> 1. Port operations use on a simplex basis by coast and ship stations on the frequencies 156.6 and 156.7 MHz 2. Duplex port operations use of the frequency 157.0 MHz for ship stations and 161.6 MHz for coast stations 3. Inter-ship use of 156.3 MHz on a simplex basis 4. Vessel traffic services under the control of the Coast Guard on a simplex 5. basis by coast and ship stations on the frequencies 156.25, 156.55, 156.6 and 156.7 MHz 6. Navigational bridge-to-bridge and navigational communications on a simplex basis by coast and ship stations on the frequencies 156.375 and 156.65 MHz
TT4	The frequencies 150.775 MHz and 150.790 MHz, and the bands 152 – 152.015 MHz, 163.2375 – 163.2625 MHz, 462.9375 – 463.1875 MHz, and 467.9375 – 468.1875 MHz may be used for operations in medical radiocommunications systems.
TT5	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequencies 64.5 MHz, 64.7 MHz, 64.9 MHz, 65.1 MHz, 65.3 MHz, 65.5 MHz, 65.7 MHz and 65.9 MHz have been class licensed for use by wireless microphones. Such equipment shall be certified by the Authority via its equipment certification process.
TT6	In the band 174 – 216 MHz, wireless microphones are authorised to operate on a secondary, non-interfering basis to the primary radio service, subject to terms and conditions of the <i>Class Licensing Regime</i> (TATT 2008). Such equipment shall be certified by the Authority via its equipment certification process.
TT7	TV broadcast stations authorised to operate in the bands 54 – 72 MHz, 76 – 88 MHz, 174 – 216 MHz, 470 – 512 MHz, and 512 – 632 MHz may use a portion of the television vertical blanking interval for the transmission of telecommunications signals. This is on the condition that there will be no harmful interference to the reception of primary services, and that such telecommunications services must accept any interference caused by primary services operating in these bands.

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TT Footnote	Description
TT8	(SUP-2014)
TT9	The band 335.4 – 380 MHz is authorised for use by land mobile and fixed systems other than those outlined in TT10.
TT10	The band 380 – 399.9 MHz is allocated to support the implementation of closed user groups over digital trunked mobile radiocommunications services.
TT11	In the bands 454.40 – 455 MHz and 459.40 – 460 MHz, frequencies may be assigned to domestic public land and mobile stations to provide a two-way air-ground public radio-telephone service.
TT12	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequency ranges 462.525 – 462.750 MHz and 467.525 – 467.750 MHz have been class licensed for use by Family Radio Service (FRS)/General Mobile Radio Service (GMRS) devices. Such equipment shall be certified by the Authority via its equipment certification process.
TT13	(SUP-2018)
TT14	Studio Transmitter Links (STLs), Electronic News Gathering (ENG) and Outside Broadcast (OB) systems will no longer be licensed in the band 450 – 470 MHz.
TT15	The band 460 – 470 MHz is allocated for Supervisory Control and Data Acquisition (SCADA) systems, subject to footnotes TT4, TT12 and TT40.
TT16	A quantum of 2 x 10 MHz of spectrum is allocated to PPDR in the bands 703 – 748 MHz paired with 758 – 803 MHz. available for assignment exclusively to PPDR.
TT17	In accordance with the <i>Spectrum Plan for the Accommodation of Public Mobile Telecommunications Services</i> (TATT 2017), the bands 703 – 748 MHz paired with 758 – 803 MHz are allocated for cellular mobile services save and except for 2x10MHz allocated for PPDR therein.
TT18	(SUP-2014)
TT19	<p>ITU footnote 5.318, additional allocation, states: “in Canada, the United States and Mexico, the bands 849-851 MHz and 894-896 MHz are also allocated to the aeronautical mobile service on a primary basis, for public correspondence with aircraft. The use of the band 849-851 MHz is limited to transmissions from aeronautical stations and the use of the band 894-896 MHz is limited to transmissions from aircraft stations.”</p> <p>Recognising that such a service is desirable, Trinidad and Tobago allocates these frequencies for a similar future service.</p>

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TT Footnote	Description
TT20	In accordance with the <i>Spectrum Plan for the Accommodation of Public Mobile Telecommunications Services</i> (TATT 2017), the bands 824 – 849 and 869 – 894 MHz are allocated for cellular mobile services.
TT21	The band 901 – 902 MHz is allocated for paging services.
TT22	In accordance with the <i>Spectrum Plan for Radio and TV Auxiliary Services</i> (TATT 2014), the band 940 – 960 MHz is allocated for radio broadcast STLs, transmitter-to-studio links and transmitter-to-transmitter links.
TT23	The band 1452 – 1492 MHz is intended for the establishment of the digital radio broadcast service. As such, a moratorium is placed on the licensing of terrestrial fixed systems. Existing licensees will be relocated as required.
TT24	In accordance with the <i>Spectrum Plan for the Accommodation of Public Mobile Telecommunications Services</i> (TATT 2017), the bands 1710 – 1755 and 2110 – 2155 MHz are allocated for cellular mobile services.
TT25	(SUP-2014)
TT26	In accordance with the <i>Spectrum Plan for the Accommodation of Public Mobile Telecommunications Services</i> (TATT 2017), the bands 1850 – 1910 and 1930 – 1990 MHz are allocated for cellular mobile services.
TT27	In the bands 1990 – 2025 MHz and 2160 – 2200 MHz, a moratorium has been placed on the licensing of new systems in the fixed service. Existing fixed service systems operating in these bands may be relocated to enable the implementation of mobile-satellite service systems in certain sub-bands. Such relocation will be implemented through a migration plan established by the Authority, in consultation with affected licensees.
TT28	In accordance with the <i>Spectrum Plan for the Accommodation of Radio and Television Broadcast Auxiliary Services</i> , the band 2025 – 2110 MHz is allocated to ENG and OB systems. STLs and other fixed services will not be authorised in this band.
TT29	In accordance with the <i>Spectrum Plan for the Accommodation of Broadband Wireless Access Services</i> (TATT 2008), the bands 2400 – 2483.5 MHz, 5150 – 5250 MHz, 5250 – 5350 MHz, 5470 – 5725 MHz and 5725 – 5850 MHz have been class licensed for use by radiocommunications services for the provision of Broadband Wireless Access (BWA) services. This includes the use of Wireless Local Area Network (WLAN) devices. This class licensing does not restrict the use of these ranges for their designated radio services as specified in this Frequency Allocation Table.
TT30	Further to TT29, WLAN devices in the band 5150 – 5250 MHz are restricted to indoor use only.
TT31	The band 2200 – 2300 MHz is intended for fixed point-to-point systems only.

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TT Footnote	Description
TT32	In accordance with the <i>Spectrum Plan for the Accommodation of Broadband Wireless Access Services</i> (TATT 2008), the bands 632 – 680 MHz, 2300 – 2360 MHz, 2500 – 2690 MHz, 3400 – 3600 MHz, 12.2 – 12.7 GHz and 25.35 – 28.35 GHz are allocated for the provision of BWA services.
TT33	The band 3700 – 3800 MHz may be used for the provision of BWA services on a secondary basis to fixed-satellite services.
TT34	<p>In accordance with ITU-R footnote 5.270, regarding additional allocations in Australia, the United States, Jamaica and the Philippines, the bands 420 – 430 MHz and 440 – 450 MHz are also allocated to the amateur service on a secondary basis.</p> <p>Recognising that such a service is desirable, Trinidad and Tobago also allocates these frequencies to the amateur service on a secondary basis.</p>
TT35	In accordance with the <i>Authorisation Framework for Citizen Band Radiocommunications Devices</i> , note the presence of the Citizen Band (CB) radiocommunications service in this band. This service can operate in the range 26.965 – 27.405 MHz, pursuant to the Authority’s <i>Class Licensing Regime</i> (TATT 2008). Such equipment shall be certified by the Authority via its equipment certification process.
TT36	In accordance with the <i>Spectrum Plan for the Accommodation of Broadband Wireless Access Services</i> (TATT 2008), the band 6430 – 7110 MHz is allocated to television STLs. Television STLs will be given preference to this band above other fixed service systems and other radio services that are allocated on a co-primary basis in this band.
TT37	The frequencies 5332 kHz, 5348 kHz, 5358.5 kHz, 5373 kHz, and 5405 kHz are allocated to the amateur service on a secondary basis, consistent with the United States of America Frequency Allocation Table footnote, US23. In accordance with US Footnote 23, amateur use of these frequencies shall be limited to a maximum effective radiated power (e.r.p.) of 100 W; and to the following emission types and designators: phone (2K80J3E), data (2K80J2D), RTTY (60H0J2B), and CW (150HA1A).
TT38	In accordance with the <i>Spectrum Plan for the Accommodation of Point-to-Point Radiocommunications Systems</i> (TATT 2013), the bands 1427 – 1452 MHz, 1492 – 1518 MHz, 4400 – 5000 MHz, 5850 – 6425 MHz, 7110– 7900 MHz, 7725 – 8500 MHz, 10000– 10680 MHz, 10700 – 11700 MHz, 12750 – 13250 MHz and 14500 – 15350 MHz are also allocated for the provision of point-to-point services.
TT39	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the bands 902 – 928 MHz, 2400 – 2483.5 MHz, 5470 – 5850 MHz, 24100 – 24200 MHz and 59500 – 62000 MHz have been class licensed for use by point-to-point radiocommunications systems. Such equipment shall be certified by the Authority via its equipment certification process.

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TT Footnote	Description
TT40	<p>In accordance with the <i>Spectrum Plan for the Accommodation of Land Mobile Telecommunications Systems</i> (TATT 2011), the following bands are also allocated for the provision of conventional land mobile/trunked radio services:</p> <ol style="list-style-type: none"> 1. 138 – 144 MHz, 148 – 149.9 MHz, 150.05 – 156.025 MHz, 157.425 – 161.500 MHz and 162.025 – 174 MHz, subject to TT Footnotes TT3 and TT4 2. 406.15 – 420 MHz 3. 450 – 470 MHz, subject to TT footnotes TT11 and TT14
TT41	<p>In accordance with the <i>Spectrum Plan for the Accommodation of Land Mobile Telecommunications Systems</i> (TATT 2011), the following bands are also allocated for the provision of trunked radio services:</p> <ol style="list-style-type: none"> 1. 806 – 824MHz 2. 849 – 869MHz, subject to TT footnote TT19
TT42	<p>In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequencies 312.15 MHz, 314.35 MHz, 433.92 MHz and 434.32 MHz, and the band 902 – 928 MHz have been class licensed for use by remote keyless entry systems. Such equipment shall be certified by the Authority via its equipment certification process.</p>
TT43	<p>In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the band 1611.25 – 1618.75 MHz has been class licensed for use by personal satellite tracker systems. Such equipment shall be certified by the Authority via its equipment certification process.</p>
TT44	<p>In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the bands 13.553 – 13.567 MHz and 903.14 – 927.26 MHz have been class licensed for use by radio frequency identification (RFID) reader systems. Such equipment shall be certified by the Authority via its equipment certification process.</p>
TT45	<p>In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequencies 58 kHz, 433.225 MHz and 433.725 MHz and the band 902 – 928 MHz have been class licensed for use by automatic meter reader repeater units. Such equipment shall be certified by the Authority via its equipment certification process.</p>
TT46	<p>In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequencies 431.5 MHz, 432.4 MHz, 432.7 MHz, 433.0 MHz, 433.3 MHz, 433.6 MHz, 433.9 MHz, 434.2 MHz, 434.8 MHz, 435.1 MHz, 435.4 MHz, 435.7 MHz, 436 MHz, 436.3 MHz and 436.6 MHz have been class licensed for use by remote control transmitter systems. Such equipment shall be certified by the Authority via its equipment certification process.</p>
TT47	<p>In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the bands 22 – 29 GHz and 76 – 77 GHz has been class licensed for use by automobile distance sensor/field disturbance sensor (vehicle radar) systems. Such equipment shall be certified by the Authority via its equipment certification process.</p>

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TT Footnote	Description
TT48	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequency 175 kHz and the bands 402 – 405 MHz and 1395 – 1400 MHz have been class licensed for use by medical telemetry systems. Such equipment shall be certified by the Authority via its equipment certification process.
TT49	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequency 424.775 MHz has been class licensed for use by SCADA transceiver (automatic meter reader) systems. Such equipment shall be certified by the Authority via its equipment certification process.
TT50	<p>Note that spectrum within the following frequency ranges has been assigned to emergency services:</p> <ol style="list-style-type: none"> 1. 3155 – 3200 kHz 2. 7400 – 8100 kHz 3. 138 – 143.65 MHz 4. 148 – 149.9 MHz 5. 154 – 156.4875 MHz 6. 156.8375 – 161.9625 MHz 7. 162.0375 – 174 MHz 8. 806 – 824 MHz and 849 – 869 MHz
TT51	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequency range 2400 – 2483.5 MHz has been class licensed for use by bluetooth devices. Such equipment shall be certified by the Authority via its equipment certification process.
TT52	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequencies 137.2 MHz, 137.225 MHz, 137.25 MHz, 137.2875 MHz, 137.3125 MHz, 137.4350 MHz, 137.46 MHz, 137.6625 MHz, 137.6875 MHz, 137.7125 MHz, 137.7375 MHz and 137.8MHz, 148 MHz and 150.5 MHz have been class licensed for use by satellite telemetry. Such equipment shall be certified by the Authority via its equipment certification process.
TT53	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequency range 1616 – 1626.5 MHz has been class licensed for use by satellite phones. Such equipment shall be certified by the Authority via its equipment certification process.
TT54	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequency 467.750 MHz has been class licensed for use by onsite paging system transmitter devices. Such equipment shall be certified by the Authority via its equipment certification process.

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TT Footnote	Description
TT55	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequency ranges 2400 – 2483.5 MHz and 5725 – 5850 MHz have been class licensed for use by unmanned aircraft systems. Such equipment shall be certified by the Authority via its equipment certification process.
TT56	In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the frequency range 10308 – 10378 MHz has been class licensed for use by compact surveillance radar devices. Such equipment shall be certified by the Authority via its equipment certification process.
TT57	<p>In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the following frequency ranges have been class licensed for use by fixed white space radiocommunications devices:</p> <ol style="list-style-type: none"> 1. 548 – 554 MHz 2. 554 – 560 MHz 3. 566 – 572 MHz 4. 572 – 578 MHz 5. 578 – 584 MHz 6. 584 – 590 MHz 7. 590 – 596 MHz 8. 596 – 602 MHz 9. 602 – 608 MHz 10. 680 – 686 MHz 11. 686 – 692 MHz 12. 692 – 698 MHz <p>Such equipment shall be certified by the Authority via its equipment certification process.</p>
TT58	<p>In accordance with the <i>Schedule of Devices Eligible for Use under a Class Licence</i> (TATT 2018), the following frequency ranges have been class licensed for use by WiFi modules, such a LoRaWAN modules:</p> <ol style="list-style-type: none"> 1. 57.24 GHz – 63.72 GHz <p>Such equipment shall be certified by the Authority via its equipment certification process.</p>

3. References

- ITU Radiocommunication Sector (ITU-R). 2016. *Radio Regulations*. Geneva, Switzerland.
<http://www.itu.int/pub/R-REG-RR-2016>.
- TATT. 2018. “Authorisation Framework for Citizen Band Radiocommunication Devices.”
- TATT. 2010. “Procedures for Consultation in the Telecommunications Sector of Trinidad and Tobago.”
<https://tatt.org.tt/Portals/0/documents/Procedures%20for%20Consultation%20in%20the%20Telecommunication%20and%20Broadcasting%20Sectors.pdf>.
- TATT. 2018. “Schedule B - Schedule of Devices Eligible for Use under a Class Licence.”
- TATT. 2008. “Spectrum Plan for the Accommodation of Broadband Wireless Access Services.”
- TATT. 2011. “Spectrum Plan for the Accommodation of Land Mobile Telecommunications Systems.”
- TATT. 2013. “Spectrum Plan for the Accommodation of Point-to-Point Radiocommunications Systems.”
- TATT. 2017. “Spectrum Plan for the Accommodation of Public Mobile Telecommunications Services.”
- TATT. 2014. “Spectrum Plan for the Accommodation of Radio and Television Broadcast Auxiliary Services.”

Appendix I – Chart of ITU-R Regions

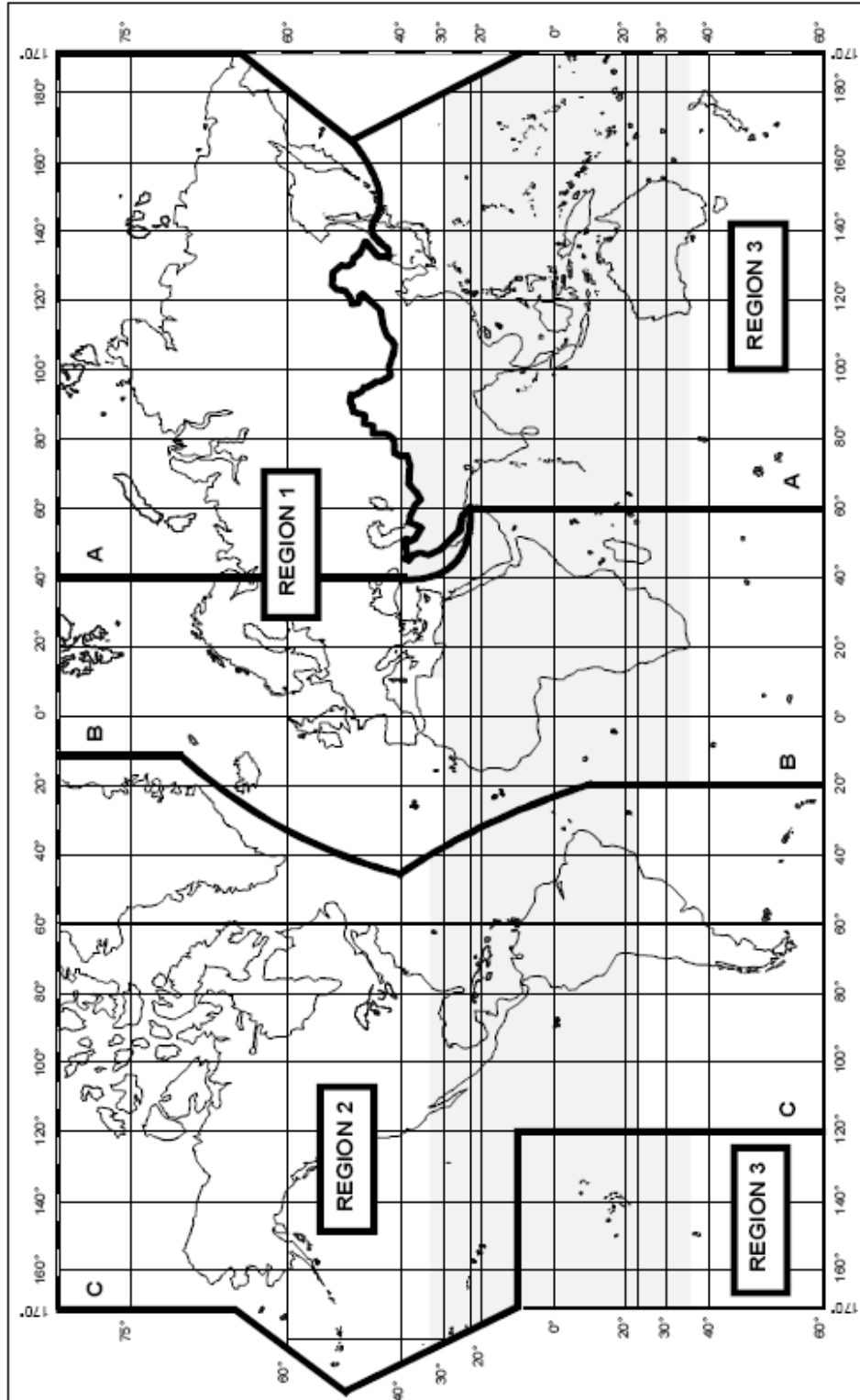


Figure 1. ITU-R Regions (ITU Radiocommunication Sector (ITU-R) 2016)

Appendix II – ITU-R Definition of Terms

The following is a list of those terms and definitions which are relevant to the Trinidad and Tobago Frequency Allocation Table. These terms and definitions are extracted from the ITU-R Radio Regulations. The regulations can be consulted for a more comprehensive listing.

General Terms

Administration: Any governmental department or service responsible for discharging the obligations undertaken in the Constitution of the ITU, in the Convention of the ITU and in the Administrative Regulations (CS 1002).

Coordinated Universal Time (UTC): Time scale, based on the second (SI), as defined in Resolution 655 (WRC-15).

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*.

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.

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 (CS).

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

Radio: A general term applied to the use of *radio waves*.

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*.

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

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

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

Radio Direction-Finding: *Radiodetermination* using the reception of *radio waves* for the purpose of determining the direction of a station or object.

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

Frequency Management

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.

Assignment (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.

Radio Services

Aeronautical Fixed Service: A radiocommunication service between specified fixed points provided primarily for the safety of air navigation and for the regular, efficient and economical operation of air transport.

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)¹ Service: An aeronautical mobile-satellite service reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.

¹ (R): Route

Aeronautical Mobile-Satellite (OR)² Service: An aeronautical mobile-satellite service intended for communications, including those relating to flight coordination, primarily outside national and international civil air routes.

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.

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 purpose as those of amateur service.

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.

² (OR): Off-Route

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 air-borne 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.

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 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.

Land Mobile Service: A mobile service between base stations and land mobile stations or between land mobile stations.

Land Mobile-Satellite Service: A mobile-satellite service in which mobile earth stations are located on land.

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.

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

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

Maritime Radionavigation-Satellite Service: A radionavigation-satellite service in which earth stations are located on board ships.

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

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

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.

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.

Radio Astronomy Service: A service involving the use of radio astronomy.

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

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

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

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

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

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

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

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.

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.

Space Research Service: A radiocommunication service in which spacecraft or other objects in space are used for scientific or technological research 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 purpose as those of standard frequency and time signal service. This service may also include feeder links necessary for its operation.

Appendix III – Decisions on Recommendations Matrix from First Consultation Round

(...Matrix is attached separately...)

Appendix IV – Decisions on Recommendations Matrix from Second Consultation Round

(...Matrix is attached separately...)