National Frequency Allocation Table 2017

Consultation Document

Consultation

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1 Introduction

The radio frequency spectrum is a finite national resource and it is therefore of vital importance that this spectrum resource is utilised in an efficient and effective manner. The National Frequency Allocation Table (NFAT) is a key instrument in spectrum resource management providing information on which radiocommunication services are permitted in each frequency band in the Virgin Islands.

Under the Telecommunications Act 2006, the Minister is responsible for developing and reviewing telecommunications policies and international matters affecting the Virgin Islands including international, regional and bilateral frequency co-ordination.

Responsibility for managing the spectrum is delegated to the Telecommunications Regulatory Commission (Commission). Specific functions in respect of spectrum management that the Commission is expected to undertake include the development of a Spectrum Plan that will be published and will describe spectrum allocations, how spectrum shall be used and the procedures used to assign frequency bands.

The Commission has drafted the first NFAT of the Virgin Islands presented in this document.

The extent to which the full benefits of the radio spectrum are realised depends on the actual use that is made of it and how efficiently it is managed. The NFAT has been developed taking full account of the objectives of the Spectrum Policy for the Virgin Islands as established by the Commission in May 2011.

The radio spectrum policy as stated in the Spectrum Policy of the Virgin Islands is being guided by reference to the following objectives:

- To promote the economic, orderly and efficient utilisation of frequencies;
- To ensure fair competition among licensees;
- The public interest;
- Requirements in respect of national security;
- Relevant regional and international agreements and standards, including ITU Treaties.

To help achieve these objectives, the aforementioned Spectrum Policy is proposed to:

- Promote the economic and socially efficient use of radio spectrum, such that
    - the public interest is served;
    - and competition between licensees is promoted.
- Take into account requirements in respect of national security
- Comply with relevant regional and international agreements and standards, including ITU Treaties.

The above objectives should be reflected in the allocations recorded in the NFAT. In case there are any discrepancies between the NFAT and the Spectrum Management Framework (SMF) 2017, the SMF takes precedence.

2 NFAT Details

The NFAT is based on current and expected spectrum requirements in the Virgin Islands for the foreseeable future. Where a longer-term implementation is expected, this is mentioned in the remarks column. It is expected that the NFAT will be implemented in part or in whole, as soon as is practicably possible.

It is expected that the NFAT will be used as a source document by importers, manufacturers, and users of radiocommunications equipment as well as by foreign administrations and regional telecommunication organizations.

Frequency allocations are not static and will change from time to time as new radio systems are introduced and old ones phased out. Changes on spectrum utilization will also occur at the international level or as a consequence of national decisions made to meet specific national requirements. The NFAT will therefore be reviewed and updated periodically in consultation with its stakeholders. It will also be reviewed and revised immediately after an International Telecommunication Union (ITU) World Radiocommunication Conference (WRC) or subsequent to any regional frequency harmonisation initiative.

The activities of other United Nations specialized agencies are also relevant, in particular the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO). Since radio frequencies do not respect national borders, it is also necessary to take account of spectrum usage in neighbouring States especially the US Virgin Islands.

3 Construction of the NFP

The NFP comprises five individual columns:

Column 1 - 3: Indicates the frequency band in kilohertz (kHz), Megahertz (MHz) and Gigahertz (GHz) referenced in subsequent rows of the Frequency Table for the geographical ITU Regions 1, 2 and 3. These columns also contain details of the allocations to radiocommunication services pertaining to the frequency band in question within the ITU Radio Regulations (RR) for the geographical ITU regions Region 1, Region 2 and Region 3 including RR article 5 footnotes. Details of these footnotes can be found in Annex I. The Virgin Islands is located in Region 2

Column 4: Contains details of the allocations to radiocommunication services pertaining to the frequency band in question as applicable in the Virgin Islands. The Virgin Islands follows the allocations of Region 2.

Column 5: Where appropriate, this column states for a frequency band and particular service the major uses of the spectrum. Reference may be made to future plans of Commission, pairing arrangements in case of FDD, channel plans or other relevant information.

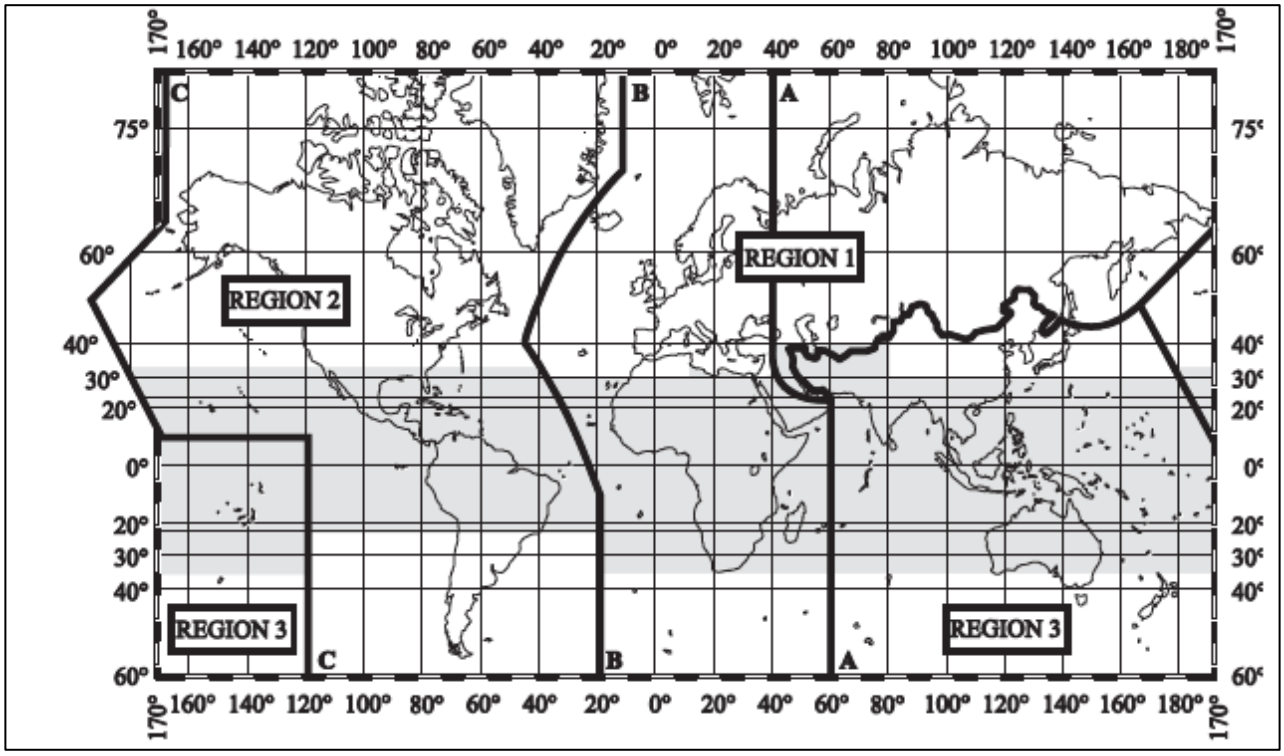
4 Key ITU Definitions

The following definitions are reproduced from the ITU Radio Regulations (RR) and are relevant in the context of the NFP:

1. 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.

2. 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.
3. Assignment (of a radio frequency or radio frequency channel): Authorisation given by an administration for a radio station to use a radio frequency or radio frequency channel under specified conditions.
4. For the allocation of frequencies the world has been divided into three Regions as shown on the following map. The Regions are described in more details below.



5. Region 1: Region 1 includes the area limited on the east by line A (lines A, B and C are defined below) and on the west by line B, excluding any of the territory of the Islamic Republic of Iran which lies between these limits. It also includes the whole of the territory of Armenia, Azerbaijan, Russian Federation, Georgia, Kazakstan, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Turkey and Ukraine and the area to the north of Russian Federation which lies between lines A and C.
6. Region 2: Region 2 includes the area limited on the east by line B and on the west by line C. The VI are part of Region 2.
7. Region 3**:** Region 3 includes the area limited on the east by line C and on the west by line A, except any of the territory of Armenia, Azerbaijan, Russian Federation, Georgia, Kazakstan, Mongolia, Uzbekistan, Kyrgyzstan, Tajikistan, Turkmenistan, Turkey and Ukraine and the area to the north of Russian

Federation. It also includes that part of the territory of the Islamic Republic of Iran lying outside of those limits.

8. Line A: Line A extends from the North Pole along meridian 40° East of Greenwich to parallel 40° North; thence by great circle arc to the intersection of meridian 60° East and the Tropic of Cancer; thence along the meridian 60° East to the South Pole.
9. Line B: Line B extends from the North Pole along meridian 10° West of Greenwich to its intersection with parallel 72° North; thence by great circle arc to the intersection of meridian 50° West and parallel 40° North; thence by great circle arc to the intersection of meridian 20° West and parallel 10° South; thence along meridian 20° West to the South Pole.
10. Line C: Line C extends from the North Pole by great circle arc to the intersection of parallel 65° 30' North with the international boundary in Bering Strait; thence by great circle arc to the intersection of meridian 165° East of Greenwich and parallel 50° North; thence by great circle arc to the intersection of meridian 170° West and parallel 10° North; thence along parallel 10° North to its intersection with meridian 120° West; thence along meridian 120° West to the South Pole.
11. Primary Services: Radiocommunication services detailed in columns 1, 2 3 and 4 of the NFAT which are in upper case letters (e.g. MOBILE) have primary status, the highest category of 'access' to radio frequencies;
12. Secondary Services: Radiocommunication services detailed in columns 1, 2, 3 and 4 of the NFAT, which are in lower case letters (e.g. Mobile) have secondary status. Stations of a secondary service:
    12.1. Shall not cause harmful interference to stations of primary services to which frequencies are already assigned or to which frequencies may be assigned at a later date
    12.2. 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
    12.3. 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
13. When more than one service is listed as having the same status, the order of their listing does not indicate any relative priority among the listed services.

5 Frequency Allocation Tables (tables for 460 MHz and higher will follow)

8.3 - 110 kHz

<table>
<tr><th colspan="5">Allocation to services</th></tr>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th><th>BVI</th><th>Usage</th></tr>
<tr><td>Below 8.3</td><td colspan="2">(Not allocated)
5.53 5.54</td><td>(Not allocated)
5.53 5.54</td><td></td></tr>
<tr><td>8.3-9</td><td colspan="2">METEOROLOGICAL AIDS 5.54A 5.54B 5.54C</td><td>METEOROLOGICAL AIDS 5.54A 5.54B 5.54C</td><td></td></tr>
<tr><td>9-11.3</td><td colspan="2">METEOROLOGICAL AIDS 5.54A
RADIONAVIGATION</td><td>METEOROLOGICAL AIDS 5.54A
RADIONAVIGATION</td><td></td></tr>
<tr><td>11.3-14</td><td colspan="2">RADIONAVIGATION</td><td>RADIONAVIGATION</td><td></td></tr>
<tr><td>14-19.95</td><td colspan="2">FIXED
MARITIME MOBILE 5.57
5.55 5.56</td><td>FIXED
MARITIME MOBILE 5.57
5.55 5.56</td><td></td></tr>
<tr><td>19.95-20.05</td><td colspan="2">STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)</td><td>STANDARD FREQUENCY AND TIME SIGNAL (20 kHz)</td><td></td></tr>
<tr><td>20.05-70</td><td colspan="2">FIXED
MARITIME MOBILE 5.57
5.56 5.58</td><td>FIXED
MARITIME MOBILE 5.57
5.56 5.58</td><td></td></tr>
<tr><td>70-72
RADIONAVIGATION 5.60</td><td rowspan="4">70-90
FIXED
MARITIME MOBILE 5.57
MARITIME RADIO-
NAVIGATION 5.60
Radiolocation

5.61</td><td>70-72
RADIONAVIGATION 5.60
Fixed
Maritime mobile 5.57
5.59</td><td rowspan="4">70-90
FIXED
MARITIME MOBILE 5.57
MARITIME RADIO-
NAVIGATION 5.60
Radiolocation

5.61</td><td rowspan="4"></td></tr>
<tr><td>72-84
FIXED
MARITIME MOBILE 5.57
RADIONAVIGATION 5.60
5.56</td><td>72-84
FIXED
MARITIME MOBILE 5.57
RADIONAVIGATION 5.60</td></tr>
<tr><td>84-86
RADIONAVIGATION 5.60</td><td>84-86
RADIONAVIGATION 5.60
Fixed
Maritime mobile 5.57
5.59</td></tr>
<tr><td>86-90
FIXED
MARITIME MOBILE 5.57
RADIONAVIGATION
5.56</td><td>86-90
FIXED
MARITIME MOBILE 5.57
RADIONAVIGATION 5.60</td></tr>
<tr><td>90-110</td><td colspan="2">RADIONAVIGATION 5.62
Fixed
5.64</td><td></td><td></td></tr>
</table>

110 - 255 kHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
110-112 FIXED MARITIME MOBILE RADIONAVIGATION 5.64	**110-130** FIXED MARITIME MOBILE MARITIME RADIO- NAVIGATION 5.60 Radiolocation	**110-112** FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64	**110-130** FIXED MARITIME MOBILE MARITIME RADIO- NAVIGATION 5.60 Radiolocation	
112-115 RADIONAVIGATION 5.60		**112-117.6** RADIONAVIGATION 5.60 Fixed Maritime mobile 5.64 5.65		
115-117.6 RADIONAVIGATION 5.60 Fixed Maritime mobile 5.64 5.66				
117.6-126 FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64		**117.6-126** FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64		
126-129 RADIONAVIGATION 5.60		**126-129** RADIONAVIGATION 5.60 Fixed Maritime mobile 5.64 5.65		
129-130 FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64		**129-130** FIXED MARITIME MOBILE RADIONAVIGATION 5.60 5.64		
130-135.7 FIXED MARITIME MOBILE 5.64 5.67	**130-135.7** FIXED MARITIME MOBILE 5.64	**130-135.7** FIXED MARITIME MOBILE RADIONAVIGATION 5.64	**130-135.7** FIXED MARITIME MOBILE 5.64	
135.7-137.8 FIXED MARITIME MOBILE Amateur 5.67A 5.64 5.67 5.67B	**135.7-137.8** FIXED MARITIME MOBILE Amateur 5.67A 5.64	**135.7-137.8** FIXED MARITIME MOBILE RADIONAVIGATION Amateur 5.67A 5.64 5.67B	**135.7-137.8** FIXED MARITIME MOBILE Amateur 5.67A 5.64	
137.8-148.5 FIXED MARITIME MOBILE 5.64 5.67	**137.8-160** FIXED MARITIME MOBILE 5.64	**137.8-160** FIXED MARITIME MOBILE RADIONAVIGATION 5.64	**137.8-160** FIXED MARITIME MOBILE 5.64	
148.5-255 BROADCASTING 5.68 5.69 5.70	**160-190** FIXED	**160-190** FIXED Aeronautical radionavigation	**160-190** FIXED	
	190-200 AERONAUTICAL RADIONAVIGATION		**190-200** AERONAUTICAL RADIONAVIGATION	

200 - 415 kHz

<table>
<tr><th colspan="5">Allocation to services</th></tr>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th><th>BVI</th><th>Usage</th></tr>
<tr><td></td><td>200-275
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile</td><td>200-285
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile</td><td>200-275
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile</td><td></td></tr>
<tr><td>255-283.5
BROADCASTING
AERONAUTICAL
RADIONAVIGATION
5.70 5.71</td><td>275-285
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile Maritime radionavigation
(radiobeacons)</td><td></td><td>275-285
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile Maritime radionavigation
(radiobeacons)</td><td></td></tr>
<tr><td>283.5-315
AERONAUTICAL
RADIONAVIGATION
MARITIME
RADIONAVIGATION
(radiobeacons) 5.73
5.74</td><td colspan="2">285-315
AERONAUTICAL RADIONAVIGATION
MARITIME RADIONAVIGATION (radiobeacons) 5.73</td><td>285-315
AERONAUTICAL RADIONAVIGATION
MARITIME RADIONAVIGATION (radiobeacons) 5.73</td><td></td></tr>
<tr><td>315-325
AERONAUTICAL
RADIONAVIGATION
Maritime radionavigation
(radiobeacons) 5.73

5.75</td><td>315-325
MARITIME
RADIONAVIGATION
(radiobeacons) 5.73
Aeronautical radionavigation</td><td>315-325
AERONAUTICAL
RADIONAVIGATION
MARITIME
RADIONAVIGATION
(radiobeacons) 5.73</td><td></td><td></td></tr>
<tr><td rowspan="2">325-405
AERONAUTICAL
RADIONAVIGATION</td><td>325-335
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile
Maritime radionavigation
(radiobeacons)</td><td rowspan="2">325-405
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile</td><td>325-335
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile
Maritime radionavigation
(radiobeacons)</td><td></td></tr>
<tr><td>335-405
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile</td><td>335-405
AERONAUTICAL
RADIONAVIGATION
Aeronautical mobile</td><td>Airport</td></tr>
<tr><td>405-415
RADIONAVIGATION 5.76</td><td colspan="2">405-415
RADIONAVIGATION 5.76
Aeronautical mobile</td><td>405-415
RADIONAVIGATION 5.76
Aeronautical mobile</td><td></td></tr>
</table>

415 - 495 kHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
415-435 MARITIME MOBILE 5.79 AERONAUTICAL RADIONAVIGATION **435-472** MARITIME MOBILE 5.79 Aeronautical radionavigation 5.77 5.82	**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		MARITIME MOBILE 5.79 Amateur 5.80A Aeronautical radionavigation 5.77 5.80 5.80B 5.82	Amateur
479-495 MARITIME MOBILE 5.79 5.79A Aeronautical radionavigation 5.77 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 - 1800 kHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
495-505	MARITIME MOBILE			
505-526.5 MARITIME MOBILE 5.79 5.79A 5.84 AERONAUTICAL RADIONAVIGATION	**505-510** MARITIME MOBILE 5.79	**505-526.5** MARITIME MOBILE 5.79 5.79A 5.84 AERONAUTICAL RADIONAVIGATION Aeronautical mobile Land mobile	**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	
526.5-1 606.5 BROADCASTING 5.87 5.87A	**525-535** BROADCASTING 5.86 AERONAUTICAL RADIONAVIGATION	**526.5-535** BROADCASTING Mobile 5.88	**525-535** BROADCASTING 5.86 AERONAUTICAL RADIONAVIGATION	
	535-1 605 BROADCASTING	**535-1 606.5** BROADCASTING	**535-1 605** BROADCASTING	AM broadcasting station
1 606.5-1 625 FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92	**1 605-1 625** BROADCASTING 5.89 5.90	**1 606.5-1 800** FIXED MOBILE RADIOLOCATION RADIONAVIGATION 5.91	**1 605-1 625** BROADCASTING 5.89 5.90	
1 625-1 635 RADIOLOCATION 5.93	**1 625-1 705** FIXED MOBILE BROADCASTING 5.89 Radiolocation 5.90		**1 625-1 705** FIXED MOBILE BROADCASTING 5.89 Radiolocation 5.90	
1 635-1 800 FIXED MARITIME MOBILE 5.90 LAND MOBILE 5.92 5.96	**1 705-1 800** FIXED MOBILE RADIOLOCATION AERONAUTICAL RADIONAVIGATION		**1 705-1 800** FIXED MOBILE RADIOLOCATION AERONAUTICAL RADIONAVIGATION	

1 800 - 2 194 kHz

<table>
<tr><th colspan="5">Allocation to services</th></tr>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th><th>BVI</th><th>Usage</th></tr>
<tr><td>1 800-1 810
RADIOLOCATION
5.93</td><td rowspan="2">1 800-1 850
AMATEUR</td><td rowspan="3">1 800-2 000
AMATEUR
FIXED
MOBILE except aeronautical mobile
RADIONAVIGATION
Radiolocation

5.97</td><td>1 800-1 850
AMATEUR</td><td>Amateur</td></tr>
<tr><td>1 810-1 850
AMATEUR

5.98 5.99 5.100</td><td rowspan="2">1 850-2 000
AMATEUR
FIXED
MOBILE except aeronautical mobile
RADIOLOCATION
RADIONAVIGATION
5.102</td><td rowspan="2">1 850-2 000
AMATEUR
FIXED
MOBILE except aeronautical mobile
RADIOLOCATION
RADIONAVIGATION
5.102</td><td>Amateur</td></tr>
<tr><td>1 850-2 000
FIXED
MOBILE except aeronautical Mobile

5.92 5.96 5.103</td></tr>
<tr><td>2 000-2 025
FIXED
MOBILE except aeronautical mobile (R)
5.92 5.103</td><td colspan="2" rowspan="2">2 000-2 065
FIXED
MOBILE</td><td rowspan="2">2 000-2 065
FIXED
MOBILE</td><td rowspan="2"></td></tr>
<tr><td>2 025-2 045
FIXED
MOBILE except aeronautical mobile (R)
Meteorological aids 5.104
5.92 5.103</td></tr>
<tr><td rowspan="2">2 045-2 160
FIXED
MARITIME MOBILE
LAND MOBILE
5.92</td><td colspan="2" rowspan="2">2 065-2 107
MARITIME MOBILE 5.105
5.106</td><td rowspan="2">2 065-2 107
MARITIME MOBILE 5.105
5.106</td><td rowspan="2"></td></tr>
<tr><td rowspan="2">2 107-2 170
FIXED
MOBILE</td><td rowspan="2">2 107-2 170
FIXED
MOBILE</td></tr>
<tr><td>2 160-2 170
RADIOLOCATION
5.93 5.107</td><td></td></tr>
<tr><td colspan="2">2 170-2 173.5</td><td>MARITIME MOBILE</td><td>MARITIME MOBILE</td><td></td></tr>
<tr><td colspan="2">2 173.5-2 190.5</td><td>MOBILE (distress and calling)
5.108 5.109 5.110 5.111</td><td>MOBILE (distress and calling)
5.108 5.109 5.110 5.111</td><td>GMDSS</td></tr>
<tr><td colspan="2">2 190.5-2 194</td><td>MARITIME MOBILE</td><td>MARITIME MOBILE</td><td></td></tr>
</table>

2 194 - 3 230 kHz

<table>
<tr><th colspan="5">Allocation to services</th></tr>
<tr><th>Region 1</th><th colspan="2">Region 2</th><th>BVI</th><th>Usage</th></tr>
<tr><td>2 194-2 300
FIXED
MOBILE except aeronautical mobile (R)
5.92 5.103 5.112</td><td colspan="2">2 194-2 300
FIXED
MOBILE

5.112</td><td>2 194-2 300
FIXED
MOBILE

5.112</td><td></td></tr>
<tr><td rowspan="2">2 300-2 498
FIXED
MOBILE except aeronautical mobile (R)
BROADCASTING 5.113
5.103</td><td colspan="2">2 300-2 495
FIXED
MOBILE
BROADCASTING 5.113</td><td>2 300-2 495
FIXED
MOBILE
BROADCASTING 5.113</td><td rowspan="2"></td></tr>
<tr><td colspan="2" rowspan="2">2 495-2 501
STANDARD FREQUENCY AND TIME SIGNAL (2 500 kHz)</td><td rowspan="2">2 495-2 501
STANDARD FREQUENCY AND TIME SIGNAL (2 500 kHz)</td></tr>
<tr><td>2 498-2 501
STANDARD FREQUENCY AND TIME SIGNAL
(2 500 kHz)</td><td></td></tr>
<tr><td>2 501-2 502</td><td colspan="2">STANDARD FREQUENCY AND TIME SIGNAL
Space Research</td><td>STANDARD FREQUENCY AND TIME SIGNAL
Space Research</td><td></td></tr>
<tr><td rowspan="4">2 502-2 625
FIXED
MOBILE except aeronautical mobile (R)
5.92 5.103 5.114</td><td colspan="2">2 502-2 505
STANDARD FREQUENCY AND TIME SIGNAL</td><td>2 502-2 505
STANDARD FREQUENCY AND TIME SIGNAL</td><td rowspan="4"></td></tr>
<tr><td rowspan="3" colspan="2">2 505-2 850
FIXED
MOBILE</td><td rowspan="3">2 505-2 850
FIXED
MOBILE250</td></tr>
<tr><td>2 625-2 650
MARITIME MOBILE
MARITIME RADIONAVIGATION
5.92</td></tr>
<tr><td>2 650-2 850
FIXED
MOBILE except aeronautical mobile (R)
5.92 5.103</td></tr>
<tr><td>2 850-3 025</td><td colspan="2">AERONAUTICAL MOBILE (R)
5.111 5.115</td><td>AERONAUTICAL MOBILE (R)
5.111 5.115</td><td></td></tr>
<tr><td>3 025-3 155</td><td colspan="2">AERONAUTICAL MOBILE (OR)</td><td>AERONAUTICAL MOBILE (OR)</td><td></td></tr>
<tr><td>3 155-3 200</td><td colspan="2">FIXED
MOBILE except aeronautical mobile (R)
5.116 5.117</td><td>FIXED
MOBILE except aeronautical mobile (R)
5.116 5.117</td><td></td></tr>
<tr><td>3 200-3 230</td><td colspan="2">FIXED
MOBILE except aeronautical mobile (R)
BROADCASTING 5.113
5.116</td><td>FIXED
MOBILE except aeronautical mobile (R)
BROADCASTING 5.113
5.116</td><td></td></tr>
</table>

<table>
<tr><th colspan="5">Allocation to services</th></tr>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th><th>BVI</th><th>Usage</th></tr>
<tr><td>3 230-3 400</td><td colspan="2">FIXED
MOBILE except aeronautical mobile
BROADCASTING 5.113
5.116 5.118</td><td>FIXED
MOBILE except aeronautical mobile
BROADCASTING 5.113
5.116 5.118</td><td></td></tr>
<tr><td>3 400-3 500</td><td colspan="2">AERONAUTICAL MOBILE (R)</td><td>AERONAUTICAL MOBILE (R)</td><td></td></tr>
<tr><td>3 500-3 800
AMATEUR
FIXED
MOBILE except aeronautical mobile
5.92</td><td>3 500-3 750
AMATEUR

5.119</td><td rowspan="2">3 500-3 900
AMATEUR
FIXED
MOBILE</td><td>3 500-3 750
AMATEUR

5.119</td><td>Amateur</td></tr>
<tr><td>3 800-3 900
FIXED
AERONAUTICAL MOBILE (OR)
LAND MOBILE</td><td rowspan="3">3 750-4 000
AMATEUR
FIXED
MOBILE except aeronautical mobile (R)</td><td rowspan="3">3 750-4 000
AMATEUR
FIXED
MOBILE except aeronautical mobile (R)</td><td rowspan="3"></td></tr>
<tr><td>3 900-3 950
AERONAUTICAL MOBILE (OR)
5.123</td><td>3 900-3 950
AERONAUTICAL MOBILE
BROADCASTING</td></tr>
<tr><td>3 950-4 000
FIXED
BROADCASTING

5.122 5.125</td><td>3 950-4 000
FIXED
BROADCASTING
5.126</td></tr>
<tr><td>4 000-4 063</td><td colspan="2">FIXED
MARITIME MOBILE 5.127</td><td>FIXED
MARITIME MOBILE 5.127</td><td></td></tr>
<tr><td>4 063-4 438</td><td colspan="2">MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131 5.132
5.128</td><td>MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131
5.132</td><td>GMDSS</td></tr>
<tr><td>4 438-4 488
FIXED
MOBILE except aeronautical mobile (R)
Radiolocation 5.132A
5.132B</td><td>4 438-4 488
FIXED
MOBILE except aeronautical mobile (R)
RADIOLOCATION 5.132A</td><td>4 438-4 488
FIXED
MOBILE except aeronautical mobile
Radiolocation 5.132A</td><td>4 438-4 488
FIXED
MOBILE except aeronautical mobile (R)
RADIOLOCATION 5.132A</td><td></td></tr>
<tr><td colspan="2">4 488-4 650
FIXED
MOBILE except aeronautical mobile (R)</td><td>4 488-4 650
FIXED
MOBILE except aeronautical mobile</td><td>4 488-4 650
FIXED
MOBILE except aeronautical mobile (R)</td><td></td></tr>
<tr><td>4 650-4 700</td><td colspan="2">AERONAUTICAL MOBILE (R)</td><td>AERONAUTICAL MOBILE (R)</td><td></td></tr>
<tr><td>4 700-4 750</td><td colspan="2">AERONAUTICAL MOBILE (OR)</td><td>AERONAUTICAL MOBILE (OR)</td><td></td></tr>
<tr><td>4 750-4 850
FIXED
AERONAUTICAL MOBILE (OR)
LAND MOBILE
BROADCASTING 5.113</td><td>4 750-4 850
FIXED
MOBILE except aeronautical mobile (R)
BROADCASTING 5.113</td><td>4 750-4 850
FIXED
BROADCASTING 5.113
Land mobile</td><td>4 750-4 850
FIXED
MOBILE except aeronautical mobile (R)
BROADCASTING 5.113</td><td></td></tr>
<tr><td>4 850-4 995</td><td colspan="2">FIXED
LAND MOBILE
BROADCASTING 5.113</td><td>FIXED
LAND MOBILE
BROADCASTING 5.113</td><td></td></tr>
<tr><td>4 995-5 003</td><td colspan="2">STANDARD FREQUENCY AND TIME SIGNAL (5 000 kHz)</td><td>STANDARD FREQUENCY AND TIME SIGNAL (5 000 kHz)</td><td></td></tr>
</table>

5 003 - 7 000 kHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
5 003-5 005	STANDARD FREQUENCY AND TIME SIGNAL Space research		STANDARD FREQUENCY AND TIME SIGNAL Space research	
5 005-5 060	FIXED BROADCASTING 5.113		FIXED BROADCASTING 5.113	
5 060-5 250	FIXED Mobile except aeronautical mobile 5.133		FIXED Mobile except aeronautical mobile 5.133	
5 250-5 275 FIXED MOBILE except aeronautical mobile Radiolocation 5.132A 5.133A	**5 250-5 275** FIXED MOBILE except aeronautical mobile RADIOLOCATION 5.132A	**5 250-5 275** FIXED MOBILE except aeronautical mobile Radiolocation 5.132A	**5 250-5 275** FIXED MOBILE except aeronautical mobile RADIOLOCATION 5.132A	
5 275-5 351.5	FIXED MOBILE except aeronautical mobile		FIXED MOBILE except aeronautical mobile	
5 351.5-5 366.5	FIXED MOBILE except aeronautical mobile Amateur 5.133B		FIXED MOBILE except aeronautical mobile Amateur 5.133B	
5 366.5-5 450	FIXED MOBILE except aeronautical mobile		FIXED MOBILE except aeronautical mobile	
5 450-5 480 FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	**5 450-5 480** AERONAUTICAL MOBILE (R)	**5 450-5 480** FIXED AERONAUTICAL MOBILE (OR) LAND MOBILE	**5 450-5 480** AERONAUTICAL MOBILE (R)	
5 480-5 680	AERONAUTICAL MOBILE (R) 5.111 5.115		AERONAUTICAL MOBILE (R) 5.111 5.115	
5 680-5 730	AERONAUTICAL MOBILE (OR) 5.111 5.115		AERONAUTICAL MOBILE (OR) 5.111 5.115	
5 730-5 900 FIXED LAND MOBILE	**5 730-5 900** FIXED MOBILE except aeronautical mobile (R)	**5 730-5 900** FIXED Mobile except aeronautical mobile (R)	**5 730-5 900** FIXED MOBILE except aeronautical mobile (R)	
5 900-5 950	BROADCASTING 5.134 5.136		BROADCASTING 5.134 5.136	
5 950-6 200	BROADCASTING		BROADCASTING	
6 200-6 525	MARITIME MOBILE 5.109 5.110 5.130 5.132 5.137		MARITIME MOBILE 5.109 5.110 5.130 5.132 5.137	GMDSS
6 525-6 685	AERONAUTICAL MOBILE (R)		AERONAUTICAL MOBILE (R)	
6 685-6 765	AERONAUTICAL MOBILE (OR)		AERONAUTICAL MOBILE (OR)	
6 765-7 000	FIXED MOBILE except aeronautical mobile (R) 5.138		FIXED MOBILE except aeronautical mobile (R) 5.138	

7 000 – 7 450 kHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
7 000-7 100	AMATEUR AMATEUR-SATELLITE 5.140 5.141 5.141A		AMATEUR AMATEUR-SATELLITE 5.140 5.141 5.141A	Amateur
7 100-7 200	AMATEUR 5.141A 5.141B		AMATEUR 5.141A 5.141B	Amateur
7 200-7 300 BROADCASTING	**7 200-7 300** AMATEUR 5.142	**7 200-7 300** BROADCASTING	**7 200-7 300** AMATEUR 5.142	Amateur
7 300-7 400	BROADCASTING 5.134 5.143 5.143A 5.143B 5.143C 5.143D		BROADCASTING 5.134 5.143 5.143A 5.143B 5.143C 5.143D	
7 400-7 450 BROADCASTING 5.143B 5.143C	**7 400-7 450** FIXED MOBILE except aeronautical mobile (R)	**7 400-7 450** BROADCASTING 5.143A 5.143C	**7 400-7 450** FIXED MOBILE except aeronautical mobile (R)	

7 450 - 13 360 kHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
7 450-8 100	FIXED MOBILE except aeronautical mobile (R) 5.144		FIXED MOBILE except aeronautical mobile (R) 5.144	
8 100-8 195	FIXED MARITIME MOBILE		FIXED MARITIME MOBILE	
8 195-8 815	MARITIME MOBILE 5.109 5.110 5.132 5.145 5.111		MARITIME MOBILE 5.109 5.110 5.132 5.145 5.111	GMDSS
8 815-8 965	AERONAUTICAL MOBILE (R)		AERONAUTICAL MOBILE (R)	
8 965-9 040	AERONAUTICAL MOBILE (OR)		AERONAUTICAL MOBILE (OR)	
9 040-9 305 FIXED	**9 040-9 400** FIXED	**9 040-9 305** FIXED	**9 040-9 400** FIXED	
9 305-9 355 FIXED Radiolocation 5.145A 5.145B		**9 305-9 355** FIXED Radiolocation 5.145A		
9 355-9 400 FIXED		**9 355-9 400** FIXED		
9 400-9 500	BROADCASTING 5.134 5.146		BROADCASTING 5.134 5.146	
9 500-9 900	BROADCASTING 5.147		BROADCASTING 5.147	
9 900-9 995	FIXED		FIXED	
9 995-10 003	STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz) 5.111		STANDARD FREQUENCY AND TIME SIGNAL (10 000 kHz) 5.111	
10 003-10 005	STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111		STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111	
10 005-10 100	AERONAUTICAL MOBILE (R) 5.111		AERONAUTICAL MOBILE (R) 5.111	
10 100-10 150	FIXED Amateur		FIXED Amateur	
10 150-11 175	FIXED Mobile except aeronautical mobile (R)		FIXED Mobile except aeronautical mobile (R)	
11 175-11 275	AERONAUTICAL MOBILE (OR)		AERONAUTICAL MOBILE (OR)	
11 275-11 400	AERONAUTICAL MOBILE (R)		AERONAUTICAL MOBILE (R)	
11 400-11 600	FIXED		FIXED	
11 600-11 650	BROADCASTING 5.134 5.146		BROADCASTING 5.134 5.146	
11 650-12 050	BROADCASTING 5.147		BROADCASTING 5.147	
12 050-12 100	BROADCASTING 5.134 5.146		BROADCASTING 5.134 5.146	
12 100-12 230	FIXED		FIXED	
12 230-13 200	MARITIME MOBILE 5.109 5.110 5.132 5.145		MARITIME MOBILE 5.109 5.110 5.132 5.145	GMDSS
13 200-13 260	AERONAUTICAL MOBILE (OR)		AERONAUTICAL MOBILE (OR)	
13 260-13 360	AERONAUTICAL MOBILE (R)		AERONAUTICAL MOBILE (R)	

13 360 - 18 030 kHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
13 360-13 410	FIXED RADIO ASTRONOMY 5.149		FIXED RADIO ASTRONOMY 5.149	
13 410-13 450	FIXED Mobile except aeronautical mobile (R)		FIXED Mobile except aeronautical mobile (R)	
13 450-13 550 FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A 5.149A	**13 450-13 550** FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A		**13 450-13 550** FIXED Mobile except aeronautical mobile (R) Radiolocation 5.132A	
13 550-13 570	FIXED Mobile except aeronautical mobile (R) 5.150		FIXED Mobile except aeronautical mobile (R) 5.150	
13 570-13 600	BROADCASTING 5.134 5.151		BROADCASTING 5.134 5.151	
13 600-13 800	BROADCASTING		BROADCASTING	
13 800-13 870	BROADCASTING 5.134 5.151		BROADCASTING 5.134 5.151	
13 870-14 000	FIXED		FIXED	
14 000-14 250	AMATEUR AMATEUR-SATELLITE		AMATEUR AMATEUR-SATELLITE	Amateur
14 250-14 350	AMATEUR 5.152		AMATEUR 5.152	Amateur
14 350-14 990	FIXED Mobile except aeronautical mobile (R)		FIXED Mobile except aeronautical mobile (R)	
14 990-15 005	STANDARD FREQUENCY AND TIME SIGNAL (15 000 kHz) 5.111		STANDARD FREQUENCY AND TIME SIGNAL (15 000 kHz) 5.111	
15 005-15 010	STANDARD FREQUENCY AND TIME SIGNAL Space research		STANDARD FREQUENCY AND TIME SIGNAL Space research	
15 010-15 100	AERONAUTICAL MOBILE (OR)		AERONAUTICAL MOBILE (OR)	
15 100-15 600	BROADCASTING		BROADCASTING	
15 600-15 800	BROADCASTING 5.134 5.146		BROADCASTING 5.134 5.146	
15 800-16 100	FIXED 5.153		FIXED 5.153	
16 100-16 200 FIXED Radiolocation 5.145A 5.145B	**16 100-16 200** FIXED RADIOLOCATION 5.145A	**16 100-16 200** FIXED Radiolocation 5.145A	**16 100-16 200** FIXED RADIOLOCATION 5.145A	
16 200-16 360	FIXED		FIXED	
16 360-17 410	MARITIME MOBILE 5.109 5.110 5.132 5.145		MARITIME MOBILE 5.109 5.110 5.132 5.145	GMDSS
17 410-17 480	FIXED		FIXED	
17 480-17 550	BROADCASTING 5.134 5.146		BROADCASTING 5.134 5.146	
17 550-17 900	BROADCASTING		BROADCASTING	
17 900-17 970	AERONAUTICAL MOBILE (R)		AERONAUTICAL MOBILE (R)	
17 970-18 030	AERONAUTICAL MOBILE (OR)		AERONAUTICAL MOBILE (OR)	

18 030 - 23 350 kHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
18 030-18 052	FIXED		FIXED	
18 052-18 068	FIXED Space research		FIXED Space research	
18 068-18 168	AMATEUR AMATEUR-SATELLITE 5.154		AMATEUR AMATEUR-SATELLITE 5.154	Amateur
18 168-18 780	FIXED Mobile except aeronautical mobile		FIXED Mobile except aeronautical mobile	
18 780-18 900	MARITIME MOBILE		MARITIME MOBILE	GMDSS
18 900-19 020	BROADCASTING 5.134 5.146		BROADCASTING 5.134 5.146	
19 020-19 680	FIXED		FIXED	
19 680-19 800	MARITIME MOBILE 5.132		MARITIME MOBILE 5.132	GMDSS
19 800-19 990	FIXED		FIXED	
19 990-19 995	STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111		STANDARD FREQUENCY AND TIME SIGNAL Space research 5.111	
19 995-20 010	STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz) 5.111		STANDARD FREQUENCY AND TIME SIGNAL (20 000 kHz) 5.111	
20 010-21 000	FIXED Mobile		FIXED Mobile	
21 000-21 450	AMATEUR AMATEUR-SATELLITE		AMATEUR AMATEUR-SATELLITE	Amateur
21 450-21 850	BROADCASTING		BROADCASTING	
21 850-21 870	FIXED 5.155A 5.155		FIXED 5.155A 5.155	
21 870-21 924	FIXED 5.155B		FIXED 5.155B	
21 924-22 000	AERONAUTICAL MOBILE (R)		AERONAUTICAL MOBILE (R)	
22 000-22 855	MARITIME MOBILE 5.132 5.156		MARITIME MOBILE 5.132 5.156	GMDSS
22 855-23 000	FIXED 5.156		FIXED 5.156	
23 000-23 200	FIXED Mobile except aeronautical mobile (R) 5.156		FIXED Mobile except aeronautical mobile (R) 5.156	
23 200-23 350	FIXED 5.156A AERONAUTICAL MOBILE (OR)		FIXED 5.156A AERONAUTICAL MOBILE (OR)	

23 350 - 27 500 kHz

<table>
<tr><th colspan="5">Allocation to services</th></tr>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th><th>BVI</th><th>Usage</th></tr>
<tr><td>23 350-24 000</td><td colspan="2">FIXED
MOBILE except aeronautical mobile 5.157</td><td>FIXED
MOBILE except aeronautical mobile 5.157</td><td></td></tr>
<tr><td>24 000-24 450</td><td colspan="2">FIXED
LAND MOBILE</td><td>FIXED
LAND MOBILE</td><td></td></tr>
<tr><td rowspan="2">24 450-24 600
FIXED
LAND MOBILE
Radiolocation 5.132A
5.158</td><td rowspan="2">24 450-24 650
FIXED
LAND MOBILE
RADIOLOCATION 5.132A</td><td>24 450-24 600
FIXED
LAND MOBILE
Radiolocation 5.132A</td><td rowspan="2">24 450-24 650
FIXED
LAND MOBILE
RADIOLOCATION 5.132A</td><td rowspan="2"></td></tr>
<tr><td rowspan="2">24 600-24 890
FIXED
LAND MOBILE</td><td rowspan="2">24 600-24 890
FIXED
LAND MOBILE</td></tr>
<tr><td>24 650-24 890
FIXED
LAND MOBILE</td><td>24 650-24 890
FIXED
LAND MOBILE</td><td></td></tr>
<tr><td>24 890-24 990</td><td colspan="2">AMATEUR
AMATEUR-SATELLITE</td><td>AMATEUR
AMATEUR-SATELLITE</td><td></td></tr>
<tr><td>24 990-25 005</td><td colspan="2">STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)</td><td>STANDARD FREQUENCY AND TIME SIGNAL (25 000 kHz)</td><td></td></tr>
<tr><td>25 005-25 010</td><td colspan="2">STANDARD FREQUENCY AND TIME SIGNAL
Space research</td><td>STANDARD FREQUENCY AND TIME SIGNAL
Space research</td><td></td></tr>
<tr><td>25 010-25 070</td><td colspan="2">FIXED
MOBILE except aeronautical mobile</td><td>FIXED
MOBILE except aeronautical mobile</td><td></td></tr>
<tr><td>25 070-25 210</td><td colspan="2">MARITIME MOBILE</td><td>MARITIME MOBILE</td><td>GMDSS</td></tr>
<tr><td>25 210-25 550</td><td colspan="2">FIXED
MOBILE except aeronautical mobile</td><td>FIXED
MOBILE except aeronautical mobile</td><td></td></tr>
<tr><td>25 550-25 670</td><td colspan="2">RADIO ASTRONOMY
5.149</td><td>RADIO ASTRONOMY
5.149</td><td></td></tr>
<tr><td>25 670-26 100</td><td colspan="2">BROADCASTING</td><td>BROADCASTING</td><td></td></tr>
<tr><td>26 100-26 175</td><td colspan="2">MARITIME MOBILE 5.132</td><td>MARITIME MOBILE 5.132</td><td>? Check GMDSS</td></tr>
<tr><td>26 175-26 200</td><td colspan="2">FIXED
MOBILE except aeronautical mobile</td><td>FIXED
MOBILE except aeronautical mobile</td><td></td></tr>
<tr><td rowspan="2">26 200-26 350
FIXED
MOBILE except aeronautical mobile
Radiolocation 5.132A
5.133A</td><td rowspan="2">26 200-26 420
FIXED
MOBILE except aeronautical mobile
RADIOLOCATION 5.132A</td><td>26 200-26 350
FIXED
MOBILE except aeronautical mobile
Radiolocation 5.132A</td><td rowspan="2">26 200-26 420
FIXED
MOBILE except aeronautical mobile
RADIOLOCATION 5.132A</td><td rowspan="2"></td></tr>
<tr><td rowspan="2">26 350-27 500
FIXED
MOBILE except aeronautical mobile
5.150</td><td rowspan="2">26 350-27 500
FIXED
MOBILE except aeronautical mobile

5.150</td></tr>
<tr><td>26 420-27 500
FIXED
MOBILE except aeronautical mobile
5.150</td><td>26 420-27 500
FIXED
MOBILE except aeronautical mobile
5.150</td><td></td></tr>
</table>

27.5 - 40.98 MHz

<table>
<tr><th colspan="5">Allocation to services</th></tr>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th><th>BVI</th><th>Usage</th></tr>
<tr><td>27.5-28</td><td colspan="2">METEOROLOGICAL AIDS
FIXED
MOBILE</td><td>METEOROLOGICAL AIDS
FIXED
MOBILE</td><td></td></tr>
<tr><td>28-29.7</td><td colspan="2">AMATEUR
AMATEUR-SATELLITE</td><td>AMATEUR
AMATEUR-SATELLITE</td><td>Amateur</td></tr>
<tr><td>29.7-30.005</td><td colspan="2">FIXED
MOBILE</td><td>FIXED
MOBILE</td><td></td></tr>
<tr><td>30.005-30.01</td><td colspan="2">SPACE OPERATION (satellite identification)
FIXED
MOBILE
SPACE RESEARCH</td><td>SPACE OPERATION (satellite identification)
FIXED
MOBILE
SPACE RESEARCH</td><td></td></tr>
<tr><td>30.01-37.5</td><td colspan="2">FIXED
MOBILE</td><td>FIXED
MOBILE</td><td></td></tr>
<tr><td>37.5-38.25</td><td colspan="2">FIXED
MOBILE
Radio astronomy
5.149</td><td>FIXED
MOBILE
Radio astronomy
5.149</td><td></td></tr>
<tr><td>38.25-39
FIXED
MOBILE</td><td rowspan="3">38.25-39.986
FIXED
MOBILE</td><td>38.25-39.5
FIXED
MOBILE</td><td rowspan="3">38.25-39.986
FIXED
MOBILE</td><td rowspan="3"></td></tr>
<tr><td>39-39.5
FIXED
MOBILE
Radiolocation 5.132A
5.159</td><td></td></tr>
<tr><td>39.5-39.986
FIXED
MOBILE</td><td>39.5-39.986
FIXED
MOBILE
RADIOLOCATION 5.132A</td></tr>
<tr><td colspan="2" rowspan="2">39.986-40.02
FIXED
MOBILE
Space research</td><td>39.986-40
FIXED
MOBILE
RADIOLOCATION 5.132A
Space research</td><td rowspan="2">39.986-40.02
FIXED
MOBILE
Space research</td><td rowspan="2"></td></tr>
<tr><td>40-40.02
FIXED
MOBILE
Space research</td></tr>
<tr><td>40.02-40.98</td><td colspan="2">FIXED
MOBILE
5.150</td><td>FIXED
MOBILE
5.150</td><td></td></tr>
</table>

40.98 - 47 MHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
40.98-41.015	FIXED MOBILE Space research 5.160 5.161		FIXED MOBILE Space research 5.160 5.161	
41.015-42	FIXED MOBILE 5.160 5.161 5.161A		FIXED MOBILE 5.160 5.161 5.161A	
42-42.5 FIXED MOBILE Radiolocation 5.132A 5.160 5.161B	**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		FIXED MOBILE 5.160 5.161 5.161A	
44-47	FIXED MOBILE 5.162 5.162A		FIXED MOBILE 5.162 5.162A	

47 - 75.2 MHz

<table>
<tr><th colspan="5">Allocation to services</th></tr>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th><th>BVI</th><th>Usage</th></tr>
<tr><td rowspan="3">47-68
BROADCASTING

5.162A 5.163 5.164 5.165</td><td>47-50
FIXED
MOBILE</td><td>47-50
FIXED
MOBILE
BROADCASTING
5.162A</td><td>47-50
FIXED
MOBILE</td><td></td></tr>
<tr><td colspan="2">50-54
AMATEUR
5.162A 5.167 5.167A 5.168 5.170</td><td>50-54
AMATEUR
5.162A 5.167 5.167A 5.168 5.170</td><td>Amateur</td></tr>
<tr><td>54-68
BROADCASTING
Fixed
Mobile
5.172</td><td>54-68
BROADCASTING
Fixed
Mobile
5.162A</td><td>54-68
BROADCASTING
Fixed
Mobile
5.172</td><td></td></tr>
<tr><td rowspan="4">68-74.8
FIXED
MOBILE except aeronautical mobile

5.149 5.175 5.177 5.179</td><td>68-72
BROADCASTING
Fixed
Mobile
5.173</td><td rowspan="4">68-74.8
FIXED
MOBILE

5.149 5.176 5.179</td><td>68-72
BROADCASTING
Fixed
Mobile
5.173</td><td rowspan="4"></td></tr>
<tr><td>72-73
FIXED
MOBILE</td><td>72-73
FIXED
MOBILE</td></tr>
<tr><td>73-74.6
RADIO ASTRONOMY
5.178</td><td>73-74.6
RADIO ASTRONOMY
5.178</td></tr>
<tr><td>74.6-74.8
FIXED
MOBILE</td><td>74.6-74.8
FIXED
MOBILE</td></tr>
<tr><td>74.8-75.2</td><td colspan="2">AERONAUTICAL RADIONAVIGATION
5.180 5.181</td><td>AERONAUTICAL RADIONAVIGATION
5.180 5.181</td><td></td></tr>
</table>

75.2 - 137.175 MHz

<table>
<tr><th colspan="5">Allocation to services</th></tr>
<tr><th>Region 1</th><th>Region 2</th><th>Region 3</th><th>BVI</th><th>Usage</th></tr>
<tr><td rowspan="4">75.2-87.5
FIXED
MOBILE except aeronautical mobile

5.175 5.179 5.187</td><td colspan="2">75.2-75.4
FIXED
MOBILE
5.179</td><td>75.2-75.4
FIXED
MOBILE
5.179</td><td></td></tr>
<tr><td>75.4-76
FIXED
MOBILE</td><td rowspan="3">75.4-87
FIXED
MOBILE

5.182 5.183 5.188

87-100
FIXED
MOBILE
BROADCASTING</td><td>75.4-76
FIXED
MOBILE</td><td></td></tr>
<tr><td>76-88
BROADCASTING
Fixed
Mobile

5.185</td><td>76-88
BROADCASTING
Fixed
Mobile

5.185</td><td>FM Broadcasting stations
VHF TV station (channel 5)</td></tr>
<tr><td>87.5-100
BROADCASTING

5.190</td><td>88-100
BROADCASTING</td><td>88-100
BROADCASTING</td><td>FM Broadcasting stations</td></tr>
<tr><td>100-108</td><td colspan="2">BROADCASTING
5.192 5.194</td><td>BROADCASTING
5.192 5.194</td><td>FM Broadcasting stations</td></tr>
<tr><td>108-117.975</td><td colspan="2">AERONAUTICAL RADIONAVIGATION
5.197 5.197A</td><td>AERONAUTICAL RADIONAVIGATION
5.197 5.197A</td><td></td></tr>
<tr><td>117.975-137</td><td colspan="2">AERONAUTICAL MOBILE (R)
5.111 5.200 5.201 5.202</td><td>AERONAUTICAL MOBILE (R)
5.111 5.200 5.201 5.202</td><td>Airport and aircrafts</td></tr>
<tr><td>137-137.025</td><td colspan="2">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</td><td>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</td><td></td></tr>
<tr><td>137.025-137.175</td><td colspan="2">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</td><td>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</td><td></td></tr>
</table>

137.175 – 148 MHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
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		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	
137.825-138	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		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 AERONAUTICAL MOBILE (OR) 5.210 5.211 5.212 5.214	**138-143.6** FIXED MOBIL RADIOLOCATION Space research (space-to-Earth)	**138-143.6** FIXED MOBIL Space research (space-to-Earth) 5.207 5.213	**138-143.6** FIXED MOBIL RADIOLOCATION Space research (space-to-Earth	Business VHF radios
143.6-143.65 AERONAUTICAL MOBILE (OR) SPACE RESEARCH (space-to-Earth) 5.211 5.212 5.214	**143.6-143.65** FIXED MOBILE RADIOLOCATION SPACE RESEARCH (space-to-Earth)	**143.6-143.65** FIXED MOBILE SPACE RESEARCH (space-to-Earth) 5.207 5.213	**143.6-143.65** FIXED MOBILE RADIOLOCATION SPACE RESEARCH (space-to-Earth)	Business VHF radios
143.65-144 AERONAUTICAL MOBILE (OR) 5.210 5.211 5.212 5.214	**143.65-144** FIXED MOBILE RADIOLOCATION Space research (space-to-Earth)	**143.65-144** FIXED MOBILE Space research (space-to-Earth) 5.207 5.213	**143.65-144** FIXED MOBILE RADIOLOCATION Space research (space-to-Earth	Business VHF radios
144-146	AMATEUR AMATEUR-SATELLITE 5.216		AMATEUR AMATEUR-SATELLITE 5.216	Amateur Business VHF radios
146-148 FIXED MOBILE except aeronautical mobile (R)	**146-148** AMATEUR 5.217	**146-148** AMATEUR FIXED MOBILE 5.217	**146-148** AMATEUR 5.217	Amateur Business VHF radios

148 - 161.9375 MHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
148-149.9 FIXED MOBILE except aeronautical mobile (R) 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 5.218 5.219 5.221		**148-149.9** FIXED MOBILE MOBILE-SATELLITE (Earth-to-space) 5.209 5.218 5.219 5.221	Business VHF radios
149.9-150.05	MOBILE-SATELLITE (Earth-to-space) 5.209 5.220		MOBILE-SATELLITE (Earth-to-space) 5.209 5.220	
150.05-153 FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149	**150.05-154** FIXED MOBILE		**150.05-154** FIXED MOBILE	Business VHF radios
153-154 FIXED MOBILE except aeronautical mobile (R) Meteorological aids	5.225		5.225	
154-156.4875 FIXED MOBILE except aeronautical mobile (R) 5.225A 5.226	**154-156.4875** FIXED MOBILE 5.226	**154-156.4875** FIXED MOBILE 5.225A 5.226	**154-156.4875** FIXED MOBILE 5.226	Business VHF radios
156.4875-156.5625	MARITIME MOBILE (distress and calling via DSC) 5.111 5.226 5.227		MARITIME MOBILE (distress and calling via DSC) 5.111 5.226 5.227	Marine VHF radios
156.5625-156.7625 FIXED MOBILE except aeronautical mobile (R) 5.226	**156.5625-156.7625** FIXED MOBILE 5.226		**156.5625-156.7625** FIXED MOBILE 5.226	
156.7625-156.7875 MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111 5.226 5.228	**156.7625-156.7875** MARITIME MOBILE MOBILE-SATELLITE (Earth-to-space) 5.111 5.226 5.228	**156.7625-156.7875** MARITIME MOBILE Mobile-satellite (Earth-to-space) 5.111 5.226 5.228	**156.7625-156.7875** MARITIME MOBILE MOBILE-SATELLITE (Earth-to-space) 5.111 5.226 5.228	Marine VHF radios
156.7875-156. 8125	MARITIME MOBILE (distress and calling) 5.111 5.226		MARITIME MOBILE (distress and calling) 5.111 5.226	Marine VHF radios
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	**156.8125-156.8375** 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	Marine VHF radios
156.8375-161.9375 FIXED MOBILE except aeronautical mobile 5.226	**156.8375-161.9375** FIXED MOBILE 5.226		**156.8375-161.9375** FIXED MOBILE 5.226	Business VHF radios

161.9375 - 223 MHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
161.9375-161.9625 FIXED MOBILE except aeronautical 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 5.226		**161.9375-161.9625** FIXED MOBILE Maritime mobile-satellite (Earth-to-space) 5.228AA 5.226	Business VHF radios
161.9625-161.9875 FIXED MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B	**161.9625-161.9875** AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELITE (Earth-to-space) 5.228C 5.228D	**161.9625-161.9875** MARITIME MOBILE Aeronautical mobile (OR) 5.228E Mobile-satellite (Earth-to-space) 5.228F	**161.9625-161.9875** AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELITE (Earth-to-space) 5.228C 5.228D	
161.9875-162.0125 FIXED MOBILE except aeronautical mobile Maritime mobile-satellite (Earth-to-space) 5.228AA 5.226 5.229	**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	Business VHF radios
162.0125-162.0375 FIXED MOBILE except aeronautical mobile Mobile-satellite (Earth-to-space) 5.228F 5.226 5.228A 5.228B 5.229	**162.0125-162.0375** AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELITE (Earth-to-space) 5.228C 5.228D	**162.0125-162.0375** MARITIME MOBILE Aeronautical mobile (OR) 5.228E Mobile-satellite (Earth-to-space) 5.228F 5.226	**162.0125-162.0375** AERONAUTICAL MOBILE (OR) MARITIME MOBILE MOBILE-SATELITE (Earth-to-space) 5.228C 5.228D	
162.0375-174 FIXED MOBILE except aeronautical mobile 5.226 5.229	**162.0375-174** FIXED MOBILE 5.226 5.230 5.231		**162.0375-174** FIXED MOBILE 5.226 5.230 5.231	Business VHF radios
174-223 BROADCASTING 5.235 5.237 5.243	**174-216** BROADCASTING Fixed Mobile	**174-223** FIXED MOBILE BROADCASTING 5.233 5.238 5.240 5.245	**174-216** BROADCASTING Fixed Mobile	Studio Transmitter Link
	216-220 FIXED MARITIME MOBILE Radiolocation 5.241 5.242		**216-220** FIXED MARITIME MOBILE Radiolocation 5.241 5.242	

220 - 335.4 MHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
	220-225		**220-225**	Amateur
223-230 BROADCASTING Fixed Mobile	AMATEUR FIXED MOBILE Radiolocation 5.241	**223-230** FIXED MOBILE BROADCASTING AERONAUTICAL RADIONAVIGATION Radiolocation	AMATEUR FIXED MOBILE Radiolocation 5.241	
5.243 5.246 5.247	**225-235** FIXED MOBILE	5.250	**225-235** FIXED MOBILE	
230-235 FIXED MOBILE 5.247 5.251 5.252		**230-235** FIXED MOBILE AERONAUTICAL RADIONAVIGATION 5.250		
235 – 273	FIXED MOBILE 5.111 5.252 5.254 5.256 5.256A		FIXED MOBILE 5.111 5.252 5.254 5.256 5.256A	
273-312	FIXED MOBILE Space operation (space-to-Earth) 5.254 5.257		FIXED MOBILE Space operation (space-to-Earth) 5.254 5.257	
312-315	SPACE OPERATION (space-to-Earth) FIXED MOBILE 5.254		SPACE OPERATION (space-to-Earth) FIXED MOBILE 5.254	
315-322	FIXED MOBILE 5.254		FIXED MOBILE 5.254	
322-328.6	FIXED MOBILE RADIO ASTRONOMY 5.149		FIXED MOBILE RADIO ASTRONOMY 5.149	
328.6-335.4	AERONAUTICAL RADIONAVIGATION 5.258 5.259		AERONAUTICAL RADIONAVIGATION 5.258 5.259	

335.4 - 410 MHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
335.4-387	FIXED MOBILE 5.254		FIXED MOBILE 5.254	
387-390	FIXED MOBILE Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.254 5.255		FIXED MOBILE Mobile-satellite (space-to-Earth) 5.208A 5.208B 5.254 5.255	
390-399.9	FIXED MOBILE 5.254		FIXED MOBILE 5.254	
399.9-400.05	MOBILE-SATELLITE (Earth-to-space) 5.209 5.220		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		STANDARD FREQUENCY AND TIME SIGNAL-SATELLITE (400.1 MHz) 5.261 5.262	
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		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)	
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		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		METEOROLOGICAL AIDS EARTH EXPLORATION-SATELLITE (Earth-to-space) METEOROLOGICAL-SATELLITE (Earth-to-space) Fixed Mobile except aeronautical mobile	
403-406	METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile 5.265		METEOROLOGICAL AIDS Fixed Mobile except aeronautical mobile 5.265	
406-406.1	MOBILE-SATELLITE (Earth-to-space) 5.265 5.266 5.267		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		FIXED MOBILE except aeronautical mobile RADIO ASTRONOMY 5.149 5.265	

410 – 460 MHz

Allocation to services				
Region 1	**Region 2**	**Region 3**	**BVI**	**Usage**
410-420 FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) 5.268			FIXED MOBILE except aeronautical mobile SPACE RESEARCH (space-to-space) 5.268	
420-430 FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271			FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271	
430-432 AMATEUR RADIOLOCATION 5.271 5.274 5.275 5.276 5.277	**430-432** RADIOLOCATION Amateur 5.271 5.276 5.278 5.279		**430-432** RADIOLOCATION Amateur 5.271 5.276 5.278 5.279	
432-438 AMATEUR RADIOLOCATION Earth exploration-satellite (active) 5.279A 5.138 5.271 5.276 5.277 5.280 5.281 5.282	**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 5.271 5.276 5.278 5.279 5.281 5.282	
438-440 AMATEUR RADIOLOCATION 5.271 5.274 5.275 5.276 5.277 5.283	**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			FIXED MOBILE except aeronautical mobile Radiolocation 5.269 5.270 5.271 5.284 5.285 5.286	Business VHF radios
450-455 FIXED MOBILE 5.286AA 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E			FIXED MOBILE 5.286AA 5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E	Business VHF radios Planned for LTE (Band Class 31; 452.5 – 457.5 and 462.5 – 467.5 MHz)
455-456 FIXED MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 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 5.209 5.271 5.286A 5.286B 5.286C 5.286E	**455-456** FIXED MOBILE 5.286AA MOBILE-SATELLITE (Earth-to-space) 5.209 5.286A 5.286B 5.286C	Business VHF radios Planned for LTE (Band Class 31; 452.5 – 457.5 and 462.5 – 467.5 MHz)
456-459 FIXED MOBILE 5.286AA 5.271 5.287 5.288			FIXED MOBILE 5.286AA 5.271 5.287 5.288	Business VHF radios Planned for LTE (Band Class 31; 452.5 – 457.5 and 462.5 – 467.5 MHz)
459-460 FIXED MOBILE 5.286AA 5.209 5.271 5.286A 5.286B 5.286C 5.286E	**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 5.209 5.271 5.286A 5.286B 5.286C 5.286E	**459-460** FIXED MOBILE 5.286AA MOBILE-SATELLITE (Earth-to-space) 5.209 5.286A 5.286B 5.286C	Business VHF radios

6 Glossary of Acronyms, Terms and Definitions

Aeronautical mobile (OR) service An aeronautical mobile service intended for communications, including those relating to flight coordination, primarily outside national or international civil air routes.
Aeronautical mobile (R) 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 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-satellite (OR) service An aeronautical mobile-satellite service intended for communications, including those relating to flight coordination, primarily outside national and international civil air routes.
Aeronautical mobile-satellite (R) service An aeronautical mobile-satellite service reserved for communications relating to safety and regularity of flights, primarily along national or international civil air routes.
Aeronautical mobile-satellite 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 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 purposes as those of the 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.
Deep space Space at distances from the Earth equal to, or greater than, 2 × 106 km.

Earth exploration-satellite service
A radiocommunication service between earth stations and one or more space stations, which may include links between space stations, in which:
- information relating to the characteristics of the Earth and its natural phenomena including data relating to the state of the environment, is obtained from active sensors or passive sensors on Earth satellites;
- similar information is collected from airborne or Earth-based platforms;
- such information may be distributed to earth stations within the system concerned;
- platform interrogation may be included.

Fixed service
A radiocommunication service between specified fixed points.

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

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

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.

Instrument landing system
A radionavigation system which provides aircraft with horizontal and vertical guidance just before and during landing and, at certain fixed points, indicates the distance to the reference point of landing.

Instrument landing system glide path
A system of vertical guidance embodied in the instrument landing system which indicates the vertical deviation of the aircraft from its optimum path of descent.

Interference
The effect of unwanted energy due to one or a combination of emissions, radiations, or inductions upon reception in a radiocommunication system, manifested by any performance degradation, misinterpretation, or loss of information which could be extracted in the absence of such unwanted energy.

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
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.
Public correspondence Any telecommunication which the offices and stations must, by reason of their being at the disposal of the public, accept for transmission.
Radar A radiodetermination system based on the comparison of reference signals with radio signals reflected, or retransmitted, from the position to be determined.
Radar beacon (racon) A transmitter-receiver associated with a fixed navigational mark which, when triggered by a radar, automatically returns a distinctive signal which can appear on the display of the triggering radar, providing range, bearing and identification information.
Radio astronomy Astronomy based on the reception of radio waves of cosmic origin.
Radio astronomy service A service involving the use of radio astronomy.
Radio waves or Hertzian waves Electromagnetic waves of frequencies arbitrarily lower than 3 000 GHz, propagated in space without artificial guide.
Radiocommunication service A service involving the transmission, emission and/or reception of radio waves for specific telecommunication purposes
Radiodetermination The determination of the position, velocity and/or other characteristics of an object, or the obtaining of information relating to these parameters, by means of the propagation properties of radio waves.
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 Radiodetermination used for purposes other than those of radionavigation.
Radiolocation service A radiodetermination service for the purpose of radiolocation.
Radiolocation-satellite service A radiodetermination-satellite service used for the purpose of radiolocation. This service may also include the feeder links necessary for its operation.
Radionavigation Radiodetermination used for the purposes of navigation, including obstruction warning.
Radionavigation service A radiodetermination service for the purpose of radionavigation.
Radionavigation-satellite service A radiodetermination-satellite service used for the purpose of radionavigation. This service may also include feeder links necessary for its operation.
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
Space research service A radiocommunication service in which spacecraft or other objects in space are used for scientific or technological research purposes.
Space telemetry The use of telemetry for the transmission from a space station of results of measurements made in a spacecraft, including those relating to the functioning of the spacecraft.
Special service A radiocommunication service, not otherwise defined in this Section, carried on exclusively for specific needs of general utility, and not open to public correspondence.
Standard frequency and time signal service A radiocommunication service for scientific, technical and other purposes, providing the transmission of specified frequencies, time signals, or both, of stated high precision, intended for general reception.
Standard frequency and time signal-satellite service A radiocommunication service using space stations on earth satellites for the same purposes as those of the standard frequency and time signal service. This service may also include feeder links necessary for its operation.
Telecommand The use of telecommunication for the transmission of signals to initiate, modify or terminate functions of equipment at a distance.
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.
Telemetry The use of telecommunication for automatically indicating or recording measurements at a distance from the measuring instrument.

7 Foot notes

This document adopts the footnotes as referenced in the ITU Radio Regulations article 5 and as amended by time to time.