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## GENERAL NOTICE

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### NOTICE 890 OF 2008

#### INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA (ICASA)

#### **THE INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA HEREBY GIVES NOTICE OF ITS INTENTION TO REVIEW THE RADIO FREQUENCY BAND PLAN COVERING THE RANGE 9 KHz TO 1000GHz:**

Notice is hereby given that the Independent Communications Authority of South Africa ("the Authority") intends to review the South African Table of Frequency Allocations (SATFA), in terms of section 34 (1) of the Electronic Communications Act ( Act no. 36 of 2005). In light of the technological changes within the said spectrum across the globe and in an attempt to bring such changes in line with the latest World Radio Conference decisions ICASA has come to a conclusion that there is a need to review the South African Table of Frequency Allocations (SATFA) .



Interested persons are hereby invited to submit written representations on this draft review of SATFA, to be received by no later than 16H00 on the 29<sup>th</sup> August 2008 by post, hand delivery, fax and also in electronic format (Microsoft Word or Adobe PDF) for the attention of:

Fikile Moloja – RF Specialist  
Independent Communications Authority of South Africa (ICASA)  
Block A, ICASA, Pin Mill Farm,  
164 Katherine Street,  
Private Bag X10002,  
Sandton  
2146  
Telephone (011)5663289 or 0798918950  
Facsimile (011) 5663290;  
E-mail : fmoloja@icasa.org.za

All representations and documents lodged with ICASA pursuant to this notice shall be open for public inspection by interested parties during the normal office hours of ICASA.

Representations and documents that ICASA considers to be confidential will not be available for public inspection. Persons submitting representations that they believe are confidential should indicate so clearly, together with their reasons for requesting confidentiality. ICASA may, on receiving such requests, determine that such documents shall not be open for public inspection. If a request for confidentiality is refused, the person making the request will be allowed to withdraw the document in question.

Persons submitting written representations are invited to indicate whether they would like to make an oral representation and state the estimated duration thereof (duration not to exceed one hour).

**PARIS MASHILE  
CHAIRPERSON  
INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH AFRICA**

**DRAFT SOUTH AFRICAN TABLE OF FREQUENCY  
ALLOCATIONS**

**INDEPENDENT COMMUNICATIONS AUTHORITY OF SOUTH  
AFRICA**

**2008**

**TABLE OF CONTENTS**

|  |           |
|--|-----------|
| <b>LEGISLATIVE FRAMEWORK .....</b>                                 | <b>2</b>  |
| <b>BACKGROUND TO THE SOUTH AFRICAN TABLE OF ALLOCATIONS .....</b>  | <b>4</b>  |
| <b>THE STRUCTURE OF THE SOUTH AFRICA TABLE OF ALLOCATIONS.....</b> | <b>6</b>  |
| <b>TABLE OF FREQUENCY ALLOCATIONS.....</b>                         | <b>8</b>  |
| <b>PART A: 9 kHz - 30 MHz.....</b>                                 | <b>9</b>  |
| <b>PART B: 30 MHz - 390 MHz.....</b>                               | <b>36</b> |
| <b>PART C: 390 MHz - 890 MHz .....</b>                             | <b>56</b> |
| <b>PART D: 890 MHz - 1000 GHz.....</b>                             | <b>67</b> |
| <b>ANNEX A: SOUTH AFRICAN NATIONAL FOOTNOTES .....</b>             | <b>A</b>  |
| <b>ANNEX B: TERMS AND DEFINITION .....</b>                         | <b>B</b>  |
| <b>ANNEX C: LIST OF ACRONYMS.....</b>                              | <b>C</b>  |

## LEGISLATIVE FRAMEWORK

The aim of the Electronic Communications Act No. 36 of 2005 (the Act); is to promote convergence in the telecommunications, broadcasting and broadcasting signal distribution sectors and to provide the legal framework for convergence of these sectors; to make new provisions for the regulation of electronic communications services, electronic communications network services and broadcasting services; to provide the granting of new licenses and new social obligations; to provide for the control of the radio frequency spectrum; to provide for the continued existence of the Universal Service Agency and the Universal Service Fund; and to provide for matters incidental thereto.

In carrying out its functions under the Act and the related legislation, the Authority controls, plans, administers and manages the use and licensing of the radio frequency spectrum as prescribed by the Act.

No person may transmit any signal by radio or use radio apparatus to receive any signal by radio except under and in accordance with a radio frequency spectrum license granted by the Authority to such person in terms of this Act.

A radio frequency spectrum license is required in addition to any service license contemplated in Chapter 3 of the Act, where the use of such service entails the use of radio frequency spectrum. The Authority may, taking into account the objects of the Act, prescribe procedures and criteria for awarding radio frequency spectrum licenses for competing applications or instances where there is insufficient spectrum available to accommodate demand.

No person may use, supply, sell, offer for sale or lease or hire any type of electronic communications equipment or electronic communications facility, including radio apparatus, used or to be used in connection with the provision of electronic communications, unless such equipment, electronic communications facility or radio apparatus has been approved by the Authority.

The Authority may, subject to provisions of the Standard Act, 1993 (Act No. 29 of 1993), prescribe standards for the performance and operation of any equipment or electronic communications facility, including radio apparatus.

The Authority licenses radio frequency spectrum in accordance with the provisions of the Act. The normal procedure for applying for spectrum and all other related information can be found on the Authority's website by logging on to [www.icasa.org.za](http://www.icasa.org.za).

In terms of Section 34 of the Act, the Authority is mandated to prepare the National Radio Frequency Plan. The Authority will continuously give due regard, as mandated by the Act, to the radio frequency spectrum allocated by the Minister for the exclusive use of the security services, taking into account the

government's current and planned use of radio frequency spectrum, including but not limited to, civil aviation, aeronautical services and scientific research.

The information contained in this document is made available by the Independent Communications Authority of South Africa (ICASA) on the understanding that it is for information and enforcement purposes. It is not intended to form the basis of any investment decisions and should not be considered as a recommendation by the Authority to participate in any tender for the allocation of radio spectrum. Recipients of this document in any format should consult their own professional financial, legal or other advice in order to make an independent assessment of the potential value of any allocation of radio spectrum by what ever means applicable.

## **BACKGROUND TO THE SOUTH AFRICAN TABLE OF ALLOCATIONS**

There have been tremendous developments in the Information Communications Telecommunications (ICT) Sector of the Republic of South Africa since the last publication of the South African Table of Frequency Allocations in 2004. These developments include the repealing of the Telecommunications Act (Act No. 103 of 1996) and the introduction of the Electronic Communications Act (ECA) (Act No. 36 of 2005).

Further, the pattern of radio use is not static. It is continuously evolving to reflect many changes that are taking place in the radio environment; particularly in the field of technology. Spectrum allocations must reflect these changes and the position set out in this plan is therefore subject to continuous review.

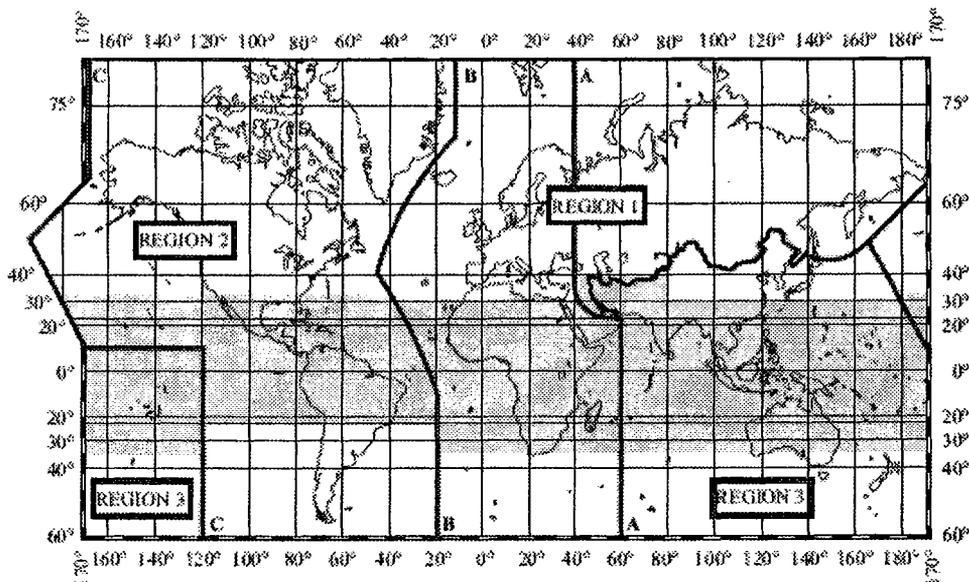
This publication of the Revised South African Table of Frequency Allocations is part of the programme to extend and update information being made available to the public and is aimed at current users, potential users and investors in Electronic Communication sector in the Republic of South Africa. It outlines the types of Radiocommunication services permitted in each frequency band together with some notes on future developments. It takes into account International, Regional and bilateral agreements on Radio Spectrum entered into, up to the end of World Radiocommunications Conference 2007.

This revision covers the following:

- The extension of the table to cover the range 9 kHz to 1000 GHz. Previously the range was 20 MHz to 70 GHz.
- The alignment of the tenor of the table with the Act and related legislation.
- The update of the table with changes made by WRC 97, WRC 2000, WRC03, and WRC-07. In particular, national footnotes regarding IMT have been added.
- Allocation of spectrum that was previously reserved.
- Making spectrum available for new technologies and services.
- Increasing the amount of spectrum available for Mobile services and aligning land mobile sub-bands in the VHF with the rest of ITU Region 1.

### ***Alignment with ITU Radio Region 1***

For the purposes of allocating frequencies, the ITU has divided the world into three Regions as shown on the following map;



The Republic of South Africa falls under ITU Region 1 and thus aligns its frequency allocations with those specified for ITU Region 1 in the ITU Radio Regulations as required by the ECA.

Further information on the South African Table of Frequency Allocations and its interpretation can be obtained by contacting:

Independent Communications Authority of South Africa [ICASA]  
 Pin Mill Farm  
 164 Katherine Street.  
 Sandton  
 2146  
 Phone +27 11 566 3000  
 Fax +27 11 566 3292  
 URL: <http://www.icasa.org.za>  
 E-mail: [info@icasa.org.za](mailto:info@icasa.org.za)

## THE STRUCTURE OF THE SOUTH AFRICA TABLE OF ALLOCATIONS

The Table lists all the allocations in the radio frequency spectrum in the Republic of South Africa. It covers the frequency range 9 kHz to 1000 GHz. For each frequency range, it lists types of Radiocommunications services that are permitted.

### ***Column 1 - ITU Region 1 Allocations***

The ITU Radio Regulations divides the spectrum into frequency bands with the allocation of **primary** and **secondary services**. Services with the names printed in "capitals" (example: FIXED) are "primary" services; and those with the names printed in "normal characters" (example: Mobile) are "secondary" services.

The frequency band referred to in each allocation is indicated in the left hand top corner of the part of the Table concerned.

The order of listing does not indicate relative priority within each category.

The ITU-R footnote references which appear in the Table below the allocated service or services apply to more than one of the allocated services, or to the whole of the allocation concerned.

The ITU-R footnote references which appear to the right of the name of a service are applicable only to that particular service.

Secondary services are on a non-interference basis (NIB) to the primary services. Stations of a secondary service:

- i. 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;
- 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 secondary service(s) to which frequencies may be assigned at a later date.

### ***Column 2 - South African (SA) Allocations***

This column indicates the range of frequencies associated with the main allocations, once again divided into Primary and Secondary Services. This column contains only those services currently used in South Africa.

**Column 3 - Applications**

This column indicates frequency utilisation for existing or new systems relating to the South African allocations. It is not an all-inclusive list of applications, but serves as a quick reference of spectrum availability for service/equipment applications.

**Column 4 - Notes and Comments**

This column indicates items such as the following: Government Gazette Notices pertinent to specific frequency bands, future requirements in specific bands, and ITU Recommendations, which require implementation.

**Frequencies**

Frequencies are expressed as follows:

- in kilohertz (kHz), up to and including 3 000 kHz;
- in megahertz (MHz), above 3 MHz, up to and including 3 000 MHz;
- in gigahertz (GHz), above 3 GHz, up to and including 300 GHz.

**Table 1: Band Segmentation**

| Symbols | Frequency Range    |
|---------|--------------------|
| VLF     | 9 kHz – 30 kHz     |
| LF      | 30 kHz – 300 kHz   |
| MF      | 300 kHz – 3 MHz    |
| HF      | 3 MHz – 30 MHz     |
| VHF     | 30 MHz – 300 MHz   |
| UHF     | 300 MHz – 3 GHz    |
| SHF     | 3 GHz – 30 GHz     |
| EHF     | 30 GHz - 300 GHz   |
|         | 300 GHz – 1000 GHz |

## **TABLE OF FREQUENCY ALLOCATIONS**

**PART A: 9 kHz - 30 MHz****9 - 110 kHz**

| <b>ITU Region 1 Allocations</b>   | <b>South African Allocations</b>                  | <b>Applications</b>  | <b>Comments</b>  |
|---|---|--|--|
| <b>Below 9</b><br>(Not allocated)<br>5.53 5.54                            | (Not Allocated)<br>5.53 5.54                      |  |  |
| <b>9 - 14.00</b><br>RADIONAVIGATION                                       | RADIONAVIGATION                                   | Nav. Aids  |  |
| <b>14.00 - 19.95</b><br>FIXED<br>MARITIME MOBILE 5.57<br>5.55 5.56        | FIXED NF1<br>MARITIME MOBILE 5.57<br>5.56         | Coast Radio Telegraph Stations   |  |
| <b>19.95 - 20.05</b><br>STANDARD<br>FREQUENCY AND<br>TIME SIGNAL (20 kHz) | STANDARD<br>FREQUENCY AND<br>TIME SIGNAL (20 kHz) |  |  |
| <b>20.05 - 70</b><br>FIXED<br>MARITIME MOBILE<br>5.57<br>5.56 5.58        | FIXED NF1<br>MARITIME MOBILE<br>5.57<br>5.56      | Coast Radio Telegraph Stations<br><br>59.75 - 60.25 kHz<br>Inductive Loop System<br>including RFID | Government Gazette No<br>31127, Notice No 713 Of<br>2008 refers. |
| <b>70 - 72</b><br>RADIONAVIGATION<br>5.60                                 | RADIONAVIGATION<br>5.60                           | Nav. Aids<br><br>70 - 119 kHz Inductive<br>Loop System including<br>RFID                           | Government Gazette No<br>31127, Notice No 713 Of<br>2008 refers. |

|   |  |  |  |
|---|--|--|--|
| <b>72 – 84</b><br>FIXED<br>MARITIME MOBILE<br>5.57<br><br>RADIONAVIGATION<br>5.60<br>5.56 | FIXED NF1<br>MARITIME MOBILE<br>5.57<br>RADIONAVIGATION<br>5.60<br><br>RADIONAVIGATION<br>5.60<br>5.56 | Coast Radio Telegraph<br>Stations<br><br>Nav. Aids |  |
| <b>84 – 86</b><br>RADIONAVIGATION<br>5.60   | RADIONAVIGATION<br>5.60  | Nav. Aids  |  |
| <b>86 – 90</b><br>FIXED<br>MARITIME MOBILE 5.57<br><br>RADIONAVIGATION<br>5.56            | FIXED NF1<br>MARITIME MOBILE 5.57<br><br>RADIONAVIGATION<br>5.56                                       | Coast Radio Telegraph<br>Stations                  |  |
| <b>90 – 110</b><br>RADIONAVIGATION<br>5.62<br>Fixed                                       | RADIONAVIGATION<br>5.62<br>Fixed NF1   | Nav. Aids  |  |

## 110 - 255 kHz

| ITU Region 1 Allocations   | South African Allocations   | Applications   | Comments   |
|--|---|--|--|
| 110 – 112<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION                   | FIXED NF1<br>MARITIME MOBILE<br>RADIONAVIGATION                                     | Coast Radio Telegraph Stations   |  |
| 112 – 115<br>RADIONAVIGATION<br>5.60                                       | RADIONAVIGATION<br>5.60   | Nav Aids   |  |
| 115 - 117.6<br>RADIONAVIGATION<br>5.60<br>Fixed<br>Maritime mobile<br>5.66 | RADIONAVIGATION<br>5.60<br>Fixed NF1<br>Maritime Mobile                             | Nav Aids<br>Coast Radio Telegraph Stations   |  |
| 117.6 – 126<br>FIXED<br>MARITIME MOBILE<br>RADIO NAVIGATION<br>5.60        | FIXED NF1<br>MARITIME MOBILE<br>RADIONAVIGATION<br>5.60<br>RADIO NAVIGATION<br>5.60 | Coast Radio Telegraph Stations<br>Nav Aids<br>119 - 135 kHz Inductive Loop System including RFID | Government Gazette No 31127, Notice No 713 Of 2008 refers. |
| 126 – 129<br>RADIONAVIGATION<br>5.60                                       | RADIONAVIGATION<br>5.60   | Nav Aids   |  |
| 129 – 130<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION<br>5.60           | FIXED NF1<br>MARITIME MOBILE<br>RADIONAVIGATION<br>5.60                             | Coast Radio Telegraph Stations<br>Nav Aids   |  |

|  |   |   |   |
|--|---|---|---|
| 130 – 135.7<br>FIXED<br>MARITIME MOBILE<br>5.67                            | FIXED NF1<br>MARITIME MOBILE                              | Coast Radio Telegraph<br>Stations                                   |   |
| 135.7 – 137.8<br>FIXED<br>MARITIME MOBILE<br>Amateur 5.4C03<br>5.67 5.4C04 | FIXED NF1<br>MARITIME MOBILE<br>Amateur 5.4C03            | Coast Radio Telegraph<br>Stations<br>Amateur Radio<br>Communication | License Class A1 as per<br>the Amateur Radio<br>Regulations |
| 137.8 – 148.5<br>FIXED<br>MARITIME MOBILE<br>5.64 5.67                     | FIXED NF1<br>MARITIME MOBILE<br>5.64                      |   |   |
| 148.5 – 255<br>BROADCASTING<br>5.68 5.69 5.70                              | FIXED NF1 5.68<br>AERONAUTICAL<br>RADIONAVIGATION<br>5.70 |   |   |

## 200 - 495 kHz

| ITU Region 1 Allocations   | South African Allocations   | Applications   | Comments |
|--|---|--|----------|
| 255 - 283.5<br>BROADCASTING<br>AERONAUTICAL<br>RADIONAVIGATION<br>5.70<br>5.70 5.71  | AERONAUTICAL<br>RADIONAVIGATION<br>5.70   | Nav. Aids  |          |
| 283.5 - 315<br>AERONAUTICAL<br>RADIONAVIGATION<br><br>MARITIME<br>RADIONAVIGATION<br>(radiobeacons) 5.73<br>5.73 5.72 5.74 | AERONAUTICAL<br>RADIONAVIGATION<br><br>MARITIME<br>RADIONAVIGATION<br>(radiobeacons) 5.73<br>5.74 | Coast Radio Telegraph<br>Stations                                  |          |
| 315 - 325<br>AERONAUTICAL<br>RADIONAVIGATION<br>Maritime Radionavigation<br><br>(Radiobeacons) 5.73<br>5.74 5.72           | AERONAUTICAL<br>RADIONAVIGATION<br>Maritime Radionavigation<br><br>(Radiobeacons) 5.73<br>5.74    | Nav. Aids<br><br>Coast Radio Telegraph<br>Stations Radionavigation |          |
| 325 - 405<br>AERONAUTICAL<br>RADIONAVIGATION<br>5.72   | AERONAUTICAL<br>RADIONAVIGATION   |  |          |
| 405 - 415<br>RADIONAVIGATION<br>5.76<br>5.72   | RADIONAVIGATION<br>5.76   | Nav Aids   |          |

|  |  |   |  |
|--|--|---|--|
| 415 – 435<br>MARITIME MOBILE<br>5.79<br>AERONAUTICAL<br>RADIONAVIGATION<br>5.72                    | MARITIME MOBILE 5.79<br><br>AERONAUTICAL<br>RADIONAVIGATION                  | Maritime Radio<br>Telegraphy                              |  |
| 435 – 495<br>MARITIME MOBILE<br>5.79 5.79A<br>Aeronautical<br>Radionavigation<br>5.72 5.82         | MARITIME MOBILE<br>5.79 5.79A<br><br>Aeronautical<br>Radionavigation<br>5.82 | Maritime<br>Radiotelegraphy                               | Navtex service on 490<br>kHz   |
| 495 – 505<br>MOBILE 5.79B<br>5.4C01  | MOBILE 5.79B<br>5.4C01   | Distress and Calling                                      |  |
| 505 526.5<br>MARITIME MOBILE 5.79<br><br>5.79A 5.84<br>AERONAUTICAL<br>RADIONAVIGATION<br><br>5.72 | MARITIME MOBILE 5.79<br><br>5.79A 5.84<br>AERONAUTICAL<br>RADIONAVIGATION    | Maritime<br>Radiotelegraphy                               | Navtex Service on 518<br>kHz (actively used in<br>RSA) Articles 31 and 32<br>for conditions of use refer |
| 526.5 - 1 606.5<br>BROADCASTING<br><br>5.87 5.87A  | BROADCASTING<br><br>Mobile 5.87  | MW Sound Broadcasting<br>535.5 - 1606.5 kHz               |  |
| 1 606.5 - 1 625<br>FIXED<br>MARITIME MOBILE 5.90<br><br>LAND MOBILE<br>5.92                        | FIXED NF1<br>MARITIME MOBILE 5.90<br><br>LAND MOBILE<br>5.920                | DCS (GMDSS) NBDP for<br>coast stations<br><br>Land Mobile |  |

## 1 626 - 2 194 kHz

| ITU Region 1 Allocations   | South African Allocations  | Applications                    | Comments  |
|--|--|---------------------------------|---|
| 1 625 -1 635<br>RADIOLOCATION 5.93   | RADIOLOCATION  | Nav Aids                        |   |
| 1 635 - 1 800<br>FIXED<br>MARITIME MOBILE<br>5.90<br>LAND MOBILE<br>5.92 5.96                                    | FIXED NF1<br>MARITIME MOBILE 5.90<br>LAND MOBILE<br>5.920  | Maritime Radio<br>Telephony     |   |
| 1 800 - 1 810<br>RADIOLOCATION<br>5.93   | RADIOLOCATION  | Nav Aids                        |   |
| 1 810 - 1 850<br>AMATEUR<br><br>5.98 5.99 5.100 5.101  | AMATEUR  | Amateur Radio<br>Communication  | License Class A1 as per<br>the Amateur radio<br>Regulations   |
| 1 850 - 2 000<br>FIXED<br>MOBILE except<br>Aeronautical Mobile<br><br>5.92 5.96 5.103                            | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile<br><br>5.920 5.103                                 | Maritime Mobile<br>Applications | 1850 - 1950 is used for<br>Maritime Coast Stations,<br>1950 - 2045 is used by<br>ship stations SSB Radio<br>Telephony |
| 2 000 - 2 025<br>FIXED<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.92 5.103                                 | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.920 5.103                                 |                                 |   |
| 2 025 - 2 045<br>FIXED<br>MOBILE except<br>Aeronautical Mobile (R)<br>Meteorological aids<br>5.104<br>5.92 5.103 | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile (R)<br>Meteorological aids<br>5.104<br>5.920 5.103 | HF Radar                        |   |

|   |  |                                       |  |
|---|--|---------------------------------------|--|
| 2 045 - 2 160<br>FIXED<br>MARITIME MOBILE<br>LAND MOBILE<br>5.92                    | FIXED NF1<br>MARITIME MOBILE<br>LAND MOBILE<br>5.920           | DSC (GMDSS), Radio<br>Telephony, NBDP |  |
| 2 160 - 2 170<br>RADIOLOCATION<br>5.93 5.107  | RADIOLOCATION  | Nav Aids                              |  |
| 2 170 - 2 173.5<br>MARITIME MOBILE  | MARITIME MOBILE  | NBDP, Distress<br>Watchkeeping        |  |
| 2 173.5 - 2 190.5<br>MOBILE (Distress and<br>Calling)<br>5.108 5.109 5.110<br>5.111 | MOBILE (Distress and<br>Calling)<br>5.108 5.109 5.110<br>5.111 | Distress and Calling                  |  |
| 2 190.5 - 2 194<br>MARITIME MOBILE  | MARITIME MOBILE  | Radiotelephony<br>supplementary       | Radiotelephony distress<br>Watchkeeping on 2191<br>kHz |

## 2 194 - 3 230 kHz

| ITU Region 1 Allocations  | South African Allocations  | Applications  | Comments |
|---|--|---|----------|
| 2 194 - 2 300<br>FIXED<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.92 5.103 5.112                | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.920 5.103                     |   |          |
| 2 300 - 2 498<br>FIXED<br>MOBILE except<br>Aeronautical Mobile (R)<br>BROADCASTING 5.113<br><br>5.103 | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile (R)<br>BROADCASTING 5.113<br><br>5.103 | Land Mobile and<br>Maritime Applications<br><br>Sound Broadcasting              |          |
| 2 498 - 2 501<br>STANDARD<br>FREQUENCY AND<br>TIME SIGNAL (25 00<br>kHz)                              | STANDARD<br>FREQUENCY AND<br>TIME SIGNAL (25 00<br>kHz)                                  |   |          |
| 2 501 - 2 502<br>STANDARD<br>FREQUENCY AND<br>TIME SIGNAL<br>Space Research                           | STANDARD<br>FREQUENCY AND<br>TIME SIGNAL<br>Space Research                               |   |          |
| 2 502 - 2 625<br>FIXED<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.92 5.103 5.114                | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.920 5.103                     | Land Mobile Applications  |          |
| 2 625 - 2 650<br>MARITIME MOBILE<br><br>MARITIME<br>RADIONAVIGATION<br>5.92                           | MARITIME MOBILE<br><br>MARITIME<br>RADIONAVIGATION<br>5.920                              | SSB Radiotelephony and<br>Maritime<br>Radionavigation.<br>Maritime Mobile BUOYS |          |

|  |  |                                  |  |
|--|--|----------------------------------|--|
| <b>2 650 - 2 850</b><br>FIXED<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.92 5.103                      | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.920 5.103                     | Point to Point<br>Communications |  |
| <b>2 850 - 3 025</b><br>AERONAUTICAL<br>MOBILE (R)<br>5.111 5.115  | AERONAUTICAL<br>MOBILE (R)<br>5.111 5.115  | Aeronautical Applications        |  |
| <b>3 025 - 3 155</b><br>AERONAUTICAL<br>MOBILE (OR)  | AERONAUTICAL<br>MOBILE (OR)  |                                  |  |
| <b>3 155 - 3 200</b><br>FIXED<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.116 5.117                     | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile (R)<br>5.116                           |                                  |  |
| <b>3 200 - 3 230</b><br>FIXED<br>MOBILE except<br>Aeronautical Mobile (R)<br><br>BROADCASTING 5.113<br>5.116 | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile (R)<br><br>BROADCASTING 5.113<br>5.116 | HF Sound Broadcasting            |  |

## 3 230 - 4 850 kHz

| ITU Region 1 Allocations  | South African Allocations   | Applications                 | Comments   |
|---|---|------------------------------|--|
| <b>3 230 - 3 400</b><br>FIXED<br>MOBILE except aeronautical Mobile<br>BROADCASTING 5.113<br>5.116 5.118 | FIXED NF1<br>MOBILE except aeronautical Mobile<br>BROADCASTING 5.113<br>5.116 | HF Sound Broadcasting        |  |
| <b>3 400 - 3 500</b><br>AERONAUTICAL MOBILE (R)   | AERONAUTICAL MOBILE (R)   |                              |  |
| <b>3 500 - 3 800</b><br>AMATEUR<br>FIXED<br>MOBILE except Aeronautical Mobile<br>5.92                   | AMATEUR<br>FIXED NF1<br>MOBILE except Aeronautical Mobile<br>[5.92]           | Amateur Radio Communications | License Class A1,A2,B as per the Amateur Radio Regulations |
| <b>3 800 - 3 900</b><br>FIXED<br>AERONAUTICAL MOBILE (OR)<br>LAND MOBILE                                | FIXED NF1<br>AERONAUTICAL MOBILE (OR)<br>LAND MOBILE                          |                              |  |
| <b>3 900 - 3 950</b><br>AERONAUTICAL MOBILE (OR)<br>5.123   | AERONAUTICAL MOBILE (OR)<br>BROADCASTING<br>5.123                             |                              |  |
| <b>3 950 - 4 000</b><br>FIXED<br>BROADCASTING   | FIXED NF1<br>BROADCASTING   | HF Sound Broadcasting        |  |

|  |   |                                 |  |
|--|---|---------------------------------|--|
| 4 000 - 4 063<br>FIXED<br>MARITIME MOBILE<br>5.127<br>5.126                                | FIXED NF1<br>MARITIME MOBILE<br>5.127   | Ship Stations<br>Radiotelephony |  |
| 4 063 - 4 438<br>MARITIME MOBILE<br>5.79A 5.109 5.110<br>5.130 5.131 5.132<br>5.128        | MARITIME MOBILE<br>5.79A 5.109 5.110<br>5.128 5.130 5.131<br>5.132            |                                 |  |
| 4 438 - 4 650<br>FIXED<br>MOBILE except<br>Aeronautical Mobile (R)                         | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile (R)                         |                                 |  |
| 4 650 - 4 700<br>AERONAUTICAL<br>MOBILE (R)  | AERONAUTICAL<br>MOBILE (R)  |                                 |  |
| 4 700 - 4 750<br>AERONAUTICAL<br>MOBILE (OR)   | AERONAUTICAL<br>MOBILE (OR)   |                                 |  |
| 4 750 - 4 850<br>FIXED<br>AERONAUTICAL<br>MOBILE (OR)<br>LAND MOBILE<br>BROADCASTING 5.113 | FIXED NF1<br>AERONAUTICAL<br>MOBILE (OR)<br>LAND MOBILE<br>BROADCASTING 5.113 | HF Sound Broadcasting           |  |

## 4 850 - 6 765 kHz

| ITU Region 1 Allocations  | South African Allocations                                  | Applications          | Comments |
|---|--|-----------------------|----------|
| 4 850 - 4 995<br>FIXED<br>LAND MOBILE<br>BROADCASTING 5.113                 | FIXED NF1<br>LAND MOBILE<br>BROADCASTING 5.113             | HF Sound Broadcasting |          |
| 4 995 - 5 003<br>STANDARD<br>FREQUENCY AND<br>TIME SIGNAL (5 000<br>kHz)    | STANDARD<br>FREQUENCY AND<br>TIME SIGNAL (5 000<br>kHz)    |                       |          |
| 5 003 - 5 005<br>STANDARD<br>FREQUENCY AND<br>TIME SIGNAL<br>Space Research | STANDARD<br>FREQUENCY AND<br>TIME SIGNAL<br>Space Research |                       |          |
| 5 005 - 5 060<br>FIXED<br>BROADCASTING 5.113                                | FIXED NF 1<br>BROADCASTING 5.113                           | HF Sound Broadcasting |          |
| 5 060 - 5 250<br>FIXED<br>Mobile except<br>Aeronautical Mobile<br>5.133     | FIXED NF1<br>Mobile except<br>Aeronautical Mobile          |                       |          |
| 5 250 - 5 450<br>FIXED<br>MOBILE except<br>Aeronautical Mobile              | FIXED NF1<br>MOBILE except<br>Aeronautical Mobile          |                       |          |
| 5 450 - 5 480<br>FIXED<br>AERONAUTICAL<br>MOBILE (OR)<br>LAND MOBILE        | FIXED NF 1<br>AERONAUTICAL<br>MOBILE (OR)<br>LAND MOBILE   |                       |          |

|   |  |  |  |
|---|--|--|--|
| 5 480 - 5 680<br>AERONAUTICAL<br>MOBILE (R)<br>5.111 5.115              | AERONAUTICAL<br>MOBILE (R)<br>5.111 5.115                  |  |  |
| 5 680 - 5 730<br>AERONAUTICAL<br>MOBILE (OR)<br>5.111 5.115             | AERONAUTICAL<br>MOBILE (OR)<br>5.111 5.115                 |  |  |
| 5 730 - 5 900<br>FIXED<br>LAND MOBILE                                   | FIXED NF1<br>LAND MOBILE                                   |  |  |
| 5 900 - 5 950<br>BROADCASTING 5.134<br>Fixed 5.136<br>Land Mobile 5.136 | BROADCASTING 5.134<br>Fixed 5.136 NF1<br>Land Mobile 5.136 | HF Sound Broadcasting  |  |
| 5 950 - 6 200<br>BROADCASTING   | BROADCASTING   | HF Sound Broadcasting  |  |
| 6 200 - 6 525<br>MARITIME MOBILE<br>5.109 5.110 5.130<br>5.132 5.137    | MARITIME MOBILE<br>5.109 5.110 5.130<br>5.132 5.137        | DSC (GMDSS) Distress<br>Watchkeeping on 6312<br>kHz. Ship to shore<br>radiotelephony. Inter-ship<br>Cross Band | Distress Watchkeeping in<br>Appendix 15 of the<br>Maritime Safety<br>Information.<br>Radiotelephony Distress<br>Channel on 6215/6516.<br>Channelized in Appendix<br>17 |
| 6 525 - 6 685<br>AERONAUTICAL<br>MOBILE (R)                             | AERONAUTICAL<br>MOBILE (R)                                 |  |  |
| 6 685 - 6 765<br>AERONAUTICAL<br>MOBILE (OR)                            | AERONAUTICAL<br>MOBILE (OR)                                |  |  |

## 6 765 - 9 900 kHz

| ITU Region 1 Allocations   | South African Allocations  | Applications                             | Comments   |
|--|--|--|--|
| <b>6 765 - 7 000</b><br>FIXED<br>MOBILE except Aeronautical mobile (R)<br>5.138 5.138A 5.139 | FIXED NF1<br>MOBILE except Aeronautical mobile (R)<br>5.138 5.138A                         |  |  |
| <b>7 000 - 7 100</b><br>AMATEUR<br>AMATEUR-SATELLITE<br>5.140 5.141 5.141A                   | AMATEUR<br>AMATEUR-SATELLITE   | Amateur Radio Communication              | License Class A1,A2,B as per the Amateur Radio Regulations |
| <b>7 100 - 7 200</b><br>AMATEUR 5.141A<br>5.141B 5.142<br>5.141C                             | AMATEUR 5.142  | Amateur Radio Communication              | License Class A1,A2,B as per the Amateur Radio Regulations |
| <b>7 200 - 7 300</b><br>BROADCASTING   | BROADCASTING   | HF Sound Broadcasting                    |  |
| <b>7 300 - 7 400</b><br>BROADCASTING 5.143<br>5.143A 5.143B 5.143C<br>5.143D                 | FIXED (NIB to Broadcasting) 5.143 NF1<br>Land Mobile (NIB) to Broadcasting 5.143<br>5.143B | HF Single Side Band - Sound Broadcasting |  |
| <b>7 400 - 7 450</b><br>BROADCASTING<br>5.143B 5.143C  | FIXED (NIB to Broadcasting)<br>5.143B NF1  |  |  |
| <b>7 450 - 8 100</b><br>FIXED<br>MOBILE Except Aeronautical mobile(R)<br>5.143 E 5.144       | FIXED NF1<br>MOBILE Except Aeronautical mobile (R)<br>5.143 5.144                          |  |  |

|  |   |  |  |
|--|---|--|--|
| 8 100 – 8 195<br>FIXED<br>MARITIME MOBILE                            | FIXED NF1<br>MARITIME MOBILE                        |  |  |
| 8 195 – 8 815<br>MARITIME MOBILE<br>5.109 5.110 5.132 5.145<br>5.111 | MARITIME MOBILE<br>5.109 5.110 5.132 5.145<br>5.111 | DSC (GMDSS) Distress<br>Watchkeeping on 8414.5<br>kHz. Radiotelephony<br>Distress on 8291 kHz.<br>Ship to Shore<br>Radiotelephony. Inter-<br>ship Cross Band | Distress Watchkeeping<br>Channelized in Appendix<br>15 of the Maritime Safety<br>Information. Channelized<br>in Appendix 17. |
| 8 815 – 8 965<br>AERONAUTICAL<br>MOBILE (R)                          | AERONAUTICAL<br>MOBILE (R)                          |  |  |
| 8 965-9 040<br>AERONAUTICAL<br>MOBILE (OR)                           | AERONAUTICAL<br>MOBILE (OR)                         |  |  |
| 9 040 - 9 400<br>FIXED   | FIXED NF1   |  |  |
| 9 400 - 9 500<br>BROADCASTING 5.134<br>5.146                         | BROADCASTING 5.134<br>5.146                         | HF Single Side Band-<br>Sound Broadcasting   |  |
| 9 500 - 9 900<br>BROADCASTING<br>5.147                               | BROADCASTING<br>5.147                               | HF Single Side Band-<br>Sound Broadcasting   |  |

## 9 900 - 13 360 kHz

| ITU Region 1 Allocations  | South African Allocations  | Applications                           | Comments  |
|---|--|--|---|
| 9 900 - 9 995<br>FIXED  | FIXED NF1  |  |   |
| 9 995 - 10 003<br>STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (10 000 kHz)<br>5.111                    | STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (10 000 kHz)<br>5.111                   |  |   |
| 10 003 - 10 005<br>STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (10 000 kHz)<br>Space Research<br>5.111 | STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (10 000 kHz)<br>Space Research<br>5.111 | Passive Sensing and<br>Radio Astronomy |   |
| 10 005 - 10 100<br>AERONAUTICAL MOBILE<br>(R)<br>5.111<br>10 100 - 10 150<br>FIXED<br>Amateur       | AERONAUTICAL MOBILE<br>(R)<br>5.111<br>FIXED NF1<br>Amateur                      | Amateur Radio<br>Communication         | License Class A1 as<br>per the Amateur Radio<br>Regulations |
| 10 150 - 11 175<br>FIXED<br>Mobile except<br>Aeronautical Mobile (R)                                | FIXED NF1<br>Mobile except<br>Aeronautical Mobile (R)                            |  |   |
| 11 175 - 11 275<br>AERONAUTICAL MOBILE<br>(OR)  | AERONAUTICAL MOBILE<br>(OR)  |  |   |
| 11 275 - 11 400<br>AERONAUTICAL MOBILE<br>(R)   | AERONAUTICAL MOBILE<br>(R)   |  |   |

|   |  |  |  |
|---|--|--|--|
| 11 400 - 11 600<br>FIXED                                      | FIXED NF1                                  |  |  |
| 11 600-11 650<br>BROADCASTING 5.134<br>5.146                  | BROADCASTING 5.134<br>5.146                | HF Single Side Band-<br>Sound Broadcasting |  |
| 11 650 - 12 050<br>BROADCASTING<br>5.147                      | BROADCASTING<br>5.147                      | HF Sound Broadcasting                      |  |
| 12 050 - 12 100<br>BROADCASTING 5.134<br>5.146                | BROADCASTING 5.134<br>5.146                | HF Single Side Band-<br>Sound Broadcasting |  |
| 12 100 - 12 230<br>FIXED                                      | FIXED NF1                                  |  |  |
| 12 230 - 13 200<br>MARITIME MOBILE<br>5.109 5.110 5.132 5.145 | MARITIME MOBILE<br>5.109 5.110 5.132 5.145 |  |  |
| 13 200 - 13 260<br>AERONAUTICAL MOBILE<br>(OR)                | AERONAUTICAL MOBILE<br>(OR)                |  |  |
| 13 260 - 13 360<br>AERONAUTICAL MOBILE<br>(R)                 | AERONAUTICAL MOBILE<br>(R)                 |  |  |

## 13 360 - 15 800 kHz

| ITU Region 1 Allocations  | South African Allocations                                      | Applications  | Comments  |
|---|--|---|---|
| 13 360 - 13 410<br>FIXED<br>RADIO ASTRONOMY<br>5.149                          | FIXED NF1<br>RADIO ASTRONOMY<br>NF2<br>5.149                   |   |   |
| 13 410 - 13 570<br>FIXED<br>Mobile except<br>Aeronautical Mobile (R)<br>5.150 | FIXED NF1<br>Mobile except<br>Aeronautical Mobile (R)<br>5.150 | 13 553 - 13 567 kHz<br>RFID and EAS<br>Systems only | Government Gazette No<br>31127, Notice No 713 Of<br>2008 refers.      |
| 13 570 - 13 600<br>BROADCASTING 5.134<br>5.151                                | BROADCASTING 5.134<br>5.151                                    | HF Single Side Band-<br>Sound Broadcasting          |   |
| 13 600 - 13 800<br>BROADCASTING   | BROADCASTING   | HF Sound<br>Broadcasting                            |   |
| 13 800 - 13 870<br>BROADCASTING 5.134<br>5.151                                | BROADCASTING 5.134<br>5.151                                    | HF Single Side Band-<br>Sound Broadcasting          |   |
| 13 870 - 14 000<br>FIXED<br>Mobile except<br>Aeronautical Mobile (R)          | FIXED NF1<br>Mobile except<br>Aeronautical Mobile (R)          |   |   |
| 14 000 - 14 250<br>AMATEUR<br>AMATEUR-SATELLITE                               | AMATEUR<br>AMATEUR-SATELLITE                                   | Amateur Radio<br>Communication                      | License Class A1 and A2<br>as<br>per the Amateur Radio<br>Regulations |

|   |  |  |   |
|---|--|--|---|
| 14 250 - 14 350<br>AMATEUR<br>5.152   | AMATEUR  | Amateur Radio<br>Communication             | License Class A1, A2 as<br>per the Amateur Radio<br>Regulations |
| 14 350 - 14 990<br>FIXED<br>Mobile except<br>Aeronautical Mobile (R)              | FIXED NF1<br>Mobile except<br>Aeronautical Mobile (R)          |  |   |
| 14 990 - 15 005<br>STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (15 000 kHz)<br>5.111 | STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (15 000 kHz)<br>5.111 |  |   |
| 15 005 - 15 010<br>STANDARD<br>FREQUENCY AND TIME<br>SIGNAL<br>Space Research     | STANDARD<br>FREQUENCY AND TIME<br>SIGNAL<br>Space Research     |  |   |
| 15 010 - 15 100<br>AERONAUTICAL MOBILE<br>(OR)                                    | AERONAUTICAL MOBILE<br>(OR)                                    |  |   |
| 15 100 - 15 600<br>BROADCASTING   | BROADCASTING   | HF Sound<br>Broadcasting                   |   |
| 15 600 - 15 800<br>BROADCASTING 5.134<br>5.146                                    | BROADCASTING 5.134<br>5.146                                    | HF Single Side Band-<br>Sound Broadcasting |   |

## 15 800 - 19 995 kHz

| ITU Region 1 Allocations  | South African Allocations                  | Applications  | Comments   |
|---|--|---|--|
| 15 800 - 16 360<br>FIXED  | FIXED NF1                                  |   |  |
| 16 360 - 17 410<br><br>MARITIME MOBILE<br>5.109 5.110 5.132 5.145 | MARITIME MOBILE<br>5.109 5.110 5.132 5.145 | DSC (GMDSS) Distress Watchkeeping on 16804.5 kHz. Radio Telephony Distress Watch on 16 240 kHz. Ship Station Radio Telegraphy | Distress Watchkeeping Channelized in Appendix 15 of the Maritime Safety Information. Channelized in Appendix 17. |
| 17 410 - 17 480<br>FIXED  | FIXED NF1                                  |   |  |
| 17 480 - 17 550<br>BROADCASTING 5.134<br>5.146                    | BROADCASTING 5.134<br>5.146                | HF Single Side Band-Sound Broadcasting  |  |
| 17 550 - 17 900<br>BROADCASTING                                   | BROADCASTING                               | HF Sound Broadcasting   |  |
| 17 900 - 17 970<br>AERONAUTICAL MOBILE (R)                        | AERONAUTICAL MOBILE (R)                    |   |  |
| 17 970 - 18 030<br>AERONAUTICAL MOBILE (OR)                       | AERONAUTICAL MOBILE (OR)                   |   |  |
| 18 030 - 18 052<br>FIXED  | FIXED NF1                                  |   |  |
| 18 052 - 18 068<br>FIXED<br>Space research                        | FIXED NF1<br>Space research                |   |  |
| 18 068 - 18 168<br><br>AMATEUR<br>AMATEUR-SATELLITE               | AMATEUR<br>AMATEUR-SATELLITE               | Amateur Radio<br>Communication  | License Class A1 as per the Amateur Radio Regulations  |

|  |   |  |  |
|--|---|--|--|
| 18 168 - 18 780<br>FIXED<br>Mobile except<br>Aeronautical<br>Mobile                    | FIXED NF1<br>Mobile except<br>Aeronautical<br>Mobile                |  |  |
| 18 780 - 18 900<br>MARITIME MOBILE   | MARITIME MOBILE   |  |  |
| 18 900 - 19 020<br>BROADCASTING 5.134<br>5.146   | BROADCASTING 5.134<br>5.146   | HF Single Side Band-<br>Sound Broadcasting |  |
| 19 020 - 19 680<br>FIXED   | FIXED NF1   |  |  |
| 19 680 - 19 800<br>MARITIME MOBILE<br>5.132  | MARITIME MOBILE 5.132   | Radiotelephony                             | Appendix 17 of<br>Maritime Safety<br>Information |
| 19 800 - 19 990<br>FIXED   | FIXED NF1   |  |  |
| 19 990 - 19 995<br>STANDARD<br>FREQUENCY AND TIME<br>SIGNAL<br>Space Research<br>5.111 | STANDARD<br>FREQUENCY AND TIME<br>SIGNAL<br>Space Research<br>5.111 |  |  |

## 19 995 - 25 005 kHz

| ITU Region 1 Allocations   | South African Allocations                                | Applications                       | Comments  |
|--|--|------------------------------------|---|
| 19 995 - 20 010<br>STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (20 000 kHz)     | STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (20 000 kHz)    |                                    |   |
| 20 010 - 21 000<br>FIXED<br>Mobile   | FIXED NF1<br>Mobile                                      |                                    |   |
| 21 000 - 21 450<br>AMATEUR<br><br>AMATEUR-SATELLITE                          | AMATEUR<br><br>AMATEUR-SATELLITE                         | Amateur Radio<br><br>Communication | License Class A1 and<br>A2 as<br>per the Amateur<br>Radio Regulations |
| 21 450 - 21 850<br>BROADCASTING  | BROADCASTING   | HF Sound Broadcasting              |   |
| 21 850 - 21 870<br>FIXED 5.155A<br>5.155                                     | FIXED NF1  |                                    |   |
| 21 870 - 21 924<br>FIXED 5.155B  | FIXED 5.155B NF1   |                                    |   |
| 21 924 - 22 000<br>AERONAUTICAL MOBILE<br>(R)                                | AERONAUTICAL<br>MOBILE (R)                               |                                    |   |
| 22 000 - 22 855<br>MARITIME MOBILE 5.132<br>5.156                            | MARITIME MOBILE<br>5.132                                 |                                    |   |
| 22 855 - 23 000<br>FIXED<br>5.156  | FIXED NF1  |                                    |   |
| 23 000 - 23 200<br>FIXED<br>Mobile except Aeronautical<br>mobile ( R ) 5.156 | FIXED NF1<br>Mobile except<br>Aeronautical<br>mobile (R) |                                    |   |

|  |  |                                |   |
|--|--|--------------------------------|---|
| 23 200 - 23 350<br>FIXED 5.156A<br>AERONAUTICAL MOBILE<br>(OR) AERONAUTICAL<br>MOBILE (OR) | FIXED 5.156A NF1<br>AERONAUTICAL<br>MOBILE (OR)        |                                |   |
| 23 350 - 24 000<br>FIXED<br>MOBILE except<br>Aeronautical<br>mobile 5.157                  | FIXED<br>MOBILE except<br>Aeronautical<br>mobile 5.157 |                                |   |
| 24 000 - 24 890<br>FIXED<br>LAND MOBILE  | FIXED NF1<br>LAND MOBILE                               |                                |   |
| 24 890 - 24 990<br>AMATEUR<br>AMATEUR-SATELLITE  | AMATEUR<br>AMATEUR-SATELLITE                           | Amateur Radio<br>Communication | License Class A1 as<br>per the Amateur<br>Radio Regulations |
| 24 990 - 25 005<br>STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (25 000 kHz)                   | STANDARD<br>FREQUENCY AND TIME<br>SIGNAL (25 000 kHz)  |                                |   |

## 25 005 kHz - 30 010 kHz

| ITU Region 1 Allocations   | South African Allocations                                  | Applications          | Comments |
|--|--|-----------------------|----------|
| 25 005 - 25 010<br>STANDARD FREQUENCY<br>AND TIME SIGNAL<br>Space Research | STANDARD<br>FREQUENCY AND TIME<br>SIGNAL<br>Space Research |                       |          |
| 25 010 - 25 070<br>FIXED<br>MOBILE except Aeronautical<br>Mobile           | FIXED NF1<br>MOBILE except<br>Aeronautical<br>mobile       |                       |          |
| 25 070 - 25 210<br>MARITIME MOBILE   | MARITIME MOBILE  |                       |          |
| 25 210 - 25 550<br>FIXED<br>MOBILE except Aeronautical<br>Mobile           | FIXED NF1<br>MOBILE except<br>Aeronautical<br>mobile       |                       |          |
| 25 550 - 25 670<br>RADIO ASTRONOMY<br>5.149                                | RADIO ASTRONOMY<br>NF2<br>5.149                            |                       |          |
| 25 670 - 26 100<br>BROADCASTING  | BROADCASTING   | HF Sound Broadcasting |          |
| 26 100 - 26 175<br>MARITIME MOBILE 5.132                                   | MARITIME MOBILE<br>5.132                                   |                       |          |

|                   |                            |                            |   |  |
|-------------------|----------------------------|----------------------------|---|--|
| 26 175 - 27 500   | MOBILE except Aeronautical | MOBILE except Aeronautical | Single Frequency Mobile   | Includes Frequency Assignments for low power                     |
| Mobile            | mobile                     | mobile                     | 26.175 – 27.5 MHz   | paging in 26.957 27. 283 and                                     |
| FIXED             | FIXED NF1                  | FIXED NF1                  | Inductive loop system<br>26.957-27.283 MHz Non-specific SRD's 26.957-27.283 MHz Surface model control 26.99-27.20 MHz | CB radio in 27. 184 - 27. 275                                    |
| 5.150             | 5.150                      | 5.150                      | 27. 283 MHz surface mode<br>control 26. 99 - 27. 20 MHz   | Government Gazette No. 26193, Notice 533 of 24 March 2004 refers |
| 27 500 - 28 000   | METEOROLOGICAL AIDS        | METEOROLOGICAL AIDS        | Radio Sounding  |  |
| FIXED             | [FIXED]                    | [FIXED]                    |   |  |
| MOBILE            | MOBILE                     | MOBILE                     |   |  |
| 28 000- 29 700    | AMATEUR                    | AMATEUR                    | Amateur Radio   | License Class A1, A2 and B                                       |
| AMATEUR-SATELLITE | AMATEUR-SATELLITE          | AMATEUR-SATELLITE          | Communication   | as per the Amateur Radio Regulations                             |
|                   | NF3                        | NF3                        |   |  |
| 29 700 - 30 005   | FIXED                      | FIXED NF1                  | Single Frequency Mobile   |  |
| MOBILE            | MOBILE                     | MOBILE                     | 29.7 – 29.99 MHz  |  |
|                   |                            |                            | Government Use 29.99-32   |  |

|  |  |                             |  |
|--|--|-----------------------------|--|
| <b>30 005 - 30 010</b><br>SPACE OPERATION<br>(satellite identification)<br>FIXED<br>MOBILE<br>SPACE RESEARCH | SPACE OPERATION<br>(satellite identification)<br>FIXED<br>MOBILE<br>SPACE RESEARCH | Government Use 29.99-<br>32 |  |
|--|--|-----------------------------|--|

**PART B: 30 MHz - 390 MHz****30.01 – 40.98 MHz**

| <b>ITU Region 1 Allocations</b>  | <b>South African Allocations</b>                  | <b>Applications</b>  | <b>Comments</b>  |
|--|---|--|--|
| <b>30.01 - 37.5</b><br>FIXED<br><br>MOBILE                             | MOBILE<br><br><br><br><br><br><br><br><br><br>NF3 | Single Frequency Mobile<br>32 -32.325 MHz<br><br>Mobile 1 MTX 32.325-<br>33.675<br><br>Single Frequency Mobile<br>33.675-34.175<br><br>Mobile 2 MTX 34.175 -35<br><br>Mobile Aircraft Control 35<br>– 35.5<br><br>Wireless microphone<br>36.65 – 36.75<br><br>Single Frequency Mobile<br>33.25 - 33.5<br><br>Mobile 3 BTX 35.5 –<br>36.825<br><br>Single Frequency Mobile<br>36.825 – 38.5 | Government use 29.99-<br>32<br><br>Paired with 41.65-43<br><br><br><br>Paired with 40.625 –<br>41.45<br><br>Exclusive use by Model<br>Aircraft Control<br>Government Gazette<br>26193 Notice 533 of 24<br>March 2004 refers<br><br>Government Gazette<br>26193 Notice 533 of 24<br>March 2004<br><br><br>Paired with 38.5 –<br>39.825<br><br>36.85 - 38.45 MHz for<br>use by Government<br>Radio Astronomy at<br>38.45 MHz |
| <b>37.5 - 38.25</b><br>FIXED<br>MOBILE<br><br>Radio astronomy<br>5.149 | MOBILE<br><br>Radio Astronomy NF2<br>5.149        | Single Frequency<br>36.825 – 38.5 MHz  |  |

|   |  |  |   |
|---|--|--|---|
| <p>38.25 - 39.986</p> <p>FIXED</p> <p>MOBILE</p>                            | <p>MOBILE</p>                            | <p>Single Frequency Mobile<br/>36.825 – 38.5</p> <p>Mobile 3 MTX 38.5 –<br/>39.825 MHz</p> <p>Single Frequency Mobile<br/>39.825 – 40.625</p>  | <p>36.85 - 38.45 MHz for<br/>use by Government</p> <p>Paired with 35.5 –<br/>36.825 MHz</p> <p>36.000 - 36.1875 MHz,<br/>there is a possibility of<br/>assigning to surface<br/>models</p>  |
| <p>39.986 - 40.02</p> <p>FIXED</p> <p>MOBILE</p> <p>Space research</p>      | <p>MOBILE</p>                            | <p>Single Frequency Mobile<br/>39.825 – 40.625</p>   |   |
| <p>40.02 - 40.98</p> <p>FIXED</p> <p>MOBILE</p> <p>Amateur</p> <p>5.150</p> | <p>MOBILE</p> <p>Amateur</p> <p>5.15</p> | <p>Single Frequency Mobile<br/>39.825 – 40.625</p> <p>Mobile 2 BTX 40.625 –<br/>41.45 MHz</p> <p>Wireless microphones<br/>40.65 – 40.7</p> <p>Non specific SRD's<br/>40.66 – 40.7</p> <p>Amateur Radio<br/>Propagation Study<br/>40.675 – 40.685</p> | <p>Paired with 34.175 – 35</p> <p>Government Gazette<br/>26193 Notice 533 of 24<br/>March 2004.</p> <p>License Class A1 as per<br/>the Amateur Radio<br/>Regulations. To be used<br/>for propagation study<br/>(max ERP 10 W)</p> <p>40.66 - 40.7 MHz is an<br/>International ISM Band<br/>(RR Footnote 5.150<br/>refers.</p> |

## 40.98 – 75.2 MHz

| ITU Region 1 Allocations   | South African Allocations    | Applications  | Comments   |
|--|------------------------------|---|--|
| 40.98 - 41.015<br>FIXED<br>MOBILE<br><br>Space research<br>5.160 5.161 | MOBILE<br><br>Space Research | Mobile 2 BTX 40.625 – 41.45 MHz   | Paired with 34.175 – 35 MHz<br><br>40.675 - 40.685 MHz<br>Amateur for propagation studies (max ERP 10W)  |
| 41.015 – 44<br>FIXED<br>MOBILE<br><br>5.160 5.161                      | MOBILE                       | Mobile 2 BTX 40.625 – 41.45 MHz<br><br>Single Frequency Mobile 41.45 – 41.65<br><br>Mobile 1 BTX 41.65 - 43 MHz<br><br>Government use 43 – 50 MHz | Paired with 34.175 - 35 MHz<br><br>35 - 35.5 MHz SF assignments due to model control<br><br>Paired with 32.325 – 33.675 MHz  |
| 44 - 47 MHz<br>FIXED<br>MOBILE<br><br>5.162 5.162A                     | FIXED NF1                    | Meteor Burst 45.3 - 46.9 and 47.5 - 49.1 MHz<br><br>CT0 Cordless Telephones BTX 46.61 - 46.97 MHz<br><br>Government use 43 – 50 MHz               | Paired with 47.5 – 49.1 MHz<br><br>10 frequency pairs assigned to CT0. Paired with 49.67 - 49.97 MHz. Government Gazette No 26193, Notice No 533 of 24 March 2004 refers |





## 75.2 – 87.5 MHz

| ITU Region 1 Allocations   | South African Allocations            | Applications                                | Comments                        |
|--|--------------------------------------|---|---------------------------------|
| 75.2 - 87.5 MHz<br>FIXED<br>MOBILE except<br>Aeronautical Mobile | MOBILE except<br>Aeronautical Mobile | Mobile 2 MTX 75.2 - 76.175 MHz              | Paired with 70 - 70.975 MHz     |
|  |                                      | Mobile 1 MTX 76.175 - 76.925 MHz            | Paired with 69.25 - 70 MHz      |
|  |                                      | Mobile 3 MTX 76.925 - 77.975 MHz            | Paired with 71.475 - 72.525 MHz |
|  |                                      | Mobile 4 MTX 78.625 – 80 MHz                | Paired with 73.425 - 74.8 MHz   |
|  |                                      | Mobile 5 BTX 77.975 - 78.625 MHz            | Paired with 82.975 - 83.625 MHz |
|  |                                      | Mobile 6 BTX 80 - 80.5 MHz                  | Paired with 87 - 87.5 MHz       |
|  |                                      | Single Frequency Mobile 80.5 – 81 MHz       |                                 |
|  |                                      | Mobile 7 BTX 81 - 81.625 MHz                | Paired with 86.375 - 87 MHz     |
|  |                                      | Mobile 8 BTX 81.625 - 82.975 MHz            | Paired with 85.025 - 86.375 MHz |
|  |                                      | Mobile 5 MTX 82.975 - 83.625 MHz            | Paired with 77.975 - 78.625 MHz |
|  |                                      | Single Frequency Mobile 83.625 - 85.025 MHz |                                 |
|  |                                      | Mobile 8 MTX 85.025 - 86.375 MHz            | Paired with 81.625 - 82.975 MHz |
|  |                                      | Mobile 7 MTX 86.375 – 87 MHz                | Paired with 81 - 81.625 MHz     |
| 5.175 5.179 5.187  |                                      | Mobile 6 MTX 87 - 87.5 MHz                  | Paired with 80 - 80.5 MHz       |

## 87.5 – 137.175 MHz

| ITU Region 1 Allocations  | South African Allocations  | Applications  | Comments |
|---|--|---|----------|
| 87.5 - 100 MHz<br>BROADCASTING<br>5.190   | BROADCASTING   | VHF Sound Broadcasting  |          |
| 100 - 108 MHz<br>BROADCASTING<br>5.192 5.194  | BROADCASTING   | VHF Sound Broadcasting  |          |
| 108 - 117.975 MHz<br>AERONAUTICAL<br>RADIONAVIGATION<br>5.197 5.197A  | AERONAUTICAL<br>RADIONAVIGATION<br>5.197A  | 108-112 MHz ILS<br>localiser<br><br>112-117.975 MHz VOR<br>(VHF Omnidirectional<br>Range) |          |
| 117.975 - 137 MHz<br>AERONAUTICAL<br>MOBILE (R)<br><br>5.111 5.200 5.201<br>5.202   | AERONAUTICAL<br>MOBILE (R)<br><br>5.111 5.200  | Voice and Data<br>Communications<br>(117.975-136MHz)                                      |          |
| 137 - 137.025 MHz<br>SPACE OPERATION<br>(space-to-Earth)<br>METEOROLOGICAL-<br>SATELLITE (space-to-<br>Earth)<br>MOBILE-SATELLITE<br>(space-to-Earth) 5.208A<br>5.209 5.347A<br>SPACE RESEARCH<br>(space-to-Earth)<br>Fixed<br>Mobile except<br>Aeronautical mobile (R)<br>5.204 5.205 5.206<br>5.207 5.208 | METEOROLOGICAL-<br>SATELLITE (space-to-<br>Earth)<br>MOBILE-SATELLITE<br>(space-to-Earth) 5.208A<br>5.209 5.347A<br>SPACE RESEARCH<br>(space-to-Earth)<br>Fixed NF1<br>Mobile except<br>Aeronautical mobile (R)<br>5.208 | MET SAT   |          |

|   |  |                       |  |
|---|--|-----------------------|--|
| <p><b>137.025 - 137.175 MHz</b></p> <p><b>SPACE OPERATION</b><br/>(space-to-Earth)</p> <p><b>METEOROLOGICAL-SATELLITE</b> (space-to-Earth)</p> <p><b>SPACE RESEARCH</b><br/>(space-to-Earth)</p> <p><b>Fixed</b></p> <p><b>Mobile-satellite</b> (space-to-Earth) 5.208A 5.209 5.347A</p> <p><b>Mobile except Aeronautical mobile (R)</b></p> <p>5.204 5.205 5.206<br/>5.207 5.208</p> | <p><b>METEOROLOGICAL-SATELLITE</b> (space-to-Earth)</p> <p><b>Mobile-satellite</b> (space-to-Earth) 5.208A 5.209 5.347A</p> <p><b>Mobile except Aeronautical mobile (R)</b></p> <p>5.208</p> | <p><b>MET SAT</b></p> |  |
|---|--|-----------------------|--|

## 137.175 – 143.6 MHz

| ITU Region 1 Allocations   | South African Allocations   | Applications   | Comments |
|--|---|--|----------|
| <p>137.175 - 137.825 MHz</p> <p>SPACE OPERATION (space-to-Earth)</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.208A 5.209 5.347A</p> <p>Fixed</p> <p>Mobile except Aeronautical mobile (R)</p> <p>5.204 5.205 5.206<br/>5.207 5.208</p>                                    | <p>SPACE OPERATION (space-to-Earth)</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.208A 5.209 5.347A</p> <p>Mobile except Aeronautical mobile (R)</p> <p>5.208</p> | <p>s:E Dissemination of low rate data from NGSO MetSat to user stations</p> <p>NOAA meteorological satellite</p> <p>137.5 - 137.62 MHz</p> |          |
| <p>137.825 - 138 MHz</p> <p>SPACE OPERATION (space-to-Earth)</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>SPACE RESEARCH (space-to-Earth)</p> <p>Fixed</p> <p>Mobile-satellite (space-to-Earth) 5.208A 5.209 5.347A</p> <p>Mobile except Aeronautical mobile (R)</p> <p>5.204 5.205 5.206<br/>5.207 5.208</p> | <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>Mobile-satellite (space-to-Earth) 5.208A 5.209 5.347A</p> <p>Mobile except Aeronautical mobile (R)</p> <p>5.208</p>   | <p>s:E Dissemination of low rate data from NGSO MetSat to user stations</p>  |          |



## 143.6 – 149.9 MHz

| ITU Region 1 Allocations  | South African Allocations             | Applications                  | Comments  |
|---|---------------------------------------|-------------------------------|---|
| <b>143.6 – 143.65 MHz</b><br>AERONAUTICAL MOBILE (OR)<br>SPACE RESEARCH (space-to-Earth)<br>5.211 5.212 5.214 | MOBILE<br>FIXED<br>5.212              | Mobile 1 BTX 141.5 – 144 MHz  | Paired with 138 - 140.5 MHz<br>Allocation includes BTX assignments at 142.8 - 143.275 MHz and 143.325 - 143.975 MHz |
| <b>143.65 - 144 MHz</b><br>AERONAUTICAL MOBILE (OR)<br>5.210 5.211 5.212<br>5.214                             | MOBILE<br>FIXED<br>5.212              | Mobile 1 BTX 141.5 – 144 MHz  | Paired with 138 - 140.5 MHz<br>Allocation includes BTX assignments at 142.8 - 143.275 MHz and 143.325 - 143.975 MHz |
| <b>144 - 146 MHz</b><br>AMATEUR<br>AMATEUR-SATELLITE<br>5.216   | AMATEUR<br>AMATEUR-SATELLITE          |                               |   |
| <b>146 - 148 MHz</b><br>FIXED<br>MOBILE except Aeronautical Mobile (R)  | MOBILE except Aeronautical Mobile (R) | Mobile 2 MTX 146 – 148.95 MHz | Paired with 153.05 - 156 MHz  |

|  |   |  |  |
|--|---|--|--|
| <p><b>148 - 149.9 MHz</b></p> <p>FIXED</p> <p>MOBILE except<br/>Aeronautical mobile (R)</p> <p>MOBILE-SATELLITE<br/>(Earth-to-space) 5.209<br/>5.218 5.219 5.221</p> | <p>MOBILE except<br/>Aeronautical mobile (R)</p> <p>MOBILE-SATELLITE<br/>(Earth-to-space) 5.209<br/>5.218 5.219 5.221</p> <p>NF 7</p> | <p>Mobile 2 MTX 146 -<br/>148.95 MHz</p> <p>Single Frequency Mobile<br/>148.950 - 151 MHz</p> <p>Wildlife telemetry<br/>Tracking 148 – 152 MHz</p> | <p>Paired with 153.05 – 156<br/>MHz</p> <p>Government Gazette No<br/>26193, Notice 533 of 24<br/>March 2004 refers</p> <p>Systems are paired with<br/>either 137 – 138 MHz or<br/>400.15 – 401 MHz</p> |
|--|---|--|--|



## 154 – 174 MHz

| ITU Region 1 Allocations   | South African Allocations                         | Applications   | Comments   |
|--|---|--|--|
| 154 - 156.4875<br>FIXED<br>MOBILE except<br>Aeronautical mobile (R)<br>5.226 | MOBILE except<br>Aeronautical mobile (R)<br>5.226 | Mobile 2 BTX 153.05 –<br>156 MHz<br><br>Mobile 3 MTX 156 -<br>156.7625 MHz | Paired with 146 - 148.95<br>MHz<br><br>The use of this band by<br>the Maritime services<br>shall be in accordance<br>with ITU Appendix 18.<br>156 - 156.375 MHz<br>allocated to land mobile<br>MTX in inland areas<br>(paired with 160.6 -<br>160.975 MHz)<br>156.375 - 156.7625 MHz<br>allocated to SF mobile in<br>inland areas<br>International distress<br>calling (digital selective<br>calling) at 156.525 MHz.<br>156.875 - 157.95 MHz<br>allocated to SF mobile<br>MTX in inland areas.<br>International Distress<br>calling (digital selective<br>calling) at 156.525 MHz |

|   |   |  |  |
|---|---|--|--|
| <p><b>156.4875 – 156.5625</b></p> <p><b>MARITIME MOBILE</b><br/>(distress and calling via DSC)</p> <p>5.111 5.226<br/>5.227</p> | <p><b>MARITIME MOBILE</b><br/>(distress and calling via DSC)</p> <p>FIXED 5.227 (NIB and NPB) to Maritime Mobile Services<br/>MOBILE 5.227 (NIB and NPB) To Maritime Mobile Services</p> <p>5.111 5.226<br/>5.227</p> | <p>Maritime Radionavigation and Location (Radar)</p> | <p>The use of this band by the Maritime services shall be in accordance with ITU Appendix 18. The band 156.8375 - 156.875 MHz is allocated to SF mobile inland areas. Private maritime MTX at 157.45 - 157.95 MHz paired with 162.05 - 162.55 MHz.</p> |
| <p><b>156.5625 – 156.7625</b></p> <p><b>FIXED</b><br/><b>MOBILE except</b><br/><b>Aeronautical mobile(R)</b></p> <p>5.226</p>   | <p><b>FIXED</b><br/><b>MOBILE except</b><br/><b>Aeronautical mobile(R)</b></p> <p>5.226</p>   |  |  |
| <p><b>156.7625 - 156.8375</b></p> <p><b>MARITIME MOBILE</b><br/>(distress and calling)</p> <p>5.111 5.226</p>                   | <p><b>MARITIME MOBILE</b><br/>(distress and calling)</p> <p>5.111 5.226</p>   | <p>Maritime Radionavigation and Location (Radar)</p> |  |

|   |   |   |  |
|---|---|---|--|
| <p>156.8375 – 174</p> <p>FIXED</p> <p>MOBILE except<br/>Aeronautical mobile (R)</p> <p>5.226 5.229 5.4C02</p> | <p>MOBILE except<br/>aeronautical mobile</p> <p>Mobile Satellite Services<br/>(Earth to Space) 5.4C02</p> <p>NF9</p> <p>5.226</p> | <p>Mobile 3 MTX-DF<br/>161.475 - 165.0375 MHz<br/>is Paired with Mobile 1<br/>BTX-DF 156.875 - 160.<br/>4375 MHz</p> <p>Single Frequency Mobile<br/>160.45 - 161.4625 MHz</p> <p>Mobile 2 MTX-DF 165.05<br/>- 165.5375 MHz is Paired<br/>with Mobile 2 BTX-DF<br/>170.05 - 170.5375 MHz</p> <p>Single frequency Mobile<br/>168.95 - 170.0375 MHz</p> <p>Mobile 3 MTX-DF 165.55<br/>- 167.4875 MHz is Paired<br/>with Mobile 3 BTX-DF<br/>172.05 - 173.9875 MHz</p> <p>Single Frequency Mobile<br/>172 - 172 0375 MHz</p> <p>Mobile 4 MTX-DF 167.5 -<br/>168.9375 is Paired with<br/>Mobile 4 BTX 170.55 -<br/>171.9875 MHz</p> <p>Non-specific SRD –<br/>Telecommand only<br/>173.2125 – 173.2375<br/>MHz</p> <p>Non-specific SRD<br/>173.2375 – 173.2875<br/>MHz</p> <p>Wireless microphones<br/>173.7 – 175.1 MHz</p> | <p>The use of this band by<br/>the Maritime services<br/>shall be in accordance<br/>with ITU Appendix 18</p> <p>The use of this band by<br/>the Maritime services<br/>shall be in accordance<br/>with ITU Appendix 18</p> <p>The use of this band by<br/>the Maritime services<br/>shall be in accordance<br/>with ITU Appendix 18</p> <p>The use of this band by<br/>the Maritime services<br/>shall be in accordance<br/>with ITU Appendix 18</p> <p>Government Gazette No<br/>26193, Notice 533 of 24<br/>March 2004 refers</p> <p>Government Gazette No<br/>26193, Notice 533 of 24<br/>March 2004 refers</p> <p>Government Gazette No<br/>26193, Notice 533 of 24<br/>March 2004 refers</p> |
| <p>174 – 223</p> <p>BROADCASTING</p> <p>5.235 5.237 5.243</p>   | <p>BROADCASTING</p> <p>NF10</p>   | <p>VHF Television<br/>Broadcasting 174 - 238<br/>MHz</p>  |  |

## 223 - 272 MHz

| ITU Region 1 Allocations  | South African Allocations      | Applications                                    | Comments   |
|---|--------------------------------|---|--|
| 223 - 230 MHz<br><br>BROADCASTING<br><br>Fixed<br>Mobile<br>5.243 5.246 5.247 | BROADCASTING<br><br>NF10       | VHF Television<br>Broadcasting 174 - 238<br>MHz | Broadcasting Allotments<br>in accordance with GE<br>89 plan in the process of<br>conversion to GE 06 |
| 230 - 235 MHz<br><br>FIXED<br>MOBILE<br><br>5.247 5.251 5.252                 | BROADCASTING 5.252<br><br>NF10 | VHF Television<br>Broadcasting 174 - 238<br>MHz | Broadcasting Allotments<br>in accordance with GE<br>89 plan in the process of<br>conversion to GE 06 |

|  |  |  |   |
|--|--|--|---|
| <p>235 - 267 MHz</p> <p>FIXED</p> <p>MOBILE</p> <p>5.111 5.252 5.254</p> <p>5.256 5.256A</p>               | <p>BROADCASTING 5.252</p> <p>NF10</p> <p>MOBILE</p> <p>5.111 5.256</p> | <p>VHF Television Broadcasting 246 - 254 MHz</p> <p>Digital Audio Broadcasting (T-DAB) 238.4 - 239.9 MHz</p> <p>International Distress Frequency 242.95 – 243.05 MHz (centre at 243 MHz)</p> <p>Public Trunking (MPT 1327) BTX 254 - 259.4 MHz</p> <p>Government use 259.4 – 262 MHz</p> <p>Public Trunking (MPT 1327) MTX 262 - 267.4 MHz</p> | <p>Broadcasting Allotments in accordance with GE 89 plan in the process of conversion to GE 06</p> <p>The allocation to T-DAB is temporary. This is to allow field testing on Eureka 147 standard to take place in South Africa.</p> <p>ON 5.111, to consult Maritime AI 1.14 Report WRC 07</p> <p>Paired with 262 – 267.4 MHz</p> <p>Paired with 254 – 259.4 MHz</p> |
| <p>267 - 272 MHz</p> <p>FIXED</p> <p>MOBILE</p> <p>Space operation (space-to-Earth)</p> <p>5.254 5.257</p> | <p>MOBILE</p> <p>5.257</p>   | <p>Public Trunking (MPT 1327) MTX 262 - 267.4 MHz</p> <p>Government 267.45 – 380 MHz</p>   | <p>Paired with 254 – 259.4 MHz</p> <p>Excluding 336 - 346 MHz // 354 - 364 MHz</p>  |

## 272 – 390 MHz

| ITU Region 1 Allocations   | South African Allocations                     | Applications  | Comments                                      |
|--|---|---|---|
| <b>272 - 273 MHz</b><br>SPACE OPERATION<br>(space-to-Earth)<br>FIXED<br>MOBILE<br>5.254  | MOBILE  | Government 267.45 – 380 MHz   | Excluding 336 - 346 MHz<br>// 354 - 364 MHz 0 |
| <b>273 - 312 MHz</b><br>FIXED<br>MOBILE<br>5.254   | MOBILE  | Government 267.45 – 380 MHz<br><br>Single Frequency Mobile<br>278 – 286 MHz | Excluding 336 - 346 MHz<br>// 354 - 364 MHz   |
| <b>312 - 315 MHz</b><br>FIXED<br>MOBILE<br>Mobile-satellite (Earth-to-space) 5.254 5.255 | MOBILE  | Government 267.45 – 380 MHz   | Excluding 336 - 346 MHz<br>// 354 - 364 MHz   |
| <b>315 - 322 MHz</b><br>FIXED<br>MOBILE<br>5.254   | MOBILE  | Government 267.45 – 380 MHz   | Excluding 336 - 346 MHz<br>// 354 - 364 MHz   |
| <b>322 - 328.6 MHz</b><br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>5.149                    | MOBILE<br><br>RADIO ASTRONOMY<br>NF2<br>5.149 | Government 267.45 – 380 MHz   | Excluding 336 - 346 MHz<br>// 354 - 364 MHz   |



**PART C: 390 MHz - 890 MHz****390 - 402 MHz**

| <b>ITU Region 1 Allocations</b>  | <b>South African Allocations</b>  | <b>Applications</b>   | <b>Comments</b>  |
|--|---|---|--|
| <b>390 - 399.9 MHz</b><br>FIXED<br>MOBILE<br><br>5.254   | MOBILE<br><br>NF12  | Digital Trunking<br>(Emergency) 390 -<br>397MHz<br><br>PPDR 380 - 385 MHz<br>paired with 390 - 395<br>MHz<br><br>Digital Trunking 397-<br>399.9 MHz | Paired with 380 –<br>387MHz<br><br><br><br><br><br><br><br>Paired with 387– 390<br>MHz |
| <b>399.9 – 400.05 MHz</b><br>MOBILE-SATELLITE<br>(Earth-to-space) 5.209<br>5.224A<br><br>RADIONAVIGATION-<br>SATELLITE 5.222<br>5.224B 5.260 5.220 | RADIONAVIGATION-<br>SATELLITE 5.222<br>5.224B 5.260                             |   |  |
| <b>400.05 - 400.15 MHz</b><br><br>STANDARD<br>FREQUENCY AND<br>TIME SIGNAL-<br>SATELLITE (400.1 MHz)<br>5.261 5.262                                | STANDARD<br>FREQUENCY AND<br>TIME SIGNAL-<br>SATELLITE (400.1 MHz)<br><br>5.261 |   |  |

|   |  |  |  |
|---|--|--|--|
| <p><b>400.15 - 401 MHz</b></p> <p>METEOROLOGICAL AIDS</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.208A 5.209 5.347A</p> <p>SPACE RESEARCH (space-to-Earth) 5.263</p> <p>Space operation (space-to-Earth)</p> <p>5.262 5.264</p> | <p>METEOROLOGICAL AIDS</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.208A 5.209 5.347A</p> <p>SPACE RESEARCH (space-to-Earth) 5.263</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth)</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.208A 5.209 5.347A</p> <p>5.264</p> | <p>Radio Sounding</p>                            |  |
| <p><b>401-402 MHz</b></p> <p>METEOROLOGICAL AIDS</p> <p>SPACE OPERATION (space-to-Earth)</p> <p>EARTH EXPLORATION-SATELLITE (Earth-to-space)</p> <p>METEOROLOGICAL-SATELLITE (Earth-to-space)</p> <p>Fixed</p> <p>Mobile except aeronautical mobile</p>                         | <p>METEOROLOGICAL AIDS</p>   | <p>Met Sat</p> <p>Data uplink to GSO MetSat.</p> | <p>This band is divided into regional and international channels</p> |

## 402 – 410 MHz

| ITU Region 1 Allocations   | South African Allocations                            | Applications   | Comments  |
|--|--|--|---|
| <b>402 - 403 MHz</b><br>METEOROLOGICAL AIDS<br>EARTH EXPLORATION-SATELLITE (Earth-to-space)<br>METEOROLOGICAL-SATELLITE (Earth-to-space)<br>Fixed<br>Mobile except aeronautical mobile | METEOROLOGICAL AIDS                                  | Met Sat<br><br>Medical Implants 402 – 405 MHz<br><br>Various SRD's 402 – 406 MHz | Radiosondes<br><br>Government Gazette No 26193, Notice 533 of 24 March 2004 refers. |
| <b>403 - 4 06 MHz</b><br>METEOROLOGICAL AIDS<br>Fixed<br>Mobile except aeronautical mobile   | METEOROLOGICAL AIDS                                  | Met Sat<br><br>Short Range Devices 402 – 406 MHz                                 | Radiosondes<br><br>As per the new SRD radio Regulations                             |
| <b>406 - 406.1 MHz</b><br>MOBILE-SATELLITE (Earth-to-space)<br><br>5.266 5.267   | MOBILE-SATELLITE (Earth-to-space)<br><br>5.266 5.267 | Emergency Position Indicating Radio Beacon (EPIRB)                               | PLB   |

|  |  |  |   |
|--|--|--|---|
| <p><b>406.1 - 410 MHz</b></p> <p><b>FIXED</b></p> <p><b>MOBILE except aeronautical mobile</b></p> <p><b>RADIO ASTRONOMY</b></p> <p>5.149</p> | <p><b>FIXED NF1</b></p> <p><b>MOBILE except aeronautical mobile</b></p> <p>NF13</p> <p><b>RADIO ASTRONOMY NF2</b></p> <p>5.149</p> | <p>Fixed Links 406.1 – 407.625 MHz</p> <p>Fixed links 407.625 – 410 MHz</p> <p>Mobile MTX 406.1 - 407.625 MHz</p> <p>Mobile MTX 407.625 – 410 MHz</p> <p>Mobile MTX 410- 413 MHz</p> | <p>Paired with 416.1 – 417.625 MHz</p> <p>Paired with 417.625 – 420 MHz</p> <p>Paired with 416.1 – 417.625 MHz</p> <p>Paired with 417.625 - 420 MHz Allocated for Government use and Disaster Relief</p> <p>Paired with 420- 423 MHz Digital Trunking</p> |
|--|--|--|---|

## 410 – 430 MHz

| ITU Region 1   | South African  | Application   | Notes and   |
|--|--|---|---|
| 410 - 420 MHz<br>FIXED<br><br>MOBILE except<br>aeronautical mobile<br><br><br><br>SPACE RESEARCH<br>(space-to-space) 5.268 | MOBILE except<br>aeronautical mobile<br><br>NF13<br><br><br>SPACE RESEARCH<br>(space-to-space) 5.268 | 413 - 416.1 MHz<br><br>Mobile MTX 407.625 –<br>413 MHz<br><br>Mobile Data MTX 413 -<br>413.7625 MHz<br><br>Public Trunking MTX<br>413.7625 - 416.1 MHz<br><br>Mobile BTX 416.1 –<br>417.625 MHz | Paired with 423 - 426.1<br>MHz<br><br>Paired with 417.625 -<br>423 MHz Allocation for<br>Government<br><br>Paired with 423 -<br>423.7625 MHz<br><br>Paired with 423.7625 -<br>426.1 MHz Public Digital<br>Trunking<br><br>Paired with 406.1 -<br>407.625 MHz  |
| 420 - 430 MHz<br><br>FIXED<br><br>MOBILE except<br>aeronautical mobile<br><br><br><br>Radiolocation<br>5.269 5.270 5.271   | FIXED NF1<br><br>MOBILE except<br>aeronautical mobile<br><br><br><br>NF13                            | Single Frequency Links<br>426.1 – 430 MHz<br><br>Trunked Mobile BTX 420<br>- 423 MHz<br><br>Public Mobile Data BTX<br>423 - 423.7625 MHz<br><br>Public Trunking BTX<br>423.7625 - 426.1 MHz     | Frequencies will only be<br>assigned for SF links<br>where migration above 1<br>GHz would be<br>impractical<br><br>Paired with 410 - 413<br>MHz<br>Digital Trunked Mobile<br>radio for Government<br>use<br><br>Paired with 413 –<br>413.7625 MHz<br><br>Paired with 413.7626 -<br>416.1 MHz<br>Public Trunking using<br>digital mobile radio |

## 430 – 450 MHz

| ITU Region 1 Allocations  | South African Allocations   | Applications  | Comments   |
|---|---|---|--|
| <b>430 - 432 MHz</b><br>AMATEUR<br>RADIOLOCATION<br>5.271 5.272 5.273<br>5.274 5.275 5.276<br>5.277   | AMATEUR<br>NF14   | Amateur<br>430 – 440 MHz  |  |
| <b>432 - 438 MHz</b><br>AMATEUR<br>RADIOLOCATION<br>Earth exploration-satellite<br>(active) 5.279A<br>5.138 5.271 5.272<br>5.276 5.277 5.280<br>5.281 5.282 | AMATEUR<br>NF14<br>5.138<br><br>Amateur Satellite<br><br>NF14<br><br>Mobile | Amateur<br>430 – 440 MHz<br><br>Amateur-Satellite<br><br>435 – 438 MHz<br><br>433.05 – 434.79 MHz<br>Non Specific SRD<br>including RFID | Subject to conditions in<br>RR 5.282<br><br>Government Gazette No<br>31127, Notice No 713 Of<br>2008 refers. |
| <b>438 - 440 MHz</b><br>AMATEUR<br><br>RADIOLOCATION<br>5.271 5.273 5.274<br>5.275 5.276 5.277<br>5.283   | AMATEUR<br><br>NF14   | Amateur Radio<br>Communication 435 -<br>438 MHz   | License Class A1,A2,B<br>as per the Amateur<br>Radio Regulations   |

|   |   |   |   |
|---|---|---|---|
| <p><b>440 - 450 MHz</b><br/><b>FIXED</b></p>                            | <p><b>FIXED</b></p>                             | <p>Telemetry / Data BTX<br/>440 – 441 MHz</p>   | <p>Paired with 445 - 446 MHz (MTX)<br/>Channels 440 - 440.100 and 445.00 - 445.100 MHz are used as simplex . Channels 440.275, 440.2875, 445.2750, 445.2875, 440.375 and 445.375 MHz are roving simplex channels. Channels 440.0125, 440.3625, 445.0125 and 445.3625 MHz are used for Agricultural Telemetry.</p> |
|   |   | <p>Telemetry / Data MTX<br/>445 - 446 MHz</p>   | <p>Paired with 440 - 441 MHz (BTX)<br/>Channels 440 - 440.100 MHz and 445.00 - 445.100 MHz are used as simplex. Channels 440.275, 440.2875, 445.2750, 440.375 and 445.375 MHz are roving simplex channels. Channels 440.0125, 440.3625, 445.0125, 445.3625 MHz are used for Agriculture Telemetry.</p>            |
| <p><b>MOBILE except aeronautical mobile</b></p>                         | <p><b>MOBILE except aeronautical mobile</b></p> | <p>Single Frequency Mobile<br/>441 – 441.1 MHz</p> <p>Mobile BTX 441.1 – 445 MHz</p> <p>Mobile: PMR 446 446 - 446.1 MHz</p> <p>Mobile 446.1 - 450 MHz</p> | <p>Paired with 446.1 - 450 MHz (MTX)</p> <p>8 channels</p> <p>Paired with 441.1 - 445 MHz</p>   |
| <p><b>Radiolocation</b><br/>5.269 5.270 5.271 5.284<br/>5.285 5.286</p> | <p>NF15</p>                                     |   |   |

|  |  |   |  |
|--|--|---|--|
| <p><b>450 - 455 MHz</b></p> <p>FIXED</p> <p>MOBILE 5.286AA</p><br><br><br><br><p>5.209 5.271 5.286<br/>5.286AA 5.286B<br/>5.286C 5.286D 5.286E</p> | <p>FIXED</p> <p>MOBILE 5.286AA</p><br><br><br><p>NF15</p> <p>5.209 5.286 5.286AA</p> | <p>Fixed Links 450 – 453 MHz</p> <p>Single Frequency Mobile 453.025 - 453.975 MHz</p> <p>Paging 453.975 - 454.425 MHz</p> <p>Trunked Mobile BTX 454.425 – 460 MHz</p> | <p>Paired with 460 - 463 MHz</p><br><br><br><br><p>Paired with 464.425 - 470 MHz</p> |
| <p><b>455 - 456 MHz</b></p> <p>FIXED</p> <p>MOBILE 5.286AA</p><br><br><p>5.209 5.271 5.286AA<br/>5.286B</p> <p>5.286C 5.286E</p>                   | <p>FIXED</p> <p>MOBILE 5.286AA</p><br><br><p>NF15</p> <p>5.209 5.286AA</p>           | <p>Trunked Mobile BTX 454.425 – 460 MHz</p>   | <p>Paired with 464.425 - 470 MHz</p>   |
| <p><b>456 - 459 MHz</b></p> <p>FIXED</p> <p>MOBILE 5.286AA</p><br><br><br><p>5.271 5.287 5.288</p>   | <p>FIXED</p> <p>MOBILE 5.286AA</p><br><br><p>NF15</p> <p>5.287</p>                   | <p>Trunked Mobile BTX 454.425 – 460 MHz</p>   | <p>Paired with 464.425 - 470 MHz</p>   |

## 459 – 862 MHz

| ITU Region 1 Allocations  | South African Allocations  | Applications   | Comments  |
|---|--|--|---|
| <b>459 - 460 MHz</b><br>FIXED<br>MOBILE 5.286AA<br><br>5.209 5.271 5.286AA<br>5.286B 5.286C 5.286E                              | FIXED<br>MOBILE 5.286AA<br><br>NF16<br>5.209 5.286AA                         | Trunked Mobile BTX<br>454.425 – 460 MHz  | Paired with 464.425 -<br>470 MHz  |
| <b>460-470 MHz</b><br>FIXED<br><br>MOBILE<br><br><br>Meteorological-Satellite<br>(space-to-Earth)<br>5.287 5.288 5.289<br>5.290 | FIXED<br><br>MOBILE 5.286AA<br><br><br>NF16<br>5.287 5.290                   | Fixed Links 460 – 463<br>MHz<br>Single Frequency Mobile<br>463.025 - 463.975 MHz<br><br>Low Power Mobile Radio<br>463.975 - 464.425 MHz<br><br>Trunked Mobile MTX<br>464.425 – 470 MHz | Paired with 450 - 453<br>MHz<br><br>Government Gazette No<br>26193, Notice 533 of 24<br>March 2004 refers.<br>464.375 - 464.425 MHz<br>to be dedicated for<br>control of hazardous<br>equipment<br><br>Paired with 454.425 -<br>460 MHz |
| <b>470 - 790 MHz</b><br>BROADCASTING<br><br>5.149 5.291A 5.294<br>5.296<br>5.300 5.302 5.304<br>5.306<br>5.311A 5.312           | BROADCASTING<br><br>NF16<br><br>RADIO ASTRONOMY<br>NF2<br>5.149 5.304 5.311A | UHF Television<br>Broadcasting 470 – 854<br>MHz<br><br>Radio astronomy 608 -<br>614 MHz  | Broadcasting Allotments<br>in accordance with GE<br>89 plan in the process of<br>conversion to GE 06  |

|   |   |   |  |
|---|---|---|--|
| <p>790 - 852 MHz</p> <p>FIXED</p> <p>BROADCASTING</p> <p>MOBILE except<br/>aeronautical mobile</p> <p>5.312 5.314 5.315 5.316<br/>5.319</p> | <p>FIXED (854-862 MHz)</p> <p>BROADCASTING 470-<br/>854 MHz</p> <p>NF17</p> <p>5.316A</p> | <p>Fixed links 856 - 864.1<br/>MHz</p> <p>UHF Television<br/>Broadcasting 470 – 854<br/>MHz</p> | <p>Broadcasting Allotments<br/>in accordance with GE<br/>89 plan in the process of<br/>conversion to GE 06</p> |
|---|---|---|--|

## 862 – 890 MHz

| ITU Region 1 Allocation                        | South African                        | Application   | Notes and  |
|--|--------------------------------------|---|--|
| 862-890 MHz<br>FIXED                           | FIXED                                | Fixed Links 868.1 - 876 MHz   |  |
| MOBILE except<br>aeronautical mobile<br>5.317A | MOBILE except<br>aeronautical mobile | Wireless Audio systems<br>863 – 865 MHz                                   |  |
|  |                                      | 865 - 868 MHz RFID,<br>Non Specific SRD and<br>RFID 869.4 – 869.65<br>MHz | Government Gazette No<br>31127, Notice No 713 Of<br>2008 refers. |
|  |                                      | Alarms 868.6 – 868.7<br>MHz, 869.25 – 869.3<br>MHz, 869.65 – 869.7<br>MHz |  |
|  | NF 18, NF 19, NF 20, NF<br>21        | Mobile Wireless Access<br>824 - 849 MHz                                   | Paired with 869 - 894<br>MHz                                     |
|  |                                      | E-GSM Cellular MTX 880<br>- 890 MHz                                       | Paired with 925 -935<br>MHz                                      |
| BROADCASTING 5.322<br>5.319 5.323              |                                      |   |  |

**PART D: 890 MHz - 1000 GHz**

890 – 1 215 MHz

| <b>ITU Region 1 Allocations</b>  | <b>South African Allocations</b>                                | <b>Applications</b>  | <b>Comments</b>  |
|--|---|--|--|
| 890 – 942<br>FIXED<br><br>Mobile except<br>Aeronautical Mobile<br><br>5.317A | FIXED<br><br>Mobile except<br>Aeronautical Mobile<br><br>5.317A | GSM Cellular MTX 890 -<br>915 MHz<br><br>915.1 - 915.2 MHz Real<br>Time Location System<br><br>915.2 - 915.4 MHz<br>Passive Tags<br><br>195.4 - 919 MHz<br>Modulating RFID<br>Systems (FHSS)<br><br>919. - 919.2 MHz Tag<br>Backscatter Guard Band<br><br>919.2 - 921. MHz Non<br>Modulating Backscatter<br>RFID Systems | Paired with 925 - 935<br>MHz<br><br>Government Gazette No<br>31 127, Notice No 713 Of<br>2008 refers.<br><br>Government Gazette No<br>31 127, Notice No 713 Of<br>2008 refers.<br><br>Government Gazette No<br>31 127, Notice No 713 Of<br>2008 refers.<br><br>Government Gazette No<br>31 127, Notice No 713 Of<br>2008 refers. |
| BROADCASTING<br><br>5.322<br>Radiolocation<br><br>5.323                      | NF 18, NF 19, NF 20, NF<br>21                                   |  |  |

|   |  |  |  |
|---|--|--|--|
| <p>942 – 960</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>5.317A</p> <p>BROADCASTING</p> <p>5.322</p> <p>5.323</p>                            | <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>5.317A</p> <p>NF 18, NF 19, NF 20, NF 21</p>                                    | <p>GSM Cellular BTX</p> <p>935 – 960 MHz</p>                       | <p>Paired with 890 - 915 MHz</p>                                     |
| <p>960 - 1 164</p> <p>AERONAUTICAL RADIONAVIGATION</p> <p>5.328</p> <p>AERONAUTICAL MOBILE (R)</p> <p>5.4B06</p>  | <p>AERONAUTICAL RADIONAVIGATION</p> <p>5.328</p> <p>AERONAUTICAL MOBILE (R)</p> <p>5.4B06</p>  | <p>Distance Measuring Equipment / Secondary Surveillance Radar</p> |  |
| <p>1 164 - 1 215</p> <p>AERONAUTICAL RADIONAVIGATION</p> <p>5.328</p> <p>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)</p> <p>5.328A 5.328B</p> | <p>AERONAUTICAL RADIONAVIGATION</p> <p>5.328</p> <p>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)</p> <p>5.328A 5.328B</p> |  | <p>Reserved for future GNSS Galileo GPS system (1164 – 1215 MHz)</p> |

## 1 215 – 1 429 MHz

| ITU Region 1 Allocations   | South African Allocations  | Applications   | Comments        |
|--|--|--|-----------------|
| <b>1 215 - 1 240</b><br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)<br>5.329 5.329A 5.328B<br>SPACE RESEARCH (active)<br>5.330 5.331 5.332                                | EARTH EXPLORATION-SATELLITE<br>RADIOLOCATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)<br>5.329 5.329A 5.328B<br>SPACE RESEARCH<br>5.331 5.332                            | GPS  | 1215 – 1260 MHz |
| <b>1 240 - 1 300</b><br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)<br>5.328B 5.329 5.329A<br>SPACE RESEARCH (active)<br>Amateur<br>5.282 5.330 5.331<br>5.332 5.335.335A | EARTH EXPLORATION-SATELLITE<br>RADIOLOCATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)<br>5.328B 5.329 5.329A<br>SPACE RESEARCH<br>Amateur<br>5.282 5.331 5.332<br>5.335A | Air Traffic Control Radar<br>1240 - 1350 MHz<br>Global Positioning Systems L2<br>Amateur 1240 - 1300 MHz | 1215 – 1260 MHz |
| <b>1300 – 1350</b><br>AERONAUTICAL RADIONAVIGATION<br>5.337<br>RADIOLOCATION<br>RADIONAVIGATION SATELLITE (Earth-to-space)<br>5.149 5.337A   | AERONAUTICAL RADIONAVIGATION<br>5.337<br>RADIOLOCATION<br>RADIONAVIGATION SATELLITE (Earth-to-space)<br>5.149 5.337A<br>Radio astronomy NF2  | Air Traffic Control Radar<br>1240 - 1350 MHz   |                 |



## 1300 - 1525 MHz

| ITU Region 1 Allocations  | South African Allocations  | Applications  | Comments   |
|---|--|---|--|
| <b>1 429-1 452</b><br>FIXED<br><br>MOBILE except<br>aeronautical mobile<br><br>5.341 5.342 5.338A   | FIXED<br>NF1<br><br>5.338A   | Fixed links<br>1427 – 1452 MHz  | Paired with 1375 - 1400 MHz. CEPT T/R 13-01 Annex B refers.                              |
| <b>1 452-1 492</b><br>FIXED<br>MOBILE except<br>aeronautical mobile<br>BROADCASTING<br><br>5.345<br><br>BROADCASTING-SATELLITE<br>5.345 5.347A<br><br>5.341 5.342 | BROADCASTING<br><br>5.345<br>NF 22<br><br>BROADCASTING-SATELLITE<br><br>5.345 5.347A | Terrestrial Digital Audio<br>Broadcasting (T-DAB)<br>1452 -1479.5 MHz<br><br>Satellite Digital Audio<br>Broadcasting (S-DAB)<br>1479.5 - 1492 MHz |  |
| <b>1 492-1 518</b><br>FIXED<br><br>MOBILE except<br>aeronautical mobile<br><br>5.341 5.342  | FIXED<br>NF1   | Fixed Links<br>1492 – 1517 MHz<br><br>Single Frequency Fixed<br>Links<br>1517 – 1525 MHz  | Paired with 1350 - 1375 MHz. CEPT T/R 13-01 Annex A refers.<br><br>CEPT T/R 13-01 refers |

|  |                         |  |                              |
|--|-------------------------|--|------------------------------|
| <p>1 518-1 525</p> <p>FIXED</p> <p>MOBILE except<br/>aeronautical mobile</p> <p>MOBILE-SATELLITE<br/>(space-to-Earth)</p> <p>5.348 5.348A 5.348B</p> <p>5.351A 5.341 5.342</p> | <p>FIXED</p> <p>NF1</p> | <p>Single Frequency Fixed<br/>Links</p> <p>1517 – 1525 MHz</p> | <p>CEPT T/R 13-01 refers</p> |
|--|-------------------------|--|------------------------------|

## 1 525 – 1 610 MHz

| ITU Region 1 Allocations  | South African Allocations  | Applications  | Comments                           |
|---|--|---|------------------------------------|
| <b>1525-1530</b><br>SPACE OPERATION<br>(space-to-Earth)<br>FIXED<br>MOBILE-SATELLITE<br>(space-to-Earth)<br><br>5.347A 5.351A<br>Earth exploration-satellite<br>Mobile except<br>aeronautical mobile<br><br>5.349<br>5.341 5.342 5.350<br>5.351<br>5.352A 5.354 | SPACE OPERATION<br>(space-to-Earth)<br>FIXED<br>MOBILE-SATELLITE<br>(space-to-Earth)<br><br>5.347A 5.351A<br>Earth exploration-satellite<br>Mobile except<br>aeronautical mobile<br><br>5.351 5.354        | Mobile satellite<br>(Inmarsat)<br><br>1525 – 1559 MHz | Paired with 1626.5 –<br>1660.5 MHz |
| <b>1 530-1535</b><br>SPACE OPERATION<br>(space-to-Earth)<br>MOBILE-SATELLITE<br>(space-to-Earth)<br><br>5.347A 5.351A 5.353A<br>Earth exploration-satellite<br>Fixed<br>Mobile except<br>aeronautical mobile<br><br>5.341 5.342 5.351<br>5.354                  | SPACE OPERATION<br>(space-to-Earth)<br>MOBILE-SATELLITE<br>(space-to-Earth)<br><br>5.347A 5.351A 5.353A<br>Earth exploration-satellite<br>Fixed<br>Mobile except<br>aeronautical mobile<br><br>5.351 5.354 | Mobile satellite<br>(Inmarsat)<br><br>1525 – 1559 MHz | Paired with 1626.5 –<br>1660.5 MHz |

|   |   |   |   |
|---|---|---|---|
| <p><b>1535-1559</b></p> <p>MOBILE-SATELLITE<br/>(space-to-Earth)</p> <p>5.347A 5.351A</p> <p>5.341 5.351 5.353A<br/>5.354 5.355 5.356<br/>5.357 5.357A 5.359<br/>5.362A</p>                                 | <p>MOBILE-SATELLITE<br/>(space-to-Earth)</p> <p>5.347A 5.351A</p> <p>5.351 5.353A 5.354<br/>5.356 5.357 5.357A</p>                                | <p>Mobile satellite<br/>(Inmarsat)</p> <p>1525 – 1559 MHz</p> <p>Cospas-Sarsat</p> <p>1544 – 1545 MHz</p> | <p>Paired with 1626.5 –<br/>1660.5 MHz</p> <p>International use for<br/>safety of life applications.</p> <p>Paired with 1626.5 –<br/>1660.5 MHz</p> |
| <p><b>1559-1610</b></p> <p>AERONAUTICAL-<br/>RADIONAVIGATION</p> <p>RADIONAVIGATION-<br/>SATELLITE (space-to-<br/>Earth) (space-to-space)</p> <p>5.328B 5.329A 5.347A<br/>5.341 5.362B 5.362C<br/>5.363</p> | <p>AERONAUTICAL-<br/>RADIONAVIGATION</p> <p>RADIONAVIGATION-<br/>SATELLITE (space-to-<br/>Earth) (space-to-space)</p> <p>5.328B 5.329A 5.347A</p> | <p>AERONAUTICAL (R)<br/>1545-1555 MHz</p> <p>GPS</p>  | <p>Paired with 1646.5-<br/>1656.5 MHz</p> <p>No change for GPS in<br/>1559 - 1610 MHz</p>   |

## 1610 - 1660 MHz

| ITU Region 1 Allocations  | South African Allocations  | Applications          | Comments  |
|---|--|-----------------------|---|
| <b>1610-1610.6</b><br>MOBILE-SATELLITE<br>(Earth-to-space)<br><br>5.351A<br><br>AERONAUTICAL-<br>RADIONAVIGATION<br>5.341 5.355 5.359<br>5.363 5.364 5.366<br>5.367 5.368 5.369<br>5.371 5.372                                | MOBILE-SATELLITE<br>(Earth-to-space)<br><br>5.351A 5.364 5.365<br>5.368 5.372  | MSS 1610 - 1626.5 MHz | Paired with 2483.5 - 2500 MHz for some systems. |
| <b>1610.6-1613.8</b><br>MOBILE-SATELLITE<br>(Earth-to-space)<br><br>5.351A<br><br>RADIO ASTRONOMY<br><br>AERONAUTICAL-<br>RADIONAVIGATION<br>5.149 5.341 5.355<br>5.359 5.363 5.364<br>5.366 5.367 5.368<br>5.369 5.371 5.372 | MOBILE-SATELLITE<br>(Earth-to-space)<br><br>5.351A 5.364 5.365<br>5.368 5.372<br><br>RADIO ASTRONOMY<br>5.149<br><br>NF2 | MSS 1610 - 1626.5 MHz | Paired with 2483.5 - 2500 MHz for some systems  |

|  |   |  |   |
|--|---|--|---|
| <p><b>1613.8-1626.5</b></p> <p>MOBILE-SATELLITE<br/>(Earth-to-space)</p> <p>5.351A</p> <p>AERONAUTICAL-<br/>RADIONAVIGATION</p> <p>Mobile-satellite (space-<br/>to-Earth)</p> <p>5.347A</p> <p>5.341 5.355 5.359<br/>5.363 5.364 5.365<br/>5.366 5.367 5.368<br/>5.369 5.371 5.372</p> | <p>MOBILE-SATELLITE<br/>(Earth-to-space)</p> <p>5.351A 5.364 5.365<br/>5.368 5.372</p>  | <p>MSS 1610 - 1626.5 MHz</p>   | <p>Paired with 2483.5 -<br/>2500 MHz for some<br/>systems</p> |
| <p><b>1626.5-1660</b></p> <p>MOBILE-SATELLITE<br/>(Earth-to-space)</p> <p>5.351A</p> <p>5.341 5.351 5.353A<br/>5.354 5.355 5.357A<br/>5.359 5.362A 5.374<br/>5.375 5.376</p>   | <p>MOBILE-SATELLITE<br/>(Earth-to-space)</p> <p>5.351A 5.364 5.365<br/>5.368 5.372</p> <p>5.351 5.353A 5.354<br/>5.357A 5.375</p> | <p>MARITIME<br/>1626.5-1645.5 MHz</p> <p>MOBILE 1645.5-1646.5<br/>MHz</p> <p>AERONAUTICAL (R)<br/>1646.5-1656.5 MHz</p> <p>LAND MOBILE<br/>SERVICES 1656.5-<br/>1660.5 MHz</p> | <p>GMDSS</p> <p>Paired with 1545 - 1555<br/>MHz</p>           |

## 1660 - 1710 MHz

| ITU Region 1 Allocations   | South African Allocations  | Applications                      | Comments |
|--|--|-----------------------------------|----------|
| <b>1660 - 1660.5</b><br>MOBILE-SATELLITE<br>(Earth-to-space)<br>5.351A<br><br>RADIO ASTRONOMY<br>5.149 5.341 5.351<br>5.354 5.362A 5.376A  | MOBILE-SATELLITE<br>(Earth-to-space)<br>5.351A 5.364 5.365<br>5.368 5.372<br><br>RADIO ASTRONOMY<br>5.149 5.354 5.376A | LAND MOBILE 1656.5-<br>1660.5 MHz |          |
| <b>1 660.5 - 1 668</b><br>RADIO ASTRONOMY<br><br>SPACE RESEARCH<br>(passive)<br>Fixed<br>Mobile except<br>aeronautical mobile<br>5.149 5.341 5.379<br>5.379A   | RADIO ASTRONOMY<br>NF2<br>SPACE RESEARCH<br>(passive)<br><br>5.149 5.341 5.379A  |                                   |          |
| <b>1 668 - 1 668.4</b><br>MOBILE-SATELLITE<br>(Earth-to-space)<br>56.351A 5.379B 5.379C<br>RADIO ASTRONOMY<br><br>SPACE RESEARCH<br>(passive)<br>Fixed<br>Mobile except<br>aeronautical mobile<br>5.149 5.341 5.379<br>5.379A 5.379D | RADIO ASTRONOMY<br>NF2<br>SPACE RESEARCH<br>(passive)  |                                   |          |



|  |  |                                 |   |
|--|--|---------------------------------|---|
| <p><b>1690 – 1700</b></p> <p><b>METEOROLOGICAL AIDS</b></p> <p><b>METEOROLOGICAL-SATELLITE (space-to-Earth)</b></p> <p>Fixed</p> <p>Mobile except aeronautical mobile</p> <p>5.289 5.341 5.382</p> | <p><b>METEOROLOGICAL AIDS</b></p> <p><b>METEOROLOGICAL-SATELLITE (space-to-Earth)</b></p> <p>5.289 5.341</p> | <p>Radiosondes 1668-1700MHz</p> | <p>Channels 1695.6938; 1695.7250; 1695.7562; 1695.7874; 1691; 1694.5MHz</p> |
| <p><b>1700 – 1710</b></p> <p><b>FIXED</b></p> <p><b>METEOROLOGICAL-SATELLITE (space-to-Earth)</b></p> <p><b>MOBILE except aeronautical mobile</b></p> <p>5.289 5.341</p>                           | <p><b>METEOROLOGICAL-SATELLITE (space-to-Earth)</b></p> <p>5.289 5.341</p>                                   |                                 |   |



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|---|---|--|---|
| <b>1930 – 1970</b><br>FIXED<br>MOBILE<br>5.388 5.388A 5.388B  | FIXED NF1<br>MOBILE<br>5.388 5.388A<br><br>NF26   | Terrestrial component of<br>UMTS/IMT-2000<br>1920 – 1980 MHz (FDD)       | Paired with 2110 – 2170<br>MHz  |
| <b>1970 – 1980</b><br>FIXED<br>MOBILE<br>5.388 5.388A 5.388B  | FIXED NF1<br>MOBILE<br>5.388 5.388A<br><br>NF26   | Terrestrial component of<br>UMTS/IMT<br>1920 – 1980 MHz (FDD)            | Paired with 2110 – 2170<br>MHz.   |
| <b>1980 – 2010</b><br>FIXED<br><br>MOBILE<br>MOBILE-SATELLITE<br>(Earth-to-space) 5.351A<br><br>5.388 5.389A 5.389B<br>5.389F | FIXED NF1<br><br>-<br>MOBILE-SATELLITE<br>(Earth-to-space) 5.351A<br>NF26<br>5.388 5.389A | Fixed links 1980 - 2010<br>MHz<br><br>Satellite component of<br>UMTS/IMT | Paired with 2170 - 2200<br>MHz<br>Use of this band for FS in<br>line with USA FCC<br>determination<br><br>Band also to be used for<br>GMPCS systems |
| <b>2010 – 2025</b><br>FIXED<br><br>MOBILE<br><br>5.388 5.388A 5.388B  | FIXED NF1<br><br>MOBILE<br><br>5.388 5.388A   | Terrestrial component of<br>UMTS/IMT-2000                                | 3 x 5 MHz TDD   |

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| <p>2025 – 2110</p> <p>FIXED</p> <p>SPACE OPERATION<br/>(Earth-to-space) (space-to-space)</p> <p>EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space)</p> <p>MOBILE 5.391</p> <p>SPACE RESEARCH<br/>(Earth-to-space) (space-to-space)</p> <p>5.392</p> | <p>FIXED NF1</p> <p>NF27</p>  | <p>Fixed Links 2025 - 2110 MHz</p> | <p>Paired with 2200 - 2285 MHz. ITU-R F.1098 and CEPT T/R 13-01 Annex C refers</p> |
| <p>2110 – 2120</p> <p>FIXED</p> <p>MOBILE 5.388A 5.388B</p> <p>SPACE RESEARCH<br/>(deep space) (Earth-to-space)</p> <p>5.388</p>   | <p>FIXED NF1</p> <p>MOBILE 5.388A</p> <p>NF27</p> <p>5.388</p>        | <p>2110 – 2170 MHz (FDD)</p>       | <p>Terrestrial component of UMTS/IMT-2000</p>                                      |
| <p>2120 – 2160</p> <p>FIXED</p> <p>MOBILE 5.388A</p> <p>5.388 5.388 B</p>  | <p>FIXED NF1</p> <p>MOBILE</p> <p>NF27</p> <p>5.388A</p> <p>5.388</p> | <p>2110 – 2170 MHz (FDD)</p>       | <p>Terrestrial component of UMTS/IMT-2000</p>                                      |
| <p>2160 – 2170</p> <p>FIXED</p> <p>MOBILE 5.388A 5.388B</p> <p>5.388</p>   | <p>FIXED NF1</p> <p>MOBILE NF28</p> <p>5.388A</p> <p>5.388</p>        | <p>2110 – 2170 MHz (FDD)</p>       | <p>Terrestrial component of UMTS/IMT-2000</p>                                      |

## 2170 - 2520 MHz

| ITU Region 1 Allocations  | South African Allocations  | Applications  | Comments   |
|---|--|---|--|
| <p>2170 – 2200</p> <p>FIXED</p> <p>MOBILE</p> <p>MOBILE-SATELLITE (space-to-Earth)</p> <p>5.351A</p> <p>5.388 5.389A 5.389F 5.392A</p>  | <p>FIXED NF1</p> <p>MOBILE-SATELLITE (space-to-Earth) 5.351A</p> <p>NF27</p> <p>5.388 5.389A</p> | <p>PTP Backhaul</p> <p>2170 - 2200 MHz</p> <p>Satellite component of UMTS/IMT</p> | <p>Use of this band for FS in line with USA FCC determination</p> <p>Paired with 1980 – 2010 MHz</p> <p>Band also to be used for GMPCS systems</p> |
| <p>2200 – 2290</p> <p>FIXED</p> <p>SPACE OPERATION (space-to-Earth) (space-to-space)</p> <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space)</p> <p>MOBILE 5.391</p> <p>SPACE RESEARCH (space-to-Earth) (space-to-space)</p> | <p>FIXED NF1</p> <p>NF27</p>   | <p>PTP Backhaul 2200 – 2285 MHz</p> <p>WAS 2285 – 2290 MHz</p>                    | <p>Paired with 2025 - 2110<sub>1</sub> ITU-R F.1098 and CEPT T/R 13-01 Annex C refer</p>   |
| <p>2290 – 2300</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>SPACE RESEARCH (deep space) (space-to-Earth)</p>  | <p>FIXED NF1</p>   | <p>PTP Backhaul</p>   |  |

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| <p>2300 – 2450</p> <p>FIXED</p>  | <p>FIXED NF1</p>                              | <p>Fixed links (PTMP and PTP)</p> <p>2307 - 2387 MHz</p> <p>OB links</p> <p>2377 MHz and 2471 MHz</p> <p>2321 MHz, 2349 MHz, 2415 MHz and 2443 MHz</p> <p>WLAN</p> <p>2400 – 2483.5 MHz</p> <p>Non-specific SRD's and low power video surveillance</p> <p>2400 – 2483.5 MHz</p> | <p>Paired with 2401 – 2481 MHz</p> <p>28 MHz OB links. Frequency co-ordination with fixed links on a case-by-case basis is mandatory for all OB links.</p> <p>Primary basis:</p> <p>Secondary basis:</p> <p>Government Gazette No. 31127, Notice No. 713 of 2008</p> <p>Government Gazette No. 31127, Notice No. 713 of 2008</p> |
| <p>MOBILE</p> <p>Amateur Radiolocation</p> <p>5.150 5.282 5.384A<br/>5.395</p> | <p>Mobile</p> <p>NF28</p> <p>5.150 5.384A</p> | <p>ISM</p>  | <p>International ISM band for Industrial, scientific and medical equipment (5.150 refers).</p>   |

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|---|---|--|--|
| <p>2450 – 2483.5<br/>FIXED</p>                  | <p>FIXED NF1</p>                        | <p>Fixed links (PTMP and PTP)<br/>2307 - 2387 MHz<br/><br/>OB links<br/><br/>2377 MHz and 2471 MHz<br/>2321 MHz, 2349 MHz, 2415 MHz and 2443 MHz<br/>2400 – 2483.5 MHz<br/>RFID<br/><br/>2400 – 2483.5 MHz</p> | <p>Paired with 2401 – 2481 MHz<br/><br/>28 MHz OB links. Frequency co-ordination with fixed links on a case-by-case basis is mandatory for all OB links.<br/><br/>Primary basis:<br/><br/>Secondary basis:<br/><br/>Government Gazette No. 31127, Notice No. 713 of 2008<br/><br/>International ISM band for industrial, scientific and medical equipment (5.150 refers)</p> |
| <p>MOBILE<br/>Radiolocation<br/>5.150 5.397</p> | <p>Mobile<br/>NF29<br/>5.150 5.384A</p> |  |  |

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| <p><b>2483.5 – 2500</b></p> <p>FIXED</p> <p>MOBILE</p> <p>MOBILE-SATELLITE<br/>(space-to Earth) 5.351A</p> <p>Radiolocation</p> <p>5.150 5.371 5.397<br/>5.398 5.399 5.400<br/>5.402</p> | <p>FIXED NF1</p> <p>MOBILE</p> <p>MOBILE-SATELLITE<br/>(space-to-Earth) 5.351A</p> <p>NF 29</p> <p>5.150 5.402</p> | <p>Fixed video link channels</p> <p>ISM 2400 – 2500 MHz</p> <p>Aeronautical Mobile<br/>Video surveillance</p> <p>MSS</p> | <p>Forest Fire Detection<br/>Video Service 2483,<br/>2490 &amp; 2497 MHz</p> <p>International ISM band<br/>for industrial, scientific<br/>and medical equipment<br/>(5.150 refers)</p> <p>Unmanned Aerial<br/>Vehicles only.</p> <p>Some systems are<br/>paired with 1610 - 1626.5<br/>MHz).</p> |
| <p><b>2500 – 2520</b></p> <p>FIXED 5.410</p> <p>MOBILE except<br/>aeronautical mobile<br/>5.384A</p> <p>MOBILE-SATELLITE<br/>(space-to-Earth)</p> <p>5.405 5.412</p>                     | <p>FIXED NF1</p> <p>NF30</p>   | <p>Broadband WAS (TDD).</p>  | <p>2500 – 2520 MHz</p> <p>Potential future use:<br/>satellite component for<br/>UMTS/IMT-2000</p>  |

## 2520 - 2700 MHz

| ITU Region 1 Allocations  | South African Allocations                                  | Applications         | Comments   |
|---|--|----------------------|--|
| <b>2520 – 2655</b><br>FIXED 5.410<br>MOBILE except aeronautical mobile 5.384A<br>BROADCASTING-SATELLITE<br>5.413 5.416<br>5.339 5.405 5.412<br>5.417C 5.417D 5.418B<br>5.418C   | FIXED NF1<br>NF30  | Broadband WAS (TDD). | 2520 – 2655 MHz<br><br>Potential future use:<br>satellite component for<br>UMTS/IMT-2000   |
| <b>2655 – 2670</b><br>FIXED 5.409 5.410 5.411<br>MOBILE except aeronautical mobile 5.384A<br>BROADCASTING-SATELLITE<br>5.413 5.416<br>Earth exploration-satellite (passive)<br>Radio astronomy<br>Space research (passive)<br>5.149 5.412 5.420 | FIXED NF1<br>NF30<br><br>Radio astronomy NF 2<br><br>5.149 | Broadband WAS (TDD). | 2655 – 2670 MHz<br><br>Potential future use:<br>terrestrial component for<br>UMTS/IMT-2000 |

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| <p><b>2670 – 2690</b></p> <p>FIXED 5.409 5.410<br/>5.411</p> <p>MOBILE except<br/>aeronautical mobile<br/>5.384A</p> <p>MOBILE-SATELLITE<br/>(Earth-to-space) 5.351</p> <p>Earth exploration-satellite<br/>(passive)</p> <p>Radio astronomy</p> <p>Space research<br/>(passive)</p> <p>5.149 5.412 5.419<br/>5.420</p> | <p>FIXED NF1</p> <p>NF30</p> <p>Radio astronomy NF 2</p> <p>5.149</p>                         | <p>Broadband WAS (TDD).</p> | <p>2670 – 2690 MHz</p> <p>Potential future use:<br/>terrestrial component for<br/>UMTS/IMT-2000<br/>2520 – 2690 MHz</p> |
| <p><b>2690 – 2700</b></p> <p>EARTH EXPLORATION-<br/>SATELLITE (passive)</p> <p>RADIO ASTRONOMY</p> <p>SPACE RESEARCH<br/>(passive)</p> <p>5.340 5.422</p>  | <p>RADIO ASTRONOMY<br/>NF 2</p> <p>NF 30</p> <p>SPACE RESEARCH<br/>(passive)</p> <p>5.340</p> | <p>Passive Sensing</p>      | <p>Protected</p>  |

## 2700 - 4800 MHz

| ITU Region 1 Allocations  | South African Allocations   | Applications                              | Comments  |
|---|---|---|---|
| <b>2700 – 2900</b><br>AERONAUTICAL RADIONAVIGATION<br>5.337<br>Radiolocation<br>5.424                                 | AERONAUTICAL RADIONAVIGATION<br>5.337<br>Radiolocation<br>5.423                           |   | 2700 – 3000 MHz                                       |
| <b>2900 – 3100</b><br>RADIONAVIGATION<br>5.426<br>RADIOLOCATION<br>5.425 5.424A 5.427                                 | RADIONAVIGATION<br>5.426<br>RADIOLOCATION<br>5.425 5.424A 5.427                           |   | 2700 – 3000 MHz                                       |
| <b>3100 – 3300</b><br>RADIOLOCATION<br>Earth exploration-satellite (active)<br>Space research (active)<br>5.149 5.428 | RADIOLOCATION<br>Earth exploration-satellite (active)<br>Space research (active)<br>5.149 |   | GOVERNMENT RADIOLOCATION                              |
| <b>3300 – 3400</b><br>RADIOLOCATION<br>5.149 5.429 5.430  | RADIOLOCATION   |   | GOVERNMENT RADIOLOCATION                              |
| <b>3400 – 3600</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>Mobile 5.430A<br>Radiolocation<br>5.431            | FIXED NF1<br>NF31   | Wireless Access Services                  | FDD segmentation                                      |
| <b>3600 – 4200</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>Mobile   | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth)<br>NF31, NF 32                              | PTP Links<br>VSAT/SNG/Satellite PTP links | Sharing with FSS<br>Known as C-band - Sharing with FS |

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| 4200 – 4400<br>AERONAUTICAL-<br>RADIONAVIGATION<br>5.438<br>5.439 5.440                | AERONAUTICAL<br>RADIONAVIGATION<br>5.438 |                                     | RADIO ALTIMETERS                                     |
| 4400 – 4500<br>FIXED<br><br>MOBILE 5.4B01  | FIXED NF1<br>NF33                        | OB/ENG<br>GOVERNMENT<br>UTILIZATION | Broadcasting<br>Mainly National Security<br>Services |
| 4500 – 4800<br>FIXED<br><br>FIXED-SATELLITE<br>(space-to-Earth) 5.441<br>MOBILE 5.4B01 | FIXED NF1<br><br>NF33                    | OB/ENG<br>GOVERNMENT<br>UTILIZATION | Broadcasting<br>Mainly National Security<br>Services |

4800 - 5570 MHz

| ITU Region 1 Allocations   | South African Allocations   | Applications  | Comments  |
|--|---|---|---|
| 4800 – 4990<br>FIXED<br><br>MOBILE 5.442 5.4801<br>Radio Astronomy<br><br>5.149 5.339 5.443  | FIXED NF1<br><br>Radio Astronomy NF2<br><br>NF33<br>5.149 5.339   | OB/ENG<br>GOVERNMENT UTILIZATION<br><br>Radio Astronomy (4825 – 4835 & 4950 – 4990 MHz) | Broadcasting<br>Mainly National Security Services |
| 4990 – 5000<br>FIXED<br><br>MOBILE except aeronautical mobile<br>RADIO ASTRONOMY<br><br>Space Research (passive)<br><br>5.149      | FIXED NF1<br><br>RADIO ASTRONOMY NF2<br><br>NF33<br>5.149   | GOVERNMENT UTILIZATION<br><br>RADIO ASTRONOMY (4990 - 5000 MHz)                         | Mainly National Security Services                 |
| 5000 – 5010<br>AERONAUTICAL RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE (Earth-to-space)<br>5.367                                 | AERONAUTICAL RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE (Earth-to-space)<br>5.367                                 |   |   |
| 5010 – 5030<br>AERONAUTICAL RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)<br>5.443B 5.5328B 5.367 | AERONAUTICAL RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)<br>5.443B 5.367 5.5328B |   |   |

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| <b>5030 – 5091</b><br><b>AERONAUTICAL RADIONAVIGATION</b><br>5.367 5.444  | <b>AERONAUTICAL RADIONAVIGATION</b><br>5.367 5.444   | <b>MICROWAVE LANDING SYSTEMS</b><br>(5030-5091 MHz)<br>NGSO MSS feeder links<br>(5091 - 5150 MHz) | FSS operates in this band through footnote   |
| <b>5091 – 5150</b><br><b>AERONAUTICAL RADIONAVIGATION</b><br><b>AERONAUTICAL MOBILE</b> 5.4B03 5.367<br>5.444 5.444A  | <b>AERONAUTICAL RADIONAVIGATION</b><br><b>AERONAUTICAL MOBILE</b> 5.4B03 5.367<br>5.444  |   |  |
| <b>5150 – 5250</b><br><b>AERONAUTICAL RADIONAVIGATION</b><br><b>FIXED-SATELLITE SERVICE (Earth-to-space)</b> 5.447A<br><b>MOBILE except Aeronautical mobile</b><br>5.446A 5.446B 5.446<br>5.447 5.447B 5.447C<br>5.4B04 | <b>AERONAUTICAL RADIONAVIGATION</b><br><b>FIXED-SATELLITE SERVICE (Earth-to-space)</b> 5.447A<br><b>MOBILE except Aeronautical mobile</b><br>5.446A 5.446B 5.447B<br>5.447C<br><br>Fixed NF1 | NGSO MSS feeder links   | WAS/RLAN's. Indoors only (200mW EIRP)<br>Dynamic Frequency Selection (DFS) &<br>Transmitter Power Control (TPC)<br>Modulation Schemes obligatory |

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| <p><b>5250 – 5255</b></p> <p>EARTH EXPLORATION-SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>SPACE RESEARCH<br/>5.447D</p> <p>MOBILE except<br/>Aeronautical mobile<br/>5.446A 5.447E 5.447F</p> <p>5.448 5.448A</p> | <p>SPACE RESEARCH<br/>5.447D</p> <p>MOBILE except<br/>Aeronautical mobile<br/>5.466 5.446A 5.447F</p> <p>5.448A</p> <p>Fixed NF1</p>   |  | <p>WAS/RLAN's. Indoors only (200mW EIRP)<br/>Dynamic Frequency Selection (DFS) &amp; Transmitter Power Control (TPC)<br/>Modulation Schemes obligatory</p> |
| <p><b>5255 – 5350</b></p> <p>EARTH EXPLORATION-SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>MOBILE except<br/>Aeronautical mobile<br/>5.446A 5.447F</p> <p>SPACE RESEARCH (active)<br/>5.447E 5.448 5.448A</p>      | <p>EARTH EXPLORATION-SATELLITE (active)</p> <p>RADIOLOCATION</p> <p>MOBILE except<br/>Aeronautical mobile<br/>5.446A 5.447F</p> <p>SPACE RESEARCH (active)<br/>5.448 5.448A</p> <p>Fixed NF1</p> |  | <p>WAS/RLAN's. Indoors only (200mW EIRP)<br/>Dynamic Frequency Selection (DFS) &amp; Transmitter Power Control (TPC)<br/>Modulation Schemes obligatory</p> |

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| <b>5350 – 5460</b><br>EARTH EXPLORATION-SATELLITE (active)<br>5.448B<br>AERONAUTICAL-RADIONAVIGATION<br>5.449<br>RADIOLOCATION<br>5.448D<br>SPACE RESEARCH (active) 5.448C  | EARTH EXPLORATION-SATELLITE (active)<br>5.448B<br>AERONAUTICAL-RADIONAVIGATION<br>5.449<br>RADIOLOCATION<br>5.448D<br>SPACE RESEARCH (active) 5.448C  |   |   |
| <b>5460 – 5470</b><br>RADIONAVIGATION<br>5.449<br>EARTH EXPLORATION-SATELLITE (active)<br>SPACE RESEARCH (active)<br>RADIOLOCATION<br>5.448D<br>5.448B  | RADIONAVIGATION<br>5.449<br>EARTH EXPLORATION-SATELLITE (active)<br>SPACE RESEARCH (active)<br>RADIOLOCATION<br>5.448D<br>5.448B  |   |   |
| <b>5470 – 5570</b><br>MARITIME RADIONAVIGATION<br>MOBILE except aeronautical mobile<br>5.446A 5.450A<br>EARTH EXPLORATION-SATELLITE (active)<br>SPACE RESEARCH (active)<br>RADIOLOCATION ADD<br>5.450B<br>5.450 5.451 5.452<br>5.448B | MARITIME RADIONAVIGATION<br>MOBILE except aeronautical mobile<br>5.446A 5.450A<br>EARTH EXPLORATION-SATELLITE (active)<br>SPACE RESEARCH (active)<br>RADIOLOCATION<br>5.450B<br>5.452 5.448B<br>Fixed NF1 | Maritime Radionavigation and Location (Radar) | WAS/RLAN's with conditions. Refer to SRD Gazette. |

## 5570 - 7250 MHz

| ITU Region 1 Allocations   | South African Allocations   | Applications   | Comments  |
|--|---|--|---|
| <b>5570 – 5650</b><br>MARITIME-RADIONAVIGATION<br><br>MOBILE except aeronautical mobile<br>5.446A 5.450A<br>RADIOLOCATION<br>5.450B<br>5.450 5.451 5.452                 | MARITIME-RADIONAVIGATION<br><br><br>RADIOLOCATION<br>5.450B<br>5.452<br>Fixed NF1   | Maritime Radionavigation and Location (Radar)<br><br><br>Ground-based meteorological radars<br><br>5600 – 5650 MHz | WAS/RLAN's with conditions. Refer to SRD Gazette.   |
| <b>5650 – 5725</b><br>RADIOLOCATION<br>MOBILE except aeronautical mobile<br>5.446A 5.450A<br><br>Amateur<br>Space Research (deep space)<br>5.282 5.451 5.453 5.454 5.455 | RADIOLOCATION<br>MOBILE except aeronautical mobile<br>5.446A 5.450A<br><br>Amateur<br>Space Research (deep space)<br>5.282 5.455<br><br>Fixed NF1 |  | WAS/RLAN's with conditions. Refer to SRD Gazette.   |
| <b>5725 – 5830</b><br>FIXED-SATELLITE (Earth-to-space)<br>RADIOLOCATION<br>Amateur<br><br>5.150 5.451 5.453 5.455 5.456  | FIXED-SATELLITE (Earth-to-space)<br>RADIOLOCATION<br>Amateur<br>NF34<br>5.150<br><br>Fixed NF1  | ISM (5725 - 5875 MHz)<br><br>PTP/PTMP wireless LAN   | TICS 5805 - 5815MHz (future)<br>WLAN see conditions |

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|--|--|---|---------------------|
| <b>5830 – 5850</b><br>FIXED-SATELLITE<br>(Earth-to-space)<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite (space-<br>to-Earth) 5.150 5.451<br>5.453 5.455 5.456 | FIXED-SATELLITE<br>(Earth-to-space)<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite (space-<br>to-Earth) 5.150 5.451<br><br>NF34<br>Fixed NF1 | ISM (5725 - 5875 MHz)<br>PTP/PTMP wireless LAN  | WLAN see conditions |
| <b>5850 – 5925</b><br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space)<br><br>MOBILE<br>5.150  | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space)<br>NF 34, NF35, NF36<br>Mobile<br><br>5.150   | PTP links/OB ENG<br>VSAT/SNG/Satellite PTP<br>links<br><br>ISM (5725 - 5875 MHz)<br>PTP/PTMP wireless LAN | WLAN see conditions |
| <b>5925 – 6700</b><br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 5.457A<br>5.457B<br>MOBILE<br>5.149 5.440 5.458   | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space) 5.457A<br><br>NF 34, NF35, NF36   | PTP links<br>VSAT/SNG/FSS feeder<br>links   |                     |
| <b>6700 – 7075</b><br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) (space-<br>to-Earth) 5.441<br>MOBILE<br><br>5.458 5.458A 5.458B<br>5.458C                     | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space) (space-<br>to-Earth) 5.441<br><br>NF38  | PTP links<br>S-DAB feeder links<br>(uplinks)<br><br>NGSO MSS feeder links<br>(downlinks)                  |                     |

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| <b>7075 – 7145</b><br>FIXED<br>MOBILE<br>5.458 5.459   | FIXED NF1<br>NF38   | PTP links<br>OB ENG links |  |
| <b>7145 – 7235</b><br>FIXED<br>MOBILE<br>SPACE RESEARCH<br>(Earth-to-space) 5.460<br>5.458 5.459 | FIXED NF1<br>NF38<br>SPACE RESEARCH<br>(Earth-to-space) 5.460 | PTP links<br>OB ENG links |  |
| <b>7235 – 7250</b><br>FIXED<br>MOBILE<br>5.458   | FIXED NF1<br>NF38   | PTP links<br>OB ENG links |  |

## 7250 - 8500 MHz

| ITU Region 1 Allocations   | South African Allocations   | Applications   | Comments |
|--|---|--|----------|
| 7 250-7 300<br>FIXED<br><br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>5.461  | FIXED NF1<br>NF38<br><br>FIXED-SATELLITE (space-to-Earth)   | PTP links<br><br>OB ENG links  |          |
| 7300-7450<br>FIXED<br><br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br>5.461   | FIXED NF1<br>NF38 NF39, NF40<br><br>FIXED-SATELLITE (space-to-Earth)  | PTP links<br><br>OB ENG links  |          |
| 7450 – 7550<br>FIXED<br><br>FIXED-SATELLITE (space-to-Earth)<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br>5.461A | FIXED NF1<br>NF40<br><br>FIXED-SATELLITE (space-to-Earth)<br><br>METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461A | PTP links<br><br>OB ENG links<br><br>Downlink of medium raw data from GSO MetSat to main earth station |          |
| 7550 – 7750<br>FIXED<br><br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile  | FIXED NF1<br>NF40<br><br>FIXED-SATELLITE (space-to-Earth)   | PTP links<br><br>OB ENG links  |          |

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|--|---|---|--|
| <p>7750 – 7850</p> <p>FIXED</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B</p> <p>MOBILE except aeronautical mobile</p>                       | <p>FIXED NF1</p> <p>NF41</p> <p>METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B</p>  | <p>PTP links</p> <p>Downlink of raw data from NGSO MetSat to main earth station and dissemination</p> |  |
| <p>7850 – 7900</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p>   | <p>FIXED NF1</p> <p>NF41</p>  | <p>PTP links</p>  |  |
| <p>7900 – 8025</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE</p> <p>5.461</p>   | <p>FIXED NF1</p> <p>NF41</p> <p>FIXED-SATELLITE (Earth-to-space)</p>  | <p>PTP links</p>  |  |
| <p>8025 – 8175</p> <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE 5.463</p> | <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED NF1</p> <p>NF41</p> <p>FIXED-SATELLITE (Earth-to-space)</p> | <p>PTP links</p>  |  |

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| <p>8175 – 8215</p> <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>METEOROLOGICAL-SATELLITE (Earth-to-space)</p> <p>MOBILE 5.463</p> | <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED NF1</p> <p>NF41</p> <p>METEOROLOGICAL-SATELLITE (Earth-to-space)</p> | <p>PTP links</p> <p>Downlink of sensor data from GSO and NGSO MetSat to main Earth station</p> |  |
| <p>8215 – 8400</p> <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED</p> <p>FIXED-SATELLITE (Earth-to-space)</p> <p>MOBILE 5.463</p>  | <p>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.462A</p> <p>FIXED NF1</p> <p>NF41, NF42</p> <p>FIXED-SATELLITE (Earth-to-space)</p>    | <p>PTP links</p>   |  |
| <p>8400 – 8500</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>SPACE RESEARCH (space-to-Earth) 5.465<br/>5.466</p>   | <p>FIXED NF1</p> <p>NF2</p> <p>SPACE RESEARCH (space-to-Earth) 5.465</p>   | <p>PTP links</p>   |  |

## 8500 - 10 000 MHz

| <b>ITU Region 1 Allocations</b>  | <b>South African Allocations</b>   | <b>Applications</b> | <b>Comments</b> |
|--|--|---------------------|-----------------|
| <b>8500 – 8550</b><br>RADIOLOCATION<br>5.468 5.469   | RADIOLOCATION  |                     |                 |
| <b>8550 – 8650</b><br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>5.468 5.469 5.469A | EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>5.469A |                     |                 |
| <b>8650 – 8750</b><br>RADIOLOCATION<br>5.468 5.469   | RADIOLOCATION  |                     |                 |
| <b>8750 – 8850</b><br>RADIOLOCATION<br>AERONAUTICAL RADIONAVIGATION<br>5.470<br>5.471  | RADIOLOCATION<br>AERONAUTICAL RADIONAVIGATION<br>5.470                                     |                     |                 |
| <b>8850 – 9000</b><br>RADIOLOCATION<br>MARITIME RADIONAVIGATION<br>5.472<br>5.473  | RADIOLOCATION<br>MARITIME RADIONAVIGATION<br>5.472   |                     |                 |
| <b>9000 – 9200</b><br>AERONAUTICAL-RADIONAVIGATION<br>5.337<br>RADIOLOCATION<br>5.471 5.475A                                 | AERONAUTICAL-RADIONAVIGATION<br>5.337<br>RADIOLOCATION<br>5.475A                           | APPROACH RADARS     |                 |



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|--|---|---|--|
| <b>9800 – 9900</b><br><b>RADIOLOCATION</b><br><br>Earth exploration-satellite (Active)<br>Space research (Active)<br>Fixed<br><br>5.477 5.478 5.478A<br>5.478B | <b>RADIOLOCATION</b><br><br>Earth exploration-satellite (Active)<br>Space research (Active)<br>Fixed NF1<br><br>5.478A 5.478B | <b>MOVEMENT<br/>DETECTION (Low<br/>Power)</b><br><br><br>FDDA 9200 – 9975 MHz | <br><br><br><br>Latest Government<br>Gazette on SRD's refers |
| <b>9900 – 10000</b><br><b>RADIOLOCATION</b><br>Fixed<br>5.477 5.478 5.479  | <b>RADIOLOCATION</b><br>Fixed NF1<br>5.479  |   |  |

## 10.0 – 11.7 GHz

| ITU Region 1 Allocations   | South African Allocations      | Applications  | Comments   |
|--|--------------------------------|---|--|
| <b>10.00 – 10.45</b><br>FIXED<br><br>MOBILE<br>RADIOLOCATION<br>Amateur<br>5.479, 5.482    | FIXED NF1<br><br>RADIOLOCATION | Low Power Video<br>PTP/PTMP<br>10.15 – 10.3 GHz<br><br>Motion Sensors | 10.0 – 10.15 GHz<br><br>Paired with 10.5 – 10.65 GHz |
| <b>10.45 – 10.50</b><br>RADIOLOCATION<br>Amateur<br>Amateur-Satellite<br>5.481             | RADIOLOCATION                  | Motion Sensors  |  |
| <b>10.50 – 10.55</b><br>FIXED<br><br>MOBILE<br>Radiolocation                               | FIXED NF1<br><br>Radiolocation | PTP/PTMP<br>10.5 – 10.65 GHz<br><br>Motion Sensors                    | Paired with 10.15 – 10.3 GHz                         |
| <b>10.55 – 10.60</b><br>FIXED<br><br>MOBILE except<br>aeronautical mobile<br>Radiolocation | FIXED NF1<br><br>Radiolocation | PTP/PTMP<br>10.5 – 10.65 GHz<br><br>Motion Sensors                    | Paired with 10.15 – 10.3 GHz                         |

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|--|---|---|--|
| <p><b>10.60 – 10.68</b></p> <p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>FIXED</p> <p>MOBILE except aeronautical mobile</p> <p>RADIO ASTRONOMY</p> <p>SPACE RESEARCH (passive)</p> <p>Radiolocation</p> <p>5.149 5.482 5.BA01</p> | <p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>FIXED NF1</p> <p>RADIO ASTRONOMY NF2</p> <p>SPACE RESEARCH (passive)</p> <p>Radiolocation</p> <p>5.149 5.BA01</p> | <p>PTP/PTMP 10.5 – 10.65 GHz</p> <p>Motion Sensors</p>              | <p>Paired with 10.15 – 10.3 GHz</p>  |
| <p><b>10.68 – 10.7</b></p> <p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>RADIO ASTRONOMY</p> <p>SPACE RESEARCH (passive)</p> <p>5.340 5.483</p>  | <p>EARTH EXPLORATION-SATELLITE (passive)</p> <p>RADIO ASTRONOMY NF2</p> <p>SPACE RESEARCH (passive)</p> <p>5.34</p>   | <p>Passive Sensing</p>  |  |
| <p><b>10.7 – 11.7</b></p> <p>FIXED</p> <p>FIXED-SATELLITE (space-to-Earth) 5.441 5.484A (Earth-to-space) 5.484</p> <p>MOBILE except aeronautical mobile</p>  | <p>FIXED NF1</p> <p>NF 43</p> <p>FIXED-SATELLITE (space-to-Earth) 5.441 5.484A (Earth-to-space) 5.484</p>   | <p>PTP links</p> <p>VSAT/SNG/DTH (secondary) / BSS feeder links</p> | <p>Sharing with BSS</p> <p>Government Gazette No. 19343, dated 09 October 1998</p> |

## 11.70 - 14 GHz

| ITU Region 1 Allocations  | South African Allocations  | Applications               | Comments |
|---|--|----------------------------|----------|
| <b>11.70 – 12.50</b><br>FIXED<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>MOBILE except aeronautical mobile<br>5.487 5.487A 5.492              | FIXED NF1<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>5.487 5.487A 5.492  | ENG/OB<br>BSS feeder links |          |
| <b>12.5 – 12.75</b><br>FIXED-SATELLITE (space-to-Earth) S484A (Earth-to-space)<br>5.494 5.495 5.496   | FIXED SATELLITE (space-to-Earth )<br>5.484A  | VSAT/SNG/DTH               |          |
| <b>12.75 – 13.25</b><br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.441<br>MOBILE<br>Space Research (deep space) (space-to-Earth)               | FIXED NF1<br>NF44  | PTP links                  |          |
| <b>13.25 – 13.4</b><br>EARTH EXPLORATION-SATELLITE (active)<br>AERONAUTICAL-RADIONAVIGATION<br>5.497<br>SPACE RESEARCH (active)<br>5.498A 5.499 | EARTH EXPLORATION-SATELLITE (active)<br>AERONAUTICAL-RADIONAVIGATION<br>5.497<br>SPACE RESEARCH (active)<br>5.498A |                            |          |

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|---|---|---|--|
| <p><b>13.40 – 13.75</b><br/> <b>EARTH EXPLORATION-SATELLITE (active)</b><br/> <b>RADIOLOCATION</b></p> <p><b>SPACE RESEARCH</b><br/> <b>5.501A</b></p> <p>Standard frequency and time signal satellite (Earth-to-space)</p> <p>5.499 5.500 5.501<br/>                     5.501B</p>                    | <p><b>RADIOLOCATION</b></p>   | <p>Low Power Microwave Fences (13.4 - 14 GHz)<br/>                     NIB, FDDA</p>                                  | <p>Government Gazette No 26193, Notice 533 of 24 March 2004 refers..</p> |
| <p><b>13.75 – 14.</b></p> <p><b>FIXED-SATELLITE (Earth-to-space) 5.484A</b><br/> <b>RADIOLOCATION</b></p> <p>Standard frequency and time signal satellite (Earth-to-space)</p> <p>Space research</p> <p>Earth exploration – satellite</p> <p>5.499 5.500 5.501 5.502<br/>                     5.503</p> | <p><b>FIXED SATELLITE (Earth-to-space)5.484A</b><br/> <b>RADIOLOCATION</b></p> <p>Standard frequency and time signal satellite (Earth-to-space)</p> <p>Space research</p> <p>Earth exploration – satellite</p> <p>5.502 5.503</p> | <p>VSAT/SNG/FSS feeder links</p> <p>Low Power Microwave Fences (13.4 - 14 GHz)<br/>                     NIB, FDDA</p> | <p>Government Gazette No 26193, Notice 533 of 24 March 2004 refers..</p> |

## 14.00 – 15.40 GHz

| ITU Region 1 Allocations   | South African Allocations   | Applications              | Comments |
|--|---|---------------------------|----------|
| <b>14.00 – 14.25</b><br>FIXED-SATELLITE (Earth-to-space) 5.484A 5.506 5.457A 5.506B 5.457B<br>RADIONAVIGATION 5.504<br>Mobile-satellite (Earth-to-space) 5.504C 5.506A<br>Space Research 5.505 5.504A  | FIXED SATELLITE (Earth-to-space)<br><br>NF45<br><br>5.484A 5.506 5.457A | VSAT/SNG/FSS feeder links |          |
| <b>14.25 – 14.30</b><br>FIXED-SATELLITE (Earth-to-space) 5.484A 5.506 5.457A 5.506B 5.457B<br>RADIONAVIGATION 5.504<br>Mobile-satellite (Earth-to-space) 5.506A 5.509A<br>Space Research 5.505 5.508 5.509 5.504A  | FIXED SATELLITE (Earth-to-space)<br><br>NF45<br><br>5.484A 5.506 5.457A | VSAT/SNG/FSS feeder links |          |
| <b>14.30 – 14.40</b><br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.484A 5.506 5.457A 5.506B 5.457B<br>MOBILE except aeronautical mobile<br>Mobile-satellite (Earth-to-space) except aeronautical mobile satellite 5.506A 5.509A<br>Radionavigation-satellite 5.504A | FIXED SATELLITE (Earth-to-space)<br><br>NF45<br><br>5.484A 5.506 5.457A | VSAT/SNG/FSS feeder links |          |

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| <b>14.40 – 14.47</b><br><b>FIXED</b><br><b>FIXED-SATELLITE</b><br>(Earth-to-space) 5.484A<br>5.506 5.457A 5.506B<br>5.457B<br><b>MOBILE except</b><br><b>aeronautical mobile</b><br><b>Mobile-satellite (Earth-to-</b><br><b>space)</b> 5.506A 5.509A<br><b>Space Research (space-</b><br><b>to-Earth)</b><br>5.504A | <b>FIXED SATELLITE</b><br>(Earth-to-space)<br><br>NF45<br><br>5.484A 5.506 5.457A | <b>VSAT/SNG/FSS feeder</b><br><b>links</b>                           |  |
| <b>14.47 – 14.50</b><br><b>FIXED</b><br><b>FIXED-SATELLITE</b><br>(Earth-to-space) 5.484A<br>5.506 5.457A 5.506B<br>5.457B<br><b>MOBILE except</b><br><b>aeronautical- mobile</b><br><b>Mobile-satellite (Earth-to-</b><br><b>space)</b> 5.506A 5.509A<br>5.504B<br><b>Radio Astronomy</b><br>5.149 5.504A           | <b>FIXED SATELLITE</b><br>(Earth-to-space)<br><br>NF45<br><br>5.484A 5.506 5.457A | <b>VSAT/SNG/FSS feeder</b><br><b>links</b>                           |  |
| <b>14.50 – 14.80</b><br><b>FIXED</b><br><b>FIXED-SATELLITE</b><br>(Earth-to-space) 5.510<br><b>MOBILE</b><br><b>Space Research</b>   | <b>FIXED</b><br>NF46  | <b>PTP links</b><br><br><b>ENG OB</b><br><br><b>BSS feeder links</b> |  |
| <b>14.80 – 15.35</b><br><b>FIXED</b><br><b>MOBILE</b><br><b>Space Research</b><br>5.339  | <b>FIXED</b> NF1<br>NF46  | <b>PTP links</b><br><b>ENG OB links</b>                              |  |

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| 15.35 – 15.4<br>EARTH EXPLORATION-<br>SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH<br>(passive)<br>5.340 5.511 | EARTH EXPLORATION-<br>SATELLITE (passive)<br>SPACE RESEARCH<br>(passive)<br>5.340 | VILBIRA<br>OBSERVATIONS<br><br>Passive Sensing |  |
|--|---|--|--|

## 15.40 – 18.40 GHz

| ITU Region 1 Allocations   | South African Allocations  | Applications               | Comments   |
|--|--|----------------------------|--|
| 15.40 – 15.43<br>AERONAUTICAL<br>RADIONAVIGATION<br>5.511D   | AERONAUTICAL<br>RADIONAVIGATION<br>5.511C 5.511D                 | RADIO<br>ALTIMETERS/RADARS | ICAO: ASDE Annex 10                                |
| 15.43 – 15.63<br>FIXED-SATELLITE<br>(Earth-to-space) 5.511A<br>AERONAUTICAL<br>RADIONAVIGATION<br>5.511C | AERONAUTICAL<br>RADIONAVIGATION<br>5.511C 5.511D                 | RADIO<br>ALTIMETERS/RADARS | ICAO: ASDE Annex 10                                |
| 15.63 – 15.70<br>FIXED-SATELLITE<br>(Earth-to-space) 5.511A<br>AERONAUTICAL<br>RADIONAVIGATION<br>5.511C | AERONAUTICAL<br>RADIONAVIGATION<br>5.511C 5.511D                 | RADIO<br>ALTIMETERS/RADARS | ICAO: ASDE Annex 10                                |
| 15.70 – 16.60<br>RADIOLOCATION<br>5.512 5.513  | RADIOLOCATION  |                            | ALTIMETERS /<br>DISTANCE<br>MEASURING<br>EQUIPMENT |
| 16.60 – 17.1<br>RADIOLOCATION<br>Space Research (deep<br>space) (Earth-to-space)<br>5.512 5.513          | RADIOLOCATION<br>Space Research (deep<br>space) (Earth-to-space) |                            |  |
| 17.10 – 17.20<br>RADIOLOCATION<br>5.512 5.513  | RADIOLOCATION  |                            | WAS links (future)                                 |

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|---|--|--|--------------------|
| <b>17.20 – 17.30</b><br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>5.512 5.513 5.513A  | EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>5.513A |  | WAS links (future) |
| <b>17.30 – 17.70</b><br>FIXED-SATELLITE (Earth-to-space) (space to Earth) 5.516 5.516A 5.516B<br>Radiolocation<br>5.514         | FIXED-SATELLITE (Earth-to-space) (space to Earth) 5.516 5.516A 5.516B<br>Radiolocation     |  |                    |
| <b>17.70 – 18.10</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516<br>MOBILE                       | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516<br>NF47        | PTP links<br>BSS feeder links (future) |                    |
| <b>18.10 – 18.40</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520<br>MOBILE<br>5.519 5.521 | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520<br>NF47 | PTP links (17.7 - 19.7 GHz)<br>GSO/FSS |                    |

## 18.40 – 22.00 GHz

| ITU Region 1 Allocations  | South African Allocations   | Applications                            | Comments                            |
|---|---|---|-------------------------------------|
| <b>18.40 – 18.60</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B<br>MOBILE   | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B<br>NF47   | PTP links<br>GSO/FSS                    |                                     |
| <b>18.60 – 18.80</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.522B<br>MOBILE except aeronautical mobile<br>EARTH EXPLORATION-SATELLITE (passive)<br>Space research (passive)<br>5.522A 5.522C | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth) 5.522B<br>NF47<br>EARTH EXPLORATION-SATELLITE (passive)<br>Space research (passive)<br>5.522A | PTP links<br>GSO/FSS<br>Passive Sensing |                                     |
| <b>18.80 – 19.30</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.523A 5.516B<br>MOBILE   | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth) 5.523A 5.516B<br>NF47   | PTP links<br>NGSO/FSS                   | NGSO FSS (18.8 - 19.3 GHz) (future) |
| <b>19.30 – 19.70</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E<br>MOBILE  | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E<br>NF47  | PTP links<br>NGSO MSS (19.3 - 19.7 GHz) | NGSO MSS feeder links (future)      |

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|--|---|----------------------------------|--|
| <b>19.70 – 20.10</b><br>FIXED-SATELLITE<br>(space-to-Earth) 5.484A<br>5.516B<br>Mobile-Satellite (space-<br>to-Earth)<br>5.524   | FIXED-SATELLITE<br>(space-to-Earth) 5.484A<br>5.516B  | GSO/FSS                          |  |
| <b>20.10 – 20.20</b><br>FIXED-SATELLITE<br>(space-to-Earth) 5.484A<br>5.516B<br>MOBILE-SATELLITE<br>(space-to-Earth)<br>5.524 5.525 5.526 5.527<br>5.528                             | FIXED-SATELLITE<br>(space-to-Earth) 5.484A<br>5.516B  | GSO/FSS                          |  |
|  |   |                                  |  |
| <b>20.20 – 21.20</b><br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE-SATELLITE<br>(space-to-Earth)<br>Standard frequency and<br>time signal- satellite<br>(space-to-Earth)<br>5.524 | FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE-SATELLITE<br>(space-to-Earth)<br>Standard frequency and<br>time signal- satellite<br>(space-to-Earth) |                                  |  |
| <b>21.20 – 21.40</b><br>EARTH EXPLORATION-<br>SATELLITE (passive)<br>FIXED<br><br>SPACE RESEARCH<br>(passive)<br>MOBILE  | EARTH EXPLORATION-<br>SATELLITE (passive)<br>FIXED NF1<br>NF48<br>SPACE RESEARCH<br>(passive)   | PTP links<br><br>Passive Sensing |  |

|   |  |           |                        |
|---|--|-----------|------------------------|
| 21.40 – 22.00<br>FIXED<br><br>MOBILE<br>BROADCASTING-<br>SATELLITE<br>5.530 | FIXED NF1<br>NF48<br><br>BROADCASTING-<br>SATELLITE<br>5.530 | PTP links | Possible HDTV (future) |
|---|--|-----------|------------------------|

## 22.00 – 24.75 GHz

| ITU Region 1 Allocations   | South African Allocations  | Applications                     | Comments |
|--|--|----------------------------------|----------|
| 22.00 – 22.21<br>FIXED<br>MOBILE except<br>aeronautical mobile<br>5.149  | FIXED NF1<br>NF48  | PTP links                        |          |
| 22.21 – 22.50<br>EARTH EXPLORATION-<br>SATELLITE (passive)<br>FIXED<br>MOBILE except<br>aeronautical mobile<br>RADIO ASTRONOMY<br>SPACE RESEARCH<br>(passive)<br>5.149 5.532 | EARTH EXPLORATION-<br>SATELLITE (passive)<br>FIXED NF1<br>NF48<br>RADIO ASTRONOMY<br>NF2<br>SPACE RESEARCH<br>(passive)<br>5.149 5.532 | PTP links<br><br>Passive Sensing |          |
| 22.50 – 22.55<br>FIXED<br>MOBILE   | FIXED NF1<br>NF48  | PTP links                        |          |
| 22.55 – 23.55<br>FIXED<br>INTER-SATELLITE<br>5.338A<br>MOBILE<br>5.149   | FIXED NF1<br>NF48<br>INTER-SATELLITE<br>5.338A   | PTP links                        |          |
| 23.55 – 23.60<br>FIXED<br>MOBILE   | FIXED NF1<br>NF48  |                                  |          |

|  |   |                 |   |
|--|---|-----------------|---|
| 23.60 – 24.00<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 | Passive Sensing |   |
| 24.00 – 24.05<br>AMATEUR<br>AMATEUR-SATELLITE<br>5.150   | AMATEUR<br>AMATEUR-SATELLITE<br>5.150   |                 | ISM (24 - 24.25 GHz)                                    |
| 24.05 – 24.25<br>RADIOLOCATION<br>Amateur<br>Earth exploration-satellite (active)<br>5.150                     | RADIOLOCATION<br>Amateur<br>Earth exploration-satellite (active)<br>5.150                     |                 | ISM (24 - 24.25 GHz)                                    |
| 24.25 – 24.45<br>FIXED   | FIXED NF1   |                 | Licensed video surveillance (future)<br>ENG/OB (future) |
| 24.45 – 24.65<br>FIXED<br>INTER-SATELLITE  | FIXED NF1<br>NF49   |                 | Broadband PTP and PTMP systems                          |
| 24.65 – 24.75<br>FIXED<br>INTER-SATELLITE  | FIXED NF1<br>NF49   |                 | Broadband PTP and PTMP systems                          |

## 24.75 – 29.9 GHz

| ITU Region 1 Allocations  | South African Allocations  | Applications | Comments  |
|---|--|--------------|---|
| 24.75 – 25.25<br>FIXED  | FIXED NF1<br><br>NF49  |              | Broadband PTP and PTMP systems  |
| 25.25 – 25.50<br>FIXED<br><br>INTER-SATELLITE<br>5.536<br><br>MOBILE<br><br>Standard frequency and time signal- satellite (Earth-to-space)  | FIXED NF1<br><br>NF49  |              | Broadband PTP and PTMP systems  |
| 25.50 – 27.00<br><br>EARTH EXPLORATION – SATELLITE (space-to-Earth) 5.536A 5.536B<br><br>FIXED<br><br>INTER-SATELLITE<br>5.536<br><br>MOBILE<br><br>SPACE RESEARCH (space-to-Earth) 5.536A 5.536C<br><br>Standard frequency and time signal- satellite (Earth-to-space) | EARTH EXPLORATION – SATELLITE (space-to-Earth) 5.536A<br><br>FIXED NF1<br><br>NF49 |              | National Polar-orbiting Operational Environmental Satellite System (NPOESS)<br><br>Broadband PTP and PTMP systems |
| 27.00 – 27.50<br>FIXED<br><br>INTER-SATELLITE<br>5.536<br><br>MOBILE  | FIXED NF1  |              |   |

|   |   |  |   |
|---|---|--|---|
| <p><b>27.50 – 28.50</b></p> <p>FIXED 5.537A</p> <p>FIXED-SATELLITE<br/>(Earth-to-space) 5.484A<br/>5.539 5.516B</p> <p>MOBILE<br/>5.538 5.540</p>   | <p>FIXED NF1</p> <p>NF50</p> <p>FIXED-SATELLITE<br/>(Earth-to-space) 5.484A<br/>5.523A 5.539 5.516B<br/>5.538 5.540</p> |  | <p>LMDS (27.5 - 28.35 GHz)</p> <p>FSS/BSS feeder links<br/>(28.35 - 28.6 GHz)</p> |
| <p><b>28.50 – 29.10</b></p> <p>FIXED</p> <p>FIXED-SATELLITE<br/>(Earth-to-space) 5.484A<br/>5.523A 5.539 5.516B<br/>5.538</p> <p>MOBILE</p> <p>Earth exploration-satellite<br/>(Earth-to-space) 5.541<br/>5.540</p>         | <p>FIXED NF1</p> <p>FIXED-SATELLITE<br/>(Earth-to-space) 5.484A<br/>5.523A 5.539 5.516B<br/>5.538 5.540</p>             |  | <p>NGSO FSS (28.6 - 29.1 GHz) and FSS/ BSS feeder links (28.35 - 28.6 GHz)</p>    |
| <p><b>29.10 – 29.50</b></p> <p>FIXED</p> <p>FIXED-SATELLITE<br/>(Earth-to-space) 5.523C<br/>5.523E 5.535A 5.539<br/>5.541A 5.516B</p> <p>MOBILE</p> <p>Earth exploration-satellite<br/>(Earth-to-space) 5.541<br/>5.540</p> | <p>FIXED NF1</p> <p>FIXED-SATELLITE<br/>(Earth-to-space) 5.484A<br/>5.523A 5.539 5.516B<br/>5.538 5.540</p>             |  | <p>LMDS (29.1 - 29.25 GHz)</p> <p>FSS/BSS feeder links<br/>(29.25 - 30 GHz)</p>   |

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|---|--|--|---|
| <p><b>29.50 – 29.90</b></p> <p><b>FIXED-SATELLITE</b><br/>(Earth-to-space) 5.484A<br/>5.539 5.516B</p> <p>Earth exploration-satellite<br/>(Earth-to- space) 5.541</p> <p>Mobile-satellite (Earth-to-<br/>space)<br/>5.540 5.542</p> | <p><b>FIXED-SATELLITE</b><br/>(Earth-to- space) 5.484A<br/>5.523A 5.539 5.516B<br/>5.538 5.540</p> |  | <p>FSS/BSS feeder links (<br/>29.25 - 30 GHz)</p> |
|---|--|--|---|

## 29.90 – 34.20 GHz

| ITU Region 1 Allocations   | South African Allocations  | Applications  | Comments  |
|--|--|---|---|
| <b>29.90 – 30.00</b><br>FIXED-SATELLITE<br>(Earth-to-space) 5.484A<br>5.539 5.516B<br><br>MOBILE-SATELLITE<br>(Earth-to-space)<br><br>Earth exploration-satellite<br>(Earth-to-space) 5.541<br>5.543<br><br>5.525 5.526 5.527 5.538<br>5.540 5.542 | FIXED-SATELLITE<br>(Earth-to-space) 5.484A<br>5.523A 5.539 5.516B<br>5.538 5.540<br><br>MOBILE-SATELLITE<br>(Earth-to-space)<br><br>5.525 5.526 5.527 5.538<br>5.540 5.542 |   | FSS/BSS feeder links<br>(29.25 - 30 GHz)  |
| <b>30.00 – 31.00</b><br>FIXED-SATELLITE<br>(Earth-to-space) 5.338A<br><br>MOBILE-SATELLITE<br>(Earth-to-space)<br><br>Standard frequency and<br>time signal - satellite<br>(space-to-Earth)<br><br>5.542   | FIXED-SATELLITE<br>(Earth-to-space) 5.338A<br><br>MOBILE-SATELLITE<br>(Earth-to-space)   |   |   |
| <b>31.00 – 31.30</b><br>FIXED 5.543A 5.338A<br><br>MOBILE<br><br>Standard frequency and<br>time signal - satellite<br>(space-to-Earth)<br><br>Space research 5.544<br>5.545<br><br>5.149   | FIXED NF1 5.338A   | LPVS (31.0 - 31.056<br>GHz)<br><br>HAPS (31.1 - 31.3 GHz) | Government Gazette<br>20087 (Notice 939, 15<br>May 1999)<br><br>LPVS expansion in the<br>band 31.056 - 31.3 GHz<br>(future) |

|   |  |   |                                 |
|---|--|---|---------------------------------|
| <b>31.30 – 31.50</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340   | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>5.340                                  |   |                                 |
| <b>31.50 – 31.80</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>Fixed<br>Mobile except aeronautical mobile<br>5.149 5.546 | RADIO ASTRONOMY NF2<br>Fixed NF1<br>5.149 5.546  | HPVS (31.5 - 31.8 GHz)<br>Passive Sensing |                                 |
| <b>31.80 – 32.00</b><br>FIXED 5.547A<br>RADIONAVIGATION<br>SPACE RESEARCH (deep space) (space-to-Earth)<br>5.547 5.547B 5.548   | FIXED NF1 5.547A<br>RADIONAVIGATION<br>5.547   |   | HDFS (31.8 - 33.4 GHz) (future) |
| <b>32.00 – 32.30</b><br>FIXED 5.547A<br>RADIONAVIGATION<br>SPACE RESEARCH (deep space) (space-to-Earth)<br>5.547 5.547C 5.548   | FIXED NF1 5.547A<br>RADIONAVIGATION<br>SPACE RESEARCH (deep space) (space-to-Earth)<br>5.547 5.548 |   | HDFS (31.8 - 33.4 GHz) (future) |

|  |   |  |                                    |
|--|---|--|------------------------------------|
| <b>32.30 - 33.00</b><br>FIXED 5.547A<br><br>INTER-SATELLITE<br>RADIONAVIGATION<br>5.547 5.547D 5.548 | FIXED NF1 5.547A<br><br>INTER-SATELLITE<br>RADIONAVIGATION<br>5.547 5.548 |  | HDFS (31.8 - 33.4 GHz)<br>(future) |
| <b>33.00 - 33.40</b><br>FIXED 5.547A<br><br>RADIONAVIGATION<br>5.547 5.547E                          | FIXED NF1 5.547A<br><br>RADIONAVIGATION<br>5.547                          |  | HDFS (31.8 - 33.4 GHz)<br>(future) |
| <b>33.40 - 34.20</b><br>RADIOLOCATION<br>5.549   | RADIOLOCATION   |  |                                    |

## 34.20 – 40.00 GHz

| ITU Region 1 Allocations  | South African Allocations  | Applications    | Comments                              |
|---|--|-----------------|---------------------------------------|
| 34.20 – 34.70<br>RADIOLOCATION<br>SPACE RESEARCH<br>(deep space) (Earth-to-space)<br>5.549  | RADIOLOCATION<br>SPACE RESEARCH<br>(deep space) (Earth-to-space)<br>5.549  |                 |                                       |
| 34.70 – 35.20<br>RADIOLOCATION<br>Space Research 5.550<br>5.549   | RADIOLOCATION<br>Space Research 5.550<br>5.549   |                 |                                       |
| 35.20 – 35.50<br>METEROLOGICAL AIDS<br>RADIOLOCATION<br>5.549   | METEROLOGICAL AIDS<br>RADIOLOCATION<br>5.549   |                 |                                       |
| 35.50 – 36.00<br>METEROLOGICAL AIDS<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>5.549 5.549A | METEROLOGICAL AIDS<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>5.549 5.549A |                 |                                       |
| 36.00 – 37.00<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE<br>SPACE RESEARCH (passive)<br>5.149 5.BA02                   | EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE<br>SPACE RESEARCH (passive)<br>5.149 5.BA02                   | Passive Sensing | RADIO ASTRONOMY<br>(36.43 - 36.5 GHz) |

|  |                                    |           |                    |
|--|------------------------------------|-----------|--------------------|
| <b>37.00 – 37.50</b><br>FIXED<br><br>MOBILE<br>SPACE RESEARCH<br>(space-to-Earth)<br>5.547   | FIXED NF1<br>NF51<br><br><br>5.547 | PTP links | HDFS (37 - 40 GHz) |
| <b>37.50 – 38.00</b><br>FIXED<br><br>FIXED – SATELLITE<br>(space-to-Earth)<br>MOBILE<br>SPACE RESEARCH<br>(space-to-Earth)<br>Earth exploration-satellite<br>(space-to Earth)<br>5.547 | FIXED NF1<br>NF51<br><br><br>5.547 | PTP links | HDFS (37 - 40 GHz) |
| <b>38.00 – 39.50</b><br>FIXED<br><br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE<br>Earth exploration-satellite<br>(space-to Earth)<br>5.547   | FIXED NF1<br>NF51<br><br><br>5.547 | PTP links | HDFS (37 - 40 GHz) |

|   |  |  |   |
|---|--|--|---|
| <b>39.50 – 40.00</b><br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth) 5.516B<br><br>MOBILE<br>MOBILE-SATELLITE<br>(space-to-Earth)<br>Earth exploration-satellite<br>(space-to Earth) 5.551AA<br>5.547 | FIXED NF1<br>FIXED-SATELLITE<br>(space-to-Earth) 5.516B<br><br><br><br><br><br><br>5.547 |  | HDFS (37 - 40 GHz)<br>High Density application<br>in the FSS (39.5 - 40<br>GHz) |
|---|--|--|---|

## 40.00 – 47.50 GHz

| ITU Region 1 Allocations   | South African Allocations  | Applications | Comments   |
|--|--|--------------|--|
| <b>40.00 – 40.50</b><br>EARTH EXPLORATION SATELLITE (Earth-to-space)<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.516B<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth)<br>SPACE RESEARCH (Earth-to-space)<br>Earth exploration-satellite (space-to Earth) | EARTH EXPLORATION SATELLITE (Earth-to-space)<br>FIXED NF1<br>FIXED-SATELLITE (space-to-Earth) 5.516B<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth)<br>SPACE RESEARCH (Earth-to-space)<br>Earth exploration-satellite (space-to Earth) |              |  |
| <b>40.50 – 41.00</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>Mobile<br>5.547   | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth)<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>Mobile<br>5.547   |              | MWS/MVDS (future)<br>HDFS (40.5 - 43.5 GHz)<br>High Density application in the FSS ( 40.5 - 42 GHz) (future) |
| <b>41.00 – 42.50</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.516B<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>Mobile<br>5.547 5.551F 5.551H 5.551I   | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth) 5.516B<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>Mobile<br>5.547 5.551H 5.551I  |              | MWS/MVDS (future)<br>HDFS (40.5 - 43.5 GHz)<br>BSS feeder links (future)                                     |

|   |   |  |  |
|---|---|--|--|
| 42.50 – 43.50<br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>MOBILE except<br>aeronautical mobile<br>RADIO ASTRONOMY<br>5.149 5.547 | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>MOBILE except<br>aeronautical mobile<br>RADIO ASTRONOMY<br>NF2<br>5.149 5.547 |  | MWS/MVDS (future)<br>HDFS (40.5 - 43.5 GHz)<br>BSS feeder links (future) |
| 43.50 – 47.00<br>MOBILE 5.553<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-<br>SATELLITE<br>5.554                                | MOBILE 5.553<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-<br>SATELLITE<br>5.554   |  |  |
| 47.00 – 47.20<br>AMATEUR<br>AMATEUR-SATELLITE   | AMATEUR<br>AMATEUR-SATELLITE  |  |  |
| 47.20 – 47.50<br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>MOBILE<br>5.552A   | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>MOBILE<br>5.552A  |  |  |

## 47.50 – 51.40 GHz

| ITU Region 1 Allocations  | South African Allocations   | Applications | Comments  |
|---|---|--------------|---|
| <b>47.50 – 47.90</b><br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>(space-to-Earth) 5.516B<br>5.554A<br>MOBILE               | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>(space-to-Earth) 5.516B<br>5.554A<br>MOBILE               |              |   |
| <b>47.90 – 48.20</b><br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>MOBILE<br>5.552A  | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>MOBILE<br>5.552A  |              |   |
| <b>48.20 – 48.54</b><br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>(space-to-Earth) 5.516B<br>5.554A 5.555B<br>MOBILE        | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>(space-to-Earth) 5.516B<br>5.554A 5.555B<br>MOBILE        |              |   |
| <b>48.54 - 49.44</b><br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>MOBILE<br>5.149 5.340 5.555                               | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>MOBILE<br>5.149 5.340 5.555                               |              |   |
| <b>49.44 - 50.20</b><br>FIXED<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>5.338A (space-to-Earth)<br>5.516B 5.554A 5.555B<br>MOBILE | FIXED NF1<br>FIXED-SATELLITE<br>(Earth-to-space) 5.552<br>5.338A (space-to-Earth)<br>5.516B 5.554A 5.555B<br>MOBILE |              | HAPS (47.2 - 47.5 & 47.9<br>- 48.2 GHz(future)<br>BSS feeder links (future) |

|   |   |                 |  |
|---|---|-----------------|--|
| <b>50.20 – 50.40</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>5.340                      | EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>5.340                          | Passive Sensing |  |
| <b>50.40 – 51.40</b><br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.338A<br>MOBILE<br>Mobile-Satellite (Earth-to-space) | FIXED NF1<br>FIXED-SATELLITE (Earth-to-space) 5.338A<br>MOBILE<br>Mobile-Satellite (Earth-to-space) |                 |  |

## 51.40 – 58.20 GHz

| ITU Region 1 Allocations   | South African Allocations  | Applications                       | Comments                        |
|--|--|------------------------------------|---------------------------------|
| <b>51.4 – 52.60</b><br>FIXED 5.338A<br><br>MOBILE<br>5.547 5.556   | FIXED NF1 5.338A<br><br>MOBILE<br>5.547 5.556  |                                    | HDFS (51.4 - 52.6 GHz) (future) |
| <b>52.60 – 54.25</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>5.340 5.556   | EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>5.340 5.556   | Passive Sensing at 53.6 - 59.3 GHz |                                 |
| <b>54.25 – 55.78</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.556A<br>SPACE RESEARCH (passive)<br>5.556B  | EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.556A<br>SPACE RESEARCH (passive)  |                                    |                                 |
| <b>55.78 – 56.90</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED 5.557A<br><br>INTER-SATELLITE 5.556A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br>5.547 5.557 | EARTH EXPLORATION-SATELLITE (passive)<br>FIXED NF1 5.557A<br><br>INTER-SATELLITE 5.556A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br>5.547 |                                    | HDFS (55.78 - 59 GHz) (future)  |

|  |  |  |                                   |
|--|--|--|-----------------------------------|
| <b>56.90 – 57.00</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br><br>INTER-SATELLITE<br>5.558A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br>5.547 5.557 | EARTH EXPLORATION-SATELLITE (passive)<br>FIXED NF1<br><br>INTER-SATELLITE<br>5.558A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br>5.547 |  | HDFS (55.78 - 59 GHz)<br>(future) |
| <b>57.00 – 58.20</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br><br>INTER-SATELLITE<br>5.558A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br>5.547 5.557 | EARTH EXPLORATION-SATELLITE (passive)<br>FIXED NF1<br><br>INTER-SATELLITE<br>5.558A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br>5.547 |  | HDFS (55.78 - 59 GHz)<br>(future) |
| <b>58.20 – 59.00</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br><br>MOBILE<br>SPACE RESEARCH (passive)<br>5.547 5.556                                    | EARTH EXPLORATION-SATELLITE (passive)<br>FIXED NF1<br><br>MOBILE<br>SPACE RESEARCH (passive)<br>5.547 5.556                              |  | HDFS (55.78 - 59 GHz)<br>(future) |

|  |  |  |  |
|--|--|--|--|
| <b>59.00 – 59.30</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>INTER-SATELLITE<br>5.556A<br>MOBILE 5.558<br>RADIOLOCATION 5.559 | EARTH EXPLORATION-SATELLITE (passive)<br>FIXED NF1<br>INTER-SATELLITE<br>5.556A<br>MOBILE 5.558<br>RADIOLOCATION 5.559 |  |  |
| <b>59.30 – 64.00</b><br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>RADIOLOCATION<br>5.559<br>5.138  | FIXED NF1<br>INTER-SATELLITE<br>MOBILE 5.558<br>RADIOLOCATION<br>5.559<br>5.138  |  | TRANSPORTATION – APPLICATIONS<br>ISM (61 - 61.5 GHz)<br>(future) |
| <b>64.00 – 65.00</b><br>FIXED<br>INTER-SATELLITE<br>MOBILE except aeronautical mobile<br>5.547 5.556                                       | FIXED NF1<br>INTER-SATELLITE<br>MOBILE except aeronautical mobile<br>5.547 5.556                                       |  | HDFS (64 - 66 GHz)<br>(future)                                   |

|                                      |                                      |  |                                |
|--------------------------------------|--------------------------------------|--|--------------------------------|
| 65.00 – 66.00                        |                                      |  |                                |
| EARTH EXPLORATION-SATELLITE          | EARTH EXPLORATION-SATELLITE          |  |                                |
| FIXED                                | FIXED NF1                            |  | HDFS (64 - 66 GHz)<br>(future) |
| INTER-SATELLITE                      | INTER-SATELLITE                      |  |                                |
| MOBILE except<br>aeronautical mobile | MOBILE except<br>aeronautical mobile |  |                                |
| SPACE RESEARCH                       | SPACE RESEARCH                       |  |                                |
| 5.547                                | 5.547                                |  |                                |

## 66.00 – 81.00 GHz

| ITU Region 1 Allocations  | South African Allocations   | Applications                                       | Comments              |
|---|---|--|-----------------------|
| <b>66.00 – 71.00</b><br>INTER-SATELLITE<br>MOBILE 5.553 5.558<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.554                        | INTER-SATELLITE<br>MOBILE 5.553 5.558<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.554                                    |  |                       |
| <b>71.00 – 74.00</b><br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth)  | FIXED NF1<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth)<br>NF52<br>EU27  | Point to point Fixed Wireless Systems: 71 – 76 GHz | Paired with 81-86 GHz |
| <b>74.00 – 76.00</b><br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>Space Research (space-to-Earth)<br>5.561 | FIXED NF1<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>NF52<br>Space Research (space-to-Earth)<br>5.561 | Point to point Fixed Wireless Systems: 71 – 76 GHz | Paired with 81-86 GHz |

|   |  |   |   |
|---|--|---|---|
| <b>76.00 - 77.50</b><br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>Space Research (space-to-Earth)<br>5.561 5.569A | FIXED NF1<br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>Space Research (space-to-Earth)<br>5.561 | 76 – 77 GHz Road<br>Transport and Traffic<br>Telematics | Road Transport and<br>Traffic Telematics Radar<br>(76 – 77 GHz) |
| <b>77.50 – 78.00</b><br>AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy<br>Space research (space-to-Earth)<br>5.149   | AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy NF2<br>Space research (space-to-Earth)<br>5.149  |   |   |
| <b>78.00 – 79.00</b><br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>Radio astronomy<br>Space research (space-to-Earth)<br>5.149 5.560                                  | RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>Radio astronomy<br>Space research (space-to-Earth)<br>5.149 5.560                               | Civil and non civil<br>radiolocation                    |   |

|   |  |                                      |  |
|---|--|--------------------------------------|--|
| 79.00 – 81.00<br>RADIO ASTRONOMY<br>RADIOLOCATION<br><br>Amateur<br>Amateur-satellite<br>Space research (space-<br>to-Earth)<br>5.149 | RADIO ASTRONOMY<br>RADIOLOCATION<br><br>Amateur<br>Amateur-satellite<br>Space research (space-<br>to-Earth)<br>5.149 | Civil and non civil<br>radiolocation |  |
|---|--|--------------------------------------|--|

## 81.00 – 111.8 GHz

| ITU Region 1 Allocations   | South African Allocations  | Applications                                       | Comments   |
|--|--|--|--|
| <b>81.00 – 84.00</b><br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIO ASTRONOMY<br>Space Research (space-to-Earth)<br>5.149 5.560A | FIXED NF1<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIO ASTRONOMY<br>Space Research (space-to-Earth)<br>NF52<br>5.149 5.560A | Point to point Fixed Wireless Systems: 81 – 86 GHz | Paired with 71-76 GHz<br>Candidate band for future HDFSS systems.<br>Any deployment of HDFSS must ensure the protection of the Radio Astronomy Service |
| <b>84.00 – 86.00</b><br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.561A<br>MOBILE<br>RADIO ASTRONOMY<br>5.149   | FIXED NF1<br>FIXED-SATELLITE (Earth-to-space) 5.561A<br>MOBILE<br>RADIO ASTRONOMY<br>NF52<br>5.149   | Point to point Fixed Wireless Systems: 81 – 86 GHz | Paired with 71-76 GHz<br>Candidate band for future HDFSS systems.<br>Any deployment of HDFSS must ensure the protection of the Radio Astronomy Service |
| <b>86.00 – 92.00</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340  | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340  | Passive applications                               |  |

|                 |                        |  |  |
|-----------------|------------------------|--|--|
| 92.00 – 94.00   |                        |  |  |
| FIXED           | FIXED NF1              |  |  |
| MOBILE          | MOBILE                 |  |  |
| RADIO ASTRONOMY | RADIO ASTRONOMY<br>NF2 |  |  |
| RADIOLOCATION   | RADIOLOCATION          |  |  |
| 5.149 5.556     | 5.149 5.556            |  |  |

|   |  |   |  |
|---|--|---|--|
| <b>94.00 – 94.10</b><br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>Radio astronomy<br>5.562 5.562A | EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>Radio astronomy<br>5.562 5.562A        | Short range radar. Cloud profiler radar |  |
| <b>94.10 – 95.00</b><br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>5.149  | FIXED NF1<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>5.149   | Short range radar.                      |  |
| <b>95.00 – 100.00</b><br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.149 5.554 | FIXED NF1<br>MOBILE<br>RADIO ASTRONOMY NF2<br>RADIOLOCATION<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.149 5.554 |   |  |
| <b>100.00 - 102.00</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.341               | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.341                        | Passive Sensing                         |  |

|   |   |                 |  |
|---|---|-----------------|--|
| <b>102.00 - 105.00</b><br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>5.149 5.341   | FIXED NF1<br>MOBILE<br>RADIO ASTRONOMY<br>NF2<br>5.149 5.341  |                 |  |
| <b>105.00 - 109.50</b><br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH<br>(passive) 5.562B<br>5.149 5.341                   | FIXED NF1<br>MOBILE<br>RADIO ASTRONOMY<br>NF2<br>SPACE RESEARCH<br>(passive) 5.562B<br>5.149 5.341                |                 |  |
| <b>109.50 - 111.8</b><br>EARTH EXPLORATION-<br>SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH<br>(passive)<br>5.340 5.341 | EARTH EXPLORATION-<br>SATELLITE (passive)<br>RADIO ASTRONOMY<br>NF2<br>SPACE RESEARCH<br>(passive)<br>5.340 5.341 | Passive Sensing |  |

## 111.8 - 119.98 GHz

| ITU Region 1 Allocations   | South African Allocations  | Applications                       | Comments |
|--|--|------------------------------------|----------|
| <b>111.8 - 114.25</b><br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br>5.149 5.341              | FIXED NF1<br>MOBILE<br>RADIO ASTRONOMY NF2<br>SPACE RESEARCH (passive) 5.562B<br>5.149 5.341           |                                    |          |
| <b>114.25 - 116</b><br>EARTHEXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.341  | EARTHEXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY NF2<br>SPACE RESEARCH (passive)<br>5.340 5.341 | Passive Sensing at 114.25 - 122.25 |          |
| <b>116 - 119.98</b><br>EARTHEXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562C<br>SPACE RESEARCH (passive)<br>5.341 | EARTHEXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562C<br>SPACE RESEARCH (passive)<br>5.341    |                                    |          |

## 119.98 - 151.5 GHz

| ITU Region 1 Allocations  | South African Allocations   | Applications | Comments |
|---|---|--------------|----------|
| <b>119.98 - 122.25</b><br>EARTHEXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562C<br>SPACE RESEARCH (passive)<br>5.138 5.341   | EARTHEXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562C<br>SPACE RESEARCH (passive)<br>5.138 5.341   |              |          |
| <b>122.25 - 123</b><br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>Amateur<br>5.138   | FIXED NF 1 0<br>INTER-SATELLITE<br>MOBILE 5.558<br>Amateur<br>5.138   |              |          |
| <b>123 - 130</b><br>FIXED- SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>Radio Astronomy 5.562D<br>5.149 5.554 | FIXED- SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>Radio Astronomy 5.562D<br>5.149 5.554 |              |          |
| <b>130 - 134</b><br>EARTH EXPLORATION-SATELLITE (active) 5.562E<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>RADIO ASTRONOMY<br>5.149 5.562A                                      | EARTH EXPLORATION-SATELLITE (active) 5.562E<br>FIXED NF1<br>INTER-SATELLITE<br>MOBILE 5.558<br>RADIO ASTRONOMY NF2<br>5.149 5.562A                              |              |          |

|   |   |                 |  |
|---|---|-----------------|--|
| 134 – 136<br>AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy  | AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy   |                 |  |
| 136 – 141<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>5.149                                | RADIO ASTRONOMY<br>NF2<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>5.149                            |                 |  |
| 141 - 148.5<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>5.149   | FIXED NF1<br>MOBILE<br>RADIO ASTRONOMY<br>NF2<br>RADIOLOCATION<br>5.149                                     |                 |  |
| 148.5 - 151.5<br>EARTH EXPLORATION-<br>SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH<br>(passive)<br>5.340 | EARTH EXPLORATION-<br>SATELLITE (passive)<br>RADIO ASTRONOMY<br>NF2<br>SPACE RESEARCH<br>(passive)<br>5.340 | Passive Sensing |  |

## 151.5 - 158.5GHz

| ITU Region 1 Allocations  | South African Allocations  | Applications    | Comments |
|---|--|-----------------|----------|
| <b>151.5 - 155.5</b><br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIO LOCATION<br>5.149   | FIXED NF1<br>MOBILE<br>RADIO ASTRONOMY<br>NF2<br>RADIO LOCATION<br>5.149   |                 |          |
| <b>155.5 - 158.5</b><br>EARTH EXPLORATION-<br>SATELLITE (passive)<br>5.562F<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH<br>(passive) 5.562B<br>5.149 5.562G | EARTH EXPLORATION-<br>SATELLITE (passive)<br>5.562F<br>FIXED NF1<br>MOBILE<br>RADIO ASTRONOMY<br>NF2<br>SPACE RESEARCH<br>(passive) 5.562B<br>5.149 5.562G | Passive Sensing |          |

## 158.5 - 202 GHz

| ITU Region 1 Allocations   | South African Allocations   | Applications                            | Comments |
|--|---|---|----------|
| 158.5 – 164<br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE<br>MOBILE-SATELLITE<br>(space-to-Earth)      | FIXED NF1<br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE<br>MOBILE-SATELLITE<br>(space-to-Earth)          |   |          |
| 164 – 167<br>EARTH EXPLORATION-<br>SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH<br>(passive)<br>5.340  | EARTH EXPLORATION-<br>SATELLITE (passive)<br>RADIO ASTRONOMY<br>NF2<br>SPACE RESEARCH<br>(passive)<br>5.340 | Passive Sensing                         |          |
| 167 - 174.5<br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>INTER-SATELLITE<br>MOBILE 5.558<br>5.149 5.562D     | FIXED NF1<br>FIXED-SATELLITE<br>(space-to-Earth)<br>INTER-SATELLITE<br>MOBILE 5.558<br>5.149 5.562D         |   |          |
| 174.5-174.8<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558  | FIXED NF1<br>INTER-SATELLITE<br>MOBILE 5.558  |   |          |
| 174.8-182<br>EARTH EXPLORATION-<br>SATELLITE (passive)<br>INTER-SATELLITE<br>5.562H<br>SPACE RESEARCH<br>(passive) | EARTH EXPLORATION-<br>SATELLITE (passive)<br>INTER-SATELLITE<br>5.562H<br>SPACE RESEARCH<br>(passive)       | Passive Sensing at 174.8<br>- 191.8 GHz |          |

|   |   |  |  |
|---|---|--|--|
| <b>182-185</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340                                       | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY NF2<br>SPACE RESEARCH (passive)<br>5.340                                     |  |  |
| <b>185-190</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562H<br>SPACE RESEARCH (passive)   | EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562H<br>SPACE RESEARCH (passive)   |  |  |
| <b>190-191.8</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>5.340  | EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>5.340  |  |  |
| <b>191.8-200</b><br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.149 5.341 5.554 | FIXED NF1<br>INTER-SATELLITE<br>MOBILE 5.558<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.149 5.341 5.554 |  |  |

|                                       |                                       |  |  |
|---------------------------------------|---------------------------------------|--|--|
| 200-202                               |                                       |  |  |
| EARTH EXPLORATION-SATELLITE (passive) | EARTH EXPLORATION-SATELLITE (passive) |  |  |
| RADIO ASTRONOMY                       | RADIO ASTRONOMY<br>NF2                |  |  |
| SPACE RESEARCH (passive)              | SPACE RESEARCH (passive)              |  |  |
| 5.340 5.341 5.563A                    | 5.340 5.341 5.563A                    |  |  |

## 202 - 248 GHz

| ITU Region 1 Allocations   | South African Allocations  | Applications                     | Comments |
|--|--|----------------------------------|----------|
| <b>202-209</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.341 5.563A               | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY NF2<br>SPACE RESEARCH (passive)<br>5.340 5.341 5.563A                   | Passive Sensing                  |          |
| <b>209-217</b><br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>5.149 5.341                                    | FIXED NF1<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY NF2<br>5.149 5.341                                    |                                  |          |
| <b>217-226</b><br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br>5.149 5.341 | FIXED NF1<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY NF2<br>SPACE RESEARCH (passive) 5.562B<br>5.149 5.341 |                                  |          |
| <b>226-231.5</b><br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340                          | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY NF2<br>SPACE RESEARCH (passive)<br>5.340                                | Passive Sensing at 226 - 232 GHz |          |

|   |  |                 |  |
|---|--|-----------------|--|
| 231.5-232<br>FIXED<br>MOBILE<br>Radiolocation   | FIXED NF1<br>MOBILE<br>Radiolocation   |                 |  |
| 232-235<br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE<br>Radiolocation  | FIXED NF1<br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE<br>Radiolocation  |                 |  |
| 235-238<br>EARTH EXPLORATION-<br>SATELLITE (passive)<br>FIXED-SATELLITE<br>(space-to-Earth)<br>SPACE RESEARCH<br>(passive)<br>5.563A 5.563B | EARTH EXPLORATION-<br>SATELLITE (passive)<br>FIXED-SATELLITE<br>(space-to-Earth)<br>SPACE RESEARCH<br>(passive)<br>5.563A 5.563B | Passive Sensing |  |
| 238-240<br>FIXED<br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE<br>RADIOLOCATION<br>RADIONAVIGATION<br>RADIONAVIGATION-<br>SATELLITE      | FIXED NF1<br>FIXED-SATELLITE<br>(space-to-Earth)<br>MOBILE<br>RADIOLOCATION<br>RADIONAVIGATION<br>RADIONAVIGATION-<br>SATELLITE  |                 |  |
| 240-241<br>FIXED<br>MOBILE<br>RADIOLOCATION   | FIXED NF1<br>MOBILE<br>RADIOLOCATION   |                 |  |

|                   |                        |  |  |
|-------------------|------------------------|--|--|
| 241-248           |                        |  |  |
| RADIO ASTRONOMY   | RADIO ASTRONOMY<br>NF2 |  |  |
| RADIOLOCATION     | RADIOLOCATION          |  |  |
| Amateur           | Amateur                |  |  |
| Amateur-satellite | Amateur-satellite      |  |  |
| 5.138 5.149       | 5.138 5.149            |  |  |

## 248 - 1000 GHz

| ITU Region 1 Allocations  | South African Allocations   | Applications    | Comments |
|---|---|-----------------|----------|
| 248 – 250<br>AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy<br>5.149   | AMATEUR<br>AMATEUR-SATELLITE<br>RADIO ASTRONOMY<br>NF2<br>5.149   |                 |          |
| 250-252<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.563A                                   | EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>NF2<br>SPACE RESEARCH (passive)<br>5.340 5.563A                                       | Passive Sensing |          |
| 252-265<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIO ASTRONOMY<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.149 5.554 | FIXED NF1<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIO ASTRONOMY<br>NF2<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.149 5.554 |                 |          |
| 265-275<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>5.149 5.563A   | FIXED NF1<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>NF2<br>5.149 5.563A   |                 |          |
| 275-1 000 (Not allocated)<br>5.565  |   |                 |          |

## **ANNEX A: SOUTH AFRICAN NATIONAL FOOTNOTES**

**NF 1*****Fixed Links***

In the Republic of South Africa, fixed radio links are frequently used for various purposes within the telecommunications and broadcast networks, on either a permanent or temporary basis (exclusive or shared). Usually the justification for using a radio link instead of a wired or optical fibre link relates to active national regulations, policies, geography or economics. They are used to provide fixed communication links between stations in a network supporting a different service (e.g. such as mobile telephony), whereas such an application is known as 'infrastructure' or 'backhaul'. The fixed radio links applications are also frequently referred to as Fixed Wireless Systems (FWS), a term recently adopted by ITU-R SG 9.

**NF 2*****Relevant to all Radio Astronomy Allocations***

In making assignments to stations of other services to which the bands are allocated; the Republic of South Africa takes all practicable steps to protect the radio astronomy services from harmful interference. Emissions from space borne or airborne stations can be particularly serious sources of interference to the radio astronomy service (see Nos 4.5 and 4.6 and Article 29) (WRC-2000). ITU-R Footnote No. 5.149 refers.

**NF 3*****29.7 - 30 MHz***

This portion of the spectrum is allocated to the amateur service on a secondary basis for use during disaster exercises and emergency situations. This is in addition to the existing exclusive amateur band 28 - 29.7 MHz, which retains its primary status. The additional spectrum is used for single frequency mobile applications.

**NF 4*****70 - 70.3 MHz***

This sub-band is allocated to the amateur service on a secondary basis in order to undertake experimental work on propagation. The channels 70.025 – 70.150 MHz are used for civil defence purposes.

**NF 5*****138 - 174 MHz***

The land mobile sub-bands within the VHF High band are now in line with the rest of ITU Region 1.

**NF 6****140.5 - 141 and 152.05 - 152.5 MHz**

These frequency bands are allocated for use by alarm systems. Demand has continued to be primarily for single frequency systems.

**NF 7****148 - 149.9 MHz**

This band was allocated internationally at WARC 92 for the mobile satellite systems (MSS). The band is allocated for the Earth-to-space direction, and is extended up to 150.05 MHz. The space-to-Earth link is generally provided at either 137 - 138 MHz or 400.15 - 401 MHz, depending on the system. In South Africa the band 148 - 149.9 MHz (and the other relevant MSS bands also) is allocated to MSS. MSS cannot cause or claim interference from other stations in this band in accordance with ITU-R Footnote 5.221 (WRC 03).

**NF 8****150.05 - 151 MHz (Electricity Load shedding and alarm systems)**

This band is no longer allocated to paging systems. Since there is a decline in the use of paging, the band is now allocated to load shedding and burglar alarm systems. The channels 150.550 MHz and 150.5625 MHz are used for load shedding countrywide.

**NF 9****161.875 - 173.875 MHz**

Frequencies between 161.875 and 173.875 MHz are currently unavailable for other uses up to a distance of 200 km inland from the coast. It is generally agreed that there should be scope for increased sharing of these frequencies compared with what is allowed at present which is sonobouy.

**NF 10****216 - 246 MHz**

T-DAB is temporarily allocated in order to allow field testing of Eureka 147 (the GE06 broadcast plan should be consulted) standard. The use of wireless microphones for services ancillary to Broadcasting (SAB) and services ancillary to programme (SAP) making will continue. Users of wireless microphones will have to approach the Authority for co-ordination and licensing.

The term SAB covers the use of radio by established terrestrial broadcasters in the making of their programmes. The term SAP has been introduced to cover the use of radio by independent programme makers and other commercial non broadcast entities to support the activities carried out in the making of

“programmes”. Programmes include film making, advertisements, corporate videos, sporting events, concerts, theatre and similar activities not initially meant for broadcasting to the general public.

#### **NF 11**

##### ***336 - 366 MHz***

Within this frequency range the band 336-344 MHz paired with 356-364 MHz is allocated to fixed services on a primary basis. This spectrum is potentially very useful for providing electronic communications services considering its excellent propagation conditions. The bands 344-346 MHz and 364-366 MHz are allocated to Alarm monitoring and tracking services

#### **NF 12**

##### ***380 - 399.9 MHz***

This band has been designated for use by digital trunked mobile radio (CEPT T/R 22-05) for emergency services. The frequency bands 380-385 MHz paired with 390-395 MHz are allocated to Public Protection and Disaster Relief (PPDR) applications in line with the CEPT decision and ITU Resolution 646 (WRC-03). The frequency bands 385-389.9 MHz paired with 395-399.9 MHz are allocated to digital trunking systems.

#### **NF 13**

##### ***407.625 - 413 / 417.625 - 423 MHz***

The frequency bands 407.625 - 410 MHz / 417.625 - 420 MHz are currently used by Government for a variety of fixed and mobile applications. The 2 x 3 MHz immediately above this (i.e. 410 - 413 MHz / 420 - 423 MHz) is currently used for single frequency fixed links. This band will be used primarily for public safety and by local/regional authorities. The use of the band for fixed links will be minimised as far as possible, thus releasing additional spectrum for mobile use.

The bands 407.625 - 413 / 417.625 - 423 MHz will provide spectrum for local and regional authorities for mobile radio (primarily trunked). It is envisaged that the bands 410 - 413 / 420 - 423 MHz will be used primarily for digital trunked radio (the frequencies are within one of the bands designated for TETRA in Europe). A significant number of fixed links have been migrated out of the 410-413/420-423 MHz bands.

#### **NF 14**

##### ***430 - 440 MHz***

This band is allocated to the amateur service in South Africa, as elsewhere in ITU Region 1. The sub-band 433.05 - 434.79 MHz, however, is also designated as an ISM band in Region 1, subject to the special authorisation of the administration

concerned (see RR S5.138). It has effectively been treated as an ISM band in South Africa for a number of years. Furthermore, the regulation in terms of Section 30(9)(a) specifies the use of the band for low power devices on an unlicensed basis, subject to obligatory type approval. The consequence of this is that the amateur service may not claim protection from (in-band) emissions from ISM equipment operating in the band, nor can ISM equipment and low power devices claim protection from amateur users in the band.

#### **NF 15**

##### **440 - 450 MHz**

This band was used primarily for fixed links. The aim in the medium term is to use this band primarily for mobile services (PMR in particular). A 5 MHz TX/RX separation is to be used, in accordance with the European DSI. Repeater systems and a significant number of fixed links have been migrated out of this band. The band (440 - 441 / 445 - 446 MHz) is allocated to fixed point-to-multipoint data services such as scanning telemetry and dual frequency alarm systems. The band (446 – 446.100 MHz) is now allocated to the PMR446 service. The band (441 – 441.100 MHz) is now used for simplex mobile systems.

#### **NF 16**

##### **450 - 470 MHz**

Note that ITU. RR 5.286AA, by which this band is identified for IMT implementation, does not apply to South Africa due to the band being used extensively for analogue land mobile radio and Government services.

The Authority will undertake a separate consultative process to determine if South Africa position should stand post WRC-07.

#### **NF 17**

##### **790 – 862 MHz**

Note that ITU. RR 5.316A, by which this band is allocated to mobile except aeronautical mobile on a primary basis, will be applicable to South Africa after the finalisation of the migration from analogue to digital terrestrial television, planned by 24 November 2011.

The Authority through Government Gazette 29345 of the 31 October 2006, decided that assignments of non-broadcasting services in TV channels 65 (822-830 MHz) and channel 66 (830-838 MHz) will be on a secondary basis. Therefore, the non broadcasting services in the band will not be limited only to fixed services, but will also include mobile services, and the services other than broadcasting services will be introduced on the basis of article 4.4 of the ITU Radio Regulations. There will be no further assignments in the band 790-854

MHz until the migration to digital television has been completed. (24 November 2011)

**NF 18*****872 - 905 / 917 - 950 MHz***

This band is allocated on a shared basis between Wireless Access Service and mobile (primarily GSM and private mobile radio). There are a number of different WAS that could operate in this band, including systems based on TACS, GSM and CDMA.

**NF 19*****876 - 880 / 921 - 925 MHz***

In South Africa; this band offers the possibility to use GSM-based PMR systems. The band might also be one in which TETRA-based equipment is available in the future. There may also be a possibility of WAS sharing these frequencies.

Although the national railway operator does not foresee the future usage of GSM-R, there have been enquiries from other entities that see a possibility of GSM-R use in projects like the GAUTRAIN. The Authority has decided to allocate this band to digital trunking systems on national basis. This does not preclude the use of GSM-R in certain projects where it might be feasible.

**NF20*****880 - 890 / 925 - 935 MHz***

This band is allocated to extend GSM (E-GSM). Assignments have been made to mobile cellular operators.

**NF 21*****915 - 921 MHz***

This is part of ITU Radio Region 2 ISM band 902 - 928 MHz (centre frequency 915 MHz). In South Africa this band is allocated as follows.

- Vehicle location systems in 915.025 -915.200 MHz band on licensed basis.
- Band 915.2 to 915.4 MHz is allocated to single fixed narrowband (25 kHz channel spacing) passive tag RFID systems with power output of the reader not exceeding 4W EIRP.
- Band 915.4 to 919.7 MHz is allocated to passive RFID systems employing Frequency Hopping Spread spectrum (FHSS) with 100 kHz guard band on either side with channels 200 kHz wide.

**NF 22*****1452 - 1492 MHz (digital audio broadcasting)***

This band has been allocated internationally for use for digital broadcasting (S-DAB and T-DAB). Draft ECC decision ECC/DEC/(03)AB is to implement the addition of seven T-DAB blocks, covering the range 1467.5-1479.5 MHz, as decided in June 2002 in Maastricht, in conjunction with the transfer of part of the Wiesbaden plan. The frequency band 1479.5-1492 MHz has been designated for use by satellite DAB systems according to draft decision ECC/DEC/(03)AB. The fixed links that were previously allocated to this band have been migrated to the 1452 - 1464 MHz (paired with 1517.5 - 1529.5 MHz) and some have been migrated to frequencies above 3 GHz.

**NF 23*****1710 - 1785 / 1805 - 1880 MHz (GSM-1800)***

These are the frequencies on which the GSM-1800 system operates (CEPT Recommendation T/R 22-07 refers). Sharing of these frequencies by Wireless Access Services applications is also likely to be possible. This band was also identified for future IMT developments.

**NF 24*****1880 - 1920 MHz***

This band is allocated to Wireless Access Services. No new fixed link assignments are being made within the band. The allocation of this band to Wireless Access Services is important to South Africa.

**NF 25*****1885 - 2025 and 2110 - 2200 MHz***

These bands are used worldwide for the implementation of third generation systems. The bands 1980 - 2010 and 2170 - 2200 MHz are intended for the satellite component of IMT. There are satellite systems operational in these bands.

The frequency bands 1885-1980 MHz, 2010-2025 MHz and 2110-2170 MHz are generally referred to as the terrestrial components of the IMT core bands. There are operators on this band currently.

**NF 26*****1920 - 2010 MHz***

The Authority will no longer issue fixed links assignments on this band as this band has been reserved for the Satellite Component of IMT (WRC 07).

**NF 27*****2025 - 2110 and 2200 - 2290 MHz***

Channel arrangements for the use of these bands for fixed services are described in both ITU-R Recommendation F.1098 and CEPT Recommendation T/R 13-01. These recommendations describe a channel plan in which the band is divided into dual-frequency channels with carrier spacing of 14 MHz and a Tx/Rx separation of 175 MHz. Carrier spacing of 7 MHz, 3.5 MHz and 1.75 MHz are also possible by means of channel subdivision. This channel arrangement is adopted in these bands for fixed services, while a certain portion of the band could be used for Wireless Access Services.

The sub-division of the band is as follows:

- 2025 – 2075 / 2200 - 2250 MHz to be used for Fixed Links;
- 2075 - 2110 / 2250 - 2285 MHz to be used for Fixed Links;
- 2285 - 2290 MHz to be used for WAS.
- 2290 – 2300 to be used for Fixed Links.

**NF 28*****2300 – 2400 MHz***

South Africa supported identification of the band 2 300 – 2 400 MHz for future IMT development at WRC 07. The Authority will undertake a separate consultative process to determine the criteria to access this band.

**NF 29*****2400 - 2500 MHz***

The sub-band 2483.5 – 2500 MHz is allocated for mobile-satellite systems in the space-to-Earth direction. The band 2400 – 2500 is also allocated to ISM (Industrial, Scientific and Medical) equipment and has primary status over the other applications within the band.

**NF 30*****2500 - 2700 MHz***

The use of this band by MMDS has been discontinued. Part of this band 2500 – 2690 MHz is allocated to Broadband Wireless Access services. The Authority undertook an enquiry to determine criteria to access this band. The results of this will be made available in due course in a separate process.

**NF 31*****3400 – 3600 MHz***

South Africa supported identification of the band 3 400 – 3 600 MHz for IMT developments at WRC 07. The Authority undertook an enquiry to determine criteria to access this band. The results of this will be made available in due course in a separate process.

**NF 32*****3600 – 4200 MHz***

The band 3600 – 4200 MHz is used on a national basis for high capacity, core network telecommunication services under the fixed service using point to point (PTP) topologies over long hop lengths.

The band 3625 – 4200 MHz, part of the C-band, is used extensively for FSS (space-to-Earth) applications. This band is shared with FSS (space-to-Earth) on a strictly co-ordinated basis.

The decision of WRC-07 was that 200 of bandwidth in the sub-band 3.4 – 3.6 GHz will be reserved for future development of IMT. However, South Africa does not support the use of 3600 – 4200 GHz for IMT due to the fact that studies show that FS services are not compatible with IMT.

**NF 33*****4400 – 5000 MHz***

The band 4400 – 5000 MHz is allocated to electronic news gathering (ENG)/ outside broadcasting (OB) services under the FS and will be shared with Government Services.

**NF 34*****5725 – 5875 MHz***

The band 5725 – 5875 MHz is designated as an ISM band (S5.150). Industrial, Scientific and Medical Apparatus (ISM) equipment operating in this band shall observe International Special Committee on Radio Interference (CISPR) 11 and its amendments

**NF 35*****5850 – 6425 MHz***

The band 5850 – 6425 MHz, part of the C-band, is used extensively for FSS (Earth-to-space) applications. This band is also shared with FS.

The C-band is also used for satellite news gathering (SNG) operations, which will require will require frequency co-ordination on a case-by-case basis. As far as it is possible users are encouraged to use the Ku-band for SNG operations in South Africa in order to avoid the interference problems associated with C-band SNG operations.

The deployment of large earth station antennas (greater than 2.4 metres diameter) in the C-band should be concentrated in selected suitable sites, known as "Teleports", to allow coordination between the services. This approach would ensure interference control, efficient use of the spectrum, adherence to environmental ethics and increased reliability of the services.

#### **NF 36**

##### ***5850 – 5925 MHz (6 GHz ENG/OB)***

The band 5850 – 5925 MHz is allocated for temporary deployments (ENG/OB) under the FS. This band is also used for FSS (Earth-to-space)

#### **NF 37**

##### ***5925 – 6425 MHz (Lower 6 GHz band)***

This band is used on a national basis for high capacity, core network telecommunication services under the FS using a PTP topology over long hop lengths. The channelization arrangement for this band is ITU-R Recommendation F.383. This band is shared with FSS (Earth-to-space)

#### **NF 38**

##### ***6425 – 7110 MHz (Upper 6 GHz band)***

This band is used on a national basis for high capacity, core network telecommunication services under the FS using a PTP topology over long hop lengths.

The channelization arrangement for this band is ITU-R Recommendation F.384.

This band is shared between FS, NGSO MSS (space-to-Earth) feeder links and geo-stationary satellite orbit (GSO) FSS (Earth-to-space) systems under a strictly controlled and co-ordinated basis.

#### **NF 39**

##### ***7110 – 7425 MHz (Lower 7 GHz band)***

This band is used on a national basis for medium to high capacity telecommunication services under the FS using a PTP topology over long hop lengths.

Analogue systems utilise the channelization arrangement according to International Radio Consultative Committee (CCIR) Report 934 Annex V. The channelization arrangement for new systems in this band is ITU-R Recommendation F.385 Annex 3.

**NF 40*****7425 – 7750 MHz (Upper 7 GHz band)***

This band is used on a national basis for medium to high capacity telecommunication services under the FS using a PTP topology over long hop lengths.

Analogue systems utilise the channelization arrangement according to CCIR Report 934 Annex V. The channelization arrangement for new systems in this band is ITU-R Recommendation F.385 Annex 3.

**NF 41*****7725 – 8275 MHz (Lower 8 GHz band)***

This band is used on a national basis for high capacity electronic communication services under the FS using a PTP topology, mainly for core networks over long hop lengths.

The channelization arrangement for this band is ITU-R Recommendation F.386 Annex 1.

**NF 42*****8275 – 8500 MHz (Upper 8 GHz band)***

This band is used on a national basis for low to medium capacity electronic communication services under the FS using a PTP topology over long hop lengths. As per national agreement users will have access to this band using the concept of one or two reserved channels. As other services are introduced into this band appropriate sharing and co-ordination procedures will be established.

The channelization arrangement for this band is ITU-R Recommendation F.386 Annex 3.

**NF 43*****10.7 – 11.7 GHz***

The band 10.7 – 11.7 GHz is used on a national basis for high capacity, core network and access network electronic communication services under the FS using a PTP topology over medium hop lengths.

The channelization arrangement for the band 10.7 – 11.7 GHz is ITU-R Recommendation F.387.

The bands 10.95 – 11.2 GHz and 11.45 – 11.7 GHz are also shared with FSS (space-to-Earth)

#### **NF 44**

##### **12.75 – 13.25 GHz**

The band 12.75 – 13.25 GHz is used on a national basis for low, medium and high capacity access and core networks under the FS using a PTP topology, over medium hop lengths, subject to rainfall.

The channelization arrangement for the band 12.75 – 13.25 GHz is ITU-R Recommendation F.497.

#### **NF 45**

##### **14. – 14.5 GHz**

The band 14.0 – 14.5 GHz, part of the Ku-band, is used extensively for FSS (Earth-to-space) applications.

The bands 10.95 – 11.2 GHz, 11.45 – 11.7 GHz and 12.5 – 12.75 GHz, part of the Ku-band, is used extensively for FSS (space-to-Earth) applications. The bands 10.95 – 11.2 GHz and 11.45 – 11.7 GHz are also shared with FS.

The Ku-band is the preferred band for SNG operations.

For reasons of efficient spectrum use by all services in the Ku-band, as well as environmental ethics, the deployment of large earth station antennas (greater than 1.8 metres diameter) should be concentrated at selected suitable sites, in order to avoid interference between the services sharing the spectrum. This approach would additionally ensure increased reliability of these services. These selected sites are known in most parts of the world as "Teleports".

Space segments from a range of satellites are currently available, while additional space segments will become available for use by South African operators.

#### **NF 46**

##### **14.5 – 15.35 GHz**

The band 14.5 – 15.35 GHz is used on a national basis for low and medium capacity access networks under the FS using a PTP topology, over medium hop lengths, subject to rainfall.

The channelization arrangement for the band 14.5 – 15.35 GHz is ITU-R Recommendation F.636.

ITU-R Recommendation F.636 is the ITU recommended channelization arrangement for systems operating in this band satisfying the capacity requirements.

#### **NF 47**

##### **17.7 – 19.7 GHz**

The band 17.7 – 19.7 GHz is used on a national basis for low, medium and high capacity access networks under the FS using a PTP topology, over short hop lengths, subject to rainfall.

The channelization arrangement for the band 17.7 – 19.7 GHz is ITU-R Recommendation F.595 Annex 1.

#### **NF 48**

The band 21.2 – 23.6 GHz is used on a national basis for low, medium and high capacity access networks under the FS using a PTP topology, over short hop lengths, subject to rainfall.

The current channelization arrangement for the band 21.2 – 23.6 GHz is ITU-R Recommendation F.637 Annex 1. As part of ITU-R Recommendation F.637 Annex 1 the band 21.2 – 23.6 GHz is subdivided into ten sub-bands. In a unique South African approach the ten sub-bands channelization arrangement was further specified as follows:

| <b>Sub-band</b> | <b>Go:<br/>Band edges<br/>(GHz)</b> | <b>Return:<br/>Band edges<br/>(GHz)</b> | <b>Subdivision</b>       |
|-----------------|-------------------------------------|---|--------------------------|
| 1               | 21.224 - 21.336                     | 22.456 - 22.568                         | 13 x 7 MHz + 6 x 3.5 MHz |
| 2               | 21.336 - 21.448                     | 22.568 - 22.680                         | 13 x 7 MHz + 6 x 3.5 MHz |
| 3               | 21.448 - 21.560                     | 22.680 - 22.792                         | 13 x 7 MHz + 6 x 3.5 MHz |

| Sub-band | Go:<br>Band edges<br>(GHz) | Return:<br>Band edges<br>(GHz) | Subdivision   |
|----------|----------------------------|--------------------------------|---|
| 4        | 21.560<br>21.672           | - 22.792 - 22.904              | 13 x 7 MHz + 6 x 3.5 MHz                              |
| 5        | 21.672<br>21.784           | - 22.904 - 23.016              | 8 x 14 MHz  |
| 6        | 21.784<br>21.896           | - 23.016 - 23.128              | 8 x 14 MHz  |
| 7        | 21.896<br>22.008           | - 23.128 - 23.240              | 4 x 28 MHz (4 x 28 MHz or 3 x 28 MHz and 8 x 3.5 MHz) |
| 8        | 22.008<br>22.120           | - 23.240 - 23.352              | 4 x 28 MHz  |
| 9        | 22.120<br>22.232           | - 23.352 - 23.464              | 1 x 112 MHz (16 x 7 MHz or 8 x 14 MHz)                |
| 10       | 22.232<br>22.344           | - 23.464 - 23.576              | 1 x 112 MHz   |

European Conference of Postal and Telecommunications (CEPT) Recommendation T/R 13-02 Annex A provides the channelization arrangement for the band 22 – 22.6 GHz paired with 23.0 – 23.6 GHz (part of current 23 GHz band, which is not affected by HDTV).

The band 21.4 – 22 GHz is allocated to the Broadcast Satellite Services (BSS) high definition television (HDTV) from 1 April 2007 on a primary basis.

#### **NF 49**

#### **24.5 – 26.5 GHz**

The band 24.5 – 26.5 GHz is allocated to low, medium and high capacities under the FS using PTP and PTMP topologies over short hop lengths, subject to rainfall.

The channelization arrangement for the band 24.5 – 26.5 GHz is in accordance with CEPT Recommendation T/R 13-02 Annex B.

It is anticipated that an unmanned receive only earth station, forming part of the National Polar-orbiting Operational Environmental Satellite System (NPOESS), will be located in South Africa, and that this system will operate within the 25.5 to 27 GHz frequency range within the Earth Exploration Satellite (space-to-earth) service."

#### **NF 50**

##### ***27.5 – 28.35 GHz***

The bands 27.5 – 28.35 GHz (base station to subscriber) and 29.1 – 29.25 GHz (subscriber to base station) are allocated to broadband service - local multipoint distribution services (LMDS) under the FS using a PTMP topology over short hop lengths, subject to rainfall.

#### **NF 51**

##### ***37.0 – 39.5 GHz***

The band 37.0 – 39.5 GHz is allocated to low, medium and high capacity PTP systems under the FS over very short hop lengths, subject to rainfall.

The channelization arrangement for the band 37.0 – 39.5 GHz is in accordance with ITU-R Recommendation F.749 Annex 1.

#### **NF 52**

##### ***71 – 76 GHz***

The band 71 – 76 GHz & 81 – 86 GHz is allocated to very high capacity Broadband Fixed Wireless Systems in the higher millimetre wave bands, with 1 – 2 km hop lengths (line-of-sight conditions). "Radio Frequency Channel Arrangements for Fixed Service Systems Operating in the Bands 71-76 GHz and 81-86 GHz" shall be according to CEPT Rec. (05)07). Maximum power levels are also specified with an EIRP limit of 55dBW and a transmit power limit (at the antenna port) of +30dBm.

## **ANNEX B: TERMS AND DEFINITION**

**B**

South African Table of Frequency Allocations

***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 Off-Route Service***

An aeronautical mobile service intended for communications, including those relating to flight coordination, primarily outside national or international civil air routes.

***Aeronautical Mobile Route 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-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 Route 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 Off-Route 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

***Allotment 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.

***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.

***Amateur***

Means someone who is interested in the radio technique solely for a private reason and not for financial gain and to whom the Authority has granted an amateur radio station license.

***Amateur Radio Station***

Means a radio station for a service of self-tuition, intercommunication and technical investigation that is operated by an amateur.

***Amateur Service***

A Radiocommunication service for the purpose of self-training, intercommunication and technical investigations carried out by amateurs that are 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.

***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.

***Broadcasting Service***

Means any service which consists of broadcasting and which service is conveyed by means of an electronic communications network.

***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.

***Call sign***

The allocation of identification letters and numbers for the purposes of allocating class licenses to amateurs as per Article 19 of the ITU Radio Regulations.

***Electronic Communications Act***

The Electronic Communications Act No. 36 of 2005.

***Electronic Communication***

Any transmission, emission and / or reception of radio waves for a specific communication purposes.

***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 earth 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 using 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.

***Radio Astronomy Service***

A service involving the use of radio astronomy.

***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.

***Radionavigation Service***

A radiodetermination service for the purpose of radionavigation.

***Radionavigation-Satellite Service***

A radiodetermination-satellite service for the purpose 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.

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

***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.

***Safety Service***

Any Radiocommunication service used permanently or temporarily for the safeguarding of human life and property.

***Space Research Service***

A Radiocommunication service in which spacecraft or other objects in space are used for scientific or technological research purposes

***Special Service***

A Radiocommunication service, not other-wise 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 purpose as those of standard frequency and time signal service. This service may also include feeder links necessary for its operations

## **ANNEX C: LIST OF ACRONYMS**

C

South African Table of Frequency Allocations

|        |   |
|--------|---|
| AMSS   | Aeronautical Mobile Satellite Service   |
| ARNS   | Aeronautical Radionavigation Service.   |
| BFWA   | Broadband Fixed Wireless Access   |
| B-GAN  | Broadband Global Area Network   |
| BRAN   | Broadband Access Network  |
| BSS    | Broadcast Satellite Service   |
| BST    | Base Station Transmit   |
| BTX    | Base Transmit   |
| C band | Frequency band between about 4 and 6 GHz  |
| CAA    | Civil Aviation Authority  |
| CB     | Citizens' Band.   |
| CCIR   | The International Radio Consultative Committee now called ITU-R.                        |
| CDMA   | Code Division Multiple Access   |
| CEPT   | European Conference of Postal and Telecommunications Administrations.                   |
| CISPR  | The International Radio Interference Committee  |
| CT1    | Cordless Telephone System 1.  |
| CT2    | Second generation cordless telephones operating to specification MPT1334.               |
| CTCSS  | Continuous Tone Controlled Signalling System (or Continuously Tone Controlled Squelch)  |
| dBW    | Decibels relative to one Watt of power.   |
| DECT   | Digital European Cordless Telecommunication system. ERC Decision ERC/DEC/(94)03 refers. |

|         |  |
|---------|--|
| DF      | Duplex Frequency   |
| DME     | Distance Measuring Equipment.  |
| DSC     | Digital Selective Calling  |
| DSI     | Detailed Spectrum Investigation.   |
| DSSS    | Direct Sequence Spread Spectrum  |
| DTV     | Digital Television   |
| DVB-T   | Terrestrial Digital Video Broadcasting   |
| Erp     | Equivalent Radiated Power  |
| e.i.r.p | Effective Isotropically Radiated power.  |
| EBU     | European Broadcasting Union  |
| EDGE    | Enhanced Data Rates for GSM Evolution  |
| EESS    | Earth Exploration-Satellite Service  |
| E-GSM   | Extended GSM   |
| EMC     | Electromagnetic Compatibility  |
| ENG     | Electronic News Gathering  |
| ENG/OB  | Electronic News Gathering / Outside Broadcasting   |
| EPIRBs  | Emergency Position Indicating Radio Beacons.   |
| ERC     | European Radiocommunications Committee - the main CEPT committee looking after radio matters.                      |
| ERMES   | European Radio Messaging System.   |
| ERO     | European Radiocommunications Office-a permanent secretariat within the CEPT committee looking after radio matters. |
| ETS     | European Telecommunications Standard.  |

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| ETSI     | European Telecommunications Standards Institute   |
| FHSS     | Frequency Hopping Spread Spectrum   |
| FM       | Frequency Modulation  |
| FSS      | Fixed Satellite Service   |
| FTP      | File Transfer Protocol  |
| FWA      | Fixed Wireless Access   |
| GAUTRAIN | A high speed train for Gauteng  |
| GLONASS  | Global Navigation Satellite System  |
| GMPCS    | Global Mobile Personal Communications by Satellite  |
| GMDSS    | Global Maritime Distress and Safety System.   |
| GNSS     | Global Navigation-Satellite System.   |
| GPRS     | General Packet Radio Service  |
| GPS      | Global Positioning System - a satellite radionavigation system operated by the US.                          |
| GSM      | Global System for Mobile communications. Originally Groupe Spécial Mobile. See ERC Decision ERC/DEC/(94)01. |
| GSM1800  | GSM using 1800 MHz frequencies  |
| GSM900   | GSM using 900 MHz frequencies   |
| GSM-R    | GSM Railways  |
| GSO      | Geostationary Orbit   |
| HAP      | High Altitude Platform  |
| HDFS     | High Density Fixed Service  |
| HDFSS    | High Density Fixed Satellite Service  |

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| HDTV        | High Definition Television   |
| HF          | High Frequency (3 to 30 MHz)   |
| HFBC        | High Frequency Broadcasting.   |
| HIPERLAN    | High Performance Radio Local Area Networks.  |
| IARU        | International Amateur Radio Union  |
| ICAO        | International Civil Aviation Organisation  |
| ICT         | Information Communication Technology   |
| IEC         | International Electrotechnical Committee   |
| IEEE        | Institute of Electrical and Electronic Engineers   |
| IEEE 802.11 | IEEE Regulatory Advisory Group on Wireless LANs  |
| IFRB        | International Frequency Registration Board, now the Radio Regulations Board of ITU-R.                              |
| ILS         | Instrument Landing System-aeronautical radionavigation system.   |
| IMO         | International Maritime Organisation  |
| IMT-2000    | International Mobile Telecommunications  |
| ISM         | Industrial, Scientific and Medical. The use of radio for non-communication purposes such as microwave heating etc. |
| ISP         | Internet Service Provider  |
| ITU         | International Telecommunication Union.   |
| Ka band     | Part of the frequency band between about 27 and 40 GHz   |
| Ku band     | Part of the frequency band between about 11 and 14 GHz   |
| L band      | Frequency band around 1.5 GHz  |
| LAN         | Local Area Network   |

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| LEOs   | Low Earth Orbit satellites   |
| LF     | Low Frequency (30 to 300 kHz)  |
| MF     | Medium Frequency (300 to 3000 kHz)   |
| Mob-87 | World Administrative Radio Conference for the Mobile Services, Geneva, 1987.   |
| Mobile | Mobile service - a radiocommunication service between mobile land stations, or between mobile stations.  |
| MoU    | Memorandum of Understanding  |
| MPT    | Mobile Public Trunking   |
| MSS    | Mobile Satellite Service   |
| MTX    | Mobile Transmit  |
| MVDS   | Multipoint Video Distribution System.  |
| NGSO   | Non-geostationary Satellite Orbit  |
| NIB    | Non Interference Basis. This means that the service in question must not cause interference to, nor claim protection from interference from, other services. |
| OB     | Outside Broadcast.   |
| PAMR   | Public Access Mobile Radio.  |
| PCN    | Personal Communication Networks (at 1800 MHz)  |
| PLB    | Public Locater Beacons   |
| PMR    | Private Mobile Radio.  |
| PMSE   | Programme Making and Special Events.   |
| PPDR   | Public Protection and Disaster Relief  |
| PSTN   | Public Switched Telephone Network  |

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|--------------------|---|
| R&D                | Research & Development.   |
| Radioastronomy     | Astronomy based on the reception of radio waves of cosmic origin.   |
| Radiodetermination | The determination of the position, velocity and /or other characteristic of an object, or the obtaining of information relating to these parameters, by means of the propagation properties of radio waves. |
| Radiolocation      | Radiodetermination used for purposes other than those of radionavigation.   |
| Radionavigation    | Radiodetermination used for the purposes of navigation including obstruction warning.   |
| RFID               | Radio Frequency Identification systems  |
| RLAN               | Radio Local Area Network  |
| RNSS               | Radio Navigation Satellite Service  |
| RSA                | Republic of South Africa  |
| RR                 | Radio Regulation of the International Telecommunication Union   |
| RTT                | Road Transport Telematics - developed from DRIVE.   |
| SAB                | Services Ancillary to Broadcasting  |
| SABRE              | South African Band Replanning Exercise  |
| SAP                | Services Ancillary to Programme making  |
| SATFA              | South African Table of Frequency Allocation   |
| S-DAB              | Satellite Digital Audio Broadcasting  |
| SKA                | Square Kilometre Array  |
| SNG                | Satellite News Gathering  |
| SRBR               | Short Range Business Radio  |
| SRDs               | Short Range Devices, formerly referred to as Low Power Devices (LPDs).  |

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| SSS   | Space Science Service  |
| T-DAB | Terrestrial Digital Audio Broadcasting.  |
| TDD   | Time Division Duplex   |
| TDMA  | Time Division Multiple Access  |
| TETRA | Trans European Trunked Radio System (now called Terrestrial Trunked Radio).                              |
| TFTS  | Terrestrial Flight Telecommunications System.  |
| UHF   | Ultra High Frequency (300 to 3000 MHz)   |
| UMTS  | Universal Mobile Telecommunications System   |
| USAL  | Under –serviced area Licensees.  |
| UWB   | Ultra Wideband technology  |
| VHF   | Very High Frequency (30 to 300 MHz)  |
| VLBI  | Very Long Baseline Interferometry.   |
| VLF   | Very Low Frequency (3 to 30 kHz)   |
| VOR   | Very high frequency Omnidirectional Range (aeronautical radionavigation system).                         |
| VSAT  | Very Small Aperture Terminal   |
| WAS   | Wireless Access Services   |
| WARC  | World Administrative Radio Conference. The last WARC was held in 1992. WARCs are now superseded by WRCs. |
| WLAN  | Wireless Local Area Network  |
| WLL   | Wireless Local Loop  |
| WRC   | World Radiocommunication Conference.   |