Introduction

Spectrum Management

International spectrum management is the responsibility of the International Telecommunications Union (ITU). The ITU Radio Regulations allocate separate bands for each service such as fixed, mobile, broadcasting or amateur. Some bands are shared by more than one service.

When bands are shared, services designated “Primary” are entitled to full protection from interference caused by secondary services. Secondary services must tolerate interference from primary services operating in the same band, and not cause any interference to primary services. Other services may also be permitted to share bands with primary and secondary services on a non-interference basis.

Each ITU member nation implements the Radio Regulations within its borders. Most member nations follow the ITU allocation tables fairly closely, although they do have the right to make variations to suit local requirements. In Australia, spectrum management is the responsibility of the Australian Communications and Media Authority (ACMA). It determines frequency allocations and licence conditions for all transmitting stations in Australia and its territories.

Amateur Self-Regulation

Amateurs use a wide variety of different modes. Within one amateur band, activity can include CW, voice, satellite and EME activity, and ATV. The best way of avoiding clashes is to set aside different band segments for each of these activities, so that all amateurs can pursue their interests without interference.

Amateur band plans are voluntary agreements, often known as “Gentlemen's Agreements”. They are sponsored by the WIA, but they are for the benefit of all amateurs. Most amateurs - WIA members or not - abide by the band plans because it makes sense to give everyone a fair go. Clashes still occur at times, and the usual reason is lack of awareness of the band plans. Most amateurs are willing to change frequency if the problem is explained to them politely.

Band Planning Guidelines

Band plans need to satisfy a number of conflicting criteria:

- They should take local conditions into account, but they should be consistent with international usage.
- They should encourage spectrum efficiency, but they should also ensure that all modes have their fair share of spectrum space.
- They should take the popularity of each mode into account, while still providing enough spectrum space for less popular activities. For example, ATV requires far more bandwidth per operator than other modes; and activities such as EME are of major importance regardless of the number of stations involved.
- Band plans must be flexible enough to adapt to changing needs, but they tend to lose support if they are changed too often. The aim must be to think ahead and to make sure that future options are not closed off.
Mode Compatibility

Some modes require exclusive band segments, but others can coexist with similar modes in the same part of the band. On the HF bands, there are three main mode divisions: CW, digital data modes, and SSB. Image modes such as SSTV are usually sent as SSB signals, so these modes can be used in the SSB band segments. The same applies to digital voice modes that occupy much the same bandwidth as an SSB signal.

AM receives little use nowadays because it is less efficient than SSB and occupies twice as much bandwidth. But it can still be found, mainly on 160 metres and sometimes around 29 MHz.

On 10 metres, there is also a fourth category for FM. This mode is quite popular above 29 MHz, but it should not be used on lower frequencies because of its wide bandwidth. It should also be noted that most HF radios cannot comply with ACMA’s bandwidth limit of 8 kHz for FM operation on bands below 10 metres.

On the VHF-UHF bands, the grouping of modes is slightly different. The three main groups are:

- CW and SSB: the preferred modes for weak signal work, including digital DX modes using SSB bandwidths.
- FM: not suitable for weak signal work and not compatible with SSB or CW. This category also includes modes such as packet, which usually use FM mode on the VHF bands.
- ATV: requires a very large bandwidth but has a very low power density, so it needs an exclusive interference-free band segment.

Calling Frequencies

On the VHF bands, the band plans include calling frequencies. These frequencies are "meeting places" and should be used only to make initial contact before moving to another frequency. If you "hog" the calling frequency you will prevent others from making calls or hearing more distant stations that may appear on the frequency.

Beacons

Beacons give an indication of band conditions and provide a warning of DX openings. They also serve as test signals for receiver calibration and testing. There should be no other transmissions within the beacon segments or on their band edges. This applies even if you are hundreds of kilometres away from the nearest beacon!

On the VHF/UHF bands, beacon frequencies are allocated according to a geographic allocation plan with a frequency spacing of 2 kHz. Further details on beacon frequency allocations are available from the Technical Advisory Committee.

Satellite Segments

The band plans provide separate band segments for satellite operation. Satellite downlink bands should be kept clear of other transmissions at all times - right to the band edges. On bands where the satellite band joins an FM segment, there should be no FM operation on the band edge.

FM Segments

FM operators can operate on any simplex channel or on unused repeater frequencies. The band plan SSB and beacon segments should be avoided at all times. It is also a good idea to avoid operating simplex on repeater input channels - you may unintentionally key up a distant repeater.

Further Information

The band plans are reviewed regularly, to keep up to date with changing patterns of activity. The band plans apply in all states, so any changes must be discussed and agreed in all states before they are adopted. If a proposed new application requires a change to the band plan, or if you are aware of any band planning problems in your area, please advise the Technical Advisory Committee.

Further information about technical standards, frequency allocation and licensing of unattended stations (including beacons, repeaters, links, gateways etc) is available on request from the Technical Advisory Committee.
LF Band

2200 Metre Band – Advanced Licensees only

The following plan is recommended as an interim plan for the 2200 metre band. This plan is based on the unofficial 2200 metre band plan adopted by LF operators in ITU Region I.

135.7 - 137.4 kHz  CW only
135.7 - 135.8 kHz  International DX window
135.8 - 136.0 kHz  Test transmissions and test beacons
136.0 - 137.4 kHz  Normal CW operation (centre of activity 136.5 kHz)
137.4 - 137.6 kHz  Narrow band digital modes, e.g. PSK (centre of activity 137.5 kHz)
137.6 - 137.8 kHz  Slow CW modes, e.g. QRSS

MF and HF Bands

Footnotes for these bands appear after the 10 metre listing.

160 Metre Band – Advanced Licensees only

1800 - 1810  Digital data modes  (Notes 1, 2)
1810 - 1840  CW only  (Note 1)
1840 - 1875  SSB / AM  (Note 1)
80 Metre Band – 3500 -3700 kHz  All licence classes
3776 - 3800 kHz  Advanced licensees only

3.500 - 3.700  CW
3.535 - 3.620  SSB
3.600  WICEN frequency
3.600  IARU Region III emergency centre frequency
3.620 - 3.640  Digital data modes  (Note 2)
3.640 - 3.700  SSB
3.776 - 3.800  DX Window

NOTE: DX WINDOW
Emissions must not extend below 3776 kHz. Therefore when using LSB, the suppressed carrier frequency should be no lower than 3779 kHz.

40 Metre Band – All licence classes

7.000 - 7.300  CW
7.030 - 7.040  Digital data modes  (Note 2)
7.040 - 7.300  SSB
7.075  WICEN frequency
7.110  IARU Region III emergency centre frequency
7.130 - 7.150  WIA news transmissions
30 Metre Band – Advanced licensees only

10.100 - 10.150 CW
10.115 - 10.140 SSB
10.115   WICEN frequency
10.140 - 10.150 Digital data modes (Note 2)

20 Metre Band – Advanced & Standard licensees

14.000 - 14.350 CW
14.070 - 14.112 Digital data modes (Note 2)
14.070 - 14.080 Amtor, PSK etc.
14.080 - 14.095 RTTY
14.095 - 14.112 Packet Radio
14.100   IBP Beacons (Note 3)
14.112 - 14.350 SSB
14.125   WICEN frequency
14.230   SSTV calling frequency (Note 2)
14.250   FAX calling frequency (Note 2)
14.300   IARU Region III emergency centre frequency
17 Metre Band – Advanced licensees only

18.068 - 18.168 CW
18.100 - 18.110 Digital data modes (Note 2)
18.110 IBP Beacons (Note 3)
18.110 - 18.168 SSB
18.150 WICEN frequency
18.160 IARU Region III emergency centre frequency

15 Metre Band – All licence classes

21.000 - 21.450 CW
21.070 - 21.125 Digital data modes (Note 2)
21.150 IBP Beacons (Note 3)
21.150 - 21.450 SSB
21.190 WICEN frequency
21.340 +/- 5 kHz SSTV calling frequency (Note 2)
21.360 IARU Region III emergency centre frequency
### 12 Metre Band – Advanced licensees only

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.890 - 24.990</td>
<td>CW</td>
</tr>
<tr>
<td>24.920 - 24.930</td>
<td>Digital data modes</td>
</tr>
<tr>
<td>24.930</td>
<td>IBP Beacons</td>
</tr>
<tr>
<td>24.930 - 24.990</td>
<td>SSB</td>
</tr>
<tr>
<td>24.950</td>
<td>WICEN frequency</td>
</tr>
</tbody>
</table>

### 10 Metre Band – All licence classes

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.000 - 28.200</td>
<td>CW AND DIGITAL MODES</td>
</tr>
<tr>
<td>28.000 - 28.050</td>
<td>CW only</td>
</tr>
<tr>
<td>28.050 - 28.150</td>
<td>Digital data modes</td>
</tr>
<tr>
<td>28.150 - 28.200</td>
<td>CW only</td>
</tr>
<tr>
<td>28.190 - 28.200</td>
<td>IBP Beacons</td>
</tr>
<tr>
<td>28.200 - 28.300</td>
<td>Continuous Duty Beacons</td>
</tr>
<tr>
<td>28.300 - 28.310</td>
<td>CW / SSB / AM</td>
</tr>
<tr>
<td>28.390</td>
<td>Recommended intra-VK calling frequency</td>
</tr>
<tr>
<td>28.450</td>
<td>WICEN frequency</td>
</tr>
<tr>
<td>28.680 +/- 5 kHz</td>
<td>SSTV calling frequency</td>
</tr>
<tr>
<td>28.885</td>
<td>International 6 Metre liaison frequency</td>
</tr>
<tr>
<td>29.110 - 29.290</td>
<td>FM SIMPLEX</td>
</tr>
<tr>
<td>29.120</td>
<td>Simplex repeater gateway frequency</td>
</tr>
<tr>
<td>29.200</td>
<td>National calling frequency</td>
</tr>
<tr>
<td>29.250</td>
<td>Recommended packet frequency</td>
</tr>
<tr>
<td>29.300 - 29.510</td>
<td>AMATEUR SATELLITES</td>
</tr>
<tr>
<td>29.510 - 29.700</td>
<td>FM REPEATERS AND SIMPLEX</td>
</tr>
<tr>
<td>29.520 - 29.580</td>
<td>Repeater inputs</td>
</tr>
<tr>
<td>29.600</td>
<td>International simplex calling frequency</td>
</tr>
<tr>
<td>29.620 - 29.680</td>
<td>Repeater outputs</td>
</tr>
</tbody>
</table>
**Notes for the 160 - 10 Metre Bands**

**Note 1: 160 Metres**

DX operation has absolute priority between 1810 and 1840 kHz. Digital mode operation may occur up to 1815 kHz, but only for contacts with overseas stations that cannot operate below 1810 kHz. SSB operation may occur down to 1835 kHz, but only for contacts with overseas stations that cannot operate above 1840 kHz. Operation may vary from the band plan during times when all stations within working range are in full daylight.

**Note 2: Modes**

"Digital Data Modes" includes all modes such as RTTY, packet and Amtor, using FSK or PSK and with bandwidths up to 2 kHz. The SSB segment can also be used for digital voice modes and image transmission modes such as SSTV or Fax, using bandwidths up to 4 kHz, or for AM. On 10 metres, the recommended segment for AM is 29.0 - 29.1 MHz.

**Note 3: Beacons**

The beacon segments should be kept clear of all other transmissions.

**Note 4: Amateur Satellites**


**Note 5: FM Simplex**

Maximum permitted bandwidth for FM is 16 kHz on 10 metres, and 6 kHz on lower bands. Most multimode transceivers cannot comply with the 6 kHz bandwidth limit and should not be used in FM mode below 10 metres. Please avoid operation on 29.300 or 29.500 MHz, as this can interfere with satellite downlinks.

**Note 6: FM Repeaters**

The standard repeater input frequencies are 29.52, 29.54, 29.56 and 29.58 MHz. Some overseas repeaters operate on 10 kHz spaced channels. Repeater offset is 100 kHz. Further details on repeater planning and frequency allocations are available from the Technical Advisory Committee.
6 Metre Band – 50 - 52 MHz  
Advanced licensees only

52 - 54 MHz  
Advanced & Standard licensees

Band Allocation

50 - 52 MHz  BROADCASTING  Primary Service
AMATEUR  Secondary Service

52 - 54 MHz  AMATEUR  Primary Service

NOTE: The band 45 - 52 MHz is allocated on a primary basis to the Broadcasting Service for television channel 0. In the eastern call areas VK1, VK2, VK3 and VK4, operation on frequencies below 52 MHz is subject to the following restrictions:

• Amateur stations may operate only within the sub-band 50.000 - 50.300 MHz.
• Permitted modes and maximum power limits are: CW (100 watts), SSB (100 watts) or FSK (30 watts).
• No operation on any frequency below 52 MHz is permitted within 120 km of main channel 0 stations, or within 60 km of translators which have their outputs or inputs on channel 0.
• No operation is permitted if it causes interference to reception of Channel 0 television.

Please refer to the ACMA Amateur Licence Conditions Determination (LCD) for full details of these restrictions.

50.0 50.5 51.0 51.5 52.0 52.5 53.0 53.5 54.0

Secondary Service

Primary Service

NB  All Modes  NB  FM

Rpt In  Simplex  Rpt Out

Eastern States DX Window  Beacons

50.000 - 50.300  NARROW BAND MODES  (Note 1)
50.000 - 50.080  CW only
50.020 - 50.080  Beacons  (Note 2)
50.080 - 50.100  International DX window
50.100 - 50.150  CW / SSB: International DX only
50.110  International DX calling frequency
50.150 - 50.280  CW / SSB: DX or local
50.200  Australian calling frequency
50.220 - 50.240  Digital DX modes
50.280 - 50.300  Beacons (VK1,2,3,4,7)  (Note 2)
50.300 - 50.320  Beacons (VK5,6,8,9,0 only)  (Note 2)
50.320 - 52.000  ALL MODES (VK5,6,8,9,0 only)

52.000 - 52.500  NARROW BAND MODES  (Note 1)
52.000 - 52.100  CW only
52.100 - 52.300  SSB
52.100  Calling frequency
52.300 - 52.500  Beacons  (Note 2)
52.525 - 53.975  FM SIMPLEX AND REPEATERS  (Notes 3, 4)
52.525  International simplex calling frequency
52.550 - 52.975  Repeater inputs
53.000  Simplex: data (BBS forwarding)
53.025  Simplex: data (general use)
53.050  Simplex: data (recommended APRS channel)
53.075  Simplex: data (general use)
53.125 - 53.525  Simplex: voice
53.150  National WICEN frequency
53.300  National ARDF frequency
53.500  National voice calling frequency
53.550 - 53.975  Repeater outputs

Note 1: Narrow Band Modes

This segment is reserved for modes such as CW, digital modes and SSB with bandwidths up to 4 kHz. Weak signal operation has absolute priority. International practice is to keep the segment below 50.150 MHz clear at all times for international DX operation, and to use 50.150 MHz and above for contacts within the country or region. Calling frequencies should be used only to make initial contact and then vacated as soon as possible. The calling frequencies are 50.110 MHz for international DX only, and 50.200 MHz for all other operation.

The following spot frequencies are recommended for digital DX operation using SSB-based modes:
50.220  Weak signal modes with bandwidths below 100 Hz, e.g. PSK and slow CW
50.225  Weak signal modes with bandwidths up to 500 Hz, e.g. MFSK, JT44 and similar
50.230  High speed meteor scatter modes with bandwidths up to 3 kHz, e.g. FSK441

Note 2: Beacons

The beacon segments should be kept clear of other transmissions. Beacon frequency spacing is 2 kHz.

On 50 MHz, beacons in the eastern states are confined to the DX window. The international beacon sub-band is 50.020 - 50.080 MHz. To reduce overcrowding in the lower end of the DX window, the following alternative frequencies for beacons have been adopted:

For call areas VK1, VK2, VK3, VK4, and VK7:  50.280 - 50.299 MHz.
For call areas VK5, VK6, VK8, VK9 and VK0:  50.300 - 50.319 MHz.

On 52 MHz, beacon frequencies are allocated on a call area basis, e.g. VK1: 52.410 - 52.419, VK2: 52.420 - 52.429 etc. Further details on beacon frequency allocations are available from the Technical Advisory Committee.

Note 3: FM Simplex

Channel spacing is 25 kHz. Channels reserved for special purposes should be kept clear of other operation.

Note 4: Repeaters

The repeater split is 1 MHz (negative offset) and the channel spacing is 25 kHz. Seven repeater channels are reserved for exclusive use in the following call areas:
52.750 / 53.750 - VK5/8  52.800 / 53.800 - VK6
52.825 / 53.825 - VK7  52.850 / 53.850 - VK2
52.900 / 53.900 - VK3  52.950 / 53.950 - VK4
The remaining channels are available for use in any call area.
Repeater channels are co-ordinated nationally to reduce the possibility of interstate sporadic E interference.
### 2 Metre Band – All licence classes

**Band Allocation**

<table>
<thead>
<tr>
<th>Frequency (MHz)</th>
<th>Mode</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>144.0 - 144.70</td>
<td>NB</td>
<td>Primary</td>
</tr>
<tr>
<td>144.0 - 144.10</td>
<td>EME</td>
<td>AMATEUR</td>
</tr>
<tr>
<td>144.100 - 144.400</td>
<td>CW / SSB</td>
<td>AMATEUR</td>
</tr>
<tr>
<td>144.200</td>
<td>Calling frequency: national primary</td>
<td>Primary Service</td>
</tr>
<tr>
<td>144.220 - 144.240</td>
<td>Digital DX modes</td>
<td>Primary Service</td>
</tr>
<tr>
<td>144.240 - 144.300</td>
<td>Guard band: New Zealand beacons</td>
<td>Primary Service</td>
</tr>
<tr>
<td>144.300</td>
<td>Calling frequency: national secondary</td>
<td>Primary Service</td>
</tr>
<tr>
<td>144.300 - 144.500</td>
<td>Space communications</td>
<td>Primary Service</td>
</tr>
<tr>
<td>144.400 - 144.600</td>
<td>Beacons</td>
<td>Primary Service</td>
</tr>
<tr>
<td>144.625 - 144.675</td>
<td>General / Experimental</td>
<td>Primary Service</td>
</tr>
<tr>
<td>144.700 - 145.200</td>
<td>DIGITAL AND PACKET RADIO</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.125</td>
<td>Recommended D-Star simplex frequency</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.150</td>
<td>National APRS frequency</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.200</td>
<td>National WICEN packet frequency</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.225 - 145.775</td>
<td>ALL MODES</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.225 - 145.275</td>
<td>General / Experimental</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.300</td>
<td>National ARDF frequency</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.325 - 145.400</td>
<td>Recommended for simplex IRLP/Echolink nodes</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.425 - 145.525</td>
<td>FM voice simplex</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.550</td>
<td>Space communications only</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.575</td>
<td>Information Beacons</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.600</td>
<td>RTTY (AFSK)</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.625</td>
<td>SSTV / Fax (AFSK)</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.650 - 145.675</td>
<td>CW practice beacons / broadcast relays</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.700</td>
<td>ARDF homing beacons</td>
<td>Primary Service</td>
</tr>
<tr>
<td>145.800 - 146.000</td>
<td>AMATEUR SATELLITES</td>
<td>Primary Service</td>
</tr>
<tr>
<td>146.025 - 147.975</td>
<td>FM SIMPLEX AND REPEATERS</td>
<td>Primary Service</td>
</tr>
<tr>
<td>146.025 - 146.400</td>
<td>Repeater inputs - group A</td>
<td>Primary Service</td>
</tr>
<tr>
<td>146.425 - 146.600</td>
<td>Simplex</td>
<td>Primary Service</td>
</tr>
<tr>
<td>146.500</td>
<td>National voice calling frequency</td>
<td>Primary Service</td>
</tr>
<tr>
<td>146.600</td>
<td>RTTY (AFSK)</td>
<td>Primary Service</td>
</tr>
<tr>
<td>146.625 - 147.000</td>
<td>Repeater outputs - group A</td>
<td>Primary Service</td>
</tr>
</tbody>
</table>

(Note 1) NARROW BAND MODES
(Note 2) BEACONS
(Note 3) AMATEUR SATELLITES
(Note 4) DIGITAL AND PACKET RADIO
(Note 5) FM SIMPLEX AND REPEATERS
(Note 6) AMATEUR SATELLITES
147.025 - 147.375  Repeater outputs - group B
147.400 - 147.600  Simplex
147.400    ATV liaison
147.575 - 147.600    Packet radio
147.625 - 147.975  Repeater inputs - group B

Note 1:  Narrow Band Modes

This segment is reserved for modes such as CW, digital modes and SSB with bandwidths up to 4 kHz. Weak signal operation has absolute priority. Calling frequencies should be used only to make initial contact and then vacated as soon as possible. Please avoid any terrestrial operation within the EME segment.

The following spot frequencies are recommended for digital DX operation using SSB-based modes:

- 144.220 / .320  Weak signal modes with bandwidths below 100 Hz, e.g. PSK and slow CW
- 144.225 / .325  Weak signal modes with bandwidths up to 500 Hz, e.g. MFSK, JT44 and similar
- 144.230 / .330  High speed meteor scatter modes with bandwidths up to 3 kHz, e.g. FSK441

SSB operators should note that the segment 144.110 – 144.165 MHz is used in some countries for international digital mode EME operation.

The band 144.3 - 144.5 MHz is not an IARU recognised satellite band, however some frequencies in this segment may be used at times for space communications.

Note 2:  Beacons

The beacon segment should be kept clear of other transmissions. Beacon frequencies are allocated on a call area basis, e.g. VK1: 144.410 - 144.419, VK2: 144.420 - 144.429 etc. Beacon frequency spacing is 2 kHz. Further details on beacon frequency allocations are available from the Technical Advisory Committee.

Note 3:  Amateur Satellites

The satellite segment should be kept clear of all terrestrial operation.

Note 4:  All Mode, Digital, Packet and FM Simplex Segments

Channel spacing is 25 kHz. Channels reserved for special purposes should be kept clear of other operation. The space shuttle frequencies on 144.950 and 145.550 MHz should be kept clear of all terrestrial operation. Recommended simplex frequencies for digital modes such as D-Star is 145.125 MHz. Recommended frequencies for simplex IRLP repeater gateways are the channels between 145.325 and 145.400 MHz.

Note 5:  FM Repeaters

Channel spacing is 25 kHz, and offset is 600 kHz. Inputs and outputs may be reversed but this is not recommended. Vacant repeater output frequencies can be used as simplex channels, but repeater inputs should be avoided.

The following channels are reserved for WICEN repeaters:
- 147.175  (all states)
- 147.125, 147.150  (NSW, Queensland)
- 146.925, 147.300  (Victoria)

**Digital (D-Star) repeaters** will use frequencies on odd multiples of 12.5 kHz in between the existing 25 kHz spaced FM repeater channels. Frequency pairs to be allocated will be between 146.0375 - 146.3875 MHz input and 146.6375 - 146.9875 MHz output.

Note 6:  Repeater Linking

Our licence conditions require tone access for repeaters that are linked to repeaters in certain other bands, to prevent transmissions from being relayed on frequencies that the operators are not entitled to use. CTCSS is also used to activate selective linking or for interference protection.

The following CTCSS tones have been adopted for repeater access:

- 91.5 Hz:  For use with repeaters fitted with CTCSS for interference protection.
- 141.3 or 146.2 Hz:  To activate links to repeaters on other VHF/UHF bands.
- 85.4 Hz:  To activate links to other bands that some operators are not permitted to use.

The previously recommended 123 Hz tone is no longer recommended for future repeaters due to problems with false detecting.
70 Cm Band – 420 - 430 MHz  Advanced licensees only
430 - 450 MHz  All licence classes

Band Allocation

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Service Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>420 - 450 MHz</td>
<td>RADIOLOCATION Primary Service</td>
</tr>
<tr>
<td>420 - 450 MHz</td>
<td>FIXED, MOBILE Primary Service</td>
</tr>
<tr>
<td>420 - 430 MHz</td>
<td>AMATEUR (restricted access in some states) Secondary Service</td>
</tr>
<tr>
<td>430 - 450 MHz</td>
<td>AMATEUR Secondary Service</td>
</tr>
<tr>
<td>435 - 438 MHz</td>
<td>AMATEUR SATELLITE Permitted on non-interference basis</td>
</tr>
</tbody>
</table>

420.000 - 423.000 REPEATER LINKS (Note 7)
Not available in some states

425.000 - 432.000 ATV CHANNEL 1 (Note 8)
Not available in some states

430.025 - 430.975 REPEATER LINKS - Segment A (Note 7)

431.025 - 431.250 REPEATER LINKS - Segment B (Note 7)

431.275 - 431.975 REPEATER LINKS - Reserved (Note 9)

432.000 - 432.600 NARROW BAND MODES (Note 1)

431.950 - 432.100 EME

432.100 - 432.400 CW / SSB

432.100 Calling frequency: national primary

432.200 Calling frequency: national secondary

432.220 - 432.240 Digital DX modes

432.240 - 432.300 Guard band: New Zealand beacons

432.300 SSB chat frequency

432.320 - 432.340 Digital DX modes

432.400 - 432.600 Beacons (Note 2)

432.625 - 433.000 RESERVED (Note 9)

433.025 - 434.975 FM SIMPLEX AND REPEATERS (Notes 4, 5, 6)

433.025 - 433.725 Repeater inputs - Group A

433.750 - 434.250 Simplex

433.750 RTTY (AFSK)

433.775 SSTV / Fax (AFSK)

433.800 WICEN

434.050 - 434.250 Packet Radio

434.275 - 434.975 Repeater inputs - Group B

435.000 - 438.000 AMATEUR SATELLITES (Note 3)

438.025 - 439.975 FM SIMPLEX AND REPEATERS (Notes 5, 6)

NOTE: Operating restrictions apply in parts of VK2, VK3 and VK6 where some or all of the 420 - 430 MHz band has been assigned to non-amateur services. Please refer to the current ACMA Amateur Licence Conditions Determination for details of operating restrictions.
438.025 - 438.725 Repeater outputs - Group A
438.750 - 439.250 Simplex
438.800 WICEN
438.900 Recommended D-Star primary simplex frequency
438.850 National ARDF frequency
439.000 National voice calling frequency
439.050 - 439.075 Packet Radio
439.100 APRS
439.150 - 439.175 Recommended for simplex IRLP/Echolink nodes
439.200 - 439.250 Packet Radio
439.275 - 439.975 Repeater outputs - Group B

440.025 - 440.975 REPEATER LINKS - Segment C (Note 7)
441.025 - 441.975 REPEATER LINKS - Segment D (Note 7)
442.025 - 442.975 REPEATER LINKS - Segment E (Note 7)
443.000 - 450.000 ATV CHANNEL 2 (Note 8)

Note 1: Narrow Band Modes
This segment is reserved for modes such as CW, digital modes and SSB with bandwidths up to 4 kHz. Weak signal operation has absolute priority. Calling frequencies should be used only to make initial contact and then vacated as soon as possible. Please avoid any terrestrial operation within the EME segment. The “Digital DX modes” segments include recommended spot frequencies for SSB-based digital modes, on the same pattern as in Note 1 of the 2 metre band plan.

Note 2: Beacons
The beacon segment should be kept clear of other transmissions. Beacon frequencies are allocated on a call area basis, e.g. VK1: 432.410 - 432.419, VK2: 432.420 - 432.429 etc. Beacon frequency spacing is 2 kHz. Further details on beacon frequency allocations are available from the Technical Advisory Committee.

Note 3: Amateur Satellites
The satellite segment should be kept clear of all terrestrial operation.

Note 4: LIPD Allocation
Stations operating between 433.050 and 434.790 MHz may experience interference from LIPDs (“Low Interference Potential Devices”). Repeaters have no protection from interference caused by LIPDs.

Note 5: FM Simplex
Channel spacing is 25 kHz. Channels reserved for special purposes should be kept clear of other operation. This segment also includes recommended simplex frequencies for D-Star digital simplex operation – primary channel 438.900, secondary 438.9125 and 438.8875 (12.5 kHz spacing).

Note 6: FM Repeaters
Channel spacing is 25 kHz, and offset is 5 MHz. Vacant repeater output frequencies can be used as simplex channels, but input frequencies should be avoided. Repeater channels reserved for WICEN portable repeaters: 438.275, 438.625, 439.925, 439.975 MHz.
Digital (D-Star) repeaters will use channel pairs with output frequencies between 438.025 and 438.375 MHz, using a 5.4 MHz TX/RX offset. For areas where beacons are co-located with repeaters, D-Star repeaters will be allocated to the upper end of the repeater segment, with 5 MHz offset and output frequencies on odd multiples of 12.5 kHz between 439.8125 and 439.9875 MHz.

Note 7: Repeater Links
Conditions apply as per Note 6 of the 2 metre band plan. The 420 MHz link segment is unavailable in areas where some or all of the 420 - 430 MHz band has been assigned to non-amateur services. Segments A and C are the preferred link segments for use at most link sites. Segments A and E are 12 MHz offset pairs for use at sites where repeaters are co-sited with TX low links. Segment D is preferred for 11 MHz offset pairs for use at sites with multiple co-sited links that require frequency separation in both the 430 and 440 MHz segments.

Note 8: Amateur Television
AM transmissions must be VSB only. Video carrier frequencies are: Channel 1 426.250 MHz, Channel 2 444.250 MHz. For digital ATV, the recommended standard is DVB-T using a 7 MHz bandwidth centred on 428.500 MHz (Channel 1) or 446.500 MHz (Channel 2). ATV Channel 1 is no longer used in states where 420 - 430 MHz restrictions apply.

Note 9: Reserved Segments
These band segments are reserved for possible future use in the event of further band allocation changes. The 432.625 - 433.000 MHz segment is also used for digital repeater inputs.
23 Cm Band – Advanced and Standard licensees only

Band Allocation

1240 - 1300 MHz  RADIOLOCATION  Primary Service
1240 - 1260 MHz  RADIONAVIGATION - SATELLITE  Primary Service
1240 - 1300 MHz  AMATEUR  Secondary Service
1260 - 1270 MHz  AMATEUR SATELLITE (uplinks)  Permitted on non-interference basis

Secondary Service

1240.000 - 1241.000 REPEATER LINKS - Group A (Note 7)
1241.000 - 1259.000 ATV CHANNEL 1 (Note 8)
1259.000 - 1260.000 REPEATER LINKS - Group A (Note 7)
1260.000 - 1270.000 AMATEUR SATELLITES (Note 3)
1270.000 - 1272.000 NARROW BAND MODES (Possible future use) (Note 1)
1270.000 - 1270.600 Same pattern as 1296.000 - 1296.600
1270.600 - 1272.000 General / Experimental
1272.025 - 1273.000 REPEATER LINKS - Group B (Note 7)
1273.025 - 1273.975 FM REPEATER OUTPUTS (Note 6)
1274.000 - 1292.000 ATV CHANNEL 2 (Note 8)
1292.025 - 1293.000 REPEATER LINKS - Group B (Note 7)
1293.025 - 1293.975 FM REPEATER INPUTS (Note 6)
1294.000 - 1294.975 FM SIMPLEX (Note 4)
1294.000 National voice calling frequency
1294.750 RTTY (AFSK)
1294.775 SSTV / Fax (AFSK)
1294.800 WICEN
1294.850 National ARDF frequency
1295.000 - 1297.000 NARROW BAND MODES (Note 1)
1295.000 - 1295.900 General / Experimental
1295.900 - 1296.100 EME
1296.100 - 1296.400 CW / SSB
1296.100 Calling frequency: national primary
1296.200 Calling frequency: national secondary
1296.220 - 1296.240 Digital DX modes
1296.240 - 1296.300 Guard band: New Zealand beacons
1296.320 - 1296.340 Digital DX modes
1296.400 - 1296.600 Beacons (Note 2)
1296.600 - 1297.000 General / Experimental
1297.025 - 1300.000 SIMPLEX (DATA) (Note 5)
1297.025 - 1297.400 General FM - 25 kHz channel spacing
1297.500 - 1297.900 D-Star – 200 kHz channel spacing
1297.500 - 1297.900 D-Star – recommended national calling frequency
1298.100 - 1299.900 High speed - 200 kHz channel spacing
**Note 1: Narrow Band Modes**

This segment is reserved for modes such as CW, digital modes and SSB with bandwidths up to 4 kHz. Weak signal operation has absolute priority. Calling frequencies should be used only to make initial contact and then vacated as soon as possible. Please avoid any terrestrial operation within the EME segment. The “Digital DX modes” segments include recommended spot frequencies for SSB-based digital modes, on the same pattern as in Note 1 of the 2 metre band plan. The 1270 MHz segment is reserved for possible future use.

**Note 2: Beacons**

The beacon segment should be kept clear of other transmissions. Beacon frequencies are allocated on a call area basis, e.g. VK1: 1296.410 - 1296.419, VK2: 1296.420 - 1296.429 etc. Beacon frequency spacing is 2 kHz. Further details on beacon frequency allocations are available from the Technical Advisory Committee.

**Note 3: Amateur Satellites**

The satellite segment should be kept clear of all terrestrial operation.

**Note 4: FM Simplex Segment**

Channel spacing is 25 kHz. Channels reserved for special purposes should be kept clear of other operation.

**Note 5: Simplex (Data) Segments**

The 1297.025 – 1297.400 MHz segment is recommended for FM data modes, with 25 kHz channel spacing. The 1297.500 – 1297.900 MHz segment is recommended for D-Star simplex operation with 200 kHz channel spacing. The channels between 1298.100 and 1299.900 MHz are used for the simplex ports of D-Star repeaters.

**Note 6: FM Repeaters**

Channel spacing is 25 kHz, and the offset is 20 MHz. Digital (D-Star) repeaters will be allocated frequencies spaced at 200 kHz intervals in the upper part of the repeater segment (primary frequency 1273.900 / 1293.900 MHz).

**Note 7: Repeater Links**

Two sets of link pairs are available, Group A on 1240/1259 MHz and Group B on 1272/1292 MHz. Wider offsets can be obtained with cross-group pairing, e.g. 1240 / 1292 MHz for a 52 MHz offset.

**Note 8: Amateur Television**

Both channels may be used for AM, FM or digital modes. Recommended uses are:

**Channel 1:** Simplex or repeater inputs
- FM or DVB: Maximum bandwidth +/- 9 MHz, centred on 1250 MHz
- AM: Video 1242.250 MHz, audio 1247.750 MHz
- AM: Video 1253.250 MHz, audio 1258.750 MHz

**Channel 2:** Simplex or repeater outputs
- FM or DVB: Maximum bandwidth +/- 9 MHz, centred on 1283 MHz
- AM: Video 1275.250 MHz, audio 1280.750 MHz
- AM: Video 1286.250 MHz, audio 1291.750 MHz
**13 cm Band – 2300 - 2302 MHz**  
Advanced licensees only  
**2400 - 2450 MHz**  
Advanced & Standard licensees

**Band Allocation**

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Service Type</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2300 - 2450 MHz</td>
<td>FIXED, MOBILE</td>
<td>Primary Services</td>
</tr>
<tr>
<td>2300 - 2450 MHz</td>
<td>RADIOLOCATION</td>
<td>Primary Service</td>
</tr>
<tr>
<td>2400 - 2450 MHz</td>
<td>INDUSTRIAL / SCIENTIFIC / MEDICAL</td>
<td>(Other services must accept any harmful interference from ISM devices).</td>
</tr>
<tr>
<td>2300 - 2302 MHz</td>
<td>AMATEUR</td>
<td>Secondary Service</td>
</tr>
<tr>
<td>2400 - 2450 MHz</td>
<td>AMATEUR</td>
<td>Secondary Service</td>
</tr>
<tr>
<td>2400 - 2450 MHz</td>
<td>AMATEUR SATELLITE</td>
<td>Permitted on non-interference basis</td>
</tr>
</tbody>
</table>

![Diagram of 13 cm Band Allocation](image)

- **2300.000 - 2302.000**: NARROW BAND MODES (Note 1)
- **2400.000 - 2403.000**: AMATEUR SATELLITES (Note 3)
- **2403.000 - 2406.000**: NARROW BAND MODES (Note 1)
- **2403.000 - 2403.100**: EME only
- **2403.100 - 2403.200**: Calling frequency: national primary
- **2403.200 - 2403.220**: Calling frequency: national secondary
- **2403.220 - 2403.400**: Digital DX modes
- **2403.400 - 2403.600**: Beacons
- **2403.600 - 2406.000**: General / Experimental
- **2406.000 - 2424.000**: ATV CHANNEL 1 (Note 6)
- **2424.000 - 2425.000**: NARROW BAND MODES (JA - ZL) (Note 1)
- **2425.000 - 2428.000**: FM SIMPLEX (Note 4)
- **2425.000 - 2428.000**: National voice calling frequency
- **2425.750**: RTTY (AFSK)
- **2425.775**: SSTV / Fax (AFSK)
- **2425.800**: WICEN
- **2425.850**: National ARDF frequency
- **2426.000 - 2428.000**: Data
- **2428.025 - 2429.975**: FM DUPLEX (Note 5)
- **2430.000 - 2448.000**: ATV CHANNEL 2 (Note 6)
- **2448.025 - 2449.975**: FM DUPLEX (Note 5)
**Note 1: Narrow Band Modes**

This segment is reserved for modes such as CW, digital modes and SSB with bandwidths up to 4 kHz. Weak signal operation has absolute priority. Calling frequencies should be used only to make initial contact and then vacated as soon as possible. Please avoid any terrestrial operation within the EME segment. The "Digital DX modes" segment includes recommended spot frequencies for SSB-based digital modes, on the same pattern as in Note 1 of the 2 metre band plan.

The 2403 MHz segment may have to be moved if required by future amateur satellite allocations. The 2424 MHz segment is reserved for possible use for EME contacts with Japan and New Zealand, which have their weak signal segments in this part of the band.

The segment 2300 – 2302 MHz is recommended for use in areas where the weak signal segment on 2403 MHz suffers unacceptable interference from digital links and other devices, and also for crossband EME contacts with overseas stations operating on 2304 MHz.

**Note 2: Beacons**

The beacon segment should be kept clear of other transmissions. Beacon frequencies are allocated on a call area basis, e.g. VK1: 2403.410 - 2403.419, VK2: 2403.420 - 2403.429 etc. Beacon frequency spacing is 2 kHz. Further details on beacon frequency allocations are available from the Technical Advisory Committee.

**Note 3: Amateur Satellites**

The satellite segment should be kept clear of all terrestrial operation.

**Note 4: FM Simplex**

Channel spacing is 25 kHz, or 100 kHz in the high speed data segment. Channels reserved for special purposes should be kept clear of other operation.

**Note 5: FM Duplex**

These segments are for duplex links with an offset of 20 MHz. Recommended channel spacing is 25 kHz, or 100 kHz for high speed data, with voice links in the lower half of the segment and data links in the upper half.

**Note 6: Amateur Television**

Both channels may be used for AM or FM, simplex or repeater operation. Satellites have absolute priority in the lower end of the band, and the availability of Channel 1 is conditional upon its not being required for future satellite use. Channel 2 is recommended as the primary channel. Recommended uses are:

Channel 1 (secondary): Simplex or repeater output.
FM or DVB centred on 2415 MHz (maximum bandwidth +/- 9 MHz), or AM (video 2415.000 MHz, audio 2420.500 MHz).

Channel 2 (primary): Simplex or repeater input
FM or DVB centred on 2439 MHz (maximum bandwidth +/- 9 MHz), or AM (video 2439.000 MHz, audio 2444.500 MHz).
# 9 Cm Band – Advanced licensees only

## Band Allocation

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Service Type</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3300 - 3600 MHz</td>
<td>RADIOLOCATION</td>
<td>Primary Service</td>
</tr>
<tr>
<td>3300 - 3600 MHz</td>
<td>AMATEUR</td>
<td>Secondary Service</td>
</tr>
<tr>
<td>3400 - 3410 MHz</td>
<td>AMATEUR SATELLITE</td>
<td>Permitted on non-interference basis</td>
</tr>
<tr>
<td>3400 - 3600 MHz</td>
<td>FIXED SATELLITE (Space to Earth)</td>
<td>Secondary Service</td>
</tr>
<tr>
<td>3400 - 3600 MHz</td>
<td>FIXED, MOBILE</td>
<td>Secondary Service</td>
</tr>
</tbody>
</table>

**NOTE:** In the band segments 3425.0 - 3442.5 MHz and 3475.0 - 3492.5 MHz, operation is prohibited in and around most major population centres. In the segments 3442.5 - 3475.0 MHz and 3542.5 - 3575.0 MHz, operation is prohibited in most parts of Australia. For full details, please refer to the current ACMA Amateur Licence Conditions Determination.

### 3300.000 - 3400.000

**Wide Band Modes**

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<thead>
<tr>
<th>Channel</th>
<th>Mode</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>ATV</td>
</tr>
<tr>
<td>2</td>
<td>Voice or data</td>
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<tr>
<td>3</td>
<td>Simplex, any mode</td>
</tr>
<tr>
<td>4</td>
<td>ATV</td>
</tr>
<tr>
<td>5</td>
<td>Simplex, any mode</td>
</tr>
</tbody>
</table>

**NB Modes**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Mode</th>
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<tbody>
<tr>
<td>6</td>
<td>EME only</td>
</tr>
<tr>
<td>7</td>
<td>CW / SSB</td>
</tr>
<tr>
<td>8</td>
<td>Digital DX modes</td>
</tr>
</tbody>
</table>

**Satellites**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>Beacons</td>
</tr>
<tr>
<td>10</td>
<td>General / Experimental</td>
</tr>
</tbody>
</table>

**FM SIMPLEX (VOICE)**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Mode</th>
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</thead>
<tbody>
<tr>
<td>11</td>
<td>ALL MODES</td>
</tr>
<tr>
<td>12</td>
<td>NO OPERATION</td>
</tr>
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</table>

**FM SIMPLEX (DATA)**

<table>
<thead>
<tr>
<th>Channel</th>
<th>Mode</th>
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</thead>
<tbody>
<tr>
<td>13</td>
<td>ALL MODES</td>
</tr>
<tr>
<td>14</td>
<td>NO OPERATION</td>
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</tbody>
</table>

**WIDEBAND MODES**

<table>
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<tr>
<th>Channel</th>
<th>Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>ALL MODES</td>
</tr>
<tr>
<td>16</td>
<td>NO OPERATION</td>
</tr>
</tbody>
</table>

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Page 19
Note 1: Narrow Band Modes

This segment is reserved for modes such as CW, digital modes and SSB with bandwidths up to 4 kHz. Weak signal operation has absolute priority. Calling frequencies should be used only to make initial contact and then vacated as soon as possible. Please avoid any terrestrial operation within the EME segment. The "Digital DX modes" segment includes recommended spot frequencies for SSB-based digital modes, on the same pattern as in Note 1 of the 2 metre band plan.

Note 2: Beacons

The beacon segment should be kept clear of other transmissions. Beacon frequencies are allocated on a call area basis, e.g. VK1: 3400.410 - 3400.419, VK2: 3400.420 - 3400.429 etc. Beacon frequency spacing is 2 kHz. Further details on beacon frequency allocations are available from the Technical Advisory Committee.

Note 3: Amateur Satellites

There are no amateur satellites currently operating or planned for this band.

Note 4: FM Simplex

Recommended channel spacing is 100 kHz. Channels reserved for special purposes should be kept clear of other operation.

Note 5: Wideband Modes

These segments are for wideband simplex operation or duplex links. Suggested uses are:

ATV: FM ATV, DVB or AM. Video carrier at centre of channel. Maximum bandwidth for Channel 5 should be +/- 9 MHz. Recommended use for duplex links is channel 1 input and channel 6 output.

Data or Voice: Recommended channel spacing is 100 kHz, or 1 MHz for high speed data, excluding upper and lower segment edges, with voice links at the lower end of the segment and data links at the upper end.
6 Cm Band – Advanced & Standard licensees

Band Allocation

5650 - 5850 MHz RADIOLOCATION Primary Service
5650 - 5725 MHz SPACE RESEARCH Secondary Service
5650 - 5850 MHz AMATEUR Secondary Service
5650 - 5670 MHz AMATEUR SATELLITE (uplinks) Permitted on non-interference basis
5830 - 5850 MHz AMATEUR SATELLITE (downlinks) Secondary Service

5650.000 - 5670.000 AMATEUR SATELLITES (UPLINKS) (Note 3)
5670.000 - 5672.000 NARROW BAND MODES (Possible future use) (Note 1)
5672.000 - 5673.000 FM SIMPLEX (VOICE) (Possible future use) (Note 4)
5673.000 - 5675.000 FM SIMPLEX (DATA) (Possible future use) (Note 4)
5675.000 - 5680.000 ALL MODES
5680.000 - 5760.000 WIDEBAND MODES (Note 5)
5760.000 - 5762.000 NARROW BAND MODES (Note 1)
5762.000 - 5763.000 FM SIMPLEX (VOICE) (Note 4)
5763.000 - 5765.000 FM SIMPLEX (DATA) (Note 4)
5765.000 - 5770.000 ALL MODES
5770.000 - 5830.000 WIDEBAND MODES (Note 5)
5770.000 - 5790.000 Channel 5: Data
5790.000 - 5810.000 Channel 6: Voice
5810.000 - 5830.000 Channel 7: ATV
5830.000 - 5850.000 AMATEUR SATELLITES (DOWNLINKS) (Note 3)
Note 1: Narrow Band Modes

This segment is reserved for modes such as CW, digital modes and SSB with bandwidths up to 4 kHz. Weak signal operation has absolute priority. Calling frequencies should be used only to make initial contact and then vacated as soon as possible. Please avoid any terrestrial operation within the EME segment. The “Digital DX modes” segment includes recommended spot frequencies for SSB-based digital modes, on the same pattern as in Note 1 of the 2 metre band plan. The 5670 MHz segment is reserved for possible future use.

Note 2: Beacons

The beacon segment should be kept clear of other transmissions. Beacon frequencies are allocated on a call area basis, e.g. VK1: 5760.410 - 5760.419, VK2: 5760.420 - 5760.429 etc. Beacon frequency spacing is 2 kHz. Further details on beacon frequency allocations are available from the Technical Advisory Committee.

Note 3: Amateur Satellites

The satellite segments should be kept clear of all terrestrial operation.

Note 4: FM Simplex

Recommended channel spacing is 100 kHz. Channels reserved for special purposes should be kept clear of other operation. The segments at 5672 and 5673 MHz are reserved for possible future use.

Note 5: Wideband Modes

These segments are for wideband simplex operation or duplex links. Suggested uses are:

ATV: FM ATV, DVB or AM. Video carrier at centre of channel. Maximum bandwidth for Channel 4 should be +/- 9 MHz. Recommended use for duplex links is channel 1 input and channel 7 output.

Data or Voice: Recommended channel spacing is 100 kHz, or 1 MHz for high speed data, excluding upper and lower segment edges. Duplex offset is 70 MHz.
3 Cm Band – Advanced licensees only

Band Allocation

- 10.000 - 10.500 GHz: RADIOLOCATION (Primary Service)
- 10.000 - 10.025 GHz: METEOROLOGICAL SATELLITE (Secondary Service)
- 10.000 - 10.500 GHz: AMATEUR (Secondary Service)
- 10.450 - 10.500 GHz: AMATEUR SATELLITE (Secondary Service)

**Band Allocation Diagram**

- **10000.000 - 10160.000**: ALL MODES
- **10160.000 - 10360.000**: WIDEBAND MODES (Note 5)
- **10160.000 - 10180.000**: Channel 1: Data
- **10180.000 - 10200.000**: Channel 2: Voice
- **10200.000 - 10220.000**: Channel 3: ATV
- **10220.000 - 10240.000**: Channel 4: Data
- **10240.000 - 10260.000**: Channel 5: Voice
- **10260.000 - 10280.000**: Channel 6: ATV
- **10280.000 - 10300.000**: Channel 7: Data
- **10300.000 - 10320.000**: Channel 8: Voice
- **10320.000 - 10340.000**: Channel 9: ATV
- **10340.000 - 10360.000**: Channel 10: Simplex, any mode
- **10360.000 - 10368.000**: ALL MODES
- **10368.000 - 10370.000**: NARROW BAND MODES (Note 1)
- **10368.000 - 10368.100**: EME only
- **10368.100 - 10368.400**: CW / SSB
- **10368.200**: Calling frequency: national primary
- **10368.220 - 10368.240**: Digital DX modes
- **10368.400 - 10368.600**: Beacons (Note 2)
- **10368.600 - 10370.000**: General / Experimental (Note 3)
- **10370.000 - 10371.000**: FM SIMPLEX (VOICE) (Note 4)
- **10371.000 - 10380.000**: FM SIMPLEX (DATA) (Note 4)
- **10380.000 - 10440.000**: WIDEBAND MODES (Note 5)
- **10380.000 - 10400.000**: Channel 11: Data
- **10400.000 - 10420.000**: Channel 12: Voice
- **10420.000 - 10440.000**: Channel 13: ATV
- **10440.000 - 10447.000**: FM SIMPLEX (DATA) (Possible future use) (Note 4)
- **10447.000 - 10448.000**: FM SIMPLEX (VOICE) (Possible future use) (Note 4)
- **10448.000 - 10450.000**: NARROW BAND MODES (Possible future use) (Note 1)
- **10450.000 - 10500.000**: AMATEUR SATELLITES
**Note 1: Narrow Band Modes**

This segment is reserved for modes such as CW, digital modes and SSB with bandwidths up to 4 kHz. Weak signal operation has absolute priority. Calling frequencies should be used only to make initial contact and then vacated as soon as possible. Please avoid any terrestrial operation within the EME segment. The “Digital DX modes” segment includes recommended spot frequencies for SSB-based digital modes, on the same pattern as in Note 1 of the 2 metre band plan. The 10448 MHz segment is reserved for possible future use.

**Note 2: Beacons**

The beacon segment should be kept clear of other transmissions. Beacon frequencies are allocated on a call area basis, e.g. VK1: 10368.410 - 10368.419, VK2: 10368.420 - 10368.429 etc. Beacon frequency spacing is 2 kHz. Further details on beacon frequency allocations are available from the Technical Advisory Committee.

**Note 3: Amateur Satellites**

The satellite segment should be kept clear of all terrestrial operation.

**Note 4: FM Simplex**

Recommended channel spacing is 100 kHz. Channels reserved for special purposes should be kept clear of other operation.

**Note 5: Wideband Modes**

These segments are for wideband simplex operation or duplex links. A variety of duplex offsets between 60 and 220 MHz can be obtained by choosing the appropriate channel pairs. Suggested uses are:

ATV: FM ATV, DVB or AM. Video carrier at centre of channel.

Data or Voice: Recommended channel spacing is 100 kHz, or 1 MHz for high speed data, excluding upper and lower segment edges.
**1.25 Cm Band – Advanced licensees only**

**Band Allocation**

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<thead>
<tr>
<th>Frequency Range</th>
<th>Service Type 1</th>
<th>Service Type 2</th>
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</thead>
<tbody>
<tr>
<td>24.00 - 24.05 GHz</td>
<td>AMATEUR</td>
<td>Primary Service</td>
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<tr>
<td>24.00 - 24.05 GHz</td>
<td>AMATEUR SATELLITE</td>
<td>Primary Service</td>
</tr>
<tr>
<td>24.05 - 24.25 GHz</td>
<td>RADIOLOCATION</td>
<td>Primary Service</td>
</tr>
<tr>
<td>24.05 - 24.25 GHz</td>
<td>AMATEUR</td>
<td>Secondary Service</td>
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<tr>
<td>24.05 - 24.25 GHz</td>
<td>EARTH EXPLORATION SATELLITE</td>
<td>Secondary Service</td>
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</table>

**Bands Above 24 GHz – Advanced licensees only**

<table>
<thead>
<tr>
<th>Frequency Range</th>
<th>Service Type 1</th>
<th>Service Type 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>47.00 - 47.20 GHz</td>
<td>AMATEUR &amp; AMATEUR SATELLITE</td>
<td>Primary Service</td>
</tr>
<tr>
<td>76.00 - 77.50 GHz</td>
<td>RADIO ASTRONOMY &amp; RADIOLOCATION</td>
<td>Primary Services</td>
</tr>
<tr>
<td>76.00 - 77.50 GHz</td>
<td>AMATEUR &amp; AMATEUR SATELLITE</td>
<td>Secondary Services</td>
</tr>
<tr>
<td>76.00 - 81.00 GHz</td>
<td>SPACE RESEARCH</td>
<td>Secondary Service</td>
</tr>
<tr>
<td>77.50 - 78.00 GHz</td>
<td>AMATEUR &amp; AMATEUR SATELLITE</td>
<td>Primary Services</td>
</tr>
<tr>
<td>77.50 - 79.00 GHz</td>
<td>RADIO ASTRONOMY</td>
<td>Secondary Service</td>
</tr>
<tr>
<td>78.00 - 81.00 GHz</td>
<td>AMATEUR &amp; AMATEUR SATELLITE</td>
<td>Secondary Services</td>
</tr>
<tr>
<td>78.00 - 81.00 GHz</td>
<td>RADIOLOCATION</td>
<td>Primary Service</td>
</tr>
<tr>
<td>79.00 - 81.00 GHz</td>
<td>RADIO ASTRONOMY</td>
<td>Primary Service</td>
</tr>
<tr>
<td>122.25 - 123.00 GHz</td>
<td>FIXED, MOBILE, SPACE RESEARCH, EARTH EXPLORATION SATELLITE, INTER-SATELLITE, AMATEUR</td>
<td>Primary Services</td>
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<tr>
<td>134.00 - 136.00 GHz</td>
<td>AMATEUR &amp; AMATEUR SATELLITE</td>
<td>Primary Services</td>
</tr>
<tr>
<td>136.00 - 141.00 GHz</td>
<td>RADIO ASTRONOMY, RADIOLOCATION, AMATEUR &amp; AMATEUR SATELLITE</td>
<td>Primary Services</td>
</tr>
<tr>
<td>241.00 - 248 GHz</td>
<td>RADIOLOCATION</td>
<td>Primary Service</td>
</tr>
<tr>
<td>248.00 - 250 GHz</td>
<td>AMATEUR &amp; AMATEUR SATELLITE</td>
<td>Secondary Service</td>
</tr>
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