

# Amateur radio HF band usage for New Zealand amateurs from 160 metres to 10 metres

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Updated February 2026

Note: this is not a bandplan but simply a list of where you can find activity for the mode you want to use.

## 1800 to 1950 kHz (known as “160 metres”, “one-sixty” or topband”)

- 1800-1810** **Digimodes** (IARU Region 2 DX window)
- 1810-1830** **CW**
  - 1810 *CW QRP*
- 1830-1843** **Digimodes**
  - 1836 *QRP*
  - 1836.6 *WSPR*
  - 1838 *JT65A*
  - 1839 *JT9*
- 1840-1843** **FT8**
  - 1842 *JS8Call*
- 1843-1950** **SSB (LSB)**
  - 1910 *SSB QRP*



## 3500 to 3900 kHz (“80 metres”, “eighty” or “seventy-five”)

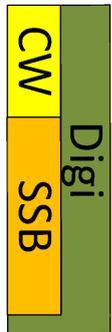
- 3500-3570** **CW**
  - 3500-3510 *CW DX window*
  - 3530 *IOTA CW*
  - 3560 *QRP CW*
  - 3562 *SOTA CW*
- 3570-3600** **Digimodes**
  - 3570 *JT65A*
  - 3572 *JT9*
  - 3573 *FT8*
  - 3575 *FT4*
  - 3577 *Olivia*
  - 3578 *JS8Call*
  - 3579 *QRSS*
  - 3580 *RTTY, PSK*
- 3583.25** *Olivia*
- 3590** *RTTY DX*



- 3592.6 WSPR
- 3595-3605 Civil emergencies, any mode**
- 3600-3900 SSB (LSB)**
- 3620-3640 VK/ZL digimodes window
  - 3710 QRP CW
- 3730-3740 SSTV (IARU Region 1)
  - 3755 IOTA SSB
- 3776-3800 SSB DX window
  - 3791 ALE
  - 3845 SSTV (IARU Region 2)
  - 3885 AM

**5351.5-5366.5 kHz (“60 metres”, “sixty” or “5 megs”)<sup>1</sup>**

- 5351.5-5354 CW and digimodes up to 500 Hz bandwidth except FT8**
  - 5352 FSQcall
  - 5353 SOTA CW
- 5354-5366 All modes up to 2700 Hz bandwidth, such as SSB (USB)**
  - 5357 FT8 (USB)
  - 5363 SOTA SSB (USB)
  - 5364.7 WSPR
- 5366-5366.5 Weak signal digimodes up to 20 Hz bandwidth**



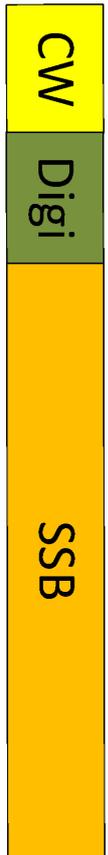
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<sup>1</sup> The 60m band is available to authorized ZL amateurs as a secondary allocation with explicit conditions (e.g. no more than 15 watts eirp). [See the NZART website for further details.](#)

[Legitimate emergency communications under the auspices of AREC](#) are also permitted on 5320 and 5395 kHz.

**7000 to 7300 kHz** (“40 metres”, “forty” or “7 megs”)

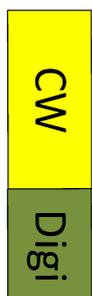
- 7000-7035 CW**
- 7030 *IOTA CW*
- 7032 *SOTA CW*
- 7035-7075 Digimodes**
- 7035-7040 *BPSK31 (IARU Regions 1 and 3)*
- 7035-7045 *RTTY (IARU Regions 1 and 3)*
- 7039 *JT65A*
- 7039 *Hellschreiber*
- 7040 *QRP (IARU Region 2)*
- 7040 *RTTY DX*
- 7042-7044 *Olivia*
- 7047.5 *FT4*
- 7059.9 *QRSS*
- 7070-7075 *BPSK31 (IARU Region 2)*
- 7072-7074 *Olivia (IARU Region 2)*
- 7074 *FT8*
- 7075-7300 SSB (LSB)**
- 7076 *JT65A (USB)*
- 7078 *JT9, JS8Call*
- 7080 *RTTY (IARU Region 2)*
- 7083.6 *WSPR*
- 7084 *Hellschreiber (IARU Region 1)*
- 7090 *SOTA SSB*
- 7105-7115 Civil emergencies, any mode**
- 7171 *SSTV*
- 7185.5 *ALE*
- 7285 *QRP SSB*
- 7290 *AM*



Although New Zealand is in IARU Region 3, ZL amateurs may also use digimodes on the frequencies allocated to IARU Region 2 (the Americas).

**10100 to 10150 kHz** (“30 metres”, “thirty” or “10 megs”)<sup>2</sup>

- 10100-10130 CW**
- 10115 *IOTA CW*
- 10116 *QRP and SOTA CW*
- 10120-10130 SSB (USB)<sup>3</sup>**
- 10130-10150 Digimodes**
- 10135-10145 *Hellschreiber*



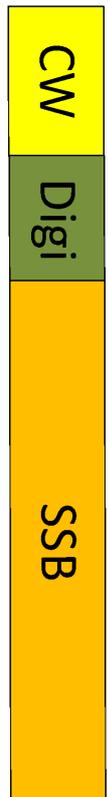
<sup>2</sup> There’s a lot to squeeze into 50 kHz. Play nicely together.

<sup>3</sup> ZL trial for 12 months from 1 November 2025 - 100w recommended - note only VK has SSB privileges in the 30m band

- 10136 FT8
- 10138 JT65A
- 10138.7 WSPR
- 10140 FT4, JT9, PSK and QRSS (!)
- 10140-10150 RTTY
- 10141-10144 PSK, Olivia
- 10147 MFSK16

**14000 to 14350 kHz** (“20 metres”, “twenty” or “14 megs”)

- 14000-14065 CW**
  - 14040 IOTA CW
  - 14060 CW QRP
  - 14062 SOTA CW
- 14065-14115 Digimodes**
  - 14070 PSK
  - 14071 Hellschreiber
  - 14072.5 Olivia
  - 14074 FT8
  - 14076 JT65A
  - 14078 JT9
- 14078-14080 Throb
- 14078-14082 MFSK16
- 14080 FT4
- 14080-14090 RTTY
  - 14090 FT8 DX frequency using fox-and-hounds<sup>4</sup>
- 14090-14110 Packet, AMTOR, PACTOR
  - 14095.6 WSPR
  - 14098.9 QRSS
  - 14100 NCDXF International beacon Network (*do not transmit here*)**
  - 14107.5 Olivia 32/100
- 14109-14111 MT63
- 14115-14350 SSB (USB)**
  - 14170-14220 SSB DX window
  - 14227-14236 SSTV
    - 14260 IOTA SSB
    - 14285 SSB QRP
    - 14286 AM
  - 14295-14305 Global emergencies, any mode**
  - 14310 SOTA SSB

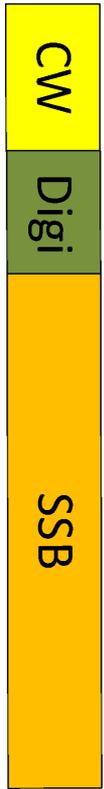


<sup>4</sup> Foxes (DX stations) may choose other FT8 frequencies, transmitting at about 300 Hz on the waterfall. If you copy them, call them ‘split’ above 1 kHz with hound enabled which shifts you down to their frequency if they respond to you.

14346 ALE

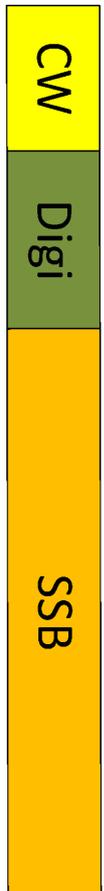
**18068 to 18168 kHz** (“17 metres”, “seventeen” or “18 megs”)

- 18068-18095 CW**
  - 18090 *IOTA CW*
  - 18092 *SOTA CW*
- 18095-18110 Digimodes**
  - 18100 *FT8*
  - 18102 *JT65A*
  - 18102.65 *Olivia*
  - 18103 *PSK*
  - 18104 *JT9, FT4*
- 18104-18107 *Hellschreiber*
  - 18104.6 *WSPR*
  - 18105 *MFSK16*
  - 18108.9 *QRSS*
  - 18110 **NCDXF International Beacon Network (*do not transmit here*)**
- 18110-18168 SSB (USB)**
  - 18117.5 *ALE*
  - 18128 *IOTA SSB*
  - 18140 *SOTA SSB*
- 18155-18165 **Civil emergencies, any mode**



**21000 to 21450 kHz** (“15 metres”, “fifteen” or “21 megs”)

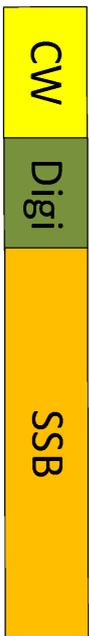
- 21000-21065 CW**
  - 21040 *IOTA CW*
  - 21060 *QRP CW*
  - 21062 *SOTA CW*
- 21065-21150 Digimodes**
  - 21068 *Hellschreiber*
- 21070-21074 *PSK*
  - 21072 *Olivia*
  - 21074 *FT8*
  - 21076 *JT65A*
  - 21078 *JT9*
  - 21080 *MFSK16*
  - 21080 *RTTY DX*
- 21080-21110 *RTTY*
  - 21094.6 *WSPR*
  - 21140 *FT4*
  - 21150 **NCDXF International Beacon Network (*do not transmit here*)**



- 21150-21450 SSB (USB)**
  - 21260 *IOTA SSB*
  - 21262 *SOTA SSB*
  - 21340 *SSTV*
- 21355-21365 Global emergencies, any mode**
  - 21385 *QRP SSB*
  - 21432.5 *ALE*

**24890 to 24990 kHz** (“12 metres”, “twelve” or “24 megs”)

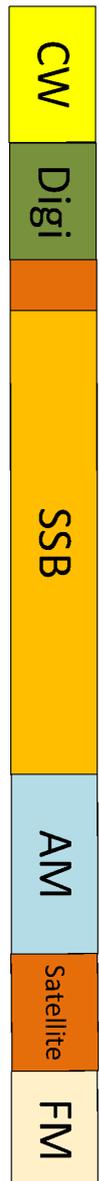
- 24890-24915 CW**
  - 24906 *SOTA CW*
- 24915-24935 Digimodes**
  - 24915 *FT8*
  - 24917 *JT65A*
  - 24919 *JT9, FT4*
- 24920-24925 *PSK*
- 24920-24930 *RTTY*
  - 24922 *Olivia*
  - 24924 *Hellschreiber*
  - 24924.6 *WSPR*
  - 24930 **NCDXF International Beacon Network (*do not transmit here*)**
  - 24932 *ALE*
- 24935-24990 SSB (USB)**
  - 24950 *IOTA SSB*



**28000 to 29700 kHz** (“10 metres”, “ten” or “28 megs”)

- 28000-28065 CW**
  - 28060 *QRP CW*
  - 28062 *SOTA CW*
- 28065-28185 Digimodes**
  - 28065 *Hellschreiber*
  - 28070 *PSK*
  - 28074 *FT8*
  - 28076 *JT65A*
  - 28078 *JT9*
- 28080-28110 *RTTY*
  - 28120 *PSK*
  - 28122 *Olivia*

28124.6	WSPR
28180	FT4
<b>28190-28300</b>	<b>Beacons (<i>do not transmit here</i>)</b>
28200	NCDXF International Beacon Project ( <i>do not transmit here</i> )
28312.5	ALE
28321	QRSS
<b>28300-29000</b>	<b>SSB (USB)</b>
28385	QRP SSB
28460	IOTA SSB
28560	IOTA SSB
28590-28610	FM simplex
28675-28685	SSTV
28885	Six metre liaison frequency
<b>29000-29300</b>	<b>AM</b>
<b>29300-29510</b>	<b>Satellite downlinks (<i>do not transmit here</i>)</b>
<b>29520-29700</b>	<b>FM</b>
29520-29580	FM repeater inputs (duplex, listen 100 kHz higher)
29600	FM simplex calling frequency
29620-29680	FM repeater outputs (duplex, transmit 100 kHz lower)



## Operating modes

Morse code	CW
Voice	SSB (USB or LSB), DSB, FM, AM and digitized speech <sup>5</sup>
Digital	JT65A, JT9, MT63, PSK, MFSK, Throb, RTTY, Packet, AMTOR, PACTOR, Clover, OLIVIA, Contestia, DominoEX, ALE, CMSK, FT8, FT4, JS8Call, FSQcall and others including variants and novel/experimental modes
Raster-scanning	Hellschreiber, SSTV

## Notes

### 1. Check your transmitting license for the explicit terms and conditions under New Zealand law.

Through the Ministry of Business, Immigration and Employment’s Radio Spectrum Management business unit, the New Zealand government defines the [General User Radio License](#) terms and conditions for NZ radio amateurs including the band limits and power, under the Radiocommunications Act (1989). *This* document is advisory, not obligatory, offering suggestions for the common good rather than strict rules. The segments shown in this document are based on the [IARU Region 3 bandplans](#) with minor adaptations for NZ law and common practice. The aim is to reduce mutual interference by amateurs, and to coordinate use of specified frequencies (“watering holes”) for particular purposes, globally where possible.

<sup>5</sup> Digitized speech or digital voice may also be classed as a digimode – several in fact.

2. All frequencies shown are dial settings in kilohertz. Apart from the band edges and beacons, most frequencies are approximate. **Always listen carefully for a clear frequency before transmitting** (including when operating split - re-check your transmit frequency from time to time). In order to prevent your transmissions extending out of band, don't get too close to the band edges, especially on wideband modes such as SSB and FM.
3. The 160, 80, 60, 40<sup>6</sup> and 30 metre bands are shared with other non-amateur radio services with primary rights in New Zealand and various other countries<sup>7</sup>. Do not interfere with them. Accept interference from them. Basically, steer clear.
4. In addition to the specified frequencies, various other frequencies may be used at various times for communications associated with civil emergencies, disaster relief, regular nets etc. If a given frequency is already in use, or if you are asked to move, please be considerate and sensible about it. Some things naturally take priority.
5. Stay clear of the beacon and satellite downlink frequencies to avoid interfering with reception of very weak signals. IARU suggests staying at least 500 Hz above or below the listed frequencies.
6. On SSB, use LSB on 40m and lower frequency bands unless otherwise specified; use USB on 20m and above. Digimodes generally use USB on all bands. If you cannot decode a good strength digital signal, try LSB or 'invert', assuming you are using the appropriate digimode and speed! To identify unknown digimodes, the band plan is a clue for the popular modes, while the [Sig ID Wiki](#) has waterfall images and audio clips plus descriptions of most established digimodes.
7. Some of the frequencies and modes in this document are not available to amateurs in other countries, who may therefore be found elsewhere and may be worked cross-band or cross-mode. In particular, 160, 80, 60 and 40 metre allocations vary around the world, and novices often have restricted frequency allocations and low power. **Only transmit on the frequencies for which you are licensed.**
8. For historical reasons, CW is permitted across the entirety of every band but is usually found in the lower segments as indicated.
9. The "DX windows" are intended to facilitate intercontinental/weak signal DXing rather than re-chewing between locals *etc.*
10. If there are lots of strong signals and no space left on your FT8 waterfall, you might like to take advantage of good propagation by using another mode (e.g. FT4, RTTY, CW or SSB). Conversely, if the FT8 waterfall is sparsely populated or empty, consider trying ultra-weak-signal modes such as JT9 or WSPR instead.
11. Monitor and take pride in the quality of your transmissions, avoiding spurious transmissions and overmodulation. On digimodes, keep your soundcard output, microphone input and power levels down, with speech processing or audio shaping turned off. Do not transmit the bleeps, chimes, warnings and other notifications intended for the computer user (if possible, dedicate a separate soundcard/audio device solely for the radio).

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<sup>6</sup> On the 40m band, we are primary users below - but secondary users above - 7100 kHz.

<sup>7</sup> For example, the longstanding German commercial meteorological station on 10101 kHz is a convenient band-edge marker and propagation indicator. It transmits 50 baud, 425 Hz shift RTTY around the clock.

12. DXpeditions and rare DX stations usually operate “split”. Listen for the DX operator's instructions or tune around to find other successful callers. Avoid calling on the DX station's transmit frequency (simplex) unless you are sure he is taking callers there. DX stations should keep their pileups under control and within a reasonable band spread.
13. The 60, 30, 17 and 12 metre bands are known as the [WARC bands](#) since the latter three were initially allocated to the amateur service at a **World Amateur Radio Conference** in 1979, and 60m was added at the **World Radio Conference** in 2015. Contests are not allowed on these bands.
14. Please report pirates and intruders in the amateur bands to the [JARU Monitoring Service](#).
15. Please report errors, refinements or issues with this document to its authors: [MarkZL3AB@gmail.com](mailto:MarkZL3AB@gmail.com) and [Gary@isect.com](mailto:Gary@isect.com).

## Glossary with hyperlinks to further information

ALE	<a href="#">Automatic Link Establishment</a> using MIL-STD 188-141 FED-1045 (8-tone FSK, 2 kHz bandwidth)
AM	<a href="#">AmplIARUde Modulation</a> in which information is conveyed by varying the amplIARUde (strength) of transmission, as opposed to varying its frequency (FM)
AMTOR	<a href="#">Amateur Telex Over Radio</a>
AREC	<b>Amateur Radio Emergency Communications</b>
CLOVER	An <a href="#">8-tone digimode</a> with FEC
Contestia	A <a href="#">digimode derived from OLIVIA</a> with twice the speed but reduced robustness
CMSK	<a href="#">Correlated, Convolved, Chat-mode MSK</a> , an experimental weak-signal digimode for LF/MF
CW	<a href="#">Continuous Wave</a> , uses on-off keying of a carrier to send Morse code
Digimodes	<b>Digital modes</b> using various encoding/decoding mechanisms to communicate digital data by radio
DominoEX	A digimode designed for <a href="#">keyboard-to-keyboard chatting</a> on HF
DSB	<a href="#">Double Sideband</a> suppressed carrier, vanishingly rare since SSB was invented
Duplex	<a href="#">Communications protocol</a> to transmit on one frequency while simultaneously receiving on another (full-duplex) or alternate between the two frequencies (semi-duplex - also known as ‘split’)
eirp	<b>Effective Isotropic Radiated Power</b> , the power that would theoretically need to be transmitted into a truly isotropic antenna to generate the same signal strength as an actual station its strongest direction
FEC	<a href="#">Forward Error Correction</a> , techniques to communicate digital data reliably and accurately over noisy channels subject to interference and fading, using redundant coding
FM	<a href="#">Frequency Modulation</a> in which information is conveyed by varying the frequencies transmitted, as opposed to modulating the amplIARUde (AM)
FSK	<a href="#">Frequency-Shift Keying</a> , a form of FM used for digital transmissions
FT8	<b>Franke-Taylor design</b> , <b>8</b> -tone FSK, 60 Hz bandwidth
IARU	<a href="#">International Amateur Radio Union</a> , regulates and represents amateur radio worldwide

- IOTA [Islands On The Air](#), an award scheme for contacts with various islands and island groups
- IARU [International Telecommunications Union](#), regulates the radio frequency spectrum worldwide across three regions: **Region 1** = Europe, Africa and the former USSR; **Region 2** = the Americas; **Region 3** = Asia and Oceania
- JS8Call A variant of FT8 for slow-paced keyboard-to-keyboard chats
- JT65A Joe Taylor digimode, **65**-tone MFSK, 180 Hz bandwidth
- JT9 Joe Taylor digimode, **9**-tone FSK, 16 Hz bandwidth
- LSB **Lower Sideband** suppressed carrier
- MFSK [Multiple Frequency-Shift Keying](#), a variation on FSK
- MSK [Minimum-Shift Keying](#)
- NCDXF [Northern California DX Foundation](#), responsible for the [International Beacon Project](#) in conjunction with the IARU
- OLIVIA A QRP ragchew mode, [OLIVIA formats](#) vary in both bandwidth (125 to 2000 Hz) and number of tones (2 to 256). Most common are 125/4, 250/8, 500/16, 1000/32, and 2000/64
- Packet [Packet radio](#) (generally TCP/IP using amateur radio as a medium), rare on HF
- PACKTOR [Packet Telex Over Radio](#), 100 baud increasing to 200 baud on good links, with several variants most of which are proprietary
  - PSK [Binary Phase Shift Keying](#), a keyboard-to-keyboard chat mode mostly with a 31 Hz symbol rate (PSK31) at 60 Hz bandwidth, with some activity on PSK63, PSK125 and occasionally other variants
  - QRP Low transmit power (up to 5 watts output)
  - QRPP Very low transmit power (less than a watt)
  - QRL The frequency is busy (in response to ▼)
  - QRL? Is this frequency clear? (don't forget the question mark!)
  - QRSS [Very slow speed CW](#) taking several seconds to send each element
- Ragchewing Chatting, lengthy conversations between amateurs
  - RTTY [Radioteletype](#) using the Baudot code, usually with 170 Hz shift and 45.5 baud in amateur use, occasionally 75 baud
- Simplex Transmit and receive on the same frequency on alternating overs (more accurately known as half-duplex: strictly speaking [simplex](#) is a one-way transmission)
- SOTA [Summits On The Air](#)
- Split Semi-duplex or half-duplex, alternately transmitting on one frequency then listening for callers on another (typically at least 1 kHz HF)
- SSB **Single Sideband** suppressed carrier
- SSTV [Slow-scan Television](#)
- USB **Upper Sideband** suppressed carrier
- WSPR [Weak Signal Propagation Reporter](#) QRP transmissions use MEPT\_JT mode, similar to JT65A but just 6 Hz wide

## Document history

- October 2025 Checked-over. Minor formatting tweaks. NZART updated [the 60m info](#). Added 30m SSB trial.
- May 2021 Added diagrams. Added 60m. Added SOTA, FT4, JS8 and FSQcall frequencies. Adjusted some of the frequencies for rarer modes, and to align with IARU Region 3 and VK plans. Document reformatted into columns for readability, using Word styles. Numbered the notes and pages. Added headers and footers, footnotes, a note about disaster comms and nets, and a few more terms to the glossary. Other minor corrections and clarifications.