**Broadcast Radio Bands**

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| **Band** | **Frequency range (MHz)** | **Remarks** |
| Longwave | 148.5–283.5 kHz | Mostly used in Europe, North Africa, and Asia |
| AM radio (Mediumwave) | 525–1606.5 kHz, 525–1705 kHz in N. America, Australia and the Philippines. | Usually speech and news, where a lower bandwidth will suffice; long range at night due to the ionosphere increasing in altitude |
| 120 m | 2.3–2.495 | Mostly used locally in tropical regions, with time stations at 2.5 MHz. Although this is regarded as shortwave, it is a MF band. |
| 90 m | 3.2–3.4 | Mostly used locally in tropical regions, with limited long-distance reception at night. A notable example of a station using this band is Canadian time station CHU on 3.33 MHz. |
| 75 m | 3.9–4 | Mostly used in the Eastern Hemisphere after dark; not widely received in North and South America. Shared with the North American amateur radio 80 m band. |
| 60 m | 4.75–4.995 | Mostly used locally in tropical regions, especially Brazil, although widely usable at night. Time stations use 5 MHz. |
| 49 m | 5.9–6.2 | Good year-round night band; daytime (long distance) reception poor |
| 41 m | 7.2–7.45 | Reception varies by region—reasonably good night reception, but few transmitters in this band target North America. According to the WRC-03 Decisions on HF broadcasting, in International Telecommunication Union regions 1 and 3, the segment 7.1–7.2 MHz is reserved for amateur radio use and there are no new broadcasting allocations in this portion of the band. 7.35–7.4 MHz is newly allocated; in Regions 1 and 3, 7.4–7.45 MHz was also allocated effective March 29, 2009. In Region 2, 7.2–7.3 MHz is part of the amateur radio 40 m band. |
| 31 m | 9.4–9.9 | Most heavily used band. Good year-round night band; seasonal during the day, with best reception in winter. Time stations are clustered around 10 MHz. |
| 25 m | 11.6–12.1 | Generally best during summer and the period before and after sunset year-round |
| 22 m | 13.57–13.87 | Substantially used in Eurasia. Similar to the 19 m band; best in summer. |
| 19 m | 15.1–15.83 | Day reception good, night reception variable; best during summer. Time stations such as WWV use 15 MHz. |
| 16 m | 17.48–17.9 | Day reception good; night reception varies seasonally, with summer best. |
| 15 m | 18.9–19.02 | Lightly utilized; may become a Digital Radio Mondiale (DRM) band in future |
| 13 m | 21.45–21.85 | Erratic daytime reception, with very little night reception. Similar to 11 metres, but long-distance daytime broadcasting (best on north–south paths) keeps this band active in the Asia-Pacific region. |
| 11 m | 25.67–26.1 | Seldom used. Daytime reception is poor in the low solar cycle, but potentially excellent when the solar cycle (generally indicated by the number of sunspots) is high. Nighttime reception nonexistent, except for local groundwave propagation. DRM has proposed that this band be used for local digital shortwave broadcasts, testing the concept in Mexico City in 2005. Citizens band (CB) allocation in most countries, is slightly higher in frequency than the broadcasting 11m band. There are reports of pirate CB radio users operating equipment on frequencies as low as 25.615 MHz. In the United States, this band is also shared with Remote Pickup Units (RPUs), from 25.87 to 26.1 MHz in FM mode. |

**Amateur Radio Bands**

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| **Band** | **Frequency range (MHz)** | **Remarks** |
| [**2200 metres**](https://en.wikipedia.org/wiki/2200-meter_band) | – 135.7–137.8 kHz – | just below the [Asian and European](https://en.wikipedia.org/wiki/ITU_Region) [longwave broadcast band](https://en.wikipedia.org/wiki/AM_broadcasting#AM_longwave_band) and ***far*** below the [commercial AM broadcast band](https://en.wikipedia.org/wiki/AM_broadcasting#commercial_AM_bands) |
| [**630 metres**](https://en.wikipedia.org/wiki/630-meter_band) | – 472–479 kHz – | just **below** the [commercial AM broadcast band](https://en.wikipedia.org/wiki/AM_broadcasting#commercial_AM_bands) and the [maritime radio band](https://en.wikipedia.org/wiki/500_kHz) |
| [**160 metres**](https://en.wikipedia.org/wiki/160-meter_band) | – 1800–2000 kHz  (1.8–2 MHz) – | just **above** the [commercial AM broadcast band](https://en.wikipedia.org/wiki/AM_broadcasting#commercial_AM_bands). This band is often taken up as a technical challenge, since long distance (DX) propagation tends to be more difficult due to higher [D layer](https://en.wikipedia.org/wiki/D_region) ionospheric absorption. Long-distance propagation tends to occur only at night, and the band can be notoriously noisy particularly in the summer months. 160 metres is also known as the "*top band*", as it was for many years the longest-wavelength amateur band. Allocations in this band vary widely from country to country |
| [**80 metres**](https://en.wikipedia.org/wiki/80-meter_band) or **80 / 75 meters** | – 3.5–4.0 MHz  (3500–4000 kHz) – | Best at night, with significant daytime signal absorption. Works best in winter due to atmospheric noise in summer. Only countries in the Americas and few others have access to all of this band, in other parts of the world amateurs are limited to the bottom 300 kHz (or less). In the US and Canada the portion of the band from 3.6–4.0 MHz, permits use of single-sideband voice as well as amplitude modulation voice; this sub-band is often referred to as "the 75 metre band" |
| [**60 metres**](https://en.wikipedia.org/wiki/60-meter_band) | – 5 MHz region – | A relatively new allocation and originally only available in a small number of countries such as the United States, [United Kingdom](https://en.wikipedia.org/wiki/United_Kingdom), [Ireland](https://en.wikipedia.org/wiki/Ireland), [Norway](https://en.wikipedia.org/wiki/Norway), [Denmark](https://en.wikipedia.org/wiki/Denmark), and [Iceland](https://en.wikipedia.org/wiki/Iceland), but now continuing to expand. In most (but not all) countries, the allocation is channelized and may require special application. Five channels are available in the US, centered on 5.332, 5.348, 5.368, 5.373, and 5.405 MHz; since most SSB radios display the (suppressed) carrier frequency, in USB mode the dial frequencies would all be 1.5 kHz lower. Voice operation is generally in [upper sideband](https://en.wikipedia.org/wiki/Upper_sideband) mode and in the USA it is mandatory. The 2015 ITU [World Radiocommunications Conference](https://en.wikipedia.org/wiki/World_Radiocommunications_Conference) (WRC-15) approved a Worldwide Frequency Allocation of 5.351.5–5.366.5 MHz to the Amateur Service on a secondary basis. The allocation limits amateur stations to 15 watts [effective isotropic radiated power](https://en.wikipedia.org/wiki/Effective_isotropic_radiated_power) (EIRP); however some locations will be permitted up to 25 W [EIRP](https://en.wikipedia.org/wiki/Effective_isotropic_radiated_power) |
| [**40 metres**](https://en.wikipedia.org/wiki/40-meter_band) | – 7.0–7.3 MHz – | Considered the most reliable all-season [DX](https://en.wikipedia.org/wiki/DXing) band. Popular for DX at night, 40 metres is also reliable for medium distance (1,500 km; 1,000 miles) contacts during the day. Much of this band was shared with broadcasters, and in most countries the bottom 100 kHz or 200 kHz are available to amateurs. However, due to the high cost of running high-power commercial broadcasting facilities, decreased listenership, and increasing competition from Internet-based international broadcast services, many "short wave" services are being shut down, leaving the 40 metre band free of other users for amateur radio use |
| [**30 metres**](https://en.wikipedia.org/wiki/WARC_bands) | – 10.1–10.15 MHz – | a very narrow band, which is shared with non-amateur services. It is recommended that only [Morse code](https://en.wikipedia.org/wiki/Morse_code) and data transmissions be used here, and in some countries amateur voice transmission is actually prohibited. For example, in the US, data, RTTY, and CW are the only modes allowed at a maximum 200 W [peak envelope power](https://en.wikipedia.org/wiki/Peak_envelope_power) (PEP) output. Not released for amateur use in a small number of countries. Due to its location in the centre of the shortwave spectrum, this band provides significant opportunities for long-distance communication at all points of the solar cycle. 30 metres is a [WARC band](https://en.wikipedia.org/wiki/WARC_bands). "WARC" bands are so called due to the 1979 special [World Administrative Radio Conference](https://en.wikipedia.org/wiki/World_Administrative_Radio_Conference) allocation of these newer bands to amateur radio use. Amateur radio contests are not run on the WARC bands |
| [**20 metres**](https://en.wikipedia.org/wiki/20-meter_band) | – 14.000–14.350 MHz – | Considered the most popular [DX](https://en.wikipedia.org/wiki/DXing) band; usually most popular during daytime. [QRP](https://en.wikipedia.org/wiki/QRP_operation) operators recognize 14.060 MHz as their primary calling frequency within the band. Users of the [PSK31](https://en.wikipedia.org/wiki/PSK31) data mode tend to congregate around 14.070 MHz. Analog [SSTV](https://en.wikipedia.org/wiki/Slow-scan_television) activity centers on 14.230 MHz |
| [**17 metres**](https://en.wikipedia.org/wiki/WARC_bands) | – 18.068–18.168 MHz – | Similar to 20 metres, but more sensitive to solar propagation minima and maxima. 17 metres is a [WARC band](https://en.wikipedia.org/wiki/WARC_bands) |
| [**15 metres**](https://en.wikipedia.org/wiki/15-meter_band) | – 21–21.45 MHz – | Most useful during solar maximum, and generally a daytime band. Daytime [Sporadic E propagation](https://en.wikipedia.org/wiki/Sporadic_E_propagation) (1,500 km / 1,000 miles) occasionally occurs on this band |
| [**12 metres**](https://en.wikipedia.org/wiki/WARC_bands) | – 24.89–24.99 MHz – | Mostly useful during daytime, but opens up for [DX](https://en.wikipedia.org/wiki/DXing) activity at night, during solar maximum. 12 metres is one of the [WARC bands](https://en.wikipedia.org/wiki/WARC_bands). Propagates via Sporadic E and by [F2 propagation](https://en.wikipedia.org/wiki/F2_propagation) |
| [**10 metres**](https://en.wikipedia.org/wiki/10-meter_band) | – 28–29.7 MHz – | Best long distance (e.g., across oceans) activity is during [solar maximum](https://en.wikipedia.org/wiki/Solar_maximum); during periods of moderate solar activity the best activity is found at low latitudes. The band offers useful short to medium range [groundwave propagation](https://en.wikipedia.org/wiki/Groundwave_propagation), day or night. Due to [Sporadic E propagation](https://en.wikipedia.org/wiki/Sporadic_E_propagation) during the late spring and most of the summer, regardless of sunspot numbers, afternoon short band openings into small geographic areas of up to 1,500 km (1,000 miles) occur. [Sporadic E](https://en.wikipedia.org/wiki/Sporadic_E_propagation) is caused by areas of intense ionization in the E layer of the ionosphere. The causes of Sporadic E are not fully understood, but these "clouds" of ionization can provide short-term propagation from 17 metres all the way up to occasional 2 metre openings. FM operations are normally found at the high end of the band (Also repeaters are in the 29.5–29.7 MHz segment in many countries) |