

§ 97.305

47 CFR Ch. I (10–1–22 Edition)

cause harmful interference to, and must accept interference from, stations authorized by the FCC in the fixed, mobile except aeronautical mobile, and radiolocation services.

(q) [Reserved]

(r) *In the 5 cm band:*

(1) Amateur stations transmitting in the 5.650–5.725 GHz segment must not cause harmful interference to, and must accept interference from, stations authorized by other nations in the mobile except aeronautical mobile service.

(2) Amateur stations transmitting in the 5.850–5.925 GHz segment must not cause harmful interference to, and must accept interference from, stations authorized by the FCC and other nations in the fixed-satellite (Earth-to-space) and mobile services and also stations authorized by other nations in the fixed service. In the United States, the use of mobile service is restricted to Dedicated Short Range Communications operating in the Intelligent Transportation System.

(s) [Reserved]

(t) Amateur stations transmitting in the 2.5 mm band must not cause harmful interference to, and must accept interference from, stations authorized by the United States Government, the FCC, or other nations in the fixed, inter-satellite, or mobile services.

NOTE TO §97.303: The Table of Frequency Allocations contains the complete, unabridged, and legally binding frequency sharing requirements that pertain to the Amateur Radio Service. See 47 CFR 2.104, 2.105, and 2.106. The United States, Puerto Rico, and the U.S. Virgin Islands are in Region 2 and other U.S. insular areas are in either Region 2 or 3; see appendix 1 to part 97.

[75 FR 27203, May 14, 2010, as amended at 77 FR 5412, Feb. 3, 2012; 80 FR 38912, July 7, 2015; 82 FR 27215, June 14, 2017; 82 FR 43872, Sept. 20, 2017; 85 FR 64068, Oct. 9, 2020]

§ 97.305 Authorized emission types.

(a) Except as specified elsewhere in this part, an amateur station may transmit a CW emission on any frequency authorized to the control operator.

(b) A station may transmit a test emission on any frequency authorized to the control operator for brief periods for experimental purposes, except that no pulse modulation emission may be transmitted on any frequency where pulse is not specifically authorized and no SS modulation emission may be transmitted on any frequency where SS is not specifically authorized.

(c) A station may transmit the following emission types on the frequencies indicated, as authorized to the control operator, subject to the standards specified in §97.307(f) of this part.

| Wavelength band | Frequencies | Emission types authorized | Standards see §97.307(f), paragraph: |
|-----------------|---|---------------------------|--------------------------------------|
| LF: | | | |
| 2200 m | Entire band | RTTY, data | (3). |
| 2200 m | Entire band | Phone, image | (1), (2). |
| MF: | | | |
| 160 m | Entire band | RTTY, data | (3). |
| 160 m | Entire band | Phone, image | (1), (2). |
| 630 m | Entire band | RTTY, data | (3). |
| 630 m | Entire band | Phone, image | (1), (2). |
| HF: | | | |
| 80 m | Entire band | RTTY, data | (3), (9). |
| 75 m | Entire band | Phone, image | (1), (2). |
| 60 m | 5.332, 5.348, 5.3585, 5.373 and 5.405 MHz | Phone, RTTY, data | (14). |
| 40 m | 7.000–7.100 MHz | RTTY, data | (3), (9) |
| 40 m | 7.075–7.100 MHz | Phone, image | (1), (2), (9), (11) |
| 40 m | 7.100–7.125 MHz | RTTY, data | (3), (9) |
| 40 m | 7.125–7.300 MHz | Phone, image | (1), (2) |
| 30 m | Entire band | RTTY, data | (3). |
| 20 m | 14.00–14.15 MHz | RTTY, data | (3). |
| 20 m | 14.15–14.35 MHz | Phone, image | (1), (2). |
| 17 m | 18.068–18.110 MHz | RTTY, data | (3). |
| 17 m | 18.110–18.168 MHz | Phone, image | (1), (2). |
| 15 m | 21.0–21.2 MHz | RTTY, data | (3), (9). |
| 15 m | 21.20–21.45 MHz | Phone, image | (1), (2). |
| 12 m | 24.89–24.93 MHz | RTTY, data | (3). |
| 12 m | 24.93–24.99 MHz | Phone, image | (1), (2). |

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| Wavelength band | Frequencies | Emission types authorized | Standards see § 97.307(f), paragraph: |
|-----------------|-----------------------|---|---------------------------------------|
| 10 m | 28.0–28.3 MHz | RTTY, data | (4). |
| 10 m | 28.3–28.5 MHz | Phone, image | (1), (2), (10). |
| 10 m | 28.5–29.0 MHz | Phone, image | (1), (2). |
| 10 m | 29.0–29.7 MHz | Phone, image | (2). |
| VHF: | | | |
| 6 m | 50.1–51.0 MHz | MCW, phone, image, RTTY, data | (2), (5). |
| Do | 51.0–54.0 MHz | MCW, phone, image, RTTY, data, test | (2), (5), (8). |
| 2 m | 144.1–148.0 MHz | MCW, phone, image, RTTY, data, test | (2), (5), (8). |
| 1.25 m | 219–220 MHz | Data | (13) |
| Do | 222–225 MHz | RTTY, data, test MCW, phone, SS, image | (2), (6), (8) |
| UHF: | | | |
| 70 cm | Entire band | MCW, phone, image, RTTY, data, SS, test | (6), (8). |
| 33 cm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| 23 cm | Entire band | MCW, phone, image, RTTY, data, SS, test | (7), (8), and (12). |
| 13 cm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| SHF: | | | |
| 5 cm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| 3 cm | Entire band | MCW, phone, image, RTTY, data, SS, test | (7), (8), and (12). |
| 1.2 cm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| EHF: | | | |
| 6 mm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| 4 mm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| 2.5 mm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| 2 mm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| 1 mm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| | Above 275 GHz | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |

[54 FR 25857, June 20, 1989; 54 FR 39536, Sept. 27, 1989; 55 FR 22013, May 30, 1990, as amended at 55 FR 30457, July 26, 1990; 60 FR 15688, Mar. 27, 1995; 64 FR 51471, Sept. 23, 1999; 71 FR 66465, Nov. 15, 2006; 75 FR 27204, May 14, 2010; 77 FR 5412, Feb. 3, 2012; 82 FR 27215, June 14, 2017; 85 FR 64069, Oct. 9, 2020]

§ 97.307 Emission standards.

(a) No amateur station transmission shall occupy more bandwidth than necessary for the information rate and emission type being transmitted, in accordance with good amateur practice.

(b) Emissions resulting from modulation must be confined to the band or segment available to the control operator. Emissions outside the necessary bandwidth must not cause splatter or keyclick interference to operations on adjacent frequencies.

(c) All spurious emissions from a station transmitter must be reduced to the greatest extent practicable. If any spurious emission, including chassis or power line radiation, causes harmful interference to the reception of another radio station, the licensee of the interfering amateur station is required to take steps to eliminate the interference, in accordance with good engineering practice.

(d) For transmitters installed after January 1, 2003, the mean power of any spurious emission from a station transmitter or external RF power amplifier transmitting on a frequency below 30

MHz must be at least 43 dB below the mean power of the fundamental emission. For transmitters installed on or before January 1, 2003, the mean power of any spurious emission from a station transmitter or external RF power amplifier transmitting on a frequency below 30 MHz must not exceed 50 mW and must be at least 40 dB below the mean power of the fundamental emission. For a transmitter of mean power less than 5 W installed on or before January 1, 2003, the attenuation must be at least 30 dB. A transmitter built before April 15, 1977, or first marketed before January 1, 1978, is exempt from this requirement.

(e) The mean power of any spurious emission from a station transmitter or external RF power amplifier transmitting on a frequency between 30–225 MHz must be at least 60 dB below the mean power of the fundamental. For a transmitter having a mean power of 25 W or less, the mean power of any spurious emission supplied to the antenna transmission line must not exceed 25 µW and must be at least 40 dB below the mean power of the fundamental emission, but