

to the operation of industrial, scientific and medical devices on 245 GHz.

(r) Authorization of the 76–77 GHz segment of the 4 mm band for amateur station transmissions is suspended until such time that the Commission may determine that amateur station transmissions in this segment will not pose a safety threat to vehicle radar systems operating in this segment.

(s) An amateur station having an operator holding a General, Advanced or Amateur Extra Class license may only transmit single sideband, suppressed carrier, (emission type 2K8J3E) upper sideband on the channels 5332 kHz, 5348 kHz, 5368 kHz, 5373 kHz, and 5405 kHz. Amateur operators shall ensure that their transmission occupies only the 2.8 kHz centered around each of these frequencies. Transmissions shall not exceed an effective radiated power (e.r.p) of 50 W PEP. For the purpose of computing e.r.p. the transmitter PEP will be multiplied with the antenna gain relative to a dipole or the equivalent calculation in decibels. A half wave dipole antenna will be presumed to have a gain of 0 dBd. Licensees using other antennas must maintain in their station records either manufacturer data on the antenna gain or calculations of the antenna gain. No amateur station shall cause harmful interference to stations authorized in the mobile and fixed services; nor is any amateur station protected from interference due to the operation of any such station.

(t)(1) The 7–7.1 MHz segment is allocated to the amateur and amateur-satellite services on a primary and exclusive basis throughout the world, except that the 7–7.05 MHz segment is:

(i) Additionally allocated to the fixed service on a primary basis in the countries listed in 47 CFR 2.106, footnote 5.140; and

(ii) Alternatively allocated to the fixed service on a primary and exclusive basis (*i.e.*, the segment 7–7.05 MHz is not allocated to the amateur service) in the countries listed in 47 CFR 2.106, footnote 5.141.

(2) The 7.1–7.2 MHz segment is allocated to the amateur service on an exclusive basis in Region 2. Until March 29, 2009, the 7.1–7.2 MHz segment is allocated to the amateur and broadcasting

services on a co-primary basis in Region 1 and Region 3 and the use of the 7.1–7.2 MHz segment by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3. After March 29, 2009, the 7.1–7.2 MHz segment is allocated to the amateur service on a primary and exclusive basis throughout the world, except that the 7.1–7.2 MHz segment is additionally allocated to the fixed and mobile except aeronautical mobile (R) services on a primary basis in the countries listed in 47 CFR 2.106, footnote 5.141B.

(3) The 7.2–7.3 MHz segment is allocated to the amateur service on an exclusive basis in Region 2 and to the broadcasting service on an exclusive basis in Region 1 and Region 3. The use of the 7.2–7.3 MHz segment in Region 2 by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3.

[54 FR 25857, June 20, 1989; 54 FR 39536, Sept. 27, 1989]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 97.303, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 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: |
|-----------------|-------------------------|--|---------------------------------------|
| MF: | | | |
| 160 m | Entire band | RTTY, data | (3). |
| 160 m | Entire band | Phone, image | (1), (2). |
| HF: | | | |
| 80 m | Entire band | RTTY, data | (3), (9). |
| 75 m | Entire band | Phone, image | (1), (2). |
| 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). |
| 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: | | | |
| 9 cm | Entire band | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |
| 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 300 GHz | MCW, phone, image, RTTY, data, SS, test, pulse | (7), (8), and (12). |

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§ 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