

repeated more than 5 times. Such systems include existing facilities and additional facilities which may be authorized as a clear and direct expansion of existing facilities. After December 31, 1999, all signaling systems shall be required to comply with the 2 second message duration and 3 message repetition requirements.

(f) Systems employing automatic interrogation shall be limited to non-voice techniques and shall not be activated for this purpose more than 10 seconds out of any 60 second period. This 10 second timeframe includes both transmit and response times.

(g) Automatic means shall be provided to deactivate the transmitter in the event the r.f. carrier remains on for a period in excess of 3 minutes or if a transmission for the same signaling function is repeated consecutively more than five times.

(h) Fixed stations authorized pursuant to the provisions of this section are exempt from the requirements of §§ 90.137(b), 90.425, and 90.429.

(i) Base, mobile, or mobile relay stations may transmit secondary signaling transmissions to receivers at fixed locations subject to the conditions set forth in this section.

(j) Under the provisions of this section, a mobile service frequency may not be used exclusively for secondary signaling.

(k) The use of secondary signaling will not be considered in whole or in part as a justification for authorizing additional frequencies in a licensee's land mobile radio system.

(l) Secondary fixed signaling operations conducted in accordance with the provisions of § 90.317(a) or § 90.637 are exempt from the foregoing provisions of this section.

[54 FR 28679, July 7, 1989, as amended at 57 FR 34693, Aug. 6, 1992; 58 FR 30996, May 28, 1993; 60 FR 50123, Sept. 28, 1995; 62 FR 18927, Apr. 17, 1997; 72 FR 35195, June 27, 2007; 72 FR 44424, Aug. 8, 2007]

**§ 90.237 Interim provisions for operation of radioteleprinter and radiofacsimile devices.**

These provisions authorize and govern the use of radioteleprinter and radiofacsimile devices for base station use (other than on mobile-only or pag-

ing-only frequencies) in all radio pools and services except Radiolocation in this part.

(a) Information must be submitted with an application to establish that the minimum separation between a proposed radioteleprinter or radiofacsimile base station and the nearest co-channel base station of another licensee operating a voice system is 120 km (75 mi) for a single frequency mode of operation, or 56 km (35 mi) for two frequency mode of operation. Where this minimum mileage separation cannot be achieved, either agreement to the use of F1B, F2B, F3C, G1B, G2B or G3C emission must be received from all existing co-channel licensees using voice emission within the applicable mileage limits, or if agreement was not received, the licensee of the radioteleprinter or radiofacsimile system is responsible for eliminating any interference with preexisting voice operations. New licensees of voice operations will be expected to share equally any frequency occupied by established radioteleprinter or radiofacsimile operations.

(b) [Reserved]

(c) Transmitters certificated under this part for use of G3E or F3E emission may also be used for F1B, F2B, F3C, G1B, G2B or G3C emission for radioteleprinter or radiofacsimile, provided the keying signal is passed through the low pass audio frequency filter required for G3E or F3E emission. The transmitter must be so adjusted and operated that the instantaneous frequency deviation does not exceed the maximum value allowed for G3E or F3E.

(d) Frequencies will not be assigned exclusively for F1B, F2B, F3C, G1B, G2B or G3C emission for radioteleprinter or radiofacsimile (except where specifically provided for in the frequency limitations).

(e) The requirements in this part applicable to the use of G3E or F3E emission are also applicable to the use of F1B, F2B, F3C, G1B, G2B or G3C emission for radioteleprinter and radiofacsimile transmissions.

(f) The station identification required by § 90.425 must be given by voice or Morse code.

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(g) For single sideband operations in accordance with § 90.266, transmitters certified under this part for use of J3E emission may also be used for A2B and F2B emissions for radioteletypewriter transmissions. Transmitters certified under this part for use of J3E emission in accordance with §§ 90.35(c)(1)(A), 90.35(c)(1)(B), 90.35(c)(1)(C) and 90.257(a) may also be used for A1B, A2B, F1B, F2B, J2B, and A3C emissions to provide standby backup circuits for operational telecommunications circuits which have been disrupted, where so authorized in other sections of this part.

[43 FR 54791, Nov. 22, 1978, as amended at 49 FR 48712, Dec. 14, 1984; 51 FR 14998, Apr. 22, 1986; 62 FR 18927, Apr. 17, 1997; 63 FR 36610, July 7, 1998; 63 FR 68965, Dec. 14, 1998; 72 FR 35195, June 27, 2007]

## § 90.238 Telemetry operations.

The use of telemetry is authorized under this part on the following frequencies.

(a) 72–76 MHz (in accordance with § 90.257 and subject to the rules governing the use of that band).

(b) 154.45625, 154.46375, 154.47125, and 154.47875 MHz (subject to the rules governing the use of those frequencies).

(c) 173.20375, 173.210, 173.2375, 173.2625, 173.2875, 173.3125, 173.3375, 173.3625, 173.390, and 173.39625 MHz (subject to the rules governing the use of those frequencies).

(d) 216–220 and 1427–1435 MHz (as available in the Public Safety and Industrial/Business Pools and in accordance with § 90.259).

(e) In the 450–470 MHz band, telemetry operations will be authorized on a secondary basis with a transmitter output power not to exceed 2 watts on frequencies subject to § 90.20(d)(27) or § 90.35(c)(30).

(f) 220–222 MHz as available under subpart T of this part.

(g) 450–470 MHz band (as available for secondary fixed operations in accordance with § 90.261 and for low power operations in accordance with § 90.267).

(h) 458–468 MHz band (as available in the Public Safety Pool for bio-medical telemetry operations).

(i) For Industrial/Business frequencies which are not governed by paragraphs (a) through (h), on fre-

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quencies available for operations up to 2 watts.

[44 FR 17183, Mar. 21, 1979, as amended at 46 FR 45955, Sept. 16, 1981; 50 FR 39680, Sept. 30, 1985; 50 FR 40976, Oct. 8, 1985; 56 FR 19603, Apr. 29, 1991; 60 FR 37268, July 19, 1995; 61 FR 6576, Feb. 21, 1996; 62 FR 18927, Apr. 17, 1997; 68 FR 19460, Apr. 21, 2003]

## § 90.239 [Reserved]

## § 90.241 Radio call box operations.

(a) The frequencies in the 72–76 MHz band listed in § 90.257(a)(1) may be assigned in the Public Safety Pool for operation of radio call boxes to be used by the public to request fire, police, ambulance, road service, and other emergency assistance, subject to the following conditions and limitations:

(1) Maximum transmitter power will be either 2.5 watts plate input to the final stage or 1 watt output.

(2) Antenna gain shall not exceed zero dBd (referred to a half-wave dipole) in any horizontal direction.

(3) Only vertical polarization of antennas shall be permitted.

(4) The antenna and its supporting structure must not exceed 6.1 m (20 feet) in height above the ground.

(5) Only A1D, A2D, F1D, F2D, G1D, or G2D emission shall be authorized.

(6) The transmitter frequency tolerance shall be 0.005 percent.

(7) Except for test purposes, each transmission must be limited to a maximum of two seconds and shall not be automatically repeated more than two times at spaced intervals within the following 30 seconds. Thereafter, the authorized cycle may not be reactivated for one minute.

(8) All transmitters installed after December 10, 1970, shall be furnished with an automatic means to deactivate the transmitter in the event the carrier remains on for a period in excess of three minutes. The automatic cutoff system must be designed so the transmitter can be only manually reactivated.

(9) Frequency selection must be made with regard to reception of television stations on channels 4 (66–72 MHz) and 5 (76–82 MHz) and should maintain the greatest possible frequency separation from either or both of these channels, if they are assigned in the area.

(b) [Reserved]