

§ 90.533

47 CFR Ch. I (10-1-04 Edition)

into 120 channels having a channel size of 50 kHz as follows:

Frequency range	Channel Nos.
767-773 MHz	1-120
797-803 MHz	121-240.

(1) *Wideband Interoperability channels.* The following wideband channels are designated for nationwide Interoperability licensing and use, but are not available for licensing or use pending Commission adoption of a wideband Interoperability standard: 28-30, 37-39, 46-48, 73-75, 82-84, 91-93, 148-150, 157-159, 166-168, 193-195, 202-204, 211-213.

(2) *Wideband reserve channels.* The following wideband channels are reserved: 1-27, 94-120, 121-147, 214-240.

(3) *Wideband general use channels.* All wideband channels established in paragraph (c), except for those listed in paragraphs (c)(1) and (c)(2) of this section, are designated for assignment to public safety eligibles subject to Commission-approved regional planning committee regional plans.

(d) *Combining channels.* Except as noted in this section, at the discretion of the appropriate regional planning committee, contiguous channels may be used in combination in order to accommodate requirements for larger bandwidth emissions, in accordance with this paragraph. Interoperability channels may not be combined with channels in another group except for channels for secondary trunking channels.

(1) *Narrowband.* Subject to compliance with the spectrum usage efficiency requirements set forth in § 90.535, two or four contiguous narrowband (6.25 kHz) channels may be used in combination as 12.5 kHz or 25 kHz channels, respectively. The lower (in frequency) channel for two channel combinations must be an odd (*i.e.*, 1, 3, 5 * * *) numbered channel. The lowest (in frequency) channel for four channel combinations must be a channel whose number is equal to 1+(4xn), where n = any integer between 0 and 479, inclusive (*e.g.*, channel number 1, 5, * * * 1917). Channel combinations are designated by the lowest and highest channel numbers separated by a hyphen, *e.g.*, “1-2” for a two channel com-

bination and “1-4” for a four channel combination.

(2) *Wideband.* Two or three contiguous wideband (50 kHz) channels may be used in combination as 100 kHz or 150 kHz channels, respectively. The lower (in frequency) channel for two channel combinations must be a channel whose number is equal to 1+(3xn) or 2+(3xn), where n = any integer between 0 and 79, inclusive (*e.g.*, channel number 1, 2, 4, 5, 7, 8, * * * 238, 239). The lowest (in frequency) channel for three channel combinations must be a channel whose number is equal to 1+(3xn), where n = any integer between 0 and 79, inclusive (*e.g.*, channel number 1, 4, 7, 10, * * * 238). Channel combinations are designated by the lowest and highest channel numbers separated by a hyphen, *e.g.*, “1-2” for a two channel combination and “1-3” for a three channel combination.

(e) *Channel pairing.* In general, channels must be planned and assigned in base/mobile pairs that are separated by 30 MHz. However, until December 31, 2006, channels other than those listed in paragraphs (b)(1) and (c)(1), may be planned and assigned in base/mobile pairs having a different separation, where necessary because 30 MHz base/mobile pairing is precluded by the presence of one or more co-channel or adjacent channel TV/DTV broadcast stations.

[63 FR 58651, Nov. 2, 1998, as amended at 65 FR 66654, Nov. 7, 2000; 66 FR 10635, 10636, Feb. 16, 2001; 67 FR 61005, Sept. 27, 2002; 67 FR 76700, Dec. 13, 2002]

§ 90.533 Transmitting sites near the U.S./Canada or U.S./Mexico border.

This section applies to each license to operate one or more public safety transmitters in the 764-776 MHz and 794-806 MHz bands, at a location or locations North of Line A (see § 90.7) or within 120 kilometers (75 miles) of the U.S.-Mexico border, until such time as agreements between the government of the United States and the government of Canada or the government of the United States and the government of Mexico, as applicable, become effective governing border area non-broadcast use of these bands. Public safety licenses are granted subject to the following conditions:

(a) Public safety transmitters operating in the 764–776 MHz and 794–806 MHz bands must conform to the limitations on interference to Canadian television stations contained in agreement(s) between the United States and Canada for use of television channels in the border area.

(b) Public safety facilities must accept any interference that may be caused by operations of UHF television broadcast transmitters in Canada and Mexico.

(c) Conditions may be added during the term of the license, if required by the terms of international agreements between the government of the United States and the government of Canada or the government of the United States and the government of Mexico, as applicable, regarding non-broadcast use of the 764–776 MHz and 794–806 MHz bands.

[43 FR 54791, Nov. 22, 1978, as amended at 67 FR 76700, Dec. 13, 2002]

§ 90.535 Modulation and spectrum usage efficiency requirements.

Transmitters designed to operate in 764–776 MHz and 794–806 MHz frequency bands must meet the following modulation standards:

(a) All transmitters in the 764–776 MHz and 794–806 MHz frequency bands must use digital modulation. Mobile and portable transmitters may have analog modulation capability only as a secondary mode in addition to its primary digital mode. Mobile and portable transmitters that only operate on the low power channels designated in §§ 90.531(b)(3), 90.531(b)(4), are exempt from this digital modulation requirement.

(b) Transmitters designed to operate in the narrowband segment using digital modulation must be capable of maintaining a minimum data (non-voice) rate of 4.8 kbps per 6.25 kHz of bandwidth.

(c) Transmitters designed to operate in the wideband segment using digital modulation must be capable of maintaining a minimum data (non-voice) rate of 384 kbps per 150 kHz of bandwidth.

(d) The following provisions apply to licensees operating in the channels designated in §§ 90.531(b)(5) or 90.531(b)(6).

(1) With the exception of licensees designated in paragraph (d) (2) of this section, after December 31, 2006, licensees may only operate in voice mode in these channels at a voice efficiency of at least one voice path per 6.25 kHz of spectrum bandwidth.

(2) Licensees authorized to operate systems in the voice mode on these channels from applications filed on or before December 31, 2006, may continue operating in the voice mode on these channels (including modification applications of such licensees granted after December 31, 2006, for expansion or maintenance of such systems) at a voice efficiency of at least one voice path per 12.5 kHz of spectrum bandwidth until December 31, 2016.

(3) The licensees designated in paragraph (d)(2) of this section must, no later than January 31, 2017, file a declaration through the Universal Licensing System that they are operating these channels at a voice efficiency of at least one voice path per 6.25 kHz of spectrum bandwidth.

[63 FR 58651, Nov. 2, 1998, as amended at 65 FR 53645, Sept. 5, 2000; 65 FR 66655, Nov. 7, 2000; 67 FR 76701, Dec. 13, 2002]

§ 90.537 Trunking requirement.

(a) *General use channels.* All systems using six or more narrowband channels in the 764–776 MHz and 794–806 MHz frequency bands must be trunked systems, except for those described in paragraph (b) of this section.

(b) *Interoperability channels.* Trunking is permitted only on Interoperability channels specified in § 90.531(b)(1)(iii). Trunked use must be strictly on a secondary, non-interference basis to conventional operations. The licensee must monitor and immediately release these channels when they are needed for interoperability purposes.

[66 FR 10636, Feb. 16, 2001]

§ 90.539 Frequency stability.

Transmitters designed to operate in 764–776 MHz and 794–806 MHz frequency bands must meet the frequency stability requirements in this section.

(a) Mobile, portable and control transmitters must normally use automatic frequency control (AFC) to lock on to the base station signal.