

FM Channel	Distance (kilometers)
201	148
202	146
203	143
204	141
205	140
206	137
207	135
208	135
209	135
210	135
211	135
212	135
213	135
214	134
215	134
216	133
217	133
218	132
219	132
220	131

FM channel	Interference Contour F(50,10) curves (dBu)
204	62
205	64
206	69
207	73
208	73
209	73
210	73
211	73
212	74
213	75
214	77
215	78
216	80
217	81
218	85
219	88
220	90

(b) *Collocated stations.* An application for a noncommercial educational FM translator station operating on Channels 201-220 and located at 0.4 kilometer (approximately 0.25 mile) or less from a TV Channel 6 station will be accepted if it includes a certification that the applicant has coordinated its antenna with the affected TV station.

(c) *Contour overlap.* Except as provided in paragraph (b) of this section, an application for a noncommercial educational FM translator station operating on Channels 201-220 will not be accepted if the proposed operation would involve overlap of its interference field strength contour with any TV Channel 6 station's Grade B contour, as set forth below.

(1) The distances to the TV Channel 6 station Grade B (47 dBu) field strength contour will be predicted according to the procedures specified in §73.684 of this chapter, using the F(50,50) curves in §73.699, Figure 9 of this chapter.

(2) The distances to the applicable noncommercial educational FM translator interference contour will be predicted according to the procedures specified in §74.1204(b) of this part.

(3) The applicable noncommercial educational FM translator interference contours are as follows:

FM channel	Interference Contour F(50,10) curves (dBu)
201	54
202	56
203	59

(d) FM translator stations authorized prior to June 1, 1991 with facilities that do not comply with the predicted interference protection provisions of this section, may continue to operate, provided that operation is in conformance with §74.1203 regarding actual interference. Applications for major changes in FM translator stations must specify facilities that comply with the provisions of this section.

[55 FR 50695, Dec. 10, 1990, as amended at 58 FR 42025, Aug. 6, 1993]

**§ 74.1231 Purpose and permissible service.**

(a) FM translators provide a means whereby the signals of AM or FM broadcast stations may be retransmitted to areas in which direct reception of such AM or FM broadcast stations is unsatisfactory due to distance or intervening terrain barriers, and a means for AM Class D stations to continue operating at night.

(b) An FM translator may be used for the purpose of retransmitting the signals of a primary AM or FM radio broadcast station or another translator station the signal of which is received directly through space, converted, and suitably amplified, and originating programming to the extent authorized in paragraphs (f), (g), and (h) of this section. However, an FM translator providing fill-in service may use any terrestrial facilities to receive the signal that is being rebroadcast. An FM booster station or a noncommercial educational FM translator station that

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is operating on a reserved channel (Channels 201–220) and is owned and operated by the licensee of the primary noncommercial educational station it rebroadcasts may use alternative signal delivery means, including, but not limited to, satellite and terrestrial microwave facilities. Provided, however, that an applicant for a noncommercial educational translator operating on a reserved channel (Channel 201–220) and owned and operated by the licensee of the primary noncommercial educational AM or FM station it rebroadcasts complies with either paragraph (b)(1) or (b)(2) of this section:

(1) The applicant demonstrates that:

(i) The transmitter site of the proposed FM translator station is within 80 kilometers of the predicted 1 mV/m contour of the primary station to be rebroadcast; or,

(ii) The transmitter site of the proposed FM translator station is more than 160 kilometers from the transmitter site of any authorized full service noncommercial educational FM station; or,

(iii) The application is mutually exclusive with an application containing the showing as required by paragraph 74.1231(b)(2) (i) or (ii) of this section; or,

(iv) The application is filed after October 1, 1992.

(2) If the transmitter site of the proposed FM translator station is more than 80 kilometers from the predicted 1 mV/m contour of the primary station to be rebroadcast or is within 160 kilometers of the transmitter site of any authorized full service noncommercial educational FM station, the applicant must show that:

(i) An alternative frequency can be used at the same site as the proposed FM translator's transmitter location and can provide signal coverage to the same area encompassed by the applicant's proposed 1 mV/m contour; or,

(ii) An alternative frequency can be used at a different site and can provide signal coverage to the same area encompassed by the applicant's proposed 1 mV/m contour.

NOTE: For paragraphs 74.1231(b) and 74.1231(i) of this section, auxiliary intercity relay station frequencies may be used to deliver signals to FM translator and booster stations on a secondary basis only. Such use

shall not interfere with or otherwise preclude use of these frequencies for transmitting aural programming between the studio and transmitter location of a broadcast station, or between broadcast stations, as provided in paragraphs 74.531 (a) and (b) of this part. Prior to filing an application for an auxiliary intercity relay microwave frequency, the applicant shall notify the local frequency coordination committee, or, in the absence of a local frequency coordination committee, any licensees assigned the use of the proposed operating frequency in the intended location or area of operation.

(c) The transmissions of each FM translator or booster station shall be intended only for direct reception by the general public. An FM translator or booster shall not be operated solely for the purpose of relaying signals to one or more fixed received points for retransmission, distribution, or further relaying in order to establish a point-to-point FM radio relay system.

(d) The technical characteristics of the retransmitted signals shall not be deliberately altered so as to hinder reception on conventional FM broadcast receivers.

(e) An FM translator shall not deliberately retransmit the signals of any station other than the station it is authorized to retransmit. Precautions shall be taken to avoid unintentional retransmission of such other signals.

(f) A locally generated radio frequency signal similar to that of an FM broadcast station and modulated with aural information may be connected to the input terminals of an FM translator for the purpose of transmitting voice announcements. The radio frequency signals shall be on the same channel as the normally used off-the-air signal being rebroadcast. Connection of the locally generated signals shall be made by any automatic means when transmitting originations concerning financial support. The connections for emergency transmissions may be made manually. The apparatus used to generate the local signal that is used to modulate the FM translator must be capable of producing an aural signal which will provide acceptable reception on FM receivers designed for the transmission standards employed by FM broadcast stations.

(g) The aural material transmitted as permitted in paragraph (f) of this section shall be limited to emergency warnings of imminent danger and to seeking or acknowledging financial support deemed necessary to the continued operation of the translator. Originations concerning financial support are limited to a total of 30 seconds an hour. Within this limitation the length of any particular announcement will be left to the discretion of the translator station licensee. Solicitations of contributions shall be limited to the defrayal of the costs of installation, operation and maintenance of the translator or acknowledgements of financial support for those purposes. Such acknowledgements may include identification of the contributors, the size or nature of the contributions and advertising messages of contributors. Emergency transmissions shall be no longer or more frequent than necessary to protect life and property.

(h) An FM translator station that rebroadcasts a Class D AM radio broadcast station as its primary station may originate programming during the hours the primary station is not operating, subject to the provisions of §74.1263(b) of this part.

(i) FM broadcast booster stations provide a means whereby the licensee of an FM broadcast station may provide service to areas in any region within the primary station's predicted, authorized service contours. An FM broadcast booster station is authorized to retransmit only the signals of its primary station which have been received directly through space and suitably amplified, or received by alternative signal delivery means including, but not limited to, satellite and terrestrial microwave facilities. The FM booster station shall not retransmit the signals of any other station nor make independent transmissions, except that locally generated signals may be used to excite the booster apparatus for the purpose of conducting tests and measurements essential to the proper installation and maintenance of the apparatus.

NOTE: In the case of an FM broadcast station authorized with facilities in excess of those specified by §73.211 of this chapter, an FM booster station will only be authorized

within the protected contour of the class of station being rebroadcast as predicted on the basis of the maximum powers and heights set forth in that section for the applicable class of FM broadcast station concerned.

[35 FR 15388, Oct. 2, 1970, as amended at 45 FR 37842, June 5, 1980; 52 FR 31406, Aug. 20, 1987; 53 FR 14803, Apr. 26, 1988; 54 FR 35342, Aug. 25, 1989; 55 FR 50695, Dec. 10, 1990; 57 FR 41111, Sept. 9, 1992; 58 FR 42026, Aug. 6, 1993; 63 FR 33879, June 22, 1998; 74 FR 45130, Sept. 1, 2009]

#### § 74.1232 Eligibility and licensing requirements.

(a) Subject to the restrictions set forth in paragraph (d) of this section, a license for an FM broadcast translator station may be issued to any qualified individual, organized group of individuals, broadcast station licensee, or local civil governmental body, upon an appropriate showing that plans for financing the installation and operation of the translator are sufficiently sound to assure prompt construction of the translator and dependable service.

(b) More than one FM translator may be licensed to the same applicant, whether or not such translators serve substantially the same area, upon an appropriate showing of technical need for such additional stations. FM translators are not counted as FM stations for the purpose of §73.3555 of this chapter concerning multiple ownership.

NOTE: As used in this section need refers to the quality of the signal received and not to the programming content, format, or transmission needs of an area.

(c) Only one input and one output channel will be assigned to each FM translator. Additional FM translators may be authorized to provide additional reception. A separate application is required for each FM translator and each application shall be complete in all respects.

(d) An authorization for an FM translator whose coverage contour extends beyond the protected contour of the commercial primary station will not be granted to the licensee or permittee of a commercial FM radio broadcast station. Similarly, such authorization will not be granted to any person or entity having any interest whatsoever, or any connection with a primary FM station.