

Federal Communications Commission

§ 74.703

a digital channel authorized to an existing low power television or television translator station to be associated with the station's analog channel.

(p) *Digital conversion channel.* When used in subpart G of this part, the term "digital conversion channel" refers to a channel previously authorized to an existing low power television or television translator station that has been converted to digital operation.

[28 FR 13722, Dec. 14, 1963, as amended at 43 FR 1951, Jan. 13, 1978; 47 FR 21497, May 18, 1982; 48 FR 21486, May 12, 1983; 52 FR 7422, Mar. 11, 1987; 52 FR 31403, Aug. 20, 1987; 62 FR 26720, May 14, 1997; 69 FR 69331, Nov. 29, 2004]

§ 74.702 Channel assignments.

(a) An applicant for a new low power TV or TV translator station or for changes in the facilities of an authorized station shall endeavor to select a channel on which its operation is not likely to cause interference. The applications must be specific with regard to the channel requested. Only one channel will be assigned to each station.

(1) Any one of the 12 standard VHF Channels (2 to 13 inclusive) may be assigned to a VHF low power TV or TV translator station. Channels 5 and 6 assigned in Alaska shall not cause harmful interference to and must accept interference from non-Government fixed operation authorized prior to January 1, 1982.

(2) Any one of the UHF Channels from 14 to 69, inclusive, may be assigned to a UHF low power TV or TV translator station. In accordance with § 73.603(c) of part 73, Channel 37 will not be assigned to such stations.

(3) Application for new low power TV or TV translator stations or for changes in existing stations, specifying operation above 806 MHz will not be accepted for filing. License renewals for existing TV translator stations operating on channels 70 (806–812 MHz) through 83 (884–890 MHz) will be granted only on a secondary basis to land mobile radio operations.

(b) Changes in the TV Table of Allotments or Digital Television Table of Allotments (§§ 73.606(b) and 73.622(a), respectively, of part 73 of this chapter), authorizations to construct new TV broadcast analog or DTV stations or to authorizations to change facilities of

existing such stations, may be made without regard to existing or proposed low power TV or TV translator stations. Where such a change results in a low power TV or TV translator station causing actual interference to reception of the TV broadcast analog or DTV station, the licensee or permittee of the low power TV or TV translator station shall eliminate the interference or file an application for a change in channel assignment pursuant to § 73.3572 of this chapter.

(c) A television broadcast booster station will be authorized on the channel assigned to its primary station.

[47 FR 21497, May 18, 1982, as amended at 47 FR 30068, July 12, 1982; 47 FR 35590, Aug. 18, 1982; 52 FR 7423, Mar. 11, 1987; 52 FR 31403, Aug. 20, 1987; 62 FR 26721, May 14, 1997]

§ 74.703 Interference.

(a) An application for a new low power TV, TV translator, or TV booster station or for a change in the facilities of such an authorized station will not be granted when it is apparent that interference will be caused. Except where there is a written agreement between the affected parties to accept interference, or where it can be shown that interference will not occur due to terrain shielding and/or Longley-Rice terrain dependent propagation methods, the licensee of a new low power TV, TV translator, or TV booster shall protect existing low power TV and TV translator stations from interference within the protected contour defined in § 74.707 and shall protect existing Class A TV and digital Class A TV stations within the protected contours defined in § 73.6010 of this chapter. Such written agreement shall accompany the application. Guidance on using the Longley-Rice methodology is provided in OET Bulletin No. 69. Copies of OET Bulletin No. 69 may be inspected during normal business hours at the: Federal Communications Commission, 445 12th Street, S.W., Reference Information Center (Room CY-A257), Washington, DC 20554. This document is also available through the Internet on the FCC Home Page at <http://www.fcc.gov/oet/info/documents/bulletins/#69>.

(b) It shall be the responsibility of the licensee of a low power TV, TV translator, or TV booster station to

correct at its expense any condition of interference to the direct reception of the signal of any other TV broadcast analog station and DTV station operating on the same channel as that used by the low power TV, TV translator, or TV booster station or an adjacent channel which occurs as a result of the operation of the low power TV, TV translator, or TV booster station. Interference will be considered to occur whenever reception of a regularly used signal is impaired by the signals radiated by the low power TV, TV translator, or TV booster station, regardless of the quality of the reception or the strength of the signal so used. If the interference cannot be promptly eliminated by the application of suitable techniques, operation of the offending low power TV, TV translator, or TV booster station shall be suspended and shall not be resumed until the interference has been eliminated. If the complainant refuses to permit the low power TV, TV translator, or TV booster station to apply remedial techniques that demonstrably will eliminate the interference without impairment of the original reception, the licensee of the low power TV, TV translator, or TV booster station is absolved of further responsibility. TV booster stations will be exempt from the provisions of this paragraph to the extent that they may cause limited interference to their primary stations' signal subject to the conditions of paragraph (g) of this section.

(c) It shall be the responsibility of the licensee of a low power TV, TV translator, or TV booster station to correct any condition of interference which results from the radiation of radio frequency energy outside its assigned channel. Upon notice by the FCC to the station licensee or operator that such interference is caused by spurious emissions of the station, operation of the station shall be immediately suspended and not resumed until the interference has been eliminated. However, short test transmissions may be made during the period of suspended operation to check the efficacy of remedial measures.

(d) When a low-power TV or TV translator station causes interference to a CATV system by radiations within

its assigned channel at the cable headend or on the output channel of any system converter located at a receiver, the earlier user, whether cable system or low-power TV or TV translator station, will be given priority on the channel, and the later user will be responsible for correction of the interference. When a low-power TV or TV translator station causes interference to a BRS or EBS system by radiations within its assigned channel on the output channel of any system converter located at a receiver, the earlier user, whether BRS system or low-power TV or TV translator station, will be given priority on the channel, and the later user will be responsible for correction of the interference.

(e) Low power TV and TV translator stations are being authorized on a secondary basis to existing land mobile uses and must correct whatever interference they cause to land mobile stations or cease operation.

(f) It shall be the responsibility of a digital low power TV or TV translator station operating on a channel from channel 52–69 to eliminate at its expense any condition of interference caused to the operation of or services provided by existing and future commercial or public safety wireless licensees in the 700 MHz bands. The offending digital LPTV or translator station must cease operations immediately upon notification by any primary wireless licensee, once it has been established that the digital low power TV or translator station is causing the interference.

(g) An existing or future wireless licensee in the 700 MHz bands may notify (certified mail, return receipt requested), a digital low power TV or TV translator operating on the same channel or first adjacent channel of its intention to initiate or change wireless operations and the likelihood of interference from the low power TV or translator station within its licensed geographic service area. The notice should describe the facilities, associated service area and operations of the wireless licensee with sufficient detail to permit an evaluation of the likelihood of interference. Upon receipt of such notice, the digital LPTV or TV

translator licensee must cease operation within 120 days unless:

(1) It obtains the agreement of the wireless licensee to continue operations;

(2) The commencement or modification of wireless service is delayed beyond that period (in which case the period will be extended); or

(3) The Commission stays the effect of the interference notification, upon request.

(h) In each instance where suspension of operation is required, the licensee shall submit a full report to the FCC in Washington, DC, after operation is resumed, containing details of the nature of the interference, the source of the interfering signals, and the remedial steps taken to eliminate the interference.

(i) A TV booster station may not disrupt the existing service of its primary station nor may it cause interference to the signal provided by the primary station within the principal community to be served.

[47 FR 21497, May 18, 1982, as amended at 48 FR 21487, May 12, 1983; 52 FR 31403, Aug. 20, 1987; 53 FR 4169, Feb. 12, 1988; 60 FR 55483, Nov. 1, 1995; 62 FR 26721, May 14, 1997; 65 FR 30012, May 10, 2000; 69 FR 69331, Nov. 29, 2004; 69 FR 72045, Dec. 10, 2004]

§ 74.706 Digital TV (DTV) station protection.

(a) For purposes of this section, the DTV station protected service area is the geographic-area in which the field strength of the station's signal exceeds the noise-limited service levels specified in § 73.622(e) of this chapter. The extremity of this area (noise-limited perimeter) is calculated from the authorized maximum radiated power (without depression angle correction), the horizontal radiation pattern, and height above average terrain in the pertinent direction, using the signal propagation method specified in § 73.625(b) of this chapter.

(b)(1) An application to construct a new low power TV or TV translator station or change the facilities of an existing station will not be accepted if it specifies a site which is located within the noise-limited service perimeter of a co-channel DTV station.

(2) Due to the frequency spacing which exists between TV channels 4 and 5, between Channels 6 and 7, and between Channels 13 and 14, adjacent channel protection standards shall not be applicable to these pairs of channels.

(c) The low power TV, TV translator or TV booster station field strength is calculated from the proposed effective radiated power (ERP) and the antenna height above average terrain (HAAT) in pertinent directions.

(1) For co-channel protection, the field strength is calculated using Figure 9a, 10a, or 10c of § 73.699 (F(50,10) charts) of part 73 of this chapter.

(2) For adjacent channel protection, the field strength is calculated using Figure 9, 10, or 10b of § 73.699 (F(50,50) charts) of part 73 of this chapter.

(d) A low power TV, TV translator or TV booster station application will not be accepted if the ratio in dB of its field strength to that of the DTV station (L/D ratio) fails to meet the following:

(1) -2 dB or less for co-channel operations. This maximum L/D ratio for co-channel interference to DTV service is only valid at locations where the signal-to-noise (S/N) ratio is 25 dB or greater. At the edge of the noise-limited service area, where the S/N ratio is 16 dB, the maximum L/D ratio for co-channel interference from analog low power TV, TV translator or TV booster service into DTV service is -21 dB. At locations where the S/N ratio is greater than 16 dB but less than 25 dB, the maximum L/D field strength ratios are found from the following Table (for values between measured values, linear interpolation can be used):

Signal-to-noise ratio(dB)	DTV-to-low power ratio (dB)
16.00	21.00
16.35	19.94
17.35	17.69
18.35	16.44
19.35	7.19
20.35	4.69
21.35	3.69
22.35	2.94
23.35	2.44
25.00	2.00

(2) + 48 dB for adjacent channel operations at: