

(1) -45 dB for co-channel operations without offset carrier frequency operation or -28 dB for offset carrier frequency operation. An application requesting offset carrier frequency operation must include the following:

(i) A requested offset designation (zero, plus, or minus) identifying the proposed direction of the 10 kHz offset from the standard carrier frequencies of the requested channel. If the offset designation is not different from that of the station being protected, or if the station being protected is not maintaining its frequencies within the tolerance specified in § 74.761 for offset operation, the -45 dB ratio must be used.

(ii) A description of the means by which the low power TV, TV translator, or TV booster station's frequencies will be maintained within the tolerances specified in § 74.761 for offset operation.

(2) 6 dB when the protected low power TV or TV translator station operates on a VHF channel that is one channel above the requested channel.

(3) 12 dB when the protected low power TV or TV translator station operates on a VHF channel that is one channel below the requested channel.

(4) 15 dB when the protected low power TV or TV translator station operates on a UHF channel that is one channel above or below the requested channel.

(5) 6 dB when the protected low power TV or TV translator station operates on a UHF channel that is fifteen channels below the requested channel.

(e) As an alternative to the preceding paragraphs of § 74.707, an applicant for a low power TV or TV translator station may make full use of terrain shielding and Longley-Rice terrain dependent propagation prediction methods to demonstrate that the proposed facility would not be likely to cause interference to low power TV, TV translator and TV booster stations. Guidance on using the Longley-Rice methodology is provided in *OET Bulletin No. 69* (but also see § 74.793(d)). Copies of *OET Bulletin No. 69* may be inspected during normal business hours at the: Federal Communications Commission, Room CY-C203, 445 12th Street, SW., Reference Information Center, Washington, DC 20554. This document is also

available through the Internet on the FCC Home Page at <http://www.fcc.gov>.

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§ 74.708 Class A TV and digital Class A TV station protection.

(a) The Class A TV and digital Class A TV station protected contours are specified in § 73.6010 of this chapter.

(b) An application to construct a new low power TV, TV translator, or TV booster station or change the facilities of an existing station will not be accepted if it fails to protect an authorized Class A TV or digital Class A TV station or an application for such a station filed prior to the date the low power TV, TV translator, or TV booster application is filed.

(c) Applications for low power TV, TV translator and TV booster stations shall protect Class A TV stations pursuant to the requirements specified in paragraphs (b) through (e) of § 74.707.

(d) Applications for low power TV, TV translator and TV booster stations shall protect digital Class A TV stations pursuant to the following requirements:

(i) An application must not specify an antenna site within the protected contour of a co-channel digital Class A TV station.

(ii) The ratio in dB of the field strength of the low power TV, TV translator or TV booster station to that of the digital Class A TV station must meet the requirements specified in paragraph (d) of § 74.706, calculated using the propagation methods specified in paragraph (c) of that section.

[65 FR 30012, May 10, 2000]

§ 74.709 Land mobile station protection.

(a) Stations in the Land Mobile Radio Service, using the following channels in the indicated cities will be protected from interference caused by low power TV or TV translator stations, and low power TV and TV translator stations must accept any interference from stations in the land mobile service operating on the following channels:

City	Chan-nels	Coordinates	
		Latitude	Longitude
Boston, MA	14, 16	42°21'24"	071°03'24"
Chicago, IL	14, 15	41°52'28"	087°38'22"
Cleveland, OH	14, 15	41°29'51"	081°41'50"
Dallas, TX	16	32°47'09"	096°47'37"
Detroit, MI	15, 16	42°19'48"	083°02'57"
Houston, TX	17	29°45'26"	095°21'37"
Los Angeles, CA	14, 16, 20	34°03'15"	118°18'28"
Miami, FL	14	25°46'37"	080°11'32"
New York, NY	14, 15, 16	40°45'06"	073°59'39"
Philadelphia, PA	19, 20	39°56'58"	075°09'21"
Pittsburgh, PA	14, 18	40°26'19"	080°00'00"
San Francisco, CA	16, 17	37°46'39"	122°24'40"
Washington, DC	17, 18	38°53'51"	077°00'33"

(b) The protected contours for the land mobile radio service are 130 kilometers from the above coordinates, except where limited by the following:

(1) If the land mobile channel is the same as the channel in the following list, the land mobile protected contour excludes the area within 145 kilometers of the corresponding coordinates from list below. Except if the land mobile channel is 15 in New York or Cleveland or 16 in Detroit, the land mobile protected contour excludes the area within 95 kilometers of the corresponding coordinates from the list below.

(2) If the land mobile channel is one channel above or below the channel in the following list, the land mobile protected contour excludes the area within 95 kilometers of the corresponding coordinates from the list below.

City	Chan-nel	Coordinates	
		Latitude	Longitude
San Diego, CA	15	32°41'48"	116°56'10"
Waterbury, CT	20	41°31'02"	073°01'00"
Washington, DC	14	38°57'17"	077°00'17"
Washington, DC	20	38°57'49"	077°06'18"
Champaign, IL	15	40°04'11"	087°54'45"
Jacksonville, IL	14	39°45'52"	090°30'29"
Ft. Wayne, IN	15	41°05'35"	085°10'42"
South Bend, IN	16	41°36'20"	086°12'44"
Salisbury, MD	16	38°24'15"	075°34'45"
Mt. Pleasant, MI	14	43°34'24"	084°46'21"
Hanover, NH	15	43°42'30"	072°09'16"
Canton, OH	17	40°51'04"	081°16'37"
Cleveland, OH	19	41°21'19"	081°44'24"
Oxford, OH	14	39°30'26"	084°44'09"
Zanesville, OH	18	39°55'42"	081°59'06"
Elmira-Corning, NY	18	42°06'20"	076°52'17"
Harrisburg, PA	21	40°20'44"	076°52'09"
Johnstown, PA	19	40°19'47"	078°53'45"
Lancaster, PA	15	40°15'45"	076°27'49"
Philadelphia, PA	17	40°02'30"	075°14'24"
Pittsburgh, PA	16	40°26'46"	079°57'51"
Scranton, PA	16	41°10'58"	075°52'21"
Parkersburg, WV	15	39°20'50"	081°33'56"
Madison, WI	15	43°03'01"	089°29'15"

(c) A low power TV or TV translator station application will not be accepted if it specifies a site that is within the protected contour of a co-channel or first adjacent channel land mobile assignment.

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

(1) The field strength is calculated using Figure 10c of § 73.699 (F(50, 10) charts) of Part 73 of this chapter.

(2) A low power TV or TV translator station application will not be accepted if it specifies the same channel as one of the land mobile assignments and its field strength at the land mobile protected contour exceeds 52 dBu.

(3) A low power TV or TV translator station application will not be accepted if it specifies a channel that is one channel above or below one of the land mobile assignments and its field strength at the land mobile protected contour exceeds 76 dBu.

(e) To protect stations in the Off-shore Radio Service, a low power TV or TV translator station construction permit application will not be accepted if it specifies operation on channels 15, 16, 17 or 18 in the following areas. West Longitude and North Latitude are abbreviated as W.L. and N.L. respectively.

(1) On Channel 15: west of 92°00' W.L.; east of 98°30' W.L.; and south of a line extending due west from 30°30' N.L., 92°00' W.L. to 30°30' N.L., 96°00' W.L.; and then due southwest to 28°00' N.L., 98°30' W.L.

(2) On Channel 16: west of 86°40' W.L.; east of 96°30' W.L.; and south of a line extending due west from 31°00' N.L., 86°40' W.L. to 31°00' N.L., 95°00' W.L. and then due southwest to 29°30' N.L., 96°30' W.L.

(3) On Channel 17: west of 86°30' W.L.; east of 96°00' W.L.; and south of a line extending due west from 31°00' N.L., 86°30' W.L. to 31°30' N.L., 94°00' W.L. and then due southwest to 29°30' N.L., 96°00' W.L.

Federal Communications Commission

§ 74.731

(4) On Channel 18: west of 87°00' W.L.; east of 95°00' W.L.; and south of 31°00' N.L.

[47 FR 21499, May 18, 1982, as amended at 50 FR 12027, Mar. 27, 1985; 50 FR 33942, Aug. 22, 1985; 69 FR 31906, June 8, 2004]

§ 74.710 Digital low power TV and TV translator station protection.

(a) An application to construct a new low power TV, TV translator, or TV booster station or change the facilities of an existing station will not be accepted if it fails to protect an authorized digital low power TV or TV translator station or an application for such station filed prior to the date the low power TV, TV translator, or TV booster application is filed.

(b) Applications for low power TV, TV translator and TV booster stations shall protect digital low power TV and TV translator stations pursuant to the following requirements:

(1) An application must not specify an antenna site within the protected contour of a co-channel or adjacent channel digital low power TV or TV translator station, as defined in § 74.792.

(2) The ratio in dB of the field strength of the low power TV, TV translator or TV booster station at the protected contour of a co-channel digital TV or TV translator station must meet the requirements specified in § 74.706(d)(1).

(3) The ratio in dB of the field strength of the low power TV, TV translator or TV booster station at the protected contour of a digital low power TV or TV translator station on the lower and upper adjacent channels must not exceed 49 dB and 48 dB, respectively.

(4) The analysis used in 74.710 should use the propagation methods specified in § 74.706(c).

(c) As an alternative to the requirements of paragraph (b) of this section, an applicant for a low power TV, TV translator or TV booster may make full use of terrain shielding and Longley-Rice terrain dependent propagation prediction methods to demonstrate that the proposed facility would not be likely to cause interference to digital low power TV or TV translator stations, as described in § 74.707(e) (*i.e.*, reduce the service popu-

lation by no more than 0.5% within the station's protected contour based on the interference thresholds of § 73.623(c) of this chapter).

[69 FR 69332, Nov. 29, 2004]

§ 74.731 Purpose and permissible service.

(a) Television broadcast translator stations and television broadcast booster stations provide a means whereby the signals of television broadcast stations may be retransmitted to areas in which direct reception of such television broadcast stations is unsatisfactory due to distance or intervening terrain barriers.

(b) Except as provided in paragraph (f) of this section, a television broadcast translator station or television broadcast booster station may be used only to receive the signals of a television broadcast station, another television broadcast translator station, a television translator relay station, a television intercity relay station, a television STL station, or other suitable source such as a CARS or common carrier microwave station, for the simultaneous retransmission of the programs and signals of a television broadcast station. Such retransmissions may be accomplished by either:

(1) Reception of the television programs and signals of a television broadcast station directly through space, conversion to a different channel by simple heterodyne frequency conversion and suitable amplification; or,

(2) Modulation and amplification of a video and audio feed, in which case modulating equipment meeting the requirements of § 74.750(d) shall be used.

(c) The transmissions of each television broadcast translator station shall be intended for direct reception by the general public and any other use shall be incidental thereto. A television broadcast translator station shall not be operated solely for the purpose of relaying signals to one or more fixed receiving points for retransmission, distribution, or further relaying.

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