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SUBCHAPTER C—BROADCAST RADIO SERVICES

PARTS 70–72 [RESERVED]

PART 73—RADIO BROADCAST SERVICES

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Alphabetical Index—Part 73

AUTHORITY: 47 U.S.C. 154, 303, 334 and 336.

Subpart A—AM Broadcast Stations

§73.1 Scope.

This subpart contains those rules which apply exclusively to the AM broadcast service and are in addition to those rules in Subpart H which are common to all AM, FM and TV broadcast services, commercial and noncommercial.

[47 FR 8587, Mar. 1, 1982]

§73.14 AM broadcast definitions.

AM broadcast band. The band of frequencies extending from 535 to 1705 kHz.

AM broadcast channel. The band of frequencies occupied by the carrier and the upper and lower sidebands of an AM broadcast signal with the carrier frequency at the center. Channels are designated by their assigned carrier frequencies. The 117 carrier frequencies assigned to AM broadcast stations begin at 540 kHz and progress in 10 kHz steps to 1700 kHz. (See §73.21 for the classification of AM broadcast channels).

AM broadcast station. A broadcast station licensed for the dissemination of radio communications intended to be received by the public and operated on a channel in the AM broadcast band.

Amplitude modulated stage. The radio-frequency stage to which the modulator is coupled and in which the carrier wave is modulated in accordance with the system of amplitude modulation and the characteristics of the modulating wave.

Amplitude modulator stage. The last amplifier stage of the modulating wave amplitude modulates a radio-frequency stage.

Antenna current. The radio-frequency current in the antenna with no modulation.

Antenna input power. The product of the square of the antenna current and the antenna resistance at the point where the current is measured.

Antenna resistance. The total resistance of the transmitting antenna system at the operating frequency and at the point at which the antenna current is measured.

Auxiliary facility. An auxiliary facility is an AM antenna tower(s) separate from the main facility's antenna tower(s), permanently installed at the same site or at a different location, from which an AM station may broadcast for short periods without prior Commission authorization or notice to the Commission while the main facility is not in operation (*e.g.*, where tower work necessitates turning off the main antenna or where lightning has caused damage to the main antenna or transmission system) (*See* §73.1675).

Blanketing. The interference which is caused by the presence of an AM broadcast signal of one volt per meter (V/m) or greater strengths in the area adjacent to the antenna of the transmitting station. The 1 V/m contour is referred to as the blanket contour and

the area within this contour is referred to as the blanket area.

Carrier-amplitude regulation (Carrier shift). The change in amplitude of the carrier wave in an amplitude-modulated transmitter when modulation is applied under conditions of symmetrical modulation.

Combined audio harmonics. The arithmetical sum of the amplitudes of all the separate harmonic components. Root sum square harmonic readings may be accepted under conditions prescribed by the FCC.

Critical directional antenna. An AM broadcast directional antenna that is required, by the terms of a station authorization, to be operated with the relative currents and phases within the antenna elements at closer tolerances of deviation than those permitted under § 73.62 and observed with a high precision monitor capable of measuring these parameters.

Critical hours. The two hour period immediately following local sunrise and the two hour period immediately preceding local sunset.

Daytime. The period of time between local sunrise and local sunset.

Effective field; Effective field strength. The root-mean-square (RMS) value of the inverse distance fields at a distance of 1 kilometer from the antenna in all directions in the horizontal plane. The term ''field strength'' is synonymous with the term ''field intensity'' as contained elsewhere in this Part.

Equipment performance measurements. The measurements performed to determine the overall performance characteristics of a broadcast transmission system from point of program origination at main studio to sampling of signal as radiated. (See § 73.1590)

Experimental period. the time between 12 midnight local time and local sunrise, used by AM stations for tests, maintenance and experimentation.

Frequency departure. The amount of variation of a carrier frequency or center frequency from its assigned value.

Incidental phase modulation. The peak phase deviation (in radians) resulting from the process of amplitude modulation.

Input power. Means the product of the direct voltage applied to the last radio stage and the total direct current flowing to the last radio stage, measured without modulation.

Intermittent service area. Means the area receiving service from the groundwave of a broadcast station but beyond the primary service area and subject to some interference and fading.

Last radio stage. The radio-frequency power amplifier stage which supplies power to the antenna.

Left (or right) signal. The electrical output of a microphone or combination of microphones placed so as to convey the intensity, time, and location of sounds originated predominately to the listener's left (or right) of the center of the performing area.

Left (or right) stereophonic channel. The left (or right) signal as electrically reproduced in reception of AM stereophonic broadcasts.

Main channel. The band of audio frequencies from 50 to 10,000 Hz which amplitude modulates the carrier.

Maximum percentage of modulation. The greatest percentage of modulation that may be obtained by a transmitter without producing in its output, harmonics of the modulating frequency in excess of those permitted by these regulations. (See § 73.1570)

Maximum rated carrier power. The maximum power at which the transmitter can be operated satisfactorily and is determined by the design of the transmitter and the type and number of vacuum tubes or other amplifier devices used in the last radio stage.

Model I facility. A station operating in the 1605–1705 kHz band featuring fulltime operation with stereo, competitive technical quality, 10 kW daytime power, 1 kW nighttime power, non-directional antenna (or a simple directional antenna system), and separated by 400–800 km from other co-channel stations.

Model II facility. A station operating in the 535–1605 kHz band featuring fulltime operation, competitive technical quality, wide area daytime coverage with nighttime coverage at least 15% of the daytime coverage.

Nighttime. The period of time between local sunset and local sunrise.

Nominal power. The antenna input power less any power loss through a dissipative network and, for directional

antennas, without consideration of adjustments specified in paragraphs (b)(1) and (b)(2) of § 73.51 of the rules. However, for AM broadcast applications granted or filed before June 3, 1985, nominal power is specified in a system of classifications which include the following values: 50 kW, 25 kW, 10 kW, 5 kW, 2.5 kW, 1 kW, 0.5 kW, and 0.25 kW. The specified nominal power for any station in this group of stations will be retained until action is taken on or after June 3, 1985, which involves a change in the technical facilities of the station.

Percentage modulation (amplitude)

In a positive direction:

$$M = \frac{MAX - C \times 100}{c}$$

In a negative direction:

$$M = \frac{C - MIN \times 100}{c}$$

Where:

M = Modulation level in percent.

MAX = Instantaneous maximum level of the modulated radio frequency envelope.

MIN = Instantaneous minimum level of the modulated radio frequency envelope.

C = (Carrier) level of radio frequency envelope without modulation.

Plate modulation. The modulation produced by introduction of the modulating wave into the plate circuit of any tube in which the carrier frequency wave is present.

Primary service area. Means the service area of a broadcast station in which the groundwave is not subject to objectionable interference or objectionable fading.

Proof of performance measurements or antenna proof of performance measurements. The measurements of field strengths made to determine the radiation pattern or characteristics of an AM directional antenna system.

Secondary service area. Means the service area of a broadcast station served by the skywave and not subject to objectionable interference and in which the signal is subject to intermittent variations in strength.

Stereophonic channel. The band of audio frequencies from 50 to 10,000 Hz containing the stereophonic information which modulates the radio frequency carrier.

Stereophonic crosstalk. An undesired signal occurring in the main channel from modulation of the stereophonic channel or that occurring in the stereophonic channel from modulation of the main channel.

Stereophonic pilot tone. An audio tone of fixed or variable frequency modulating the carrier during the transmission of stereophonic programs.

Stereophonic separation. The ratio of the electrical signal caused in the right (or left) stereophonic channel to the electrical signal caused in the left (or right) stereophonic channel by the transmission of only a right (or left) signal.

Sunrise and sunset. For each particular location and during any particular month, the time of sunrise and sunset as specified in the instrument of authorization (See § 73.1209).

White area. The area or population which does not receive interference-free primary service from an authorized AM station or does not receive a signal strength of at least 1 mV/m from an authorized FM station.

[47 FR 8587, Mar. 1, 1982, as amended at 47 FR 13164, Mar. 29, 1982; 47 FR 13812, Apr. 1, 1982; 50 FR 18821, May 2, 1985; 50 FR 47054, Nov. 14, 1985; 56 FR 64856, Dec. 12, 1991; 62 FR 51058, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51058, Sept. 30, 1997, § 73.14 was amended by adding the definition *Auxiliary facility*, effective Dec. 1, 1997.

§ 73.21 Classes of AM broadcast channels and stations.

(a) *Clear channel.* A clear channel is one on which stations are assigned to serve wide areas. These stations are protected from objectionable interference within their primary service areas and, depending on the class of station, their secondary service areas. Stations operating on these channels are classified as follows:

(1) *Class A station.* A Class A station is an unlimited time station that operates on a clear channel and is designed to render primary and secondary service over an extended area and at relatively long distances from its transmitter. Its primary service area is protected from objectionable interference

from other stations on the same and adjacent channels, and its secondary service area is protected from interference from other stations on the same channel. (See § 73.182). The operating power shall not be less than 10 kW nor more than 50 kW. (Also see § 73.25(a)).

(2) *Class B station.* A Class B station is an unlimited time station which is designed to render service only over a primary service area. Class B stations are authorized to operate with a minimum power of 0.25 kW (or, if less than 0.25 kW, an equivalent RMS antenna field of at least 141 mV/m at 1 km) and a maximum power of 50 kW, or 10 kW for stations that are authorized to operate in the 1605–1705 kHz band.

(3) *Class D station.* A Class D station operates either daytime, limited time or unlimited time with nighttime power less than 0.25 kW and an equivalent RMS antenna field of less than 141 mV/m at one km. Class D stations shall operate with daytime powers not less than 0.25 kW nor more than 50 kW. Nighttime operations of Class D stations are not afforded protection and must protect all Class A and Class B operations during nighttime hours. New Class D stations that had not been previously licensed as Class B will not be authorized.

(b) *Regional Channel.* A regional channel is one on which Class B and Class D stations may operate and serve primarily a principal center of population and the rural area contiguous thereto.

NOTE: Until the North American Regional Broadcasting Agreement (NARBA) is terminated with respect to the Bahama Islands and the Dominican Republic, radiation toward those countries from a Class B station may not exceed the level that would be produced by an omnidirectional antenna with a transmitted power of 5 kW, or such lower level as will comply with NARBA requirements for protection of stations in the Bahama Islands and the Dominican Republic against objectionable interference.

(c) *Local channel.* A local channel is one on which stations operate unlimited time and serve primarily a community and the suburban and rural areas immediately contiguous thereto.

(1) *Class C station.* A Class C station is a station operating on a local channel and is designed to render service only over a primary service area that may be reduced as a consequence of interference in accordance with § 73.182. The power shall not be less than 0.25 kW, nor more than 1 kW. Class C stations that are licensed to operate with 0.1 kW may continue to do so.

[56 FR 64856, Dec. 12, 1991]

§ 73.23 AM broadcast station applications affected by international agreements.

(a) Except as provided in paragraph (b) of this section, no application for an AM station will be accepted for filing if authorization of the facilities requested would be inconsistent with international commitments of the United States under treaties and other international agreements, arrangements and understandings. (See list of such international instruments in § 73.1650(b)). Any such application that is inadvertently accepted for filing will be dismissed.

(b) AM applications that involve conflicts only with the North American Regional Broadcasting Agreement (NARBA), but that are in conformity with the remaining treaties and other international agreements listed in § 73.1650(b) and with the other requirements of this part 73, will be granted subject to such modifications as the FCC may subsequently find appropriate, taking international considerations into account.

(c) In the case of any application designated for hearing on issues other than those related to consistency with international relationships and as to which no final decision has been rendered, whenever action under this section becomes appropriate because of inconsistency with international relationships, the applicant involved shall, notwithstanding the provisions §§ 73.3522 and 73.3571, be permitted to amend its application to achieve consistency with such relationships. In such cases the provisions of § 73.3605(c) will apply.

(d) In some circumstances, special international considerations may require that the FCC, in acting on applications, follow procedures different from those established for general use. In such cases, affected applicants will

be informed of the procedures to be followed.

[56 FR 64856, Dec. 12, 1991]

§73.24 Broadcast facilities; showing required.

An authorization for a new AM broadcast station or increase in facilities of an existing station will be issued only after a satisfactory showing has been made in regard to the following, among others:

(a) That the proposed assignment will tend to effect a fair, efficient, and equitable distribution of radio service among the several states and communities.

(b) That a proposed new station (or a proposed change in the facilities of an authorized station) complies with the pertinent requirements of §73.37 of this chapter.

(c) That the applicant is financially qualified to construct and operate the proposed station.

(d) That the applicant is legally qualified. That the applicant (or the person or persons in control of an applicant corporation or other organization) is of good character and possesses other qualifications sufficient to provide a satisfactory public service.

(e) That the technical equipment proposed, the location of the transmitter, and other technical phases of operation comply with the regulations governing the same, and the requirements of good engineering practice.

(f) That the facilities sought are subject to assignment as requested under existing international agreements and the rules and regulations of the Commission.

(g) That the population within the 1 V/m contour does not exceed 1.0 percent of the population within the 25 mV/m contour: *Provided, however,* That where the number of persons within the 1 V/m contour is 300 or less the provisions of this paragraph are not applicable.

(h) That, in the case of an application for a Class B or Class D station on a clear channel, the proposed station would radiate, during two hours following local sunrise and two hours preceding local sunset, in any direction toward the 0.1 mV/m groundwave contour of a co-channel United States Class A station, no more than the maximum value permitted under the provisions of §73.187.

(i) That, for all stations, the daytime 5 mV/m contour encompasses the entire principal community to be served. That, for stations in the 535–1605 kHz band, 80% of the principal community is encompassed by the nighttime 5 mV/m contour or the nighttime interference-free contour, whichever value is higher. That, for stations in the 1605–1705 kHz band, 50% of the principal community is encompassed by the 5 mV/m contour or the nighttime interference-free contour, whichever value is higher. That, Class D stations with nighttime authorizations need not demonstrate such coverage during nighttime operation.

(j) That the public interest, convenience, and necessity will be served through the operation under the proposed assignment.

[28 FR 13574, Dec. 14, 1963, as amended at 38 FR 5874, Mar. 5, 1973; 49 FR 43960, Nov. 1, 1984; 50 FR 40014, Oct. 1, 1985; 52 FR 11654, Apr. 10, 1987; 53 FR 1031, Jan. 15, 1988; 56 FR 64857, Dec. 12, 1991]

§73.25 Clear channels; Class A, Class B and Class D stations.

The frequencies in the following tabulations are designated as clear channels and assigned for use by the Classes of stations given:

(a) On each of the following channels, one Class A station may be assigned, operating with power of 50 kW: 640, 650, 660, 670, 700, 720, 750, 760, 770, 780, 820, 830, 840, 870, 880, 890, 1020, 1030, 1040, 1100, 1120, 1160, 1180, 1200, and 1210 kHz. In Alaska, these frequencies can be used by Class A stations subject to the conditions set forth in §73.182(a)(1)(ii). On the channels listed in this paragraph, Class B and Class D stations may be assigned.

(b) To each of the following channels there may be assigned Class A, Class B and Class D stations: 680, 710, 810, 850, 940, 1000, 1060, 1070, 1080, 1090, 1110, 1130, 1140, 1170, 1190, 1500, 1510, 1520, 1530, 1540, 1550, and 1560 kHz.

NOTE: Until superseded by a new agreement, protection of the Bahama Islands shall be in accordance with NARBA. Accordingly, a Class A, Class B or Class D station on 1540 kHz shall restrict its signal to a value no

greater than 5 μV/m groundwave or 25 μV/m-10% skywave at any point of land in the Bahama Islands, and such stations operating nighttime (i.e., sunset to sunrise at the location of the U.S. station) shall be located not less than 650 miles from the nearest point of land in the Bahama Islands.

(c) Class A, Class B and Class D stations may be assigned on 540, 690, 730, 740, 800, 860, 900, 990, 1010, 1050, 1220, 1540, 1570, and 1580 kHz.

[28 FR 13574, Dec. 14, 1963, as amended at 33 FR 4410, Mar. 12, 1968; 35 FR 18052, Nov. 25, 1970; 47 FR 27862, June 28, 1982; 49 FR 43960, Nov. 1, 1984; 50 FR 24520, June 11, 1985; 52 FR 47568, Dec. 15, 1987; 53 FR 1031, Jan. 15, 1988; 54 FR 39736, Sept. 28, 1989; 56 FR 64857, Dec. 12, 1991]

§ 73.26 Regional channels; Class B and Class D stations.

(a) The following frequencies are designated as regional channels and are assigned for use by Class B and Class D stations: 550, 560, 570, 580, 590, 600, 610, 620, 630, 790, 910, 920, 930, 950, 960, 970, 980, 1150, 1250, 1260, 1270, 1280, 1290, 1300, 1310, 1320, 1330, 1350, 1360, 1370, 1380, 1390, 1410, 1420, 1430, 1440, 1460, 1470, 1480, 1590, 1600, 1610, 1620, 1630, 1640, 1650, 1660, 1670, 1680, 1690, and 1700 kHz.

(b) Additionally, in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands the frequencies 1230, 1240, 1340, 1400, 1450, and 1490 kHz are designated as Regional channels, and are assigned for use by Class B stations. Stations formerly licensed to these channels in those locations as Class C stations are redesignated as Class B stations.

[56 FR 64857, Dec. 12, 1991]

§ 73.27 Local channels; Class C stations.

Within the conterminous 48 states, the following frequencies are designated as local channels, and are assigned for use by Class C stations: 1230, 1240, 1340, 1400, 1450, and 1490 kHz.

[56 FR 64857, Dec. 12, 1991]

§ 73.28 Assignment of stations to channels.

(a) The Commission will not make an AM station assignment that does not conform with international requirements and restrictions on spectrum use that the United States has accepted as a signatory to treaties, conventions, and other international agreements. See § 73.1650 for a list of pertinent treaties, conventions and agreements, and § 73.23 for procedural provisions relating to compliance with them.

(b) Engineering standards now in force domestically differ in some respects from those specified for international purposes. The engineering standards specified for international purposes (see § 73.1650, International Agreements) will be used to determine:

(1) The extent to which interference might be caused by a proposed station in the United States to a station in another country; and

(2) whether the United States should register an objection to any new or changed assignment notified by another country. The domestic standards in effect in the United States will be used to determine the extent to which interference exists or would exist from a foreign station where the value of such interference enters into a calculation of:

(i) The service to be rendered by a proposed operation in the United States; or

(ii) the permissible interfering signal from one station in the United States to another United States station.

[28 FR 13574, Dec. 14, 1963, as amended at 29 FR 9499, July 11, 1964; 49 FR 32358, Aug. 14, 1984; 50 FR 18821, May 2, 1985; 54 FR 39736, Sept. 28, 1989; 56 FR 64857, Dec. 12, 1991]

§ 73.29 Class C stations on regional channels.

No license will be granted for the operation of a Class C station on a regional channel.

[56 FR 64857, Dec. 12, 1991]

§ 73.30 Petition for authorization of an allotment in the 1605–1705 kHz band.

(a) Any party interested in operating an AM broadcast station on one of the ten channels in the 1605–1705 kHz band must file a petition for the establishment of an allotment to its community of license. Each petition must include the following information:

(1) Name of community for which allotment is sought;

(2) Frequency and call letters of the petitioner's existing AM operation; and

(3) Statement as to whether or not AM stereo operation is proposed for the operation in the 1605–1705 kHz band.

(b) Petitions are to be filed during a filing period to be determined by the Commission. For each filing period, eligible stations will be allotted channels based on the following steps:

(1) Stations are ranked in descending order according to the calculated improvement factor.

(2) The station with the highest improvement factor is initially allotted the lowest available channel.

(3) Successively, each station with the next lowest improvement factor, is allotted an available channel taking into account the possible frequency and location combinations and relationship to previously selected allotments. If a channel is not available for the subject station, previous allotments are examined with respect to an alternate channel, the use of which would make a channel available for the subject station.

(4) When it has been determined that, in accordance with the above steps, no channel is available for the subject station, that station is no longer considered and the process continues to the station with the next lowest improvement factor.

(c) If awarded an allotment, a petitioner will have sixty (60) days from the date of public notice of selection to file an application for construction permit on FCC Form 301. (See §§73.24 and 73.37(e) for filing requirements). Unless instructed by the Commission to do otherwise, the application shall specify Model I facilities. (See §73.14). Upon grant of the application and subsequent construction of the authorized facility, the applicant must file a license application on FCC Form 302.

NOTE 1: Until further notice by the Commission, the filing of these petitions is limited to licensees of existing AM stations (excluding Class C stations) operating in the 535–1605 kHz band. First priority will be assigned to Class D stations located within the primary service contours of U.S. Class A stations that are licensed to serve communities of 100,000 or more for which there exists no local fulltime aural service.

NOTE 2: Selection among competing petitions will be based on interference reduction. Notwithstanding the exception contained in Note 5 of this section, within each operational category, the station demonstrating the highest value of improvement factor will be afforded the highest priority for an allotment, with the next priority assigned to the station with next lowest value, and so on, until available allotments are filled.

NOTE 3: The Commission will periodically evaluate the progress of the movement of stations from the 535–1605 kHz band to the 1605–1705 kHz band to determine whether the 1605–1705 kHz band should continue to be administered on an allotment basis or modified to an assignment method. If appropriate, the Commission will later develop further procedures for use of the 1605–1705 kHz band by existing station licensees and others.

NOTE 4: Other than the exception specified in note 1 of this section, existing fulltime stations are considered first for selection as described in note 2 of this section. In the event that an allotment availability exists for which no fulltime station has filed a relevant petition, such allotment may be awarded to a licensed Class D station. If more than one Class D station applies for this migration opportunity, the following priorities will be used in the selection process: First priority—a Class D station located within the 0.5 mV/m–50% contour of a U.S. Class A station and licensed to serve a community of 100,000 or more, for which there exists no local fulltime aural service; Second priority—Class D stations ranked in order of improvement factor, from highest to lowest, considering only those stations with improvement factors greater than zero.

NOTE 5: The preference for AM stereo in the expanded band will be administered as follows: when an allotment under consideration (candidate allotment) conflicts with one or more previously selected allotments (established allotments) and cannot be accommodated in the expanded band, the candidate allotment will be substituted for the previously established allotment provided that: the petitioner for the candidate allotment has made a written commitment to the use of AM stereo and the petitioner for the established allotment has not; the difference between the ranking factors associated with the candidate and established allotments does not exceed 10% of the ranking factor of the candidate allotment; the substitution will not require the displacement of more than one established allotment; and both the candidate allotment and the established allotment are within the same priority group.

[58 FR 27949, May 12, 1993]

§73.31 Rounding of nominal power specified on applications.

(a) An application filed with the FCC for a new station or for an increase in power of an existing station shall

specify nominal power rounded to two significant figures as follows:

Nominal power (kW)	Rounded down to nearest figure (kW)
Below 0.25	0.001
0.25 to 0.99	0.01
1 to 9.9	0.1
10 to 50	1

(b) In rounding the nominal power in accordance with paragraph (a) of this section the RMS shall be adjusted accordingly. If rounding upward to the nearest figure would result in objectionable interference, the nominal power specified on the application is to be rounded downward to the next nearest figure and the RMS adjusted accordingly.

[50 FR 18821, May 2, 1985, as amended at 53 FR 1031, Jan. 15, 1988]

73.33 Antenna systems; showing required.

(a) An application for authority to install a broadcast antenna shall specify a definite site and include full details of the antenna design and expected performance.

(b) All data necessary to show compliance with the terms and conditions of the construction permit must be filed with the license application. If the station is using a directional antenna, a proof of performance must also be filed.

[28 FR 13574, Dec. 14, 1963, as amended at 37 FR 25840, Dec. 5, 1972]

§73.35 Calculation of improvement factors.

A petition for an allotment (See §73.30) in the 1605–1705 kHz band filed by an existing fulltime AM station licensed in the 535–1605 kHz band will be ranked according to the station's calculated improvement factor. (See §73.30). Improvement factors relate to both nighttime and daytime interference conditions and are based on two distinct considerations: (a) Service area lost by other stations due to interference caused by the subject station, and (b) service area of the subject station. These considerations are represented by a ratio. The ratio consists, where applicable, of two separate additive components, one for nighttime and one for daytime. For the nighttime component, to determine the numerator of the ratio (first consideration), calculate the RSS and associated service area of the stations (co- and adjacent channel) to which the subject station causes nighttime interference. Next, repeat the RSS and service area calculations excluding the subject station. The cumulative gain in the above service area is the numerator of the ratio. The denominator (second consideration) is the subject station's interference-free service area. For the daytime component, the composite amount of service lost by co-channel and adjacent channel stations, each taken individually, that are affected by the subject station, excluding the effects of other assignments during each study, will be used as the numerator of the daytime improvement factor. The denominator will consist of the actual daytime service area (0.5 mV/m contour) less any area lost to interference from other assignments. The value of this combined ratio will constitute the petitioner's improvement factor. Notwithstanding the requirements of §73.153, for uniform comparisons and simplicity, measurement data will not be used for determining improvement factors and FCC figure M-3 ground conductivity values are to be used exclusively in accordance with the pertinent provisions of §73.183(c)(1).

[56 FR 64858, Dec. 12, 1991]

§73.37 Applications for broadcast facilities, showing required.

(a) No application will be accepted for a new station if the proposed operation would involve overlap of signal strength contours with any other station as set forth below in this paragraph; and no application will be accepted for a change of the facilities of an existing station if the proposed change would involve such overlap where there is not already such overlap between the stations involved:

Frequency separation (kHz)	Contour of proposed station (classes B, C and D) (mV/m)	Contour of any other station (mV/m)
0	0.005	0.100 (Class A).
	0.025	0.500(Other classes).
	0.500	0.025 (All classes).
10	0.250	0.500(All classes).
	0.500	0.250 (All classes).
20	5	5 (All classes).
	5	5 (All classes).
30	25	25 (All classes).

(b) In determining overlap received, an application for a new Class C station with daytime power of 250 watts, or greater, shall be considered on the assumption that both the proposed operation and all existing Class C stations operate with 250 watts and utilize non-directional antennas.

(c) If otherwise consistent with the public interest, an application requesting an increase in the daytime power of an existing Class C station on a local channel from 250 watts to a maximum of 1kW, or from 100 watts to a maximum of 500 watts, may be granted notwithstanding overlap prohibited by paragraph (a) of this section. In the case of a 100 watt Class C station increasing daytime power, the provisions of this paragraph shall not be construed to permit an increase in power to more than 500 watts, if prohibited overlap would be involved, even if successive applications should be tendered.

(d) In addition to demonstrating compliance with paragraphs (a), and, as appropriate, (b), and (c) of this section, an application for a new AM broadcast station, or for a major change (see §73.3571(a)(1)) in an authorized AM broadcast station, as a condition for its acceptance, shall make a satisfactory showing, if new or modified nighttime operation by a Class B station is proposed, that objectionable interference will not result to an authorized station, as determined pursuant to §73.182(1).

(e) An application for an authorization in the 1605–1705 kHz band which has been selected through the petition process (See §73.30) is not required to demonstrate compliance with paragraph (a), (b), (c), or (d) of this section. Instead, the applicant need only comply with the terms of the allotment authorization issued by the Commission in response to the earlier petition for establishment of a station in the 1605–1705 kHz band. Within the allotment authorization, the Commission will specify the assigned frequency and the applicable technical requirements.

(f) Stations on 1580, 1590 and 1600 kHz. In addition to the rules governing the authorization of facilities in the 535–1605 kHz band, stations on these frequencies seeking facilities modifications must protect assignments in the 1610–1700 kHz band. Such protection shall be afforded in a manner which considers the spacings that occur or exist between the subject station and a station within the range 1605–1700 kHz. The spacings are the same as those specified for stations in the frequency band 1610–1700 kHz or the current separation distance, whichever is greater. Modifications that would result in a spacing or spacings that fails to meet any of the separations must include a showing that appropriate adjustment has been made to the radiated signal which effectively results in a site-to-site radiation that is equivalent to the radiation of a station with standard Model I facilities (10 kW–D, 1 kW–N, non-DA, 90 degree antenna ht. & ground system) operating in compliance with all of the above separation distances. In those cases where that radiation equivalence value is already exceeded, a station may continue to maintain, but not increase beyond that level.

NOTE 1: In the case of applications for changes in the facilities of AM broadcast stations covered by this section, an application will be accepted even though overlap of field strength contours as mentioned in this section would occur with another station in an area where such overlap does not already exist, if:

(1) The total area of overlap with that station would not be increased;

(2) There would be no net increase in the area of overlap with any other station; and

(3) There would be created no area of overlap with any station with which overlap does not now exist.

NOTE 2: The provisions of this section concerning prohibited overlap of field strength contours will not apply where:

(1) The area of overlap lies entirely over sea water: or

(2) The only overlap involved would be that caused to a foreign station, in which case the

provisions of the applicable international agreement, as identified in § 73.1650, will apply. When overlap would be received from a foreign station, the provisions of this section will apply, except where there would be overlap with a foreign station with a frequency separation of 20 kHz, in which case the provisions of the international agreement will apply in lieu of this section.

NOTE 3: In determining the number of ''authorized'' aural transmission facilities in a given community, applications for that community in hearing or otherwise having protected status under specified ''cut-off'' procedures shall be considered as existing stations. In the event that there are two or more mutually exclusive protected applications seeking authorization for the proposed community it will be assumed that only one is ''authorized.''

NOTE 4: A ''transmission facility'' for a community is a station licensed to the community. Such a station provides a ''transmission service'' for that community.

[56 FR 64858, Dec. 12, 1991; 57 FR 43290, Sept. 18, 1992]

§ 73.44 AM transmission system emission limitations.

(a) The emissions of stations in the AM service shall be attenuated in accordance with the requirements specified in paragraph (b) of this section. Emissions shall be measured using a properly operated and suitable swept-frequency RF spectrum analyzer using a peak hold duration of 10 minutes, no video filtering, and a 300 Hz resolution bandwidth, except that a wider resolution bandwidth may be employed above 11.5 kHz to detect transient emissions. Alternatively, other specialized receivers or monitors with appropriate characteristics may be used to determine compliance with the provisions of this section, provided that any disputes over measurement accuracy are resolved in favor of measurements obtained by using a calibrated spectrum analyzer adjusted as set forth above.

(b) Emissions 10.2 kHz to 20 kHz removed from the carrier must be attenuated at least 25 dB below the unmodulated carrier level, emissions 20 kHz to 30 kHz removed from the carrier must be attenuated at least 35 dB below the unmodulated carrier level, emissions 30 kHz to 60 kHz removed from the carrier must be attenuated at least [5 + 1 dB/kHz] below the unmodulated carrier level, and emissions between 60 kHz and 75 kHz of the carrier frequency must be attenuated at least 65 dB below the unmodulated carrier level. Emissions removed by more than 75 kHz must be attenuated at least 43 + 10 Log (Power in watts) or 80 dB below the unmodulated carrier level, whichever is the lesser attenuation, except for transmitters having power less than 158 watts, where the attenuation must be at least 65 dB below carrier level.

(c) Should harmful interference be caused to the reception of other broadcast or non-broadcast stations by out of band emissions, the licensee may be directed to achieve a greater degree of attentuation than specified in paragraphs (a) and (b) of this section.

(d) Measurements to determine compliance with this section for transmitter type acceptance are to be made using signals sampled at the output terminals of the transmitter when operating into an artificial antenna of substantially zero reactance. Measurements made of the emissions of an operating station are to be made at ground level approximately 1 kilometer from the center of the antenna system. When a directional antenna is used, the carrier frequency reference field strength to be used in order of preference shall be:

(1) The measure non-directional field strength.

(2) The RMS field strength determined from the measured directional radiation pattern.

(3) The calculated expected field strength that would be radiated by a non-directional antenna at the station authorized power.

(e) Licensees of stations complying with the ANSI/EIA–549–1988, NRSC–1 AM Preemphasis/Deemphasis and Broadcast Transmission Bandwidth Specifications (NRSC–1), prior to June 30, 1990 or from the original commencement of operation will, until June 30, 1994, be considered to comply with paragraphs (a) and (b) of this section, absent any reason for the Commission to believe otherwise. Such stations are waived from having to make the periodic measurements required in § 73.1590(a)(6) until June 30, 1994. However, licensees must make measurements to determine compliance with

paragraphs (a) and (b) of this section upon receipt of an Official Notice of Violation or a Notice of Apparent Liability alleging noncompliance with those provisions, or upon specific request by the Commission.

[47 FR 8588, Mar. 1, 1982, as amended at 49 FR 3999, Feb. 1, 1984]

§73.45 AM antenna systems.

(a) All applicants for new, additional, or different AM station facilities and all licensees requesting authority to change the transmitting system site of an existing station must specify an antenna system, the efficiency of which complies with the requirements for the class and power of station. (See §§73.186 and 73.189.)

(1) An application for authority to install an AM broadcast antenna must specify a definite site and include full details of the antenna system design and expected performance.

(2) All data necessary to show compliance with the terms and conditions of the construction permit must be filed with the application for the station license to cover the construction. If the station has constructed a directional antenna, a directional proof of performance must be filed. See §§73.150 through 73.157.

(b) The simultaneous use of a common antenna or antenna structure by more than one AM station or by a station of any other type or service may be authorized provided:

(1) Engineering data are submitted showing that satisfactory operation of each station will be obtained without adversely affecting the operation of the other station(s).

(2) The minimum field strength for each AM station complies with §73.189(b).

(c) Should any changes be made or otherwise occur which would possibly alter the resistance of the antenna system, the licensee must commence the determination of the operating power by a method described in §73.51(a)(1) or (d). (If the changes are due to the construction of FM or TV transmitting facilities, see §§73.316 and 73.685.) Upon completion of any necessary repairs or adjustments, or upon completion of authorized construction or modifications, the licensee must make a new determination of the antenna resistance using the procedures described in §73.54. Operating power should then be determined by a direct method as described in §73.51. Notification of the value of resistance of the antenna system must be filed with the FCC in Washington, DC., as follows:

(1) Whenever the measurements show that the antenna or common point resistance differs from that shown on the station authorization by more than 2%, FCC Form 302 must be filed with the information and measurement data specified in §73.54(d).

(2) Whenever AM stations use direct reading power meters pursuant to §73.51, notification to the FCC in Washington, DC, must be filed in accordance with §73.54(e).

[43 FR 53735, Nov. 17, 1978, as amended at 45 FR 28141, Apr. 28, 1980; 47 FR 8589, Mar. 1, 1982; 50 FR 32416, Aug. 12, 1985; 51 FR 2707; Jan. 21, 1986; 51 FR 26250, July 22, 1986]

§73.49 AM transmission system fencing requirements.

Antenna towers having radio frequency potential at the base (series fed, folded unipole, and insulated base antennas) must be enclosed within effective locked fences or other enclosures. Ready access must be provided to each antenna tower base for meter reading and maintenance purposes at all times. However, individual tower fences need not be installed if the towers are contained within a protective property fence.

[51 FR 2707, Jan. 21, 1986]

§73.51 Determining operating power.

(a) Except in those circumstances described in paragraph (d) of this section, the operating power shall be determined by the direct method. The direct method consists of either:

(1) using a suitable instrument for determining the antenna's input power directly from the RF voltage, RF current, and phase angle; or

(2) calculating the product of the licensed antenna or common point resistance at the operating frequency (see §73.54), and the square of the indicated unmodulated antenna current at that frequency, measured at the point where the resistance has been determined.

(b) The authorized antenna input power for each station shall be equal to the nominal power for such station, with the following exceptions:

(1) For stations with nominal powers of 5 kW, or less, the authorized antenna input power to directional antennas shall exceed the nominal power by 8 percent.

(2) For stations with nominal powers in excess of 5 kW, the authorized antenna input power to directional antennas shall exceed the nominal power by 5.3 percent.

(3) In specific cases, it may be necessary to limit the radiated field to a level below that which would result if normal power were delivered to the antenna. In such cases, excess power may be dissipated in the antenna feed circuit, the transmitter may be operated with power output at a level which is less than the rated carrier power, or a combination of the two methods may be used, subject to the conditions given in paragraph (c) of this section.

(i) Where a dissipative network is employed, the authorized antenna current and resistance, and the authorized antenna input power shall be determined at the input terminals of the dissipative network.

(ii) Where the authorized antenna input power is less than the nominal power, subject to the conditions set forth in paragraph (c) of this section, the transmitter may be operated at the reduced power level necessary to supply the authorized antenna input power.

(c) Applications for authority to operate with antenna input power which is less than nominal power and/or to employ a dissipative network in the antenna system shall be made on FCC Form 302. The technical information supplied on section II–A of this form shall be that applying to the proposed conditions of operation. In addition, the following information shall be furnished, as pertinent:

(1) Full details of any network employed for the purpose of dissipating radio frequency energy otherwise delivered to the antenna (see § 73.54).

(2) A showing that the transmitter has been type accepted or notified for operation at the proposed power output level, or, in lieu thereof:

(i) A full description of the means by which transmitter output power will be reduced.

(ii) Where the proposed transmitter power output level(s) is less than 90% of the rated power of the transmitter, equipment performance measurements must be made to confirm that the station transmissions conform to the emission limitation specified in § 73.44, under all conditions of program operation.

(iii) A showing that, at the proposed power output level, means are provided for varying the transmitter output within a tolerance of ±10 percent, to compensate for variations in line voltage or other factors which may affect the power output level.

(d) When it is not possible or appropriate to use the direct method of power determination due to technical reasons, the indirect method of determining operating power (see paragraphs (e) and (f) of this section) may be used on a temporary basis. A notation must be made in the station log indicating the dates of commencement and termination of measurement using the indirect method of power determination.

(e) The antenna input power is determined indirectly by applying an appropriate factor to the input power to the last radio-frequency power amplifier stage of the transmitter, using the following formula:

Where:

$$\text{Antenna input power} = Ep \times Ip \times F$$

Ep=DC input voltage of final radio stage.

Ip=Total DC input current of final radio stage.

F= Efficiency factor.

(1) If the above formula is not appropriate for the design of the transmitter final amplifier, use a formula specified by the transmitter manufacturer with other appropriate operating parameters.

(2) The value of *F* applicable to each mode of operation must be determined and a record kept thereof with a notation as to its derivation. This factor is to be established by one of the methods described in paragraph (f) of this section and retained in the station records.

(f) The value of *F* is to be determined by one of the following procedures listed in order of preference:

(1) If the station had previously been authorized and operating by determining the antenna input power by the direct method, the factor *F* is the ratio of the antenna input power (determined by the direct method) to the corresponding final radio frequency power amplifier input power.

(2) If a station has not been previously in regular operation with the power authorized for the period of indirect power determination, if a new transmitter has been installed, or if, for any other reason, the determination of the factor *F* by the method described in paragraph (f)(1) of this section is impracticable:

(i) The factor *F* as shown in the transmitter manufacturer's test report, if such a test report specifies a unique value of *F* for the power level and frequently used; or

(ii) The value determined by reference to the following table:

Factor(F)	Method of modulation	Maximum rated carrier power	Class of amplifier
0.70	Plate	1 kW or less	
.80	Plate	2.5 kW and over	
.35	Low level	0.25 kW and over	B.
.65	Low level	0.25 kW and over	BC[1].
.35	Grid	0.25 kW and over	

[1]All linear amplifier operation where efficiency approaches that of class C operation.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, as amended, 1068, 1082, as amended; 47 U.S.C. 154, 155, 303. Interpret or apply secs. 301, 303, 307, 48 Stat. 1081, 1082, as amended, 47 U.S.C. 301, 303, 307)

[37 FR 7516, Apr. 15, 1972, as amended at 42 FR 36827, July 18, 1977; 42 FR 61863, Dec. 7, 1977; 44 FR 36036, June 20, 1979; 47 FR 28387, June 30, 1982; 48 FR 38477, Aug. 24, 1983; 48 FR 44805, Sept. 30, 1983; 49 FR 3999, Feb. 1, 1984; 49 FR 4210, Feb. 3, 1984; 49 FR 49850, Dec. 24, 1984; 50 FR 24521, June 11, 1985; 52 FR 10570, Apr. 2, 1987]

§ 73.53 Requirements for authorization of antenna monitors.

(a) *General requirements.* (1) Antenna monitors shall be type approved or notifed by the FCC. Effective March 5, 1984, only grants of notification will be issued for antenna monitors.

(2) Notification can be obtained by following the procedures specified in subpart J of part 2 of the FCC's Rules.

(b) An antenna monitor eligible for authorization by the FCC shall meet the following specifications:

(1) The monitor shall be designed to operate in the 535–1705 kHz band.

(2) The monitor shall be capable of indicating any phase difference between two RF voltages of the same frequency over a range of from 0 to 360°.

(3) The monitor shall be capable of indicating the relative amplitude of two RF voltages.

(4) The device used to indicate phase differences shall indicate in degrees, and shall be graduated in increments of 2°, or less. If a digital indicator is provided, the smallest increment shall be 0.5°, or less.

(5) The device used to indicate relative amplitudes shall be graudated in increments which are 1 percent, or less, of the full scale value. If a digital indicator is provided, the smallest increment shall be 0.1 percent, or less, of the full scale value.

(6) The monitor shall be equipped with means, if necessary, to resolve ambiguities in indication.

(7) If the monitor is provided with more than one RF input terminal in addition to a reference input terminal, appropriate switching shall be provided in the monitor so that the signal at each of these RF inputs may be selected separately for comparison with the reference input signal.

(8) Each RF input of the monitor shall provide a termination of such characteristics that, when connected to a sampling line of an impedance specified by the manufacturer the voltage reflection coefficient shall be 3 percent or less.

(9) The monitor, if intended for use by stations operating directional antenna systems by remote control, shall be designed so that the switching functions required by paragraph (b)(7) of this section may be performed from a point external to the monitor, and phase and amplitude indications be provided by external meters. The indications of external meters furnished by the manufacturer shall meet the specifications for accuracy and repeatability of the monitor itself, and the connection of these meters to the monitor, or of other indicating instruments with electrical characteristics

meeting the specifications of the monitor manufacturer shall not affect adversely the performance of the monitor in any respect.

(10) The monitor must be accompanied by complete and correct schematic diagrams and operating instructions when submitted for type approval. When approved under notification, these materials shall be retained by the applicant and not submitted unless otherwise requested by the FCC. For the purpose of the equipment authorization, these diagrams and instructions shall be considered as part of the monitor.

(11) When an RF signal of an amplitude within a range specified by the manufacturer is applied to the reference RF input terminal of the monitor, and another RF signal of the same frequency and of equal or lower amplitude is applied to any other selected RF input terminal, indications shall be provided meeting the following specifications.

(i) The accuracy with which any difference in the phases of the applied signals is indicated shall be ±1°,or better, for signal amplitude ratios of from 2:1 to 1:1, and ±2°,or better, for signal amplitude ratios in excess of 2:1 and up to 5:1.

(ii) The repeatability of indication of any difference in the phases of the applied signals shall be ±1°, or better.

(iii) The accuracy with which the relative amplitudes of the applied signals is indicated, over a range in which the ratio of these amplitudes is between 2:1 and 1:1, shall be ±2 percent of the amplitude ratio, or better, and for amplitude ratios in excess of 2:1 and up to 5:1, ±5 percent of the ratio, or better.

(iv) The repeatability of indication of the relative amplitudes of the applied signals, over a range where the ratio of these amplitudes is between 5:1 and 1:1, shall be ±2 percent of the amplitude ratio, or better.

(v) The modulation of the RF signals by a sinusoidal wave of any frequency between 100 and 10,000 Hz, at any amplitude up to 90 percent shall cause no deviation in an indicated phase difference from its value, as determined without modulation, greater than ±0.5°.

(12) The performance specifications set forth in paragraph (c)(13) of this section, shall be met when the monitor is operated and tested under the following conditions.

(i) After continuous operation for 1 hour, the monitor shall be calibrated and adjusted in accordance with the manufacturer's instructions.

(ii) The monitor shall be subjected to variations in ambient temperature between the limits of 10 and 40°C; external meters furnished by the manufacturer will be subjected to variations between 15 and 30°C.

(iii) Powerline supply voltage shall be varied over a range of from 10 percent below to 10 percent above the rated supply voltage.

(iv) The amplitude of the reference signal shall be varied over the operating range specified by the manufacturer, and in any case over a range of maximum to minimum values of 3 to 1.

(v) The amplitude of the comparison signal shall be varied from a value which is 0.2 of the amplitude of the reference signal to a value which is equal in amplitude to the reference signal.

(vi) Accuracy shall be determined for the most adverse combination of conditions set forth above.

(vii) Repeatability shall be determined as that which may be achieved under the specified test conditions over a period of 7 days, during which no calibration or adjustment of the instrument, subsequent to the initial calibration, shall be made.

(viii) The effects of modulation of the RF signal shall be separately determined, and shall not be included in establishing values for accuracy and repeatability.

(c) A station determined to have a critical directional antenna must use an antenna monitor having high tolerance characteristics determined on an individual basis, and specified on the station authorization. Such monitors are not subject to the authorization of paragraph (a), however they may be used only at the station for which they were specified.

NOTE: In paragraph (b)(1) of this section, the requirement that monitors be capable of operation in the 535–1705 kHz band shall apply only to equipment manufactured after July 1, 1992. Use of a monitor in the 1605–1705

kHz band which is not approved for such operation will be permitted pending the general availability of 535–1705 kHz band monitors if a manufacturer can demonstrate, in the interim, that its monitor performs in accordance with the standards in this section on these 10 channels.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[38 FR 1917, Jan. 19, 1973, as amended at 49 FR 3999, Feb. 1, 1984; 49 FR 29069, July 18, 1984; 50 FR 32416, Aug. 12, 1985; 50 FR 47054, Nov. 14, 1985; 51 FR 2707, Jan. 21, 1986; 56 FR 64859, Dec. 12, 1991; 57 FR 43290, Sept. 18, 1992; 60 FR 55480, Nov. 1, 1995]

§73.54 Antenna resistance and reactance measurements.

(a) The resistance of an omnidirectional series fed antenna is measured at either the base of the antenna without intervening coupling or tuning networks, or at the point the transmission line connects to the output terminals of the transmitter. The resistance of a shunt excited antenna may be measured at the point the radio frequency energy is transferred to the feed wire circuit or at the output terminals of the transmitter.

(b) The resistance and reactance of a directional antenna shall be measured at the point of common radiofrequency input to the directional antenna system. The following conditions shall obtain:

(1) The antenna shall be finally adjusted for the required radiation pattern.

(2) The reactance at the operating frequency and at the point of measurement shall be adjusted to zero, or as near thereto as practicable.

(c)(1) The resistance of an antenna shall be determined by the following procedure: A series of discrete measurements shall be made over a band of frequencies extending from approximately 25 kHz below the operating frequency to approximately 25 kHz above that frequency, at intervals of approximately 5 kHz. The measured values shall be plotted on a linear graph, with frequency as the abscissa and resistance as the ordinate. A smooth curve shall be drawn through the plotted values. The resistance value corresponding to the point of intersection of the curve and the ordinate representing the operating frequency of the station shall be the resistance of the antenna.

(2) For a directional antenna, the reactance of the antenna shall be determined by a procedure similar to that described in paragraph (c)(1) of this section.

(d) Notification must be filed with the FCC in Washington, DC when determining power by the direct method pursuant to §73.51 and must specify the antenna or common point resistance at the operating frequency. The following information must also be kept on file at the station:

(1) A full description of the method used to make measurements.

(2) A schematic diagram showing clearly all components of coupling circuits, the point of resistance measurement, the location of the antenna ammeter, connections to and characteristics of all tower lighting isolation circuits, static drains, and any other fixtures connected to and supported by the antenna, including other antennas and associated networks. Any network or circuit component used to dissipate radio frequency power shall be specifically identified, and the impedances of all components which control the level of power dissipation, and the effective input resistance of the network must be indicated.

(e) AM stations using direct reading power meters in accordance with §73.51, can either submit the information required by paragraph (d) of this section or submit a statement indicating that such a meter is being used. Subsequent station licenses will indicate the use of a direct reading power meter in lieu of the antenna resistance value in such a situation.

[34 FR 18305, Nov. 15, 1969, as amended at 37 FR 7517, Apr. 15, 1972; 45 FR 26062, Apr. 17, 1980; 49 FR 49850, Dec. 24, 1984; 50 FR 32416, Aug. 12, 1985; 51 FR 2707, Jan. 21, 1986; 51 FR 26250, July 22, 1986]

§73.57 Remote reading antenna and common point ammeters.

Remote reading antenna and common point ammeters may be used without further authority according to the following conditions:

(a) Remote reading antenna or common point ammeters may be provided by:

(1) Inserting second radio frequency current sensing device directly in the antenna circuit with remote leads to the indicating instruments.

(2) Inductive coupling to radio frequency current sensing device for providing direct current to indicating instrument.

(3) Capacity coupling to radio frequency current sensing device for providing direct current to indicating instrument.

(4) Current transformer connected to radio frequency current sensing device for providing direct current to indicating instrument.

(5) Using transmission line current meter at transmitter as remote reading ammeter. See paragraph (c) of this section.

(6) Using the indications of the antenna (phase) monitor, provided that when the monitor is used to obtain remote reading indication of non-directional antenna base current, the monitor calibration can be independently made and maintained for each mode of operation.

(b) Devices used for obtaining remote reading antenna or common point current indications, except antenna monitor coupling elements, shall be located at the same point as, but below (transmitter side) the associated main ammeter.

(c) In the case of shunt-excited antennas, the transmission line current meter at the transmitter may be considered as the remote antenna ammeter provided the transmission line is terminated directly into the excitation circuit feed line, which shall employ series tuning only (no shunt circuits of any type shall be employed) and insofar as practicable, the type and scale of the transmission line meter should be the same as those of the excitation circuit feed line meter (meter in slant wire feed line or equivalent).

(d) Each remote reading ammeter shall be accurate to within 2 percent of the value read on its corresponding regular ammeter.

(e) All remote reading ammeters shall conform with the specifications for regular antenna ammeters.

(f) Meters with arbitrary scale divisions may be used provided that calibration charts or curves are provided at the transmitter control point showing the relationship between the arbitrary scales and the reading of the main meters.

(g) If a malfunction affects the remote reading indicators of the antenna or common point ammeter, the operating power may be determined by a method using alternative procedures as described in § 73.51.

[41 FR 36817, Sept. 1, 1976, as amended at 48 FR 38477, Aug. 24, 1983; 49 FR 49850, Dec. 24, 1984; 50 FR 32416, Aug. 12, 1985; 60 FR 55480, Nov. 1, 1995]

§ 73.58 Indicating instruments.

(a) Each AM broadcast station must be equipped with indicating instruments which conform with the specifications described in § 73.1215 for determining power by the direct and indirect methods, and with such other instruments as are necessary for the proper adjustment, operation, and maintenance of the transmitting system. However, auxiliary transmitters with a nominal power rating of 100 watts or less are not required to be equipped with instruments to determine power by the indirect method provided that the licensee can determine the antenna input power at all times.

(b) A thermocouple type ammeter or other device capable of providing an indication of radio frequency current, meeting the requirements of § 73.1215, shall be installed at the base of each antenna element. A suitable jack and plug arrangement may be used to permit removal of the meter from the antenna circuit thereby protecting it from damage by lighting.

(c) Since it is usually impractical to measure the actual antenna current of a shunt excited antenna system, the current measured at the input of the excitation circuit feed line is accepted as the antenna current.

(d) The function of each instrument shall be clearly and permanently shown on the instrument itself or on the panel immediately adjacent thereto.

(e) In the event that any one of these indicating instruments becomes defective when no substitute which conforms with the required specifications

is available, the station may be operated without the defective instrument pending its repair or replacement for a period not in excess of 60 days without further authority of the Commission: *Provided*, That:

(1) If the defective instrument is an antenna base current ammeter of a directional antenna system, the indications may be obtained from the antenna monitor pending the return to service of the regular meter, provided other parameters are maintained at their normal values.

(2) If the defective instrument is the antenna current meter of a non-directional station which does not employ a remote antenna ammeter, or if the defective instrument is the common point meter of a station which employs a directional antenna and does not employ a remote common point meter, the operating power shall be determined by a method described in §73.51(a)(1) or (d) during the entire time the station is operated without the antenna current meter or common point meter. However, if a remote meter is employed and the antenna current ammeter or common point meter becomes defective, the remote meter can be used to determine operating power pending the return to service of the regular meter.

(f) If conditions beyond the control of the licensee prevent the restoration of the meter to service within the above allowed period, information requested in accordance with §73.3549 may be filed with the Engineer in Charge of the radio district in which the station is located for such additional time as may be required to complete repairs of the defective instrument.

[41 FR 36817, Sept. 1, 1976, as amended at 48 FR 38477, Aug. 24, 1983; 49 FR 49850, Dec. 24, 1984; 50 FR 32416, Aug. 12, 1985; 51 FR 2707, Jan. 21, 1986; 53 FR 2498, Jan. 28, 1988]

§73.61 AM directional antenna field strength measurements.

(a) Each AM station using a directional antenna must make field strength measurements at the monitoring point locations specified in the instrument of authorization, as often as necessary to ensure that the field at those points does not exceed the values specified in the station authorization. Additionally, stations not having an approved sampling system must make the measurements once each calendar quarter at intervals not exceeding 120 days. The provision of this paragraph supersedes any schedule specified on a station license issued prior to January 1, 1986. The results of the measurements are to be entered into the station log pursuant to the provisions of §73.1820.

(b) Partial proof of performance measurements using the procedures described in §73.154 must be made whenever the licensee has reason to believe that the radiated field may be exceeding the limits for which the station was most recently authorized to operate.

(c) A station may be directed to make a partial proof of performance by the FCC whenever there is an indication that the antenna is not operating as authorized.

[50 FR 47054, Nov. 14, 1985]

§73.62 Directional antenna system tolerances.

(a) Each AM station operating a directional antenna must maintain the indicated relative amplitudes of the antenna base currents and antenna monitor currents within 5% of the values specified therein. Directional antenna relativephase currents must be maintained to within ±3° of the values specified on the instrument of authorization, unless other tolerances are specified therein.

(b) Whenever the operating parameters of a directional antenna cannot be maintained within the tolerances specified in paragraph (a) of this section, the following procedures will apply:

(1) The licensee shall measure and log every monitoring point at least once for each mode of directional operation. Subsequent variations in operating parameters will require the remeasuring and logging of every monitoring point to assure that the authorized monitoring point limits are not being exceeded.

(2) Provided each monitoring point is within its specified limit, operation may continue for a period up to 30 days before a request for Special Temporary Authority (STA) must be filed, pursuant to paragraph (b)(4) of this section,

to operate with parameters at variance from the provisions of paragraph (a) of this section.

(3) If any monitoring point exceeds its specified limit, the licensee must either terminate operation within 3 hours or reduce power in accordance with the applicable provisions of § 73.1350(d), in order to eliminate any possibility of interference or excessive radiation in any direction.

(4) If operation pursuant to paragraph (b)(3) of this section is necessary, or before the 30 day period specified in paragraph (b)(2) of this section expires, the licensee must request a Special Temporary Authority (STA) in accordance with § 73.1635 to continue operation with parameters at variance and/or with reduced power along with a statement certifying that all monitoring points will be continuously maintained within their specified limits.

(5) The licensee will be permitted 24 hours to accomplish the actions specified in paragraph (b)(1) of this section; *provided that,* the date and time of the failure to maintain proper operating parameters has been recorded in the station log.

(c) In any other situation in which it might reasonably be anticipated that the operating parameters might vary out of tolerance (such as planned array repairs or adjustment and proofing procedures), the licensee shall, *before such activity is undertaken,* obtain an STA in accordance with § 73.1635 in order to operate with parameters at variance and/or with reduced power as required to maintain all monitoring points within their specified limits.

[50 FR 30946, July 31, 1985, as amended at 60 FR 55480, Nov. 1, 1995]

§ 73.68 Sampling systems for antenna monitors.

(a) Each AM station permittee authorized to construct a new directional antenna system, must install the sampling system in accordance with the following specifications:

(1) Devices used to extract or sample the current and the transmission line connecting the sampling elements to the antenna monitor must provide accurate and stable signals to the monitor (e.g., rigidly mounted and non-rotatable loops and all system components protected from physical and environmental disturbances).

(2) Sampling lines for critical directional antennas (see § 73.14) must be of uniform length. Sampling lines for non-critical directional antennas may be of different lengths provided the phase difference of signals at the monitor are less than 0.5° between the shortest and longest cable lengths due to temperature variations to which the system is exposed.

(3) Other configurations of sampling systems may be used upon demonstration of stable operation to the FCC.

(b) A station having an antenna sampling system constructed according to the specifications given in paragraph (a) of this section, may obtain approval of that system by submitting an informal request to the FCC in Washington, DC. The request for approval, signed by the licensee or authorized representative, must contain sufficient information to show that the sampling system is in compliance with all requirements of paragraph (a) of this section.

NOTE: A public notice giving additional information on approval of antenna sampling systems is available upon request from the FCC's current copy contractor.

(c) In the event that the antenna monitor sampling system is temporarily out of service for repair or replacement, the station may be operated, pending completion of repairs or replacement, for a period not exceeding 120 days without further authority from the FCC if all other operating parameters and the field monitoring point values are within the limits specified on the station authorization.

(d) If the antenna sampling system is modified or components of the sampling system are replaced, the following procedure shall be followed:

(1) Temporary authority shall be requested and obtained from the Commission in Washington to operate with parameters at variance with licensed values pending issuance of a modified license specifying parameters subsequent to modification or replacement of components.

(2) Immediately prior to modification or replacement of components of the sampling system not on the towers,

and after a verification that all monitoring point values, base current ratios and operating parameters are within the limits or tolerances specified in the instrument of authorization or the pertinent rules, the following indications must be read for each radiation pattern: Final plate current and plate voltage, common point current, base currents and their ratios, antenna monitor phase and current indications, and the field strength at each monitoring point. Subsequent to these modifications or changes the above procedure must be repeated.

(3) If that portion of the sampling system above the base of the towers is modified or components replaced, a partial proof of performance shall be executed in accordance with §73.154 subsequent to these changes. The partial proof of performance shall be accompanied by common point impedance measurements made in accordance with §73.54.

(4) Request for modification of license shall be submitted to the FCC in Washington, DC, within 30 days of the date of sampling system modification or replacement. Such request shall specify the transmitter plate voltage and plate current, common point current, base currents and their ratios, antenna monitor phase and current indications, and all other data obtained pursuant to this paragraph.

(e) If an existing sampling system is found to be patently of marginal construction, or where the performance of a directional antenna is found to be unsatisfactory, and this deficiency reasonably may be attributed, in whole or in part, to inadequacies in the antenna monitoring system, the FCC may require the reconstruction of the sampling system in accordance with requirements specified above.

[41 FR 7405, Feb. 18, 1976, as amended at 42 FR 24056, May 12, 1977; 44 FR 58731, Oct. 11, 1979; 46 FR 35462, July 8, 1981; 48 FR 38478, Aug. 24, 1983; 48 FR 44805, Sept. 30, 1983; 49 FR 32358, Aug. 14, 1984; 50 FR 47054, Nov. 14, 1985; 51 FR 9965, Mar. 24, 1986; 51 FR 40435, Nov. 7, 1986; 56 FR 64859, Dec. 12, 1991]

§73.69 Antenna monitors.

(a) Each station using a directional antenna must have in operation at the transmitter site an FCC authorized antenna monitor. However, if the station authorization sets specific tolerances within which the phase and amplitude relationships must be maintained, or requires the use of a monitor of specified repeatability, resolution or accuracy, the antenna monitor used will be authorized on an individual basis.

(1) Normally, the antenna monitor is to be installed immediately adjacent to the transmitter and antenna phasing equipment. However, the monitor may be located elsewhere provided that its environment is maintained at all times within those limits under which the monitor was type-approved.

(2) The antenna monitor installed at a station operating a directional antenna by remote control or when the monitor is installed in the antenna field at a distance from the transmitter, must be designed and authorized for such use in accordance with the provisions of §73.53(b)(9).

(b) In the event that the antenna monitor sampling system is temporarily out of service for repair or replacement, the station may be operated, pending completion of repairs or replacement, for a period not exceeding 120 days without further authority from the FCC if all other operating parameters, and the field monitoring point values are within the limits specified on the station authorization.

(c) If conditions beyond the control of the licensee prevent the restoration of the monitor to service within the allowed period, informal request in accordance with §73.3549 of the Commission's rules must be filed with the Engineer in Charge of the radio district in which the station is located for such additional time as may be required to complete repairs of the defective instrument.

(d) If an authorized antenna monitor is replaced by another antenna monitor, the following procedure shall be followed:

(1) Temporary authority shall be requested and obtained from the Commission in Washington to operate with parameters at variance with licensed values, pending issuance of a modified license specifying new parameters.

(2) Immediately prior to the replacement of the antenna monitor, after a verification that all monitoring point

values and base current ratios are within the limits or tolerances specified in the instrument of authorization or the pertinent rules, the following indications must be read for each radiation pattern: Final plate current and plate voltage, common point current, base currents, antenna monitor phase and current indications, and the field strength at each monitoring point.

(3) With the new monitor substituted for the old, all indications specified in paragraph (d)(2) of this section, again must be read. If no change has occurred in the indication for any parameter other than the indications of the antenna monitor, the new antenna monitor indications must be deemed to be those reflecting correct array adjustments.

(4) If it cannot be established by the observations required in paragraph (d)(2) of this section that base current ratios and monitoring point values are within the tolerances or limits prescribed by the rules and the instrument of authorization, or if the substitution of the new antenna monitor for the old results in changes in these parameters, a partial proof of performance shall be executed and analyzed in accordance with § 73.154.

(5) An informal request for modification of license shall be submitted to the Commission in Washington, DC, within 30 days of the date of monitor replacement. Such request shall specify the make, type, and serial number of the replacement monitor, phase and sample current indications, and other data obtained pursuant to this paragraph (d) of this section.

(e) The antenna monitor must be calibrated according to the manufacturer's instructions as often as necessary to ensure its proper operation.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, as amended, 1082, as amended; 47 U.S.C. 154, 303. Interpret or apply secs. 301, 303, 307, 48 Stat. 1081, 1082, as amended, 1083, as amended, 47 U.S.C. 301, 303, 307)

[38 FR 1918, Jan. 19, 1973, as amended at 40 FR 15884, Apr. 8, 1975; 40 FR 25459, June 16, 1975; 40 FR 27939, July 2, 1975; 41 FR 22942, June 8, 1976; 41 FR 32892, Aug. 6, 1976; 43 FR 4022, Jan. 31, 1978; 45 FR 26062, Apr. 17, 1980; 48 FR 38478, Aug. 24, 1983; 49 FR 3999, Feb. 1, 1984; 50 FR 47054, Nov. 14, 1985; 51 FR 9965, Mar. 24, 1986; 56 FR 64859, Dec. 12, 1991; 60 FR 55480, Nov. 1, 1995]

§ 73.72 Operating during the experimental period.

(a) An AM station may operate during the experimental period (the time between midnight and sunrise, local time) on its assigned frequency and with its authorized power for the routine testing and maintenance of its transmitting system, and for conducting experimentation under an experimental authorization, provided no interference is caused to other stations maintaining a regular operating schedule within such period.

(b) No station licensed for ''daytime'' or ''specified hours'' of operation may broadcast any regular or scheduled program during this period.

(c) The licensee of an AM station shall operate or refrain from operating its station during the experimental period as directed by the FCC to facilitate frequency measurements or for the determination of interference.

[43 FR 32780, July 28, 1978, as amended at 56 FR 64859, Dec. 12, 1991]

§ 73.88 Blanketing interference.

The licensee of each broadcast station is required to satisfy all reasonable complaints of blanketing interference within the 1 V/m contour.

NOTE: For more detailed instructions concerning operational responsibilities of licensees and permittees under this section, see § 73.318 (b), (c) and (d).

[28 FR 13574, Dec. 14, 1963, as amended at 56 FR 64859, Dec. 12, 1991]

§ 73.99 Presunrise service authorization (PSRA) and postsunset service authorization (PSSA).

(a) To provide maximum uniformity in early morning operation compatible with interference considerations, and to provide for additional service during early evening hours for Class D stations, provisions are made for presunrise service and postsunset service. The permissible power for presunrise or postsunset service authorizations shall not exceed 500 watts, or the authorized daytime or critical hours power (whichever is less). Calculation of the permissible power shall consider only co-channel stations for interference protection purposes.

(b) Presunrise service authorizations (PSRA) permit:

(1) Class D stations operating on Mexican, Bahamian, and Canadian priority Class A clear channels to commence PSRA operation at 6 a.m. local time and to continue such operation until the sunrise times specified in their basic instruments of authorization.

(2) Class D stations situated outside 0.5 mV/m-50% skywave contours of co-channel U.S. Class A stations to commence PSRA operation at 6 a.m. local time and to continue such operation until sunrise times specified in their basic instruments of authorization.

(3) Class D stations located within co-channel 0.5 mV/m-50% skywave contours of U.S. Class A stations, to commence PSRA operation either at 6 a.m. local time, or at sunrise at the nearest Class A station located east of the Class D station (whichever is later), and to continue such operation until the sunrise times specified in their basic instruments of authorization.

(4) Class B and Class D stations on regional channels to commence PSRA operation at 6 a.m. local time and to continue such operation until local sunrise times specified in their basic instruments of authorization.

(c) Extended Daylight Saving Time Pre-Sunrise Authorizations:

(1) Between the first Sunday in April and the end of the month of April, Class D stations will be permitted to conduct pre-sunrise operation beginning at 6 a.m. local time with a maximum power of 500 watts (not to exceed the station's regular daytime or critical hours power), reduced as necessary to comply with the following requirements:

(i) Full protection is to be provided as specified in applicable international agreements.

(ii) Protection is to be provided to the 0.5 mV/m groundwave signals of co-channel U.S. Class A stations; protection to the 0.5 mV/m-50% skywave contours of these stations is not required.

(iii) In determining the protection to be provided, the effect of each interfering signal will be evaluated separately. The presence of interference from other stations will not reduce or eliminate the required protection.

(iv) Notwithstanding the requirements of paragraph (c)(1) (ii) and (iii) of this section, the stations will be permitted to operate with a minimum power of 10 watts unless a lower power is required by international agreement.

(2) The Commission will issue appropriate authorizations to Class D stations not previously eligible to operate during this period. Class D stations authorized to operate during this presunrise period may continue to operate under their current authorization.

(d) Postsunset service authorizations (PSSA) permit:

(1) Class D stations located on Mexican, Bahamian, and Canadian priority Class A clear channels to commence PSSA operation at sunset times specified in their basic instruments of authorization and to continue for two hours after such specified times.

(2) Class D stations situated outside 0.5 mV/m-50% skywave contours of co-channel U.S. Class A stations to commence PSSA operations at sunset times specified in their basic instruments of authorization and to continue for two hours after such specified times.

(3) Class D stations located within co-channel 0.5 mV/m-50% skywave contours of U.S. Class A stations to commence PSSA operation at sunset times specified in their basic instruments of authorization and to continue such operation until two hours past such specified times, or until sunset at the nearest Class A station located west of the Class D station, whichever is earlier. Class D stations located west of the Class A station do not qualify for PSSA operation.

(4) Class D stations on regional channels to commence PSSA operation at sunset times specified on their basic instruments of authorization and to continue such operation until two hours past such specified times.

(e) Procedural Matters. (1) Applications for PSRA and PSSA operation are not required. Instead, the FCC will calculate the periods of such operation and the power to be used pursuant to the provisions of this section and the protection requirements contained in applicable international agreements.

Licensees will be notified of permissible power and times of operation. Presunrise and Postsunset service authority permits operation on a secondary basis and does not confer license rights. No request for such authority need be filed. However, stations intending to operate PSRA or PSSA shall submit by letter, signed as specified in § 73.3513, the following information:

(i) Licensee name, station call letters and station location,

(ii) Indication as to whether PSRA operation, PSSA operation, or both, is intended by the station,

(iii) A description of the method whereby any necessary power reduction will be achieved.

(2) Upon submission of the required information, such operation may begin without further authority.

(f) Technical Criteria. Calculations to determine whether there is objectionable interference will be determined in accordance with the AM Broadcast Technical Standards, §§ 73.182 through 73.190, and applicable international agreements. Calculations will be performed using daytime antenna systems, or critical hours antenna systems when specified on the license. In performing calculations to determine assigned power and times for commencement of PSRA and PSSA operation, the following standards and criteria will be used:

(1) Class D stations operating in accordance with paragraphs (b)(1), (b)(2), (d)(1), and (d)(2) of this section are required to protect the nighttime 0.5 mV/m-50% skywave contours of co-channel Class A stations. Where a 0.5 mV/m-50% skywave signal from the Class A station is not produced, the 0.5 mV/m groundwave contour shall be protected.

(2) Class D stations are required to fully protect foreign Class B and Class C stations when operating PSRA and PSSA; Class D stations operating PSSA are required to fully protect U.S. Class B stations. For purposes of determining protection, the nighttime RSS limit will be used in the determination of maximum permissible power.

(3) Class D stations operating in accordance with paragraphs (d)(2) and (d)(3) of this section are required to restrict maximum 10% skywave radiation at any point on the daytime 0.1 mV/m groundwave contour of a co-channel Class A station to 25 μV/m. The location of the 0.1 mV/m contour of the Class A station will be determined by use of Figure M3, *Estimated Ground Conductivity in the United States.* When the 0.1 mV/m contour extends beyond the national boundary, the international boundary shall be considered the 0.1 mV/m contour.

(4) Class B and Class D stations on regional channels operating PSRA and PSSA (Class D only) are required to provide full protection to co-channel foreign Class B and Class C stations.

(5) Class D stations on regional channels operating PSSA beyond 6 p.m. local time are required to fully protect U.S. Class B stations.

(6) The protection that Class D stations on regional channels are required to provide when operating PSSA until 6 p.m. local time is as follows.

(i) For the first half-hour of PSSA operation, protection will be calculated at sunset plus 30 minutes at the site of the Class D station;

(ii) For the second half-hour of PSSA operation, protection will be calculated at sunset plus one hour at the site of the Class D station;

(iii) For the second hour of PSSA operation, protection will be calculated at sunset plus two hours at the site of the Class D station;

(iv) Minimum powers during the period until 6 p.m. local time shall be permitted as follows:

Calculated power	Adjusted minimum power
From 1 to 45 watts	50 watts.
Above 45 to 70 watts	75 watts.
Above 70 to 100 watts	100 watts.

(7) For protection purposes, the nighttime 25% RSS limit will be used in the determination of maximum permissible power.

(g) Calculations made under paragraph (d) of this section may not take outstanding PSRA or PSSA operations into account, nor will the grant of a PSRA or PSSA confer any degree of interference protection on the holder thereof.

(h) Operation under a PSRA or PSSA is not mandatory, and will not be included in determining compliance with the requirements of § 73.1740. To the extent actually undertaken, however,

presunrise operation will be considered by the FCC in determining overall compliance with past programming representations and station policy concerning commercial matter.

(i) The PSRA or PSSA is secondary to the basic instrument of authorization with which it is to be associated. The PSRA or PSSA may be suspended, modified, or withdrawn by the FCC without prior notice or right to hearing, if necessary to resolve interference conflicts, to implement agreements with foreign governments, or in other circumstances warranting such action. Moreover, the PSRA or PSSA does not extend beyond the term of the basic authorization.

(j) The Commission will periodically recalculate maximum permissible power and times for commencing PSRA and PSSA for each Class D station operating in accordance with paragraph (c) of this section. The Commission will calculate the maximum power at which each individual station may conduct presunrise operations during extended daylight saving time and shall issue conforming authorizations. These original notifications and subsequent notifications should be associated with the station's authorization. Upon notification of new power and time of commencing operation, affected stations shall make necessary adjustments within 30 days.

(k) A PSRA and PSSA does not require compliance with §§ 73.45, 73.182 and 73.1560 where the operation might otherwise be considered as technically substandard. Further, the requirements of paragraphs (a)(5), (b)(2), (c)(2), and (d)(2) of § 73.1215 concerning the scale ranges of transmission system indicating instruments are waived for PSRA and PSSA operation except for the radio frequency ammeters used in determining antenna input power.

(1) A station having an antenna monitor incapable of functioning at the authorized PSRA and PSSA power when using a directional antenna shall take the monitor reading using an unmodulated carrier at the authorized daytime power immediately prior to commencing PSRA or PSSA operations. Special conditions as the FCC may deem appropriate may be included for PSRA or PSSA to insure operation of the transmitter and associated equipment in accordance with all phases of good engineering practice.

[56 FR 64860, Dec. 12, 1991; 57 FR 43290, Sept. 18, 1992, as amended at 58 FR 27950, May 12, 1993]

§ 73.127 Use of multiplex transmission.

The licensee of an AM broadcast station may use its AM carrier to transmit signals not audible on ordinary consumer receivers, for both broadcast and non-broadcast purposes subject to the following requirements:

(a) Such use does not disrupt or degrade the station's own programs or the programs of other broadcast stations.

(b) AM carrier services that are common carrier in nature are subject to common carrier regulation. Licensees operating such services are required to apply to the FCC for the appropriate authorization and to comply with all policies and rules applicable to the service. Responsibility for making the initial determinations of whether a particular activity is common carriage rests with the AM station licensee. Initial determinations by licensees are subject to FCC examination and may be reviewed at the FCC's discretion. AM carrier services that are private carrier in nature must notify the Licensing Division of the Private Radio Bureau at Gettysburg, Pennsylvania 17325, by letter, prior to initiating service certifying compliance with 47 CFR parts 90 and 94.

(c) AM carrier services are of a secondary nature under the authority of the AM station authorization, and the authority to provide such communications services may not be retained or transferred in any manner separate from the station's authorization. The grant or renewal of an AM station permit or license is not furthered or promoted by proposed or past service. The permittee or licensee must establish that the broadcast operation is in the public interest wholly apart from the subsidiary communications services provided.

(d) The station identification, delayed recording, and sponsor identification announcements required by §§ 73.1201, 73.1208, and 73.1212 are not applicable to leased communications

services transmitted via services that are not of a general broadcast program nature.

(e) The licensee or permittee must retain control over all material transmitted in a broadcast mode via the station's facilities, with the right to reject any material that it deems inappropriate or undesirable.

(f) Installation of the multiplex transmitting equipment must conform with the requirements of § 73.1690(e).

[47 FR 25345, June 11, 1982, as amended at 49 FR 34015, Aug. 28, 1984; 51 FR 41629, Nov. 18, 1986; 51 FR 44478, Dec. 10, 1986]

§ 73.128 AM Stereophonic Broadcasting.

(a) An Am broadcast station may, without specific authority from the FCC, transmit stereophonic programs upon installation of type accepted stereophonic transmitting equipment and the necessary measuring equipment to determine that the stereophonic transmissions conform to the modulation characteristics specified in paragraphs (b) and (c) of this section. Stations transmitting stereophonic programs prior to March 21, 1994 may continue to do so until March 21, 1995 as long as they continue to comply with the rules in effect prior to March 21, 1994.

(b) The following limitations on the transmitted wave must be met to insure compliance with the occupied bandwidth limitations, compatibility with AM receivers using envelope detectors, and any applicable international agreements to which the FCC is a party:

(1) The transmitted wave must meet the occupied bandwidth specifications of § 73.44 under all possible conditions of program modulation. Compliance with requirement shall be demonstrated either by the following specific modulation tests or other documented test procedures that are to be fully described in the application for type acceptance and the transmitting equipment instruction manual. (See § 2.983(d)(8) and (j)).

(i) Main channel (L+R) under all conditions of amplitude modulations for the stereophonic system but not exceeding amplitude modulation on negative peaks of 100%.

(ii) Stereophonic (L − R) modulated with audio tones of the same amplitude at the transmitter input terminals as in paragraph (b)(i) of this section but with the phase of either the L or R channel reversed.

(iii) Left and Right Channel only, under all conditions of modulation for the stereophonic system in use but not exceeding amplitude modulation on negative peaks of 100%.

(c) Effective on December 20, 1994, stereophonic transmissions shall conform to the following additional modulation characteristics:

(1) The audio response of the main (L+R) channel shall conform to the requirements of the ANSI/EIA–549–1988, NRSC–1 AM Preemphasis/Deemphasis and Broadcast Transmission Bandwidth Specifications (NRSC–1).

(2) The left and right channel audio signals shall conform to frequency response limitations dictated by ANSI/EIA–549–1988.

(3) The stereophonic difference (L − R) information shall be transmitted by varying the phase of the carrier in accordance with the following relationship:

$$\phi = \tan^{-1}\left(\frac{m(L(t) - R(t))}{1 + m(L(t) + R(t))}\right)$$

where:

L(t)=audio signal left channel,

R(t)=audio signal right channel,

m=modulation factor, and

$m_{peak}(L(t)+R(t))=1$ for 100% amplitude modulation,

$m_{peak}(L(t)-R(t))=1$ for 100% phase modulation.

(4) The carrier phase shall advance in a positive direction when a left channel signal causes the transmitter envelope to be modulated in a positive direction. The carrier phase shall likewise retard (negative phase change) when a right channel signal causes the transmitter envelope to be modulated in a positive direction. The phase modulation shall be symmetrical for the condition of difference (L−R) channel information sent without the presence of envelope modulation.

(5) Maximum angular modulation, which occurs on negative peaks of the left or right channel with no signal present on the opposite channel (L(t)=−0.75, R(t)=0, or R(t)=−0.75, L(t)=0) shall not exceed 1.25 radians.

(6) A peak phase modulation of +/−0.785 radians under the condition of difference (L−R) channel modulation and the absence of envelope (L+R) modulation and pilot signal shall represent 100% modulation of the difference channel.

(7) The composite signal shall contain a pilot tone for indication of the presence of stereophonic information. The pilot tone shall consist of a 25 Hz tone, with 3% or less total harmonic distortion and a frequency tolerance of +/− 0.1 H_2, which modulates the carrier phase +/− 0.05 radians peak, corresponding to 5% L−R modulation when no other modulation is present. The injection level shall be 5%, with a tolerance of +1, −1%.

(8) The composite signal shall be described by the following expression:

$$E_c = A_c\left[1 + m\sum_{n=1}^{\infty} C_{sn}\cos\left(\omega_{sn}\ t + \phi_{sn}\right)\right]\cdot$$

$$\cos\left[\omega_c t + \tan^{-1}\frac{m\sum_{n=1}^{\infty} C_{dn}\cos\left(\omega_{dn}t + \phi_{dn}\right) + .05\sin 50\pi t}{1 + m\sum_{n=1}^{\infty} C_{sn}\cos\left(\omega_{sn}t + \phi_{sn}\right)}\right]$$

where:

A=the unmodulated carrier voltage

m=the modulation index

C_{sn}=the magnitude of the nth term of the sum signal

C_{dn}=the magnitude of the nth term of the difference signal

ω_{sn}=the nth order angular velocity of the sum signal

ω_{dn}=the nth order angular velocity of the difference signal

ω_c=the angular velocity of the carrier

$$\phi_{sn} = \text{the angle of the nth order term} = \tan^{-1}\left[\frac{B_{sn}}{A_{sn}}\right]$$

$$\phi_{dn} = \text{the angle of the nth order term} = \tan^{-1}\left[\frac{B_{dn}}{A_{dn}}\right]$$

A_{sn} and B_{sn} are the nth sine and cosine coefficients of C_{sn}

A_{dn} and B_{dn} are the nth sine and cosine coefficients of C_{dn}

[58 FR 66301, Dec. 20, 1993]

§ 73.132 Territorial exclusivity.

No licensee of an AM broadcast station shall have any arrangement with a network organization which prevents or hinders another station serving substantially the same area from broadcasting the network's programs not taken by the former station, or which prevents or hinders another station serving a substantially different area from broadcasting any program of the network organization: *Provided, however,* That this section does not prohibit arrangements under which the station is granted first call within its primary service area upon the network's programs. The term ''network organization'' means any organization originating program material, with or without commercial messages, and furnishing the same to stations interconnected so as to permit simultaneous broadcast by all or some of them. However, arrangements involving only stations under common ownership, or only the rebroadcast by one station or programming from another with no compensation other than a lump-sum payment by the station rebroadcasting, are not considered arrangements with a network organization. The term ''arrangement'' means any contract, arrangement or understanding, expressed or implied.

[42 FR 16422, Mar. 28, 1977]

§ 73.150 Directional antenna systems.

(a) For each station employing a directional antenna, all determinations of service provided and interference caused shall be based on the inverse distance fields of the standard radiation pattern for that station. (As applied to nighttime operation the term ''standard radiation pattern'' shall include the radiation pattern in the horizontal plane, and radiation patterns at angles above this plane.)

(1) Parties submitting directional antenna patterns pursuant to this section and § 73.152 (Modified standard pattern) must submit patterns which are tabulated and plotted in units of millivolts per meter at 1 kilometer.

NOTE: Applications for new stations and for changes (both minor and major) in existing stations must use a standard pattern.

(b) The following data shall be submitted with an application for authority to install a directional antenna:

(1) The standard radiation pattern for the proposed antenna in the horizontal plane, and where pertinent, tabulated values for the azimuthal radiation patterns for angles of elevation up to and including 60 degrees, with a separate section for each increment of 5 degrees.

(i) The standard radiation pattern shall be based on the theoretical radiation pattern. The theoretical radiation pattern shall be calculated in accordance with the following mathematical expression:

$$E(\phi,\theta)_{th} = \left| k\sum_{i=1}^{n} F_i f_i(\theta) / S_i \cos\theta \cos(\phi_i - \phi) + \psi_i \right| \qquad \text{(Eq. 1)}$$

where:

$E(\phi,\theta)_{th}$ Represents the theoretical inverse distance fields at one kilometer for the given azimuth and elevation.

k Represents the multiplying constant which determines the basic pattern size. It shall be chosen so that the effective field (RMS) of the theoretical pattern in the horizontal plane shall be no greater than the value computed on the assumption that nominal station power (see § 73.14) is delivered to the directional array, and that a lumped loss resistance of one ohm exists at the current loop of each element of the array, or at the base of each element of electrical height lower than 0.25 wavelength, and no less than the value required by § 73.189(b)(2) of this part for a station of the class and nominal power for which the pattern is designed.

n Represents the number of elements (towers) in the directional array.

i Represents the ith element in the array.

F_i Represents the field ratio of the ith element in the array.

θ Represents the vertical elevation angle measured from the horizontal plane.

$f_i(\theta)$ represents the vertical plane radiation characteristic of the ith antenna. This value depends on the tower height, as well as whether the tower is top-loaded or sectionalized. The various formulas for computing $f_i(\theta)$ are given in § 73.160.

S_i Represents the electrical spacing of the ith tower from the reference point.

ϕ_i Represents the orientation (with respect to true north) of the ith tower.

ϕ Represents the azimuth (with respect to true north).

ψ_i Represents the electrical phase angle of the current in the ith tower.

The standard radiation pattern shall be constructed in accordance with the following mathematical expression:

$$E(\phi,\theta)_{std} = 1.05\sqrt{\left[E(\phi,\theta)_{th}\right]^2 + Q^2}$$

(Eq. 2)

where:

$E(\phi,\theta)_{std}$ represents the inverse distance fields at one kilometer which are produced by the directional antenna in the horizontal and vertical planes. $E(\phi,\theta)_{th}$ represents the theoretical inverse distance fields at one kilometer as computed in accordance with Eq. 1, above.

Q is the greater of the following two quantities: $0.025g(\theta)\ E_{rss}$ or $10.0g(\theta)\sqrt{P_{kW}}$

where:

$g(\theta)$ is the vertical plane distribution factor, $f(\theta)$, for the shortest element in the array (see Eq. 2, above; also see § 73.190, Figure 5). If the shortest element has an electrical height in excess of 0.5 wavelength, $g(\theta)$ shall be computed as follows:

$$g(\theta) = \frac{\sqrt{\left\{f(\theta)\right\}^2 + 0.0625}}{1.030776}$$

E_{rss} is the root sum square of the amplitudes of the inverse fields of the elements of the array in the horizontal plane, as used in the expression for $E(\phi,\theta)_{th}$ (see Eq. 1, above), and is computed as follows:

$$E_{rss} = k\sqrt{\sum_{i=1}^{n} F_i^2}$$

P_{kW} is the nominal station power expressed in kilowatts, see § 73.14. If the nominal power is less than one kilowatt, $P_{kW}=1$.

(ii) Where the orthogonal addition of the factor Q to $E(\phi,\theta)_{th}$ results in a standard pattern whose minimum fields are lower than those found necessary or desirable, these fields may be increased by appropriate adjustment of the parameters of $E(\phi,\theta)_{th}$.

(2) All patterns shall be computed for integral multiples of five degrees, beginning with zero degrees representing true north, and, shall be plotted to the largest scale possible on unglazed letter-size paper (main engraving approximately 7″ × 10″) using only scale divisions and subdivisions of 1,2,2.5, or 5 times 10^{nth}. The horizontal plane pattern shall be plotted on polar coordinate paper, with the zero degree point corresponding to true north. Patterns for elevation angles above the horizontal plane may be plotted in polar or

rectangular coordinates, with the pattern for each angle of elevation on a separate page. Rectangular plots shall begin and end at true north, with all azimuths labelled in increments of not less than 20 degrees. If a rectangular plot is used, the ordinate showing the scale for radiation may be logarithmic. Such patterns for elevation angles above the horizontal plane need be submitted only upon specific request by Commission staff. Minor lobe and null detail occurring between successive patterns for specific angles of elevation need not be submitted. Values of field strength on any pattern less than ten percent of the maximum field strength plotted on that pattern shall be shown on an enlarged scale. Rectangular plots with a logarithmic ordinate need not utilize an expanded scale unless necessary to show clearly the minor lobe and null detail.

(3) The effective (RMS) field strength in the horizontal plane of $E(\phi,\theta)_{std}$, $E(\phi,\theta)_{th}$ and the root-sum-square (RSS) value of the inverse distance fields of the array elements at 1 kilometer, derived from the equation for $E(\phi,\theta)_{th}$. These values shall be tabulated on the page on which the horizontal plane pattern is plotted, which shall be specifically labelled as the Standard Horizontal Plane Pattern.

(4) Physical description of the array, showing:

(i) Number of elements.

(ii) Type of each element (i.e., guyed or self-supporting, uniform cross section or tapered (specifying base dimensions), grounded or insulated, etc.)

(iii) Details of top loading, or sectionalizing, if any.

(iv) Height of radiating portion of each element in feet (height above base insulator, or base, if grounded).

(v) Overall height of each element above ground.

(vi) Sketch of antenna site, indicating its dimensions, the location of the antenna elements, thereon, their spacing from each other, and their orientation with respect to each other and to true north, the number and length of the radials in the ground system about each element, the dimensions of ground screens, if any, and bonding between towers and between radial systems.

(5) Electrical description of the array, showing:

(i) Relative amplitudes of the fields of the array elements.

(ii) Relative time phasing of the fields of the array elements in degrees leading [+] or lagging [−].

(iii) Space phasing between elements in degrees.

(iv) Where waiver of the content of this section is requested or upon request of the Commission staff, all assumptions made and the basis therefor, particularly with respect to the electrical height of the elements, current distribution along elements, efficiency of each element, and ground conductivity.

(v) Where waiver of the content of this section is requested, or upon request of the Commission staff, those formulas used for computing $E(\phi,\theta)_{th}$ and $E(\phi,\theta)_{std}$. Complete tabulation of final computed data used in plotting patterns, including data for the determination of the RMS value of the pattern, and the RSS field of the array.

(6) The values used in specifying the parameters which describe the array must be specified to no greater precision than can be achieved with available monitoring equipment. Use of greater precision raises a rebuttable presumption of instability of the array. Following are acceptable values of precision; greater precision may be used only upon showing that the monitoring equipment to be installed gives accurate readings with the specified precision.

(i) Field Ratio: 3 significant figures.

(ii) Phasing: to the nearest 0.1 degree.

(iii) Orientation (with respect to a common point in the array, or with respect to another tower): to the nearest 0.1 degree.

(iv) Spacing (with respect to a common point in the array, or with respect to another tower): to the nearest 0.1 degree.

(v) Electrical Height (for all parameters listed in Section 73.160): to the nearest 0.1 degree.

(vi) Theoretical RMS (to determine pattern size): 4 significant figures.

(vii) Additional requirements relating to modified standard patterns appear in § 73.152(c)(3) and (c)(4).

(7) Any additional information required by the application form.

(c) Sample calculations for the theoretical and standard radiation follow. Assume a five kilowatt (nominal power) station with a theoretical RMS of 685 mV/m at one kilometer. Assume that it is an in-line array consisting of three towers. Assume the following parameters for the towers:

Tower	Field ratio	Relative phasing	Relative spacing	Relative orientation
1	1.0	−128.5	0.0	0.0
2	1.89	0.0	110.0	285.0
3	1.0	128.5	220.0	285.0

Assume that tower 1 is a typical tower with an electrical height of 120 degrees. Assume that tower 2 is top-loaded in accordance with the method described in § 73.160(b)(2) where A is 120 electrical degrees and B is 20 electrical degrees. Assume that tower 3 is sectionalized in accordance with the method described in § 73.160(b)(3) where A is 120 electrical degrees, B is 20 electrical degrees, C is 220 electrical degrees, and D is 15 electrical degrees.

The multiplying constant will be 323.6.

Following is a tabulation of part of the theoretical pattern:

Azimuth	0	30	60	Vertical angle
0	15.98	62.49	68.20	
105	1225.30	819.79	234.54	
235	0.43	18.46	34.56	
247	82.62	51.52	26.38	

If we further assume that the station has a standard pattern, we find that Q, for $\theta=0$, is 22.36.

Following is a tabulation of part of the standard pattern:

Azimuth	0	30	60	Vertical angle
0	28.86	68.05	72.06	
105	1286.78	860.97	246.41	
235	23.48	26.50	37.18	
247	89.87	57.03	28.87	

The RMS of the standard pattern in the horizontal plane is 719.63 mV/m at one kilometer.

[36 FR 919, Jan. 20, 1971, as amended at 37 FR 529, Jan. 13, 1972; 41 FR 24134, June 15, 1976; 46 FR 11991, Feb. 12, 1981; 48 FR 24384, June 1, 1983; 51 FR 2707, Jan. 21, 1986; 52 FR 36877, Oct. 1, 1987; 56 FR 64861, Dec. 12, 1991; 57 FR 43290, Sept. 18, 1992]

§ 73.151 Field strength measurements to establish performance of directional antennas.

(a) In addition to the information required by the license application form, the following showing must be submitted to establish for each mode of directional operation, that the effective measured field strength (RMS) at 1 mile is not less than 85 percent of the effective field strength specified for the standard radiation pattern for that mode of directional operation, or less than that specified in § 73.189(b) for the class of station involved, whichever is the higher value, and that the measured field strength at 1 mile in any direction does not exceed the field shown in that direction on the standard radiation pattern for that mode of directional operation:

(1) A tabulation of inverse field strengths in the horizontal plane at 1 mile, as determined from field strength measurements taken and analyzed in accordance with § 73.186, and a statement of the effective field strength (RMS), based on these measurements. Measurements shall be made in at least the following directions:

(i) Those specified in the instrument of authorization.

(ii) In major lobes. Generally at least three radials are necessary to establish a major lobe; however, additional radials may be required.

(iii) Along sufficient number of other radials to establish the effective field. In the case of a relatively simple directional antenna pattern, approximately five radials in addition to those in paragraphs (a)(1) (i) and (ii) of this section are sufficient. However, when more complicated patterns are involved, that is, patterns having several or sharp lobes or nulls, measurements shall be taken along as many radials as may be necessary, to definitely establish the pattern(s).

(2) A tabulation of:

(i) The phase difference of the current in each other element with respect to the reference element, and whether the current leads (+) or lags (−) the current in the reference element, as indicated by the station's antenna monitor.

(ii) The ratio of the amplitude of the radio frequency current in each other element to the current in the reference element, as indicated on the station's antenna monitor.

(iii) The value of the radio frequency current at the base of each element, and the ratio of the current in each other element to the base current in the reference element. If there are substantial differences between the ratios established in paragraph (a)(2)(ii) of this section and the ratios computed in this paragraphs (a)(2)(iii) and/or if there are substantial differences between the parameters established in paragraphs (a)(2) (i) and (ii) of this section and this paragraph (a)(2)(iii), and those used in the design of the standard radiation pattern, a full explanation of the reasons for these differences shall be given.

(3) The actual field strength measured at each monitoring point established in the various directions for which a limiting field was specified in the instrument of authorization together with accurate and detailed description of each monitoring point together with ordinary snapshots, clear and sharp, taken with the field strength meter in its measuring position and with the camera so located that its field of view takes in as many pertinent landmarks as possible. In addition, the directions for proceeding to each monitoring point together with a rough sketch or map upon which has been indicated the most accessible approaches to the monitoring points should be submitted.

(b) For stations authorized to operate with simple directional antenna systems (*e.g.,* two towers) in the 1605–1705 kHz band, the measurements to support pattern RMS compliance referred to in paragraphs (a)(1)(ii) and (a)(1)(iii) of this section are not required. In such cases, measured radials are required only in the direction of short-spaced allotments, or in directions specifically identified by the Commission.

[36 FR 919, Jan. 20, 1971, as amended at 42 FR 36828, July 18, 1977; 49 FR 23348, June 6, 1984; 50 FR 32416, Aug. 12, 1985; 56 FR 64862, Dec. 12, 1991]

§ 73.152 Modification of directional antenna data.

(a) If, after construction and final adjustment of a directional antenna, a measured inverse distance field in any direction exceeds the field shown on the standard radiation pattern for the pertinent mode of directional operation, an application shall be filed, specifying a modified standard radiation pattern and/or such changes as may be required in operating parameters so that all measured effective fields will be contained within the modified standard radiation pattern.

(b) Normally, a modified standard pattern is not acceptable at the initial construction permit stage, before a proof-of-performance has been completed. However, in certain cases, where it can be shown that modification is necessary, a modified standard pattern will be acceptable at the initial construction permit stage. Following is a non-inclusive list of items to be considered in determining whether a modification is acceptable at the initial construction permit stage:

(1) When the proposed pattern is essentially the same as an existing pattern at the same antenna site. (e.g., A DA–D station proposing to become a DA–1 station.)

(2) Excessive reradiating structures, which should be shown on a plat of the antenna site and surrounding area.

(3) Other environmental factors; they should be fully described.

(4) Judgment and experience of the engineer preparing the engineering portion of the application. This must be supported with a full discussion of the pertinent factors.

(c) The following general principles shall govern the situations in paragraphs (a) and (b) in this section:

(1) Where a measured field in any direction will exceed the authorized standard pattern, the license application may specify the level at which the input power to the antenna shall be limited to maintain the measured field

at a value not in excess of that shown on the standard pattern, and shall specify the common point current corresponding to this power level. This value of common point current will be specified on the license for that station.

(2) Where any excessive measured field does not result in objectionable interference to another station, a modification of construction permit application may be submitted with a modified standard pattern encompassing all measured fields. The modified standard pattern shall supersede the previously submitted standard radiation pattern for that station in the pertinent mode of directional operation. Following are the possible methods of creating a modified standard pattern:

(i) The modified pattern may be computed by making the entire pattern larger than the original pattern (i.e., have a higher RMS value) if the measured fields systematically exceed the confines of the original pattern. The larger pattern shall be computed by using a larger multiplying constant, k, in the theoretical pattern equation (Eq. 1) in § 73.150(b)(1).

(ii) Where the measured field exceeds the pattern in discrete directions, but objectionable interference does not result, the pattern may be expanded over sectors including these directions. When this ''augmentation'' is desired, it shall be achieved by application of the following equation:

$$E(\phi,\theta)_{aug} = \sqrt{\{ E(\phi,\theta)_{std} \}^2 + A\{g(\theta) \cos (180 \frac{D_A}{S} \}^2}$$

where:

$E(\phi,\theta)_{std}$ is the standard pattern field at some particular azimuth and elevation angle, before augmentation, computed pursuant to Eq. 2, § 73.150(b)(1)(i).

$E(\phi,\theta)_{aug.}$ is the field in the direction specified above, after augmentation.

$A = E(\phi, O)^2_{aug} - E(\phi, O)^2_{std}$ in which ϕ is the central azimuth of augmentation. $E(\phi, O)_{aug}$ and $E(\phi, O)_{std}$ are the fields in the horizontal plane at the central azimuth of augmentation.

NOTE: ''A'' must be positive, except during the process of converting non-standard patterns to standard patterns pursuant to the *Report and Order in Docket No. 21473,* and in making minor changes to stations with patterns developed during the conversion. However, even when ''A'' is negative, ''A'' cannot be so negative that $E(\phi,\alpha)_{aug}$ is less than $E(\phi,\theta)_{th}$ at any azimuth or vertical elevation angle.

$g(\theta)$ is defined in § 73.150(b)(1)(i).

S is the angular range, or ''span'', over which augmentation is applied. The span is centered on the central azimuth of augmentation. At the limits of the span, the augmented pattern merges into the unaugmented pattern. Spans may overlap.

D_A is the absolute horizontal angle between the azimuth at which the augmented pattern value is being computed and the central azimuth of augmentation. (D_A cannot exceed 1/2 S.)

In the case where there are spans which overlap, the above formula shall be applied repeatedly, once for each augmentation, in ascending order of central azimuth of augmentation, beginning with zero degrees representing true North. Note that, when spans overlap, there will be, in effect, an augmentation of an augmentation. And, if the span of an earlier augmentation overlaps the central azimuth of a later augmentation, the value of ''A'' for the later augmentation will be different than the value of ''A'' without the overlap of the earlier span.

(iii) A combination of paragraphs (c)(2) (i) and (ii), of this section, with (i) being applied before (ii) is applied.

(iv) Where the measured inverse distance field exceeds the value permitted by the standard pattern, and augmentation is allowable under the terms of this section, the requested amount of augmentation shall be centered upon the azimuth of the radial upon which the excessive radiation was measured and shall not exceed the following:

(A) The actual measured inverse distance field value, where the radial does not involve a required monitoring point.

(B) 120% of the actual measured inverse field value, where the radial has a monitoring point required by the instrument of authorization.

Whereas some pattern smoothing can be accommodated, the extent of the requested span(s) shall be minimized and in no case shall a requested augmentation span extend to a radial azimuth for which the analyzed measurement data does not show a need for augmentation.

(3) A Modified Standard Pattern shall be specifically labeled as such, and shall be plotted in accordance with the requirements of paragraph (b)(2) of § 73.150. The effective (RMS) field strength in the horizontal plane of $E(\phi,\alpha)_{std}$, $E(\phi,\alpha)_{th}$, and the root sum square (RSS) value of the inverse fields of the array elements (derived from the equation for $E(\phi,\alpha)_{th}$), shall be tabulated on the page on which the horizontal plane pattern is plotted. Where sector augmentation has been employed in designing the modified pattern, the direction of maximum augmentation (i.e., the central azimuth of augmentation) shall be indicated on the horizontal plane pattern for each augmented sector, and the limits of each sector shall also be shown. Field values within an augmented sector, computed prior to augmentation, shall be depicted by a broken line.

(4) There shall be submitted, for each modified standard pattern, complete tabulations of final computed data used in plotting the pattern. In addition, for each augmented sector, the central azimuth of augmentation, span, and radiation at the central azimuth of augmentation ($E(\phi,\alpha)_{aug}$) shall be tabulated.

(5) The parameters used in computing the modified standard pattern shall be specified with realistic precision. Following is a list of the maximum acceptable precision:

(i) Central Azimuth of Augmentation: to the nearest 0.1 degree.

(ii) Span: to the nearest 0.1 degree.

(iii) Radiation at Central Azimuth of Augmentation: 4 significant figures.

(d) Sample calculations for a modified standard pattern follow. First, assume the existing standard pattern in § 73.150(c). Then, assume the following augmentation parameters:

Augmentation number	Central azimuth	Span	Radiation at central azimuth
1	110	40	1,300
2	240	50	52
3	250	10	130

Following is a tabulation of part of the modified standard pattern:

Azimuth	0	30	60	Vertical angle
0	28.86	68.05	72.06	
105	1,299.42	872.14	254.21	
235	39.00	35.74	38.71	
247	100.47	66.69	32.78	

[46 FR 11992, Feb. 12, 1981, as amended at 56 FR 64862, Dec. 12, 1991]

§ 73.153 Field strength measurements in support of applications or evidence at hearings.

In the determination of interference, groundwave field strength measurements will take precedence over theoretical values, provided such measurements are properly taken and presented. When measurements of groundwave signal strength are presented, they shall be sufficiently complete in accordance with § 73.186 to determine the field strength at 1 mile in the pertinent directions for that station. The antenna resistance measurements required by § 73.186 need not be taken or submitted.

[44 FR 36037, June 20, 1979, as amended at 56 FR 64862, Dec. 12, 1991]

§ 73.154 AM directional antenna partial proof of performance measurements.

(a) A partial proof of performance consists of at least 10 field strength measurements made on each of the radials established in the latest complete proof of performance of the directional antenna system.

(b) The measurements are to be made within 2 to 10 miles (3 to 16 kilometers) from the center of the antenna array. When a monitoring point as designated on the station authorization is on a particular radial, one of the radial measurements must be made at that point.

(c) The results of the measurements are to be analyzed in either of two methods. Either the arithmetic average or the logarithmic average of the ratios of the field strength at each measurement point along each radial to the corresponding field strength in the most recent complete proof of performance may be used to establish the inverse distance fields. (The logarithmic average for each radial is the antilogarithm of the mean of the logarithms of the ratios of field strength

(new to old) for each measurement location along a given radial).

(d) The result of the most recent partial proof of performance measurements and analysis is to be retained in the station records available to the FCC upon request.

[50 FR 47054, Nov. 14, 1985]

§ 73.157 Antenna testing during daytime.

(a) The licensee of a station using a directional antenna during daytime or nighttime hours may, without further authority, operate during daytime hours with the licensed nighttime directional facilities or with a nondirectional antenna when conducting monitoring point field strength measurements or antenna proof of performance measurements.

(b) Operation pursuant to this section is subject to the following conditions:

(1) No harmful interference will be caused to any other station.

(2) The FCC may notify the licensee to modify or cease such operation to resolve interference complaints or when such action may appear to be in the public interest, convenience and necessity.

(3) Such operation shall be undertaken only for the purpose of taking monitoring point field strength measurements or antenna proof of performance measurements, and shall be restricted to the minimum time required to accomplish the measurements.

(4) Operating power in the nondirectional mode shall be adjusted to the same power as was utilized for the most recent nondirectional proof of performance covering the licensed facilities.

[50 FR 30947, July 31, 1985]

§ 73.158 Directional antenna monitoring points.

(a) When a licensee of a station using a directional antenna system finds that a field monitoring point, as specified on the station authorization, is no longer accessible for use or is unsuitable because of nearby construction or other disturbances to the measured field, an informal application to change the monitoring point location is to be promptly submitted to the FCC in Washington, DC. The application must include the following information:

(1) A partial proof of performance conducted on the radial containing the monitoring point to be changed.

(2) A written description of the routing to the new selected monitoring point.

(3) A map showing the location and routing to the new selected monitoring point.

(4) A photograph showing the new monitoring point in relation to nearby permanent landmarks that can be used in locating the point accurately at all times throughout the year. Do not use seasonal or temporary features in either the written descriptions or photographs as landmarks for locating field points.

(b) When the descriptive routing to reach any of the monitoring points as shown on the station license is no longer correct due to road or building construction or other changes, the licensee must prepare and file with the FCC, in Washington, DC, a request for a corrected station license showing the new routing description. A copy of the description is to be posted with the existing station license. The notification is to include the information specified in paragraphs (a) (2) and (3) of this section.

[47 FR 28387, June 30, 1982]

§ 73.160 Vertical plane radiation characteristics, f(θ).

(a) The vertical plane radiation characteristics show the relative field being radiated at a given vertical angle, with respect to the horizontal plane. The vertical angle, represented as θ, is 0 degrees in the horizontal plane, and 90 degrees when perpendicular to the horizontal plane. The vertical plane radiation characteristic is referred to as f(θ). The generic formula for f(θ) is:

$$f(\theta)=E(\theta)/E(O)$$

where:

$E(\theta)$ is the radiation from the tower at angle θ.

$E(O)$ is the radiation from the tower in the horizontal plane.

(b) Listed below are formulas for f(θ) for several common towers.

(1) For a typical tower, which is not top-loaded or sectionalized, the following formula shall be used:

$$f(\theta) = \frac{\cos(G \sin\theta) - \cos G}{(1 - \cos G)\cos\theta}$$

where:

G is the electrical height of the tower, not including the base insulator and pier. (In the case of a folded unipole tower, the entire radiating structure's electrical height is used.)

(2) For a top-loaded tower, the following formula shall be used:

$$f(\theta) = \frac{\cos B \cos(A \sin\theta) - \sin\theta \sin B \sin(A \sin\theta) - \cos(A + B)}{\cos\theta\,(\cos B - \cos(A + B))}$$

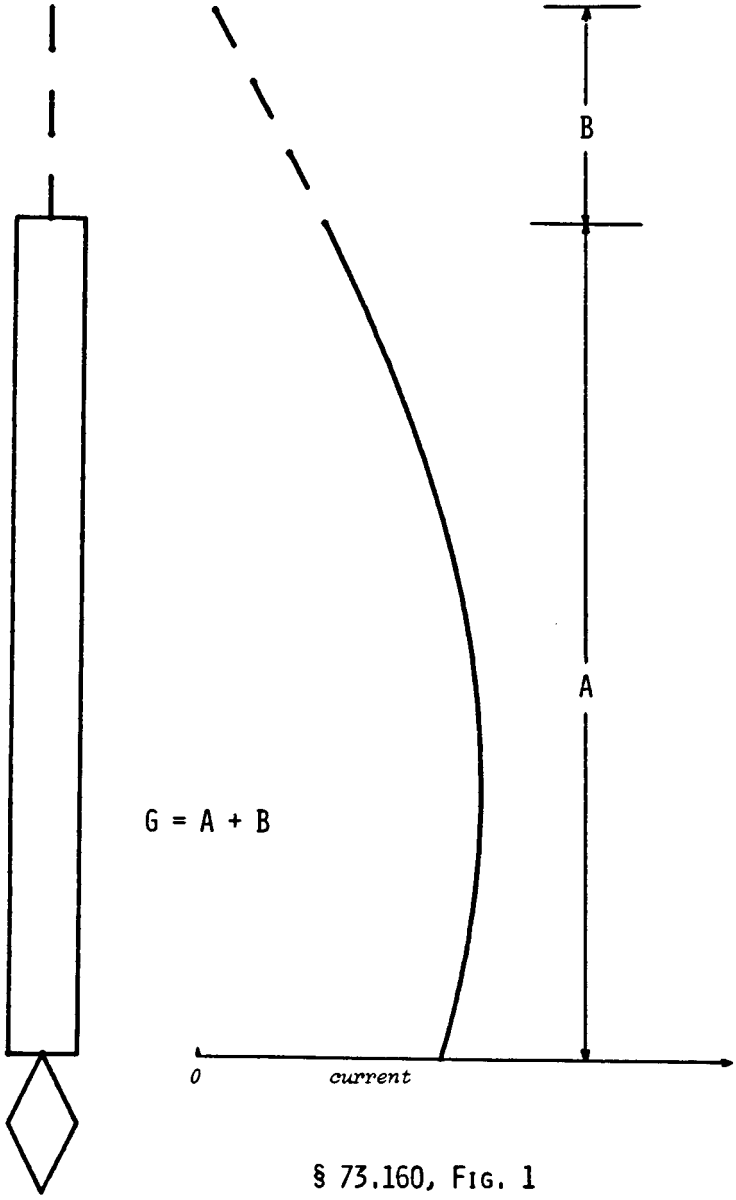
where:

A is the physical height of the tower, in electrical degrees, and

B is the difference, in electrical degrees, between the apparent electrical height (G, based on current distribution) and the actual physical height.

G is the apparent electrical height: the sum of A and B; A+B.

See Figure 1 of this section.



§ 73.160, FIG. 1

(3) For a sectionalized tower, the following formula shall be used:

$$f(\theta) = \frac{\{\sin\Delta\,[\cos B\cos(A\sin\theta) - \cos G] + \sin B\,[\cos D\cos(C\sin\theta) - \sin\theta\sin D\sin(C\sin\theta) - \cos\Delta\cos(A\sin\theta)]\}}{\cos\theta\,[\sin\Delta\,(\cos B - \cos G) + \sin B\,(\cos D - \cos\Delta)]}$$

where:

A is the physical height, in electrical degrees, of the lower section of the tower.

B is the difference between the apparent electrical height (based on current distribution) of the lower section of the tower and the physical height of the lower section of the tower.

C is the physical height of the entire tower, in electrical degrees.

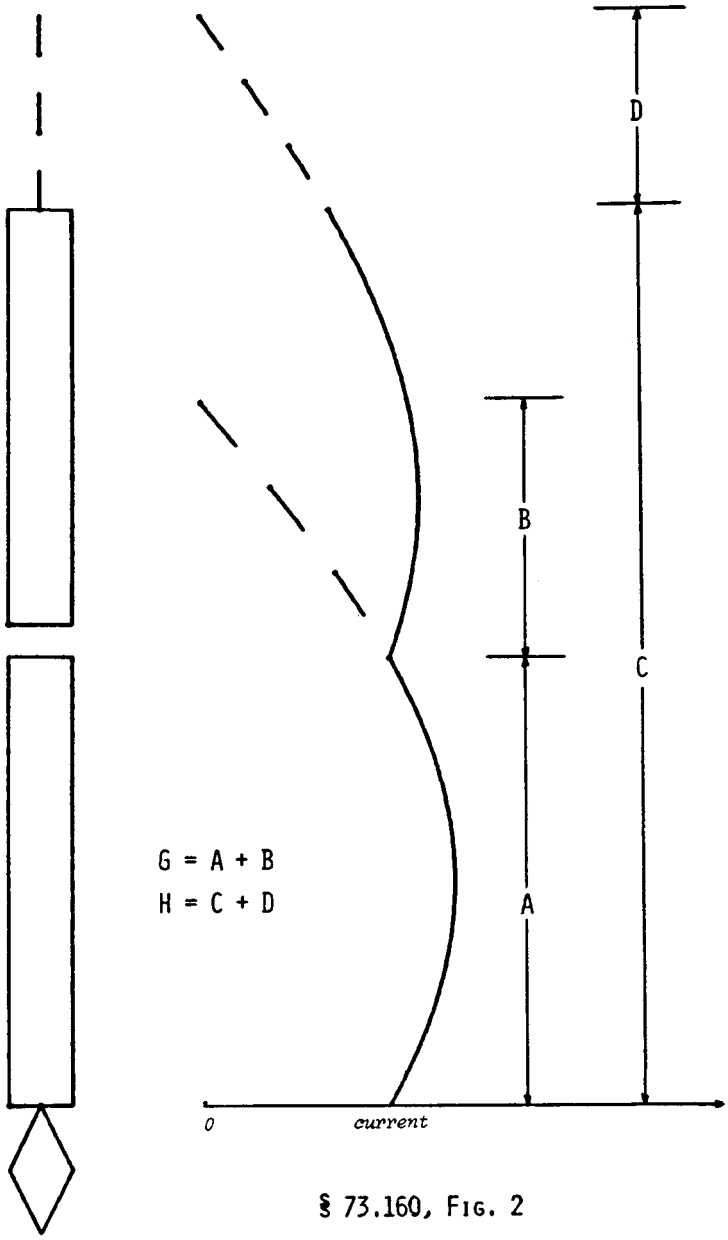
D is the difference between the apparent electrical height of the tower (based on current distribution of the upper section) and the physical height of the entire tower. D will be zero if the sectionalized tower is not top-loaded.

G is the sum of A and B; A+B.

H is the sum of C and D; C+D.

Δ is the difference between H and A; H − A.

See Figure 2 of this section.



§ 73.160, Fig. 2

(c) One of the above f(θ) formulas *must* be used in computing radiation in the vertical plane, unless the applicant submits a special formula for a particular type of antenna. If a special formula is submitted, it must be accompanied by a complete derivation and sample calculations. Submission of values for f(θ) only in a tabular or graphical format (i.e., without a formula) is not acceptable.

(d) Following are sample calculations. (The number of significant figures shown here should *not* be interpreted as a limitation on the number of significant figures used in actual calculations.)

(1) For a typical tower, as described in paragraph (b)(1) of this section, assume that G=120 electrical degrees:

θ	f(θ)
0	1.0000
30	0.7698
60	0.3458

(2) For a top-loaded tower, as described in paragraph (b)(2) of this section, assume A=120 electrical degrees, B=20 electrical degrees, and G=140 electrical degrees, (120+20):

θ	f(θ)
0	1.0000
30	0.7364
60	0.2960

(3) For a sectionalized tower, as described in paragraph (b)(3) of this section, assume A=120 electrical degrees, B=20 electrical degrees, C=220 electrical degrees, D=15 electrical degrees, G=140 electrical degrees (120+20), H=235 electrical degrees (220+15), and Δ=115 electrical degrees (235−120):

θ	f(θ)
0	1.0000
30	0.5930
60	0.1423

[46 FR 11993, Feb. 12, 1981]

§ 73.182 Engineering standards of allocation.

(a) Sections 73.21 to 73.37, inclusive, govern allocation of facilities in the AM broadcast band 535–1705 kHz. § 73.21 establishes three classes of channels in this band, namely, clear, regional and local. The classes and power of AM broadcast stations which will be assigned to the various channels are set forth in § 73.21. The classifications of the AM broadcast stations are as follows:

(1) Class A stations operate on clear channels with powers no less than 10kW nor greater than 50 kW. These stations are designed to render primary and secondary service over an extended area, with their primary services areas protected from objectionable interference from other stations on the same and adjacent channels. Their secondary service areas are protected from objectionable interference from co-channel stations. For purposes of protection, Class A stations may be divided into two groups, those located in any of the contiguous 48 States and those located in Alaska in accordance with § 73.25.

(i) The mainland U.S. Class A stations are those assigned to the channels allocated by § 73.25. The power of these stations shall be 50 kW. The Class A stations in this group are afforded protection as follows:

(A) Daytime. To the 0.1 mV/m groundwave contour from stations on the same channel, and to the 0.5 mV/m groundwave contour from stations on adjacent channels.

(B) Nighttime. To the 0.5 mV/m-50% skywave contour from stations on the same channels.

(ii) Class A stations in Alaska operate on the channels allocated by § 73.25 with a minimum power of 10 kW, a maximum power of 50 kW, and an antenna efficiency of 282 mV/m/kW at 1 kilometer. Stations operating on these channels in Alaska which have not been designated as Class A stations in response to licensee request will continue to be considered as Class B stations. During daytime hours a Class A station in Alaska is protected to the 100 μV/m groundwave contour from co-channel stations. During nighttime hours, a Class A station in Alaska is protected to the 100 μV/m-50 percent skywave contour from co-channel stations. The 0.5 mV/m groundwave contour is protected both daytime and nighttime from stations on adjacent channels.

NOTE: In the Report and Order in MM Docket No. 83–807, the Commission designated 15 stations operating on U.S. clear channels as Alaskan Class A stations. Eleven of these stations already have Alaskan Class A facilities and are to be protected accordingly. Permanent designation of the other four stations as Alaskan Class A is conditioned on their constructing minimum Alaskan Class A facilities no later than December 31, 1989. Until that date or until such facilities are obtained, these four stations shall be temporarily designated as Alaskan Class A stations, and calculations involving these stations should be based on existing facilities but with an assumed power of 10 kW. Thereafter, these stations are to be protected based on their actual Alaskan Class A facilities. If any of these stations does not obtain Alaskan Class A facilities in the period specified, it is to be protected as a Class B station based on its actual facilities. These four stations may increase power to 10 kW without regard to the impact on co-channel Class B stations. However, power increases by these stations above 10 kW (or by existing Alaskan Class A stations beyond their current power level) are subject to applicable protection requirements for co-channel Class B stations. Other stations not on the original list but which meet applicable requirements may obtain Alaskan Class A status by seeking such designation from the Commission. If a power increase or other change in facilities by a station not on the original list is required to obtain minimum Alaskan Class A facilities, any such application shall meet the interference protection requirements applicable to an Alaskan Class A proposal on the channel.

(2) Class B stations are stations which operate on clear and regional channels with powers not less than 0.25 kW nor more than 50 kW. These stations render primary service only, the area of which depends on their geographical location, power, and frequency. It is recommended that Class B stations be located so that the interference received from other stations will not limit the service area to a groundwave contour value greater than 2.0 mV/m nighttime and to the 0.5 mV/m groundwave contour daytime, which are the values for the mutual protection between this class of stations and other stations of the same class.

NOTE: See §§73.21(b)(1) and 73.26(b) concerning power restrictions and classifications relative to Class B, Class C, and Class D stations in Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands. Stations in the above-named places that are reclassified from Class C to Class B stations under §73.26(b) shall not be authorized to increase power to levels that would increase the nighttime interference-free limit of co-channel Class C stations in the conterminous United States.

(3) Class C stations operate on local channels, normally rendering primary service to a community and the suburban or rural areas immediately contiguous thereto, with powers not less than 0.25 kW, nor more than 1 kW, except as provided in §73.21(c)(1). Such stations are normally protected to the daytime 0.5 mV/m contour. On local channels the separation required for the daytime protection shall also determine the nighttime separation. Where directional antennas are employed daytime by Class C stations operating with more than 0.25 kW power, the separations required shall in no case be less than those necessary to afford protection, assuming nondirectional operation with 0.25 kW. In no case will 0.25 kW or greater nighttime power be authorized to a station unable to operate nondirectionally with a power of 0.25 kW during daytime hours. The actual nighttime limitation will be calculated. For nighttime protection purposes, Class C stations in the 48 contiguous United States may assume that stations in Alaska, Hawaii, Puerto Rico, and the U.S. Virgin Islands operating on 1230, 1240, 1340, 1400, 1450, and 1490 kHz are Class C stations.

(4) Class D stations operate on clear and regional channels with daytime powers of not less than 0.25 kW (or equivalent RMS field of 141 mV/m at one kilometer if less than 0.25 kW) and not more than 50 kW. Class D stations that have previously received nighttime authority operate with powers of less than 0.25 kW (or equivalent RMS fields of less than 141 mV/m at one kilometer) are not required to provide nighttime coverage in accordance with §73.24(j) and are not protected from interference during nighttime hours. Such nighttime authority is permitted on the basis of full nighttime protection being afforded to all Class A and Class B stations.

(b) When a station is already limited by interference from other stations to

a contour value greater than that normally protected for its class, the individual received limits shall be the established standard for such station with respect to interference from each other station.

(c) The four classes of AM broadcast stations have in general three types of service areas, i.e., primary, secondary and intermittent. (See §73.14 for the definitions of primary, secondary, and intermittent service areas.) Class A stations render service to all three areas. Class B stations render service to a primary area but the secondary and intermittent service areas may be materially limited or destroyed due to interference from other stations, depending on the station assignments involved. Class C and Class D stations usually have only primary service areas. Interference from other stations may limit intermittent service areas and generally prevents any secondary service to those stations which operate at night. Complete intermittent service may still be obtained in many cases depending on the station assignments involved.

(d) The groundwave signal strength required to render primary service is 2 mV/m for communities with populations of 2,500 or more and 0.5 mV/m for communities with populations of less than 2,500. See §73.184 for curves showing distance to various groundwave field strength contours for different frequencies and ground conductivities, and also see §73.183, ''Groundwave signals.''

(e) A Class C station may be authorized to operate with a directional antenna during daytime hours providing the power is at least 0.25 kW. In computing the degrees of protection which such antenna will afford, the radiation produced by the directional antenna system will be assumed to be no less, in any direction, than that which would result from non-directional operation using a single element of the directional array, with 0.25 kW.

(f) All classes of broadcast stations have primary service areas subject to limitation by fading and noise, and interference from other stations to the contours set out for each class of station.

(g) Secondary service is provided during nighttime hours in areas where the skywave field strength, 50% or more of the time, is 0.5 mV/m or greater (0.1 mV/m in Alaska). Satisfactory secondary service to cities is not considered possible unless the field strength of the skywave signal approaches or exceeds the value of the groundwave field strength that is required for primary service. Secondary service is subject to some interference and extensive fading whereas the primary service area of a station is subject to no objectionable interference or fading. Only Class A stations are assigned on the basis of rendering secondary service.

NOTE: Standards have not been established for objectionable fading because of the relationship to receiver characteristics. Selective fading causes audio distortion and signal strength reduction below the noise level, objectionable characteristics inherent in many modern receivers. The AVC circuits in the better designed receivers generally maintain the audio output at a sufficiently constant level to permit satisfactory reception during most fading conditions.

(h) Intermittent service is rendered by the groundwave and begins at the outer boundary of the primary service area and extends to a distance where the signal strength decreases to a value that is too low to provide any service. This may be as low as a few μV/m in certain areas and as high as several millivolts per meter in other areas of high noise level, interference from other stations, or objectionable fading at night. The intermittent service area may vary widely from day to night and generally varies over shorter intervals of time. Only Class A stations are protected from interference from other stations to the intermittent service area.

(i) Broadcast stations are licensed to operate unlimited time, limited time, daytime, share time, and specified hours. (See §§73.1710, 73.1725, 73.1720, 73.1715, and 73.1730.) Applications for new stations shall specify unlimited time operation only.

(j) Section 73.24 sets out the general requirements for modifying the facilities of a licensed station and for establishing a new station. Sections 73.24(b) and 73.37 include interference related

provisions that be considered in connection with an application to modify the facilities of an existing station or to establish a new station. Section 73.30 describes the procedural steps required to receive an authorization to operate in the 1605–1705 kHz band.

(k) Objectionable nighttime interference from a broadcast station occurs when, at a specified field strength contour with respect to the desired station, the field strength of an undesired station (co-channel or first adjacent channel, after application of proper protection ratio) exceeds for 10% or more of the time the values set forth in these standards. The value derived from the root-sum-square of all interference contributions represents the extent of a station's interference-free coverage.

(1) With respect to the root-sum-square (RSS) values of interfering field strengths referred to in this section, calculation of nighttime interference-free service is accomplished by considering the signals on the three channels of concern (co- and first adjacencies) in order of decreasing magnitude, adding the squares of the values and extracting the square root of the sum, excluding those signals which are less than 50% of the RSS values of the higher signals already included.

(2) With respect to the root-sum-square values of interfering field strengths referred to in this section, calculation of nighttime interference for non-coverage purposes is accomplished by considering the signals on the three channels of concern (co- and first adjacencies) in order of decreasing magnitude, adding the squares of the values and extracting the square root of the sum, excluding those signals which are less than 25% of the RSS values of the higher signals already included.

(3) With respect to the root-sum-square values of interfering field strengths referred to in this section, calculation is accomplished by considering the signals on the three channels of concern (co- and first adjacencies) in order of decreasing magnitude, adding the squares of the values and extracting the square root of the sum. The 0% exclusion method applies only to the determination of an improvement factor value for evaluating a station's eligibility for migration to the band 1605–1705 kHz.

(4) The RSS value will not be considered to be increased when a new interfering signal is added which is less than the appropriate exclusion percentage as applied to the RSS value of the interference from existing stations, and which at the same time is not greater than the smallest signal included in the RSS value of interference from existing stations.

(5) It is recognized that application of the above ''50% exclusion'' method (or any exclusion method using a per cent value greater than zero) of calculating the RSS interference may result in some cases in anomalies wherein the addition of a new interfering signal or the increase in value of an existing interfering signal will cause the exclusion of a previously included signal and may cause a decrease in the calculated RSS value of interference. In order to provide the Commission with more realistic information regarding gains and losses in service (as a basis for determination of the relative merits of a proposed operation) the following alternate method for calculating the proposed RSS values of interference will be employed wherever applicable.

(6) In the cases where it is proposed to add a new interfering signal which is not less than 50% (or 25%, depending on which study is being performed) of the RSS value of interference from existing stations or which is greater that the smallest signal already included to obtain this RSS value, the RSS limitation after addition of the new signal shall be calculated without excluding any signal previously included. Similarly, in cases where it is proposed to increase the value of one of the existing interfering signals which has been included in the RSS value, the RSS limitation after the increase shall be calculated without excluding the interference from any source previously included.

(7) If the new or increased signal proposed in such cases is ultimately authorized, the RSS values of interference to other stations affected will thereafter be calculated by the ''50% exclusion'' (or 25% exclusion, depending on which study is being performed)

method without regard to this alternate method of calculation.

(8) Examples of RSS interference calculations:

(i) Existing interferences:

Station No. 1—1.00 mV/m.
Station No. 2—0.60 mV/m.
Station No. 3—0.59 mV/m.
Station No. 4—0.58 mV/m.

The RSS value from Nos. 1, 2 and 3 is 1.31 mV/m; therefore interference from No. 4 is excluded for it is less than 50% of 1.31 mV/m.

(ii) Station A receives interferences from:

Station No. 1—1.00 mV/m.
Station No. 2—0.60 mV/m.
Station No. 3—0.59 mV/m.

It is proposed to add a new limitation, 0.68 mV/m. This is more than 50% of 1.31 mV/m, the RSS value from Nos. 1, 2 and 3. The RSS value of Station No. 1 and of the proposed station would be 1.21 m/Vm which is more than twice as large as the limitation from Station No. 2 or No. 3. However, under the above provision the new signal and the three existing interferences are nevertheless calculated for purposes of comparative studies, resulting in an RSS value of 1.47 mV/m. However, if the proposed station is ultimately authorized, only No. 1 and the new signal are included in all subsequent calculations for the reason that Nos. 2 and 3 are less than 50% of 1.21 mV/m, the RSS value of the new signal and No. 1.

(iii) Station A receives interferences from:

Station No. 1—1.00 mV/m.
Station No. 2—0.60 mV/m.
Station No. 3—0.59 mV/m.

No. 1 proposes to increase the limitation it imposes on Station A to 1.21 mV/m. Although the limitations from stations Nos. 2 and 3 are less than 50% of the 1.21 mV/m limitation, under the above provision they are nevertheless included for comparative studies, and the RSS limitation is calculated to be 1.47 mV/m. However, if the increase proposed by Station No. 1 is authorized, the RSS value then calculated is 1.21 mV/m because Stations Nos. 2 and 3 are excluded in view of the fact that the limitations they impose are less than 50% of 1.21 mV/m.

NOTE: The principles demonstrated in the previous examples for the calculation of the 50% exclusion method also apply to calculations using the 25% exclusion method after appropriate adjustment.

(l) Objectionable nighttime interference from a station shall be considered to exist to a station when, at the field strength contour specified in paragraph (q) of this section with respect to the class to which the station belongs, the field strength of an interfering station operating on the same channel or on a first adjacent channel after signal adjustment using the proper protection ratio, exceeds for 10% or more of the time the value of the permissible interfering signal set forth opposite such class in paragraph (q) of this section.

(m) For the purpose of estimating the coverage and the interfering effects of stations in the absence of field strength measurements, use shall be made of Figure 8 of § 73.190, which describes the estimated effective field (for 1 kW power input) of simple vertical omnidirectional antennas of various heights with ground systems having at least 120 quarter-wavelength radials. Certain approximations, based on the curve or other appropriate theory, may be made when other than such antennas and ground systems are employed, but in any event the effective field to be employed shall not be less than the following:

Class of station	Effective field (at 1 km)
All Class A (except Alaskan)	362 mV/m.
Class A (Alaskan), B and D	282 mV/m.
Class C	241 mV/m.

Note (1): When a directional antenna is employed, the radiated signal of a broadcasting station will vary in strength in different directions, possibly being greater than the above values in certain directions and less in other directions depending upon the design and adjustment of the directional antenna system. To determine the interference in any direction, the measured or calculated radiated field (unattenuated field strength at 1 kilometer from the array) must be used in conjunction with the appropriate propagation curves. (See § 73.185 for further discussion and solution of a typical directional antenna case.)

Note (2): For Class B stations in Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands, 241 mV/m shall be used.

(n) The existence or absence of objectionable groundwave interference from stations on the same or adjacent channels shall be determined by actual measurements made in accordance with the method described in § 73.186, or in the absence of such measurements, by reference to the propagation curves of § 73.184. The existence or absence of objectionable interference due to skywave propagation shall be determined by reference to Formula 2 in § 73.190.

(o) Computation of Skywave Field Strength Values:

(1) Fifty Percent Skywave Field Strength Values (Clear Channel). In computing the fifty percent skywave field strength values of a Class A clear channel station, use shall be made of Formula 1 of § 73.190, entitled ''Skywave Field Strength'' for 50 percent of the time.

(2) Ten Percent Skywave Field Strength Values. In computing the 10% skywave field strength for stations on a single signal or an RSS basis, Formula 2 in § 73.190 shall be used.

(3) Determination of Angles of Departure. In calculating skywave field strength for stations on all channels, the pertinent vertical angle shall be determined by use of the formula in § 73.190(d).

(p) The distance to any specified groundwave field strength contour for any frequency may be determined from the appropriate curves in § 73.184 entitled ''Ground Wave Field Strength vs. Distance.''

(q) Normally protected service contours and permissible interference signals for broadcast stations are as follows (for Class A stations, see also paragraph (a) of this section):

Class of station	Class of channel used	Signal strength contour of area protected from objectionable interference [1] (μV/m)		Permissible interfering signal (μV/m)	
		Day [2]	Night	Day [2]	Night [3]
A	Clear	SC 100 AC 500	SC 500 50% SW AC 500 GW	SC 5 AC 250	SC 25 AC 250
A (Alaskan)	do	SC 100 AC 500	SC 100 50% SW AC 500 GW	SC 5 AC 250	SC 5 AC 250
B	Clear Regional	500	2000 [2]	25 AC 250	25 250
C	Local	500	No presc.[4]	SC25	Not presc.
D	Clear Regional	500	Not presc	SC 25 AC 250	Not presc.

[1] When a station is already limited by interference from other stations to a contour of higher value than that normally protected for its class, this higher value contour shall be the established protection standard for such station. Changes proposed by Class A and B stations shall be required to comply with the following restrictions. Those interferers that contribute to another station's RSS using the 50% exclusion method are required to either reduce their contributions to that RSS by 10%, or to a level at which their contributions no longer enter into the 50% RSS value, whichever is the lesser amount of reduction. Those interferers that contribute to a station's RSS using the 25% exclusion method but do not contribute to that station's RSS using the 50% exclusion method may make changes not to exceed their present contribution. Interferers not included in a station's RSS using the 25% exclusion method are permitted to increase radiation as long as the 25% exclusion threshold is not equalled or exceeded. In no case will a reduction be required that would result in a contributing value that is below the pertinent value specified in the table. This note does not apply to Class C stations; or to the protection of Class A stations which are normally protected on a single signal, non-RSS basis.

[2] Groundwave.

[3] Skywave field strength for 10 percent or more of the time.

[4] During nighttime hours, Class C stations in the contiguous 48 States may treat all Class B stations assigned to 1230, 1240, 1340, 1400, 1450 and 1490 kHz in Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands as if they were Class C stations.

Note: SC=Same channel; AC=Adjacent channel; SW=Skywave; GW=Groundwave

(r) The following table of logarithmic expressions is to be used as required for determining the minimum permissible ratio of the field strength of a desired to an undesired signal. This table shall be used in conjunction with the protected contours specified in paragraph (q) of this section.

Frequency separation of desired to undesired signals (kHz)	Desired Groundwave to:		Desired 50% Skywave to Undesired 10% Skywave (dB)
	Undesired groundwave (dB)	Undesired 10% Skywave (dB)	
0	26	26	26
10	6	6	not presc.

(s) Two stations, one with a frequency twice of the other, should not be assigned in the same groundwave service area unless special precautions are taken to avoid interference from the second harmonic of the station operating on the lower frequency. Additionally, in selecting a frequency, consideration should be given to the fact that occasionally the frequency assignment of two stations in the same area may bear such a relation to the intermediate frequency of some broadcast

receivers as to cause ''image'' interference, However, since this can usually be rectified by readjustment of the intermediate frequency of such receivers, the Commission, in general, will not take this kind of interference into consideration when authorizing stations.

(t) The groundwave service of two stations operating with synchronized carriers and broadcasting identical programs will be subject to some distortion in areas where the signals from the two stations are of comparable strength. For the purpose of estimating coverage of such stations, areas in which the signal ratio is between 1:2 and 2:1 will not be considered as receiving satisfactory service.

NOTE: Two stations are considered to be operated synchronously when the carriers are maintained within 0.2 Hz of each other and they transmit identical program s.

[56 FR 64862, Dec. 12, 1991; 57 FR 43290, Sept. 18, 1992, as amended at 58 FR 27950, May 12, 1993]

§ 73.183 Groundwave signals.

(a) Interference that may be caused by a proposed assignment or an existing assignment during daytime hours should be determined, when possible, by measurements on the frequency involved or on another frequency over the same terrain and by means for the curves in § 73.184 entitled ''Ground Wave Field Strength versus Distance.''

NOTE: Groundwave field strength measurements will not be accepted or considered for the purpose of establishing that interference to a station in a foreign country other than Canada, or that the field strength at the border thereof, would be less than indicated by the use of the ground conductivity maps and engineering standards contained in this part and applicable international agreements. Satisfactory groundwave measurements offered for the purpose of demonstrating values of conductivity other than those shown by Figure M3 in problems involving protection of Canadian stations will be considered only if, after review thereof, the appropriate agency of the Canadian government notifies the Commission that they are acceptable for such purpose.

(b)(1) In all cases where measurements taken in accordance with the requirements are not available, the groundwave strength must be determined by means of the pertinent map of ground conductivity and the groundwave curves of field strength versus distance. The conductivity of a given terrain may be determined by measurements of any broadcast signal traversing the terrain involved. Figure M3 (See Note 1) shows the conductivity throughout the United States by general areas of reasonably uniform conductivity. When it is clear that only one conductivity value is involved, Figure R3 of § 73.190, may be used. It is a replica of Figure M3, and is contained in these standards. In all other situations Figure M3 must be employed. It is recognized that in areas of limited size or over a particular path, the conductivity may vary widely from the values given; therefore, these maps are to be used only when accurate and acceptable measurements have not been made.

(2) For determinations of interference and service requiring a knowledge of ground conductivities in other countries, the ground conductivity maps comprising Appendix 1 to Annex 2 of each of the following international agreements may be used:

(i) For Canada, the U.S.-Canada AM Agreement, 1984;

(ii) For Mexico, the U.S.-Mexico AM Agreement, 1986; and

(iii) For other Western Hemisphere countries, the Regional Agreement for the Medium Frequency Broadcasting Service in Region 2.

Where different conductivities appear in the maps of two countries on opposite sides of the border, such differences are to be considered as real, even if they are not explained by geophysical cleavages.

(c) Example of determining interference by the graphs in § 73.184:

It is desired to determine whether objectionable interference exists between a proposed 5 kW Class B station on 990 kHz and an existing 1 kW Class B station on first adjacent channel, 1000 kHz. The distance between the two stations is 260 kilometers and both stations operate nondirectionally with antenna systems that produce a horizontal effective field of 282 in mV/m at one kilometer. (See § 73.185 regarding use of directional antennas.) The ground conductivity at the site of each station and along the intervening terrain is 6 mS/m. The protection to Class B stations during daytime is to the 500 μV/m

(0.5 Vm) contour using a 6 dB protection factor. The distance to the 500 μV/m groundwave contour of the 1 kW station is determined by the use of the appropriate curve in § 73.184. Since the curve is plotted for 100 mV/m at a 1 kilometer, to find the distance of the 0.5 mV/m contour of the 1 kw station, it is necessary to determine the distance to the 0.1773 m/Vm contour.

(100×0.5/282=0.1773)

Using the 6 mS/m curve, the estimated radius of the 0.5 mV/m contour is 62.5 kilometers. Subtracting this distance from the distance between the two stations leaves 197.5 kilometers. Using the same propagation curve, the signal from the 5 kW station at this distance is seen to be 0.059 mV/m. Since a protection ratio of 6 dB, desired to undesired signal, applies to stations separated by 10 kHz, the undesired signal could have had a value of up to 0.25 mV/m without causing objectionable interference. For co-channel studies, a desired to undesired signal ratio of no less than 20:1 (26 dB) is required to avoid causing objectionable interference.

(d) Where a signal traverses a path over which different conductivities exist, the distance to a particular groundwave field strength contour shall be determined by the use of the equivalent distance method. Reasonably accurate results may be expected in determining field strengths at a distance from the antenna by application of the equivalent distance method when the unattenuated field of the antenna, the various ground conductivities and the location of discontinuities are known. This method considers a wave to be propagated across a given conductivity according to the curve for a homogeneous earth of that conductivity. When the wave crosses from a region of one conductivity into a region of a second conductivity, the equivalent distance of the receiving point from the transmitter changes abruptly but the field strength does not. From a point just inside the second region the transmitter appears to be at that distance where, on the curve for a homogeneous earth of the second conductivity, the field strength equals the value that occurred just across the boundary in the first region. Thus the equivalent distance from the receiving point to the transmitter may be either greater or less than the actual distance. An imaginary transmitter is considered to exist at that equivalent distance. This technique is not intended to be used as a means of evaluating unattenuated field or ground conductivity by the analysis of measured data. The method to be employed for such determinations is set out in § 73.186.

(e) Example of the use of the equivalent distance method;

It is desired to determine the distance to the 0.5 mV/m and 0.025 mV/m contours of a station on a frequency of 1000 kHz with an inverse distance field of 100 mV/m at one kilometer being radiated over a path having a conductivity of 10 mS/m for a distance of 20 kilometers, 5 mS/m for the next 30 kilometers and 15 mS/m thereafter. Using the appropriate curve in § 73.184, Graph 12, at a distance of 20 kilometers on the curve for 10 mS/m, the field strength is found to be 2.84 mV/m. On the 5mS/m curve, the equivalent distance to this field strength is 14.92 kilometers, which is 5.08 (20−14.92 kilometers nearer to the transmitter. Continuing on the propagation curve, the distance to a field strength of 0.5 mV/m is found to be 36.11 kilomteres.

The actual length of the path travelled, however, is 41.19 (36.11+5.08) kilometers. Continuing on this propagation curve to the conductivity change at 44.92 (50.00−5.08) kilometers, the field strength is found to be 0.304 mV/m. On the 15 mS/m propagation curve, the equivalent distance to this field strength is 82.94 kilometers, which changes the effective path length by 38.02 (82.94−44.92) kilometers. Continuing on this propagation curve, the distance to a field strength of 0.025 mV/m is seen to be 224.4 kilometers. The actual length of the path travelled, however, is 191.46 (224.4+5.08−38.02) kilometers.

[28 FR 13574, Dec. 14, 1963, as amended at 44 FR 36037, June 20, 1979; 48 FR 9011, Mar. 3, 1983; 50 FR 18822, May 2, 1985; 50 FR 24522, June 11, 1985; 51 FR 9965, Mar. 24, 1986; 54 FR 39736, Sept. 28, 1989; 56 FR 64866, Dec. 12, 1991; 57 FR 43290, Sept. 18, 1992]

§ 73.184 Groundwave field strength graphs.

(a) Graphs 1 to 20 show, for each of 20 frequencies, the computed values of groundwave field strength as a function of groundwave conductivity and distance from the source of radiation. The groundwave field strength is considered to be that part of the vertical component of the electric field which has not been reflected from the ionosphere nor from the troposphere. These 20 families of curves are plotted on log-log graph paper and each is to be used for the range of frequencies shown

thereon. Computations are based on a dielectric constant of the ground (referred to air as unity) equal to 15 for land and 80 for sea water and for the ground conductivities (expressed in mS/m) given on the curves. The curves show the variation of the groundwave field strength with distance to be expected for transmission from a vertical antenna at the surface of a uniformly conducting spherical earth with the groundwave constants shown on the curves. The curves are for an antenna power of such efficiency and current distribution that the inverse distance (unattenuated) field is 100 mV/m at 1 kilometer. The curves are valid for distances that are large compared to the dimensions of the antenna for other than short vertical antennas.

(b) The inverse distance field (100 mV/m divided by the distance in kilometers) corresponds to the groundwave field intensity to be expected from an antenna with the same radiation efficiency when it is located over a perfectly conducting earth. To determine the value of the groundwave field intensity corresponding to a value of inverse distance field other than 100 mV/m at 1 kilometer, multiply the field strength as given on these graphs by the desired value of inverse distance field at 1 kilometer divided by 100; for example, to determine the groundwave field strength for a station with an inverse distance field of 2700 mV/m at 1 kilometer, simply multiply the values given on the charts by 27. The value of the inverse distance field to be used for a particular antenna depends upon the power input to the antenna, the nature of the ground in the neighborhood of the antenna, and the geometry of the antenna. For methods of calculating the interrelations between these variables and the inverse distance field, see ''The Propagation of Radio Waves Over the Surface of the Earth and in the Upper Atmosphere,'' Part II, by Mr. K.A. Norton, Proc. I.R.E., Vol. 25, September 1937, pp. 1203–1237.

NOTE: The computed values of field strength versus distance used to plot Graphs 1 to 20 are available in tabular form. For information on obtaining copies of these tabulations call or write the Consumer Affairs Office, Federal Communications Commission, Washington, DC 20554, (202) 632–7000.

(c) Provided the value of the dielectric constant is near 15, the ground conductivity curves of Graphs 1 to 20 may be compared with actual field strength measurement data to determine the appropriate values of the ground conductivity and the inverse distance field strength at 1 kilometer. This is accomplished by plotting the measured field strengths on transparent log-log graph paper similar to that used for Graphs 1 to 20 and superimposing the plotted graph over the Graph corresponding to the frequency of the station measured. The plotted graph is then shifted vertically until the plotted measurement data is best aligned with one of the conductivity curves on the Graph; the intersection of the inverse distance line on the Graph with the 1 kilometer abscissa on the plotted graph determines the inverse distance field strength at 1 kilometer. For other values of dielectric constant, the following procedure may be used to determine the dielectric constant of the ground, the ground conductivity and the inverse distance field strength at 1 kilometer. Graph 21 gives the relative values of groundwave field strength over a plane earth as a function of the numerical distance *p* and phase angle *b*. On graph paper with coordinates similar to those of Graph 21, plot the measured values of field strength as ordinates versus the corresponding distances from the antenna in kilometers as abscissae. The data should be plotted only for distances greater than one wavelength (or, when this is greater, five times the vertical height of the antenna in the case of a nondirectional antenna or 10 times the spacing between the elements of a directional antenna) and for distances less than $80f^{1/3}$MHz kilometers (i.e., 80 kilometers at 1 MHz). Then, using a light box, place the plotted graph over Graph 21 and shift the plotted graph vertically and horizontally (making sure that the vertical lines on both sheets are parallel) until the best fit with the data is obtained with one of the curves on Graph 21. When the two sheets are properly lined up, the value of the field strength corresponding to the intersection of the inverse distance line of Graph 21 with the 1 kilometer

abscissa on the data sheet is the inverse distance field strength at 1 kilometer, and the values of the numerical distance at 1 kilometer, p_1, and of b are also determined. Knowing the values of b and p_1 (the numerical distance at one kilometer), we may substitute in the following approximate values of the ground conductivity and dielectric constant.

$$x \cong \frac{\pi}{p} \cdot \left(\frac{R}{\lambda}\right)_1 \cdot \cos b \qquad \text{(Eq. 1)}$$

$(R/\lambda)_1$= Number of wavelengths in 1 kilometer,

* * * * *

f_{MHz}=frequency expressed in megahertz,

$$\varepsilon \cong \chi \tan b - 1 \qquad \text{(Eq. 3)}$$

ε=dielectric constant on the ground referred to air as unity.

First solve for χ by substituting the known values of p_1, $(R/\lambda)_1$, and cos b in equation (1). Equation (2) may then be solved for δ and equation (3) for ε. At distances greater than $80/f^{1/3}$ MHz kilometers the curves of Graph 21 do not give the correct relative values of field strength since the curvature of the earth weakens the field more rapidly than these plane earth curves would indicate. Thus, no attempt should be made to fit experimental data to these curves at the larger distances.

NOTE: For other values of dielectric constant, use can be made of the computer program which was employed by the FCC in generating the curves in Graphs 1 to 20. For information on obtaining a printout of this program, call or write the Consumer Affairs Office, Federal Communications Commission, Washington, DC 200554, (202) 632–7000.

(d) At sufficiently short distances (less than 55 kilometers at AM broadcast frequencies), such that the curvature of the earth does not introduce an additional attenuation of the waves, the curves of Graph 21 may be used to determine the groundwave field strength of transmitting and receiving antennas at the surface of the earth for any radiated power, frequency, or set of ground constants. First, trace the straight inverse distance line corresponding to the power radiated on transparent log-log graph paper similar to that of Graph 21, labelling the ordinates of the chart in terms of field strength, and the abscissae in terms of distance. Next, using the formulas given on Graph 21, calculate the value of the numerical distance, p, at 1 kilometer, and the value of b. Then superimpose the log-log graph paper over Graph 21, shifting it vertically until both inverse distance lines coincide and shifting it horizontally until the numerical distance at 1 kilometer on Graph 21 coincides with 1 kilometer on the log-log graph paper. The curve of Graph 21 corresponding to the calculated value of b is then traced on the log-log graph paper giving the field strength versus distance in kilometers.

(e) This paragraph consists of the following Graphs 1 to 20 and 21.

NOTE: The referenced graphs are not published in the CFR, nor will they be included in the Commission's automated rules system. For information on obtaining copies of the graphs call or write the Consumer Affairs Office, Federal Communications Commission, Washington, DC 20554, Telephone: (202) 632–7000.

[28 FR 13574, Dec. 14, 1963, as amended at 50 FR 18823, May 2, 1985; 51 FR 45891, Dec. 23, 1986; 52 FR 36878, Oct. 1, 1987; 56 FR 64866, Dec. 12, 1991; 57 FR 43290, Sept. 18, 1992]

§ 73.185 Computation of interfering signal.

(a) Measured values of radiation are not to be used in calculating overlap, interference, and coverage.

(1) In the case of an antenna which is intended to be non-directional in the horizontal plane, an ideal non-directional radiation pattern shall be used in determining interference, overlap, and coverage, even if the antenna is not actually non-directional.

(2) In the case of an antenna which is directional in the horizontal plane, the radiation which shall be used in determining interference, overlap, and coverage is that calculated pursuant to § 73.150 or § 73.152, depending on whether the station has a standard or modified standard pattern.

(3) In the case of calculation of interference or overlap to (not from) a foreign station, the notified radiation

shall be used, even if the notified radiation differs from that in paragraphs (a) (1) or (2) of this section.

(b) For skywave signals from stations operating on all channels, interference shall be determined from the appropriate formulas and Figure 6a contained in § 73.190.

(c) The formulas in § 73.190(d) depicted in Figure 6a of § 73.190, entitled ''Angles of Departure versus Transmission Range'' are to be used in determining the angles in the vertical pattern of the antenna of an interfering station to be considered as pertinent to transmission by one reflection. To provide for variation in the pertinent vertical angle due to variations of ionosphere height and ionosphere scattering, the curves 2 and 3 indicate the upper and lower angles within which the radiated field is to be considered. The maximum value of field strength occurring between these angles shall be used to determine the multiplying factor to apply to the 10 percent skywave field intensity value determined from Formula 2 in § 73.190. The multiplying factor is found by dividing the maximum radiation between the pertinent angles by 100 mV/m.

(d) Example of the use of skywave curves and formulas: Assume a proposed new Class B station from which interference may be expected is located at a distance of 724 kilometers from a licensed Class B station. The proposed station specifies geographic coordinates of 40°00′00″N and 100° 00′00″W and the station to be protected is located at an azimuth of 45° true at geographic coordinates of 44°26′05″N and 93°32′54″W. The critical angles of radiation as determined from Figure 6a of § 73.190 for use with Class B stations are 9.6° and 16.6°. If the vertical pattern of the antenna of the proposed station in the direction of the existing station is such that, between the angles of 9.6° and 16.6° above the horizon the maximum radiation is 260 mV/m at one kilometer, the value of the 50% field, as derived from Formula 1 of § 73.190, is 0.06217 mV/m at the location of the existing station. To obtain the value of the 10% field, the 50% value must be adjusted by a factor derived from Formula 2 of § 73.190. The value in this case is 8.42 dB. Thus, the 10% field is 0.1616 mV/m. Using this in conjunction with the co-channel protection ratio of 26 dB, the resultant nighttime limit from the proposed station to the licensed station is 3.232 mV/m.

(e) In the case of an antenna which is non-directional in the horizontal plane, the vertical distribution of the relative fields should be computed pursuant to § 73.160. In the case of an antenna which is directional in the horizontal plane, the vertical pattern in the great circle direction toward the point of reception in question must first be calculated. In cases where the radiation in the vertical plane, at the pertinent azimuth, contains a large lobe at a higher angle than the pertinent angle for one reflection, the method of calculating interference will not be restricted to that just described; each such case will be considered on the basis of the best knowledge available.

(f) In performing calculations to determine permissible radiation from stations operating presunrise or postsunset in accordance with § 73.99, calculated diurnal factors will be multiplied by the values of skywave field strength for such stations obtained from Formula 1 or 2 of § 73.190.

(1) The diurnal factor is determined using the time of day at the mid-point of path between the site of the interfering station and the point at which interference is being calculated. Diurnal factors are computed using the formula $D_f = a + bF + cF^2 + dF^3$ where:

D_f represents the diurnal factor,
F is the frequency in MHz,
a,b,c, and d are constants obtained from the tables in paragraph (k)(2)

A diurnal factor greater than one will not be used in calculations and interpolation is to be used between calculated values where necessary. For reference purposes, curves for presunrise and postsunset diurnal factors are contained in Figures 13 and 14 of § 73.190.

(2) Constants used in calculating diurnal factors for the presunrise and postsunset periods are contained in paragraphs (f)(2) (i) and (ii) of this section respectively. The columns labeled T_{mp} represent the number of hours before and after sunrise and sunset at the path midpoint.

(i) PRESUNRISE CONSTANTS

T_{mp}	a	b	c	d
−2	1.3084	.0083	−.0155	.0144
−1.75	1.3165	−.4919	.6011	−.1884
−1.5	1.0079	.0296	.1488	−.0452
−1.25	.7773	.3751	−.1911	.0736
−1	.6230	.1547	.2654	−.1006
−.75	.3718	.1178	.3632	−.1172
−.5	.2151	.0737	.4167	−.1413
−.25	.2027	−.2560	.7269	−.2577
SR	.1504	−.2325	.5374	−.1729
+.25	.1057	−.2092	.4148	−.1239
+5.	.0642	−.1295	.2583	−.0699
+.75	.0446	−.1002	.1754	−.0405
+1	.0148	.0135	.0462	.0010

(ii) POSTSUNSET CONSTANTS

T_{mp}	a	b	c	d
1.75	.9495	−.0187	.0720	−.0290
1.5	.7196	.3583	−.2280	.0611
1.25	.6756	.1518	.0279	−.0163
1.0	.5486	.1401	.0952	−.0288
.75	.3003	.4050	−.0961	.0256
.5	.1186	.4281	−.0799	.0197
.25	.0382	.3706	−.0673	.0171
SS	.0002	.3024	−.0540	.0086
−.25	.0278	.0458	.1473	−.0486
−.5	.0203	.0132	.1166	−.0340
−.75	.0152	−.0002	.0786	−.0185
−1.0	−.0043	.0452	−.0040	.0103
−1.25	.0010	.0135	.0103	.0047
−1.5	.0018	.0052	.0069	.0042
−1.75	−.0012	.0122	−.0076	.0076
−2.0	−.0024	.0141	−.0141	.0091

EDITORIAL NOTE: At 56 FR 64867, Dec. 12, 1991, § 73.185 was amended by redesignating paragraphs (d), (e), (h), and (k) as (c), (d), (e), and (f), resulting in two consecutive paragraph (f)'s. These paragraphs will be correctly designated by a Federal Communication Commission document published in the FEDERAL REGISTER at a later date.

(f) For stations operating on regional and local channels, interfering skywave field intensities shall be determined in accordance with the procedure specified in (d) of this section and illustrated in (e) of this section, except that Figure 2 of § 73.190 is used in place of Figure 1a and 1b and the formulas of § 73.190. In using Figure 2 of § 73.190, one additional parameter must be considered, i.e., the variation of received field with the latitude of the path.

(g) Figure 2 of § 73.190, ''10 percent Skywave Signal Range Chart,'' shows the signal as a function of the latitude of the transmission path, which is defined as the geographic latitude of the midpoint between the transmitter and receiver. When using Figure 2 of § 73.190, latitude 35° should be used in case the mid-point of the path lies below 35° North and latitude 50° should be used in case the mid-point of the path lies above 50° North.

[30 FR 13783, Oct. 29, 1965, as amended at 33 FR 15420, Oct. 17, 1968; 46 FR 11995, Feb. 12, 1981; 48 FR 42958, Sept. 20, 1983; 50 FR 18843, May 2, 1985; 56 FR 64867, Dec. 12, 1991]

§ 73.186 Establishment of effective field at one kilometer.

(a) Section 73.189 provides that certain minimum field strengths are acceptable in lieu of the required minimum physical heights of the antennas proper. Also, in other situations, it may be necessary to determine the effective field. The following requirements shall govern the taking and submission of data on the field strength produced:

(1) Beginning as near to the antenna as possible without including the induction field and to provide for the fact that a broadcast antenna is not a point source of radiation (not less than one wave length or 5 times the vertical height in the case of a single element, i.e., nondirectional antenna or 10 times the spacing between the elements of a directional antenna), measurements shall be made on eight or more radials, at intervals of approximately 0.2 kilometer up to 3 kilometers (1.87 miles) from the antenna, at intervals of approximately 1 kilometer from 3 kilometers (1.87 miles) to 10 kilometers (6.2 miles) from the antenna, at intervals of approximately 3 kilometers from 10 kilometers (6.2 miles) to 25 or 34 kilometers (15.5 miles or 20 miles) from the antenna, and a few additional measurements if needed at greater distances from the antenna. Where the antenna is rurally located and unobstructed measurements can be made, there shall be as many as 18 measurements on each radial. However, where the antenna is located in a city where unobstructed measurements are difficult to make, measurements shall be made on each radial at as many unobstructed locations as possible, even though the intervals are considerably less than stated above, particularly within 3 kilometers of the antenna. In cases where it is not possible to obtain accurate measurements at the closer distances (even out to 8 or 10 kilometers due to

the character of the intervening terrain), the measurements at greater distances should be made at closer intervals. (It is suggested that ''wave tilt'' measurements may be made to determine and compare locations for taking field strength measurements, particularly to determine that there are no abrupt changes in ground conductivity or that reflected waves are not causing abnormal strengths.

(2) The data required by paragraph (a)(1) of this section should be plotted for each radial in accordance with either of the two methods set forth below:

(i) Using log-log coordinate paper, plot field strengths as ordinate and distance as abscissa.

(ii) Using semi-log coordinate paper, plot field strength times distance as ordinate on the log scale and distance as abscissa on the linear scale.

(3) However, regardless of which of the methods in paragraph (a)(2) of this section is employed, the proper curve to be drawn through the points plotted shall be determined by comparison with the curves in § 73.184 as follows: Place the sheet on which the actual points have been plotted over the appropriate Graph in § 73.184, hold to the light if necessary and adjust until the curve most closely matching the points is found. This curve should then be drawn on the sheet on which the points were plotted, together with the inverse distance curve corresponding to that curve. The field at 1 kilometer for the radial concerned shall be the ordinate on the inverse distance curve at 1 kilometer.

(4) When all radials have been analyzed in accordance with paragraph (a)(3) of this section, a curve shall be plotted on polar coordinate paper from the fields obtained, which gives the inverse distance field pattern at 1 kilometer. The radius of a circle, the area of which is equal to the area bounded by this pattern, is the effective field. (See § 73.14.)

(5) The antenna power of the station shall be maintained at the authorized level during all field measurements. The power determination will be made using the direct method as described in § 73.51(a) with instruments of acceptable accuracy specified in § 73.1215.

(b) Complete data taken in conjunction with the field strength measurements shall be submitted to the Commission in affidavit form including the following:

(1) Tabulation by number of each point of measurement to agree with the map required in paragraph (b)(2) of this section, the date and time of each measurement, the field strength (E), the distance from the antenna (D) and the product of the field strength and distance (ED) (if data for each radial are plotted on semilogarithmic paper, see above) for each point of measurement.

(2) Map showing each point of measurement numbered to agree with tabulation required above.

(3) Description of method used to take field strength measurements.

(4) The family of theoretical curves used in determining the curve for each radial properly identified by conductivity and dielectric constants.

(5) The curves drawn for each radial and the field strength pattern.

(6) The antenna resistance at the operating frequency.

(7) Antenna current or currents maintained during field strength measurements.

[28 FR 13574, Dec. 14, 1963, as amended at 41 FR 44178, Oct. 7, 1976; 46 FR 11995, Feb. 12, 1981; 49 FR 49851, Dec. 24, 1984; 50 FR 18843, May 2, 1985; 50 FR 47055, Nov. 14, 1985; 51 FR 2707, Jan. 21, 1986; 52 FR 10570, Apr. 2, 1987]

§ 73.187 Limitation on daytime radiation.

(a)(1) Except as otherwise provided in paragraphs (a)(2) and (3) of this section, no authorization will be granted for a Class B or Class D station on a frequency specified in § 73.25 if the proposed operation would radiate during the period of critical hours (the two hours after local sunrise and the two hours before local sunset) toward any point on the 0.1 mV/m contour of a co-channel U.S. Class A station, at or below the pertinent vertical angle determined from Curve 2 of Figure 6a of § 73.190, values in excess of those obtained as provided in paragraph (b) of this section.

(2) The limitation set forth in paragraph (a)(1) of this section shall not apply in the following cases:

(i) Any Class B or Class D operation authorized before November 30, 1959; or

(ii) For Class B and Class D stations authorized before November 30, 1959, subsequent changes of facilities which do not involve a change in frequency, an increase in radiation toward any point on the 0.1 mV/m contour of a co-channel U.S. Class A station, or the move of transmitter site materially closer to the 0.1 mV/m contour of such Class A station.

(3) A Class B or Class D station authorized before November 30, 1959, and subsequently authorized to increase daytime radiation in any direction toward the 0.1 mV/m contour of a co-channel U.S. Class A station (without a change in frequency or a move of transmitter site materially closer to such contour), may not, during the two hours after local sunrise or the two hours before local sunset, radiate in such directions a value exceeding the higher of:

(i) The value radiated in such directions with facilities last authorized before November 30, 1959, or

(ii) The limitation specified in paragraph (a)(1) of this section.

(b) To obtain the maximum permissible radiation for a Class B or Class D station on a given frequency from 640 through 990 kHz, multiply the radiation value obtained for the given distance and azimuth from the 500 kHz chart (Figure 9 of § 73.190) by the appropriate interpolation factor shown in the K_{500} column of paragraph (c) of this section; and multiply the radiation value obtained for the given distance and azimuth from the 1000 kHz chart (Figure 10 of § 73.190) by the appropriate interpolation factor shown in the K_{1000} column of paragraph (c) of this section. Add the two products thus obtained; the result is the maximum radiation value applicable to the Class B or Class D station in the pertinent directions. For frequencies from 1010 to 1580 kHz, obtain in a similar manner the proper radiation values from the 1000 and 1600 kHz charts (Figures 10 and 11 of § 73.190), multiply each of these values by the appropriate interpolation factors in the K'_{1000} and K'_{1600} columns in paragraph (c) of this section, and add the products.

(c) *Interpolation factors.* (1) Frequencies below 1000 kHz.

fkHz	K_{500}	K_{1000}
640	0.720	0.280
650	0.700	0.300
660	0.680	0.320
670	0.660	0.340
680	0.640	0.360
690	0.620	0.380
700	0.600	0.400
710	0.580	0.420
720	0.560	0.440
730	0.540	0.460
740	0.520	0.480
750	0.500	0.500
760	0.480	0.520
770	0.460	0.540
780	0.440	0.560
800	0.400	0.600
810	0.380	0.620
820	0.360	0.640
830	0.340	0.660
840	0.320	0.680
850	0.300	0.700
860	0.280	0.720
870	0.260	0.740
880	0.240	0.760
890	0.220	0.780
900	0.200	0.800
940	0.120	0.880
990	0.020	0.980

(2) Frequencies above 1000 kHz.

f′kHz	K'_{1000}	K'_{1600}
1010	0.983	0.017
1020	0.967	0.033
1030	0.950	0.050
1040	0.933	0.067
1050	0.917	0.083
1060	0.900	0.100
1070	0.883	0.117
1080	0.867	0.133
1090	0.850	0.150
1100	0.833	0.167
1110	0.817	0.183
1120	0.800	0.200
1130	0.783	0.217
1140	0.767	0.233
1160	0.733	0.267
1170	0.717	0.283
1180	0.700	0.300
1190	0.683	0.317
1200	0.667	0.333
1210	0.650	0.350
1220	0.633	0.367
1500	0.167	0.833
1510	0.150	0.850
1520	0.133	0.867
1530	0.117	0.883
1540	0.100	0.900
1550	0.083	0.917
1560	0.067	0.933
1570	0.050	0.950
1580	0.033	0.967

[28 FR 13574, Dec. 14, 1963, as amended at 49 FR 43962, Nov. 1, 1984; 56 FR 64868, Dec. 12, 1991]

§ 73.189 Minimum antenna heights or field strength requirements.

(a) Section 73.45 requires that all applicants for new, additional, or different broadcast facilities and all licensees requesting authority to move 0the transmitter of an existing station, shall specify a radiating system, the efficiency of which complies with the requirements of good engineering practice for the class and power of the station.

(b) The specifications deemed necessary to meet the requirements of good engineering practice at the present state of the art are set out in detail below.

(1) The licensee of a AM broadcast station requesting a change in power, time of operation, frequency, or transmitter location must also request authority to install a new antenna system or to make changes in the existing antenna system which will meet the minimum height requirements, or submit evidence that the present antenna system meets the minimum requirements with respect to field strength, before favorable consideration will be given thereto. (See § 73.186.) In the event it is proposed to make substantial changes in an existing antenna system, the changes shall be such as to meet the minimum height requirements or will be permitted subject to the submission of field strength measurements showing that it meets the minimum requirements with respect to effective field strength.

(2) These minimum actual physical vertical heights of antennas permitted to be installed are shown by curves A, B, and C of Figure 7 of § 73.190 as follows:

(i) Class C stations, and stations in Alaska, Hawaii, Puerto Rico and the U.S. Virgin Islands on 1230, 1240, 1340, 1400, 1450 and 1490 kHz that were formerly Class C and were redesignated as Class B pursuant to § 73.26(b), 45 meters or a minimum effective field strength of 241 mV/m for 1 kW (121 mV/m for 0.25 kW). (This height applies to a Class C station on a local channel only. Curve A shall apply to any Class C stations in the 48 conterminous States that are assigned to Regional channels.)

(ii) Class A (Alaska), Class B and Class D stations other than those covered in § 73.189(b)(2)(i), a minimum effective field strength of 282 mV/m for 1 kW.

(iii) Class A stations, a minimum effective field strength of 362 mV/m for 1 kW.

(3) The heights given on the graph for the antenna apply regardless of whether the antenna is located on the ground or on a building. Except for the reduction of shadows, locating the antenna on a building does not necessarily increase the efficiency and where the height of the building is in the order of a quarter wave the efficiency may be materially reduced.

(4) At the present development of the art, it is considered that where a vertical radiator is employed with its base on the ground, the ground system should consist of buried radial wires at least one-fourth wave length long. There should be as many of these radials evenly spaced as practicable and in no event less than 90. (120 radials of 0.35 to 0.4 of a wave length in length and spaced 3° is considered an excellent ground system and in case of high base voltage, a base screen of suitable dimensions should be employed.)

(5) In case it is contended that the required antenna efficiency can be obtained with an antenna of height or ground system less than the minimum specified, a complete field strength survey must be supplied to the Commission showing that the field strength at a mile without absorption fulfills the minimum requirements. (See § 73.186.) This field survey must be made by a qualified engineer using equipment of acceptable accuracy.

(6) The main element or elements of a directional antenna system shall meet the above minimum requirements with respect to height or effective field strength. No directional antenna system will be approved which is so designed that the effective field of the array is less than the minimum prescribed for the class of station concerned, or in case of a Class A station less than 90 percent of the ground wave field which would be obtained from a perfect antenna of the height specified by Figure 7 of § 73.190 for operation on frequencies below 1000 kHz, and in the case of a Class B or Class D station less than 90 percent of the ground wave

field which would be obtained from a perfect antenna of the height specified by Figure 7 of § 73.190 for operation on frequencies below 750 kHz.

[28 FR 13574, Dec. 14, 1963, as amended at 31 FR 8069, June 8, 1966; 33 FR 15420, Oct. 17, 1968; 44 FR 36038, June 20, 1979; 50 FR 18844, May 2, 1985; 51 FR 2707, Jan. 21, 1986; 51 FR 4753, Feb. 7, 1986; 52 FR 10570, Apr. 2, 1987; 56 FR 64868, Dec. 12, 1991]

§ 73.190 Engineering charts and related formulas.

(a) This section consists of the following Figures: 2, r3, 5, 6a, 7, 8, 9, 10, 11, 12, and 13. Additionally, formulas that are directly related to graphs are included.

(b) Formula 1 is used for calculation of 50% skywave field strength values.

FORMULA 1. Skywave field strength, 50% of the time (at SS+6):

The skywave field strength, $F_c(50)$, for a characteristic field strength of 100 mV/m at 1 km is given by:

$$F_c(50) = (97.5 - 20\log D) - \left(2\pi + 4.95\tan^2\phi_M\right)\sqrt{\left(\frac{D}{1000}\right)} \quad dB(\mu V/m) \qquad \text{(Eq. 1)}$$

The slant distance, D, is given by:

$$D = \sqrt{40{,}000 + d^2} \quad km \qquad \text{(Eq. 2)}$$

The geomagnetic latitude of the midpoint of the path, Φ_M, is given by:

Φ_M = arcsin[sin a_M sin 78.5°

+ cos a_M cos 78.5° cos(69 + b_M)]

degrees (Eq. 3)

The short great-circle path distance, d, is given by:

$$d = 111.18 d^\circ \; km \qquad \text{(Eq. 4)}$$

Where:

$d°$ = arccos[sin a_T sin a_R

+ cos a_T cos a_R cos(b_R − b_T)]

degrees (Eq.5)

Where:

a_T is the geographic latitude of the transmitting terminal (degrees)

a_R is the geographic latitude of the receiving terminal (degrees)

b_T is the geographic longitude of the transmitting terminal (degrees)

b_R is the geographic longitude of the receiving terminal (degrees)

a_M is the geographic latitude of the midpoint of the great-circle path (degrees) and is given by:

b_M is the geographic longitude of the midpoint of the great-circle path (degrees) and is given by:

$$a_M = 90 - \arccos\left[\sin a_R \cos\left(\frac{d^\circ}{2}\right) + \cos a_R \sin\left(\frac{d^\circ}{2}\right)\left(\frac{\sin a_T - \sin a_R \cos d^\circ}{\cos a_R \sin d^\circ}\right)\right] \qquad \text{(Eq. 6)}$$

$$b_M = b_R + k\left[\arccos\left(\frac{\cos\left(\frac{d^\circ}{2}\right) - \sin a_R \sin a_M}{\cos a_R \cos a_M}\right)\right] \qquad \text{(Eq. 7)}$$

Note (1): If | F_M| is greater than 60 degrees, equation (1) is evaluated for | F_M| = 60 degrees.

Note (2): North and east are considered positive; south and west negative.

Note (3): In equation (7), $k = -1$ for west to east paths (i.e., $b_R > b_T$), otherwise $k = 1$.

(c) Formula 2 is used for calculation of 10% skywave field strength values.

FORMULA 2. Skywave field strength, 10% of the time (at SS+6):

The skywave field strength, $F_c(10)$, is given by:

$F_c(10) = F_c(50) + \Delta \quad dB(\mu V/m)$

Where:

$\Delta = 6$ when $|F_M| < 40$

$\Delta = 0.2\,|F_M| - 2$ when $40 \leq |F_M| \leq 60$

$\Delta = 10$ when $|F_M| > 60$

(d) Figure 6a depicts angles of departure versus transmission range. These angles may also be computed using the following formulas:

$$\theta^\circ = \tan^{-1}\left(k_n \cot\frac{d}{444.54}\right) - \frac{d}{444.54}$$

Where:

d=distance in kilometers
n=1 for 50% field strength values
n=2 or 3 for 10% field strength values
and where
K_1=0.00752
K_2=0.00938
K_3=0.00565

NOTE: Computations using these formulas should not be carried beyond 0.1 degree.

(e) In the event of disagreement between computed values using the formulas shown above and values obtained directly from the figures, the computed values will control.

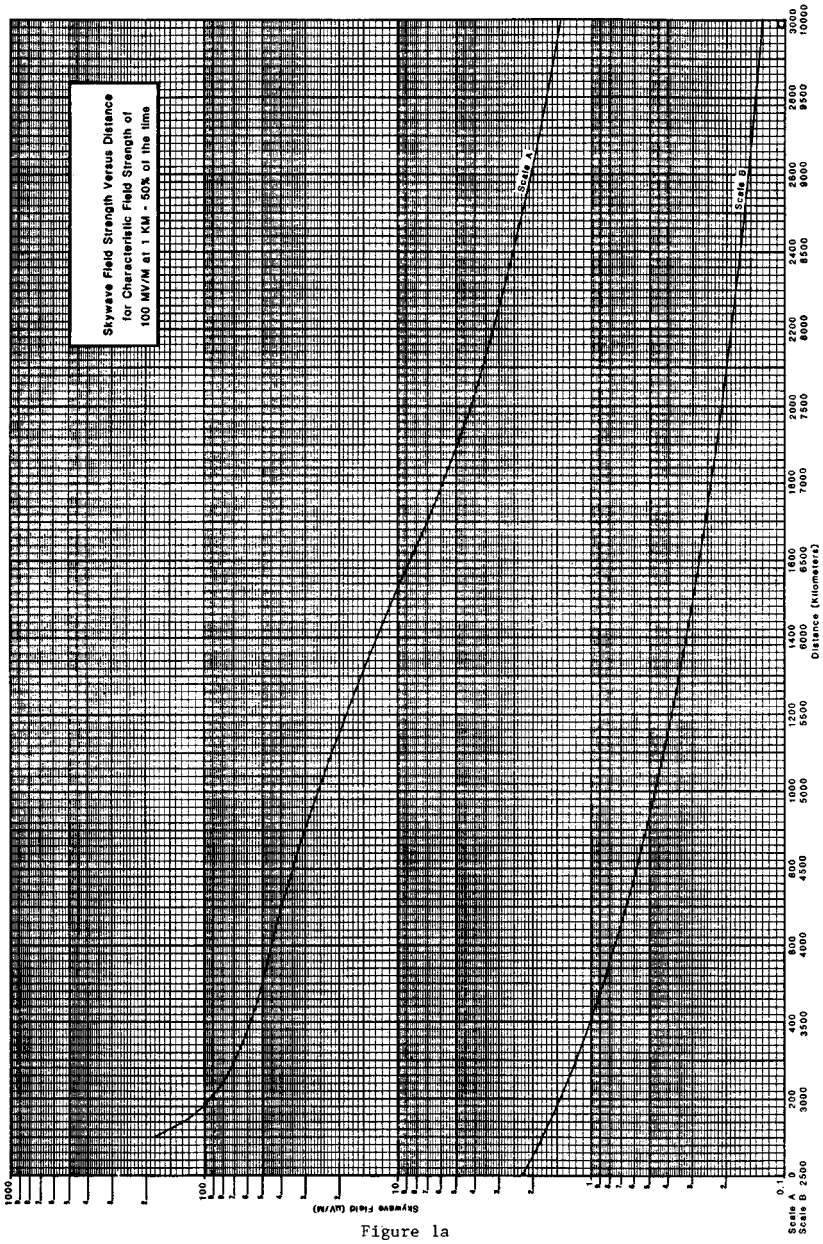

Skywave Field Strength Versus Distance
for Characteristic Field Strength of
100 MV/M at 1 KM - 50% of the time
Scale A
Scale B
Distance (kilometers)
Skywave Field (uV/M)
1000
100
10
1
0.1
Scale A 0 200 400 600 800 1000 1200 1400 1600 1800 2000 2200 2400 2600 2800 3000
Scale B 2500 3000 3500 4000 4500 5000 5500 6000 6500 7000 7500 8000 8500 9000 9500 10000

Figure 1a

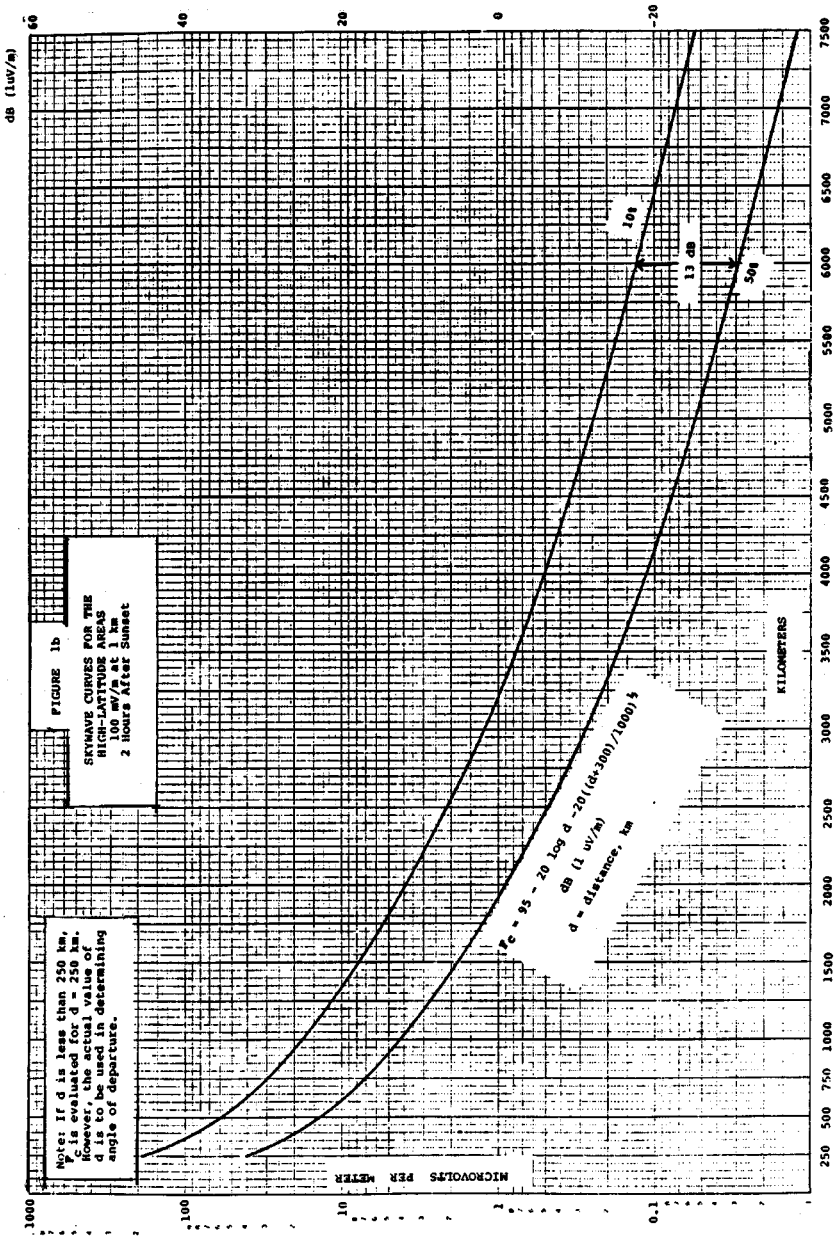
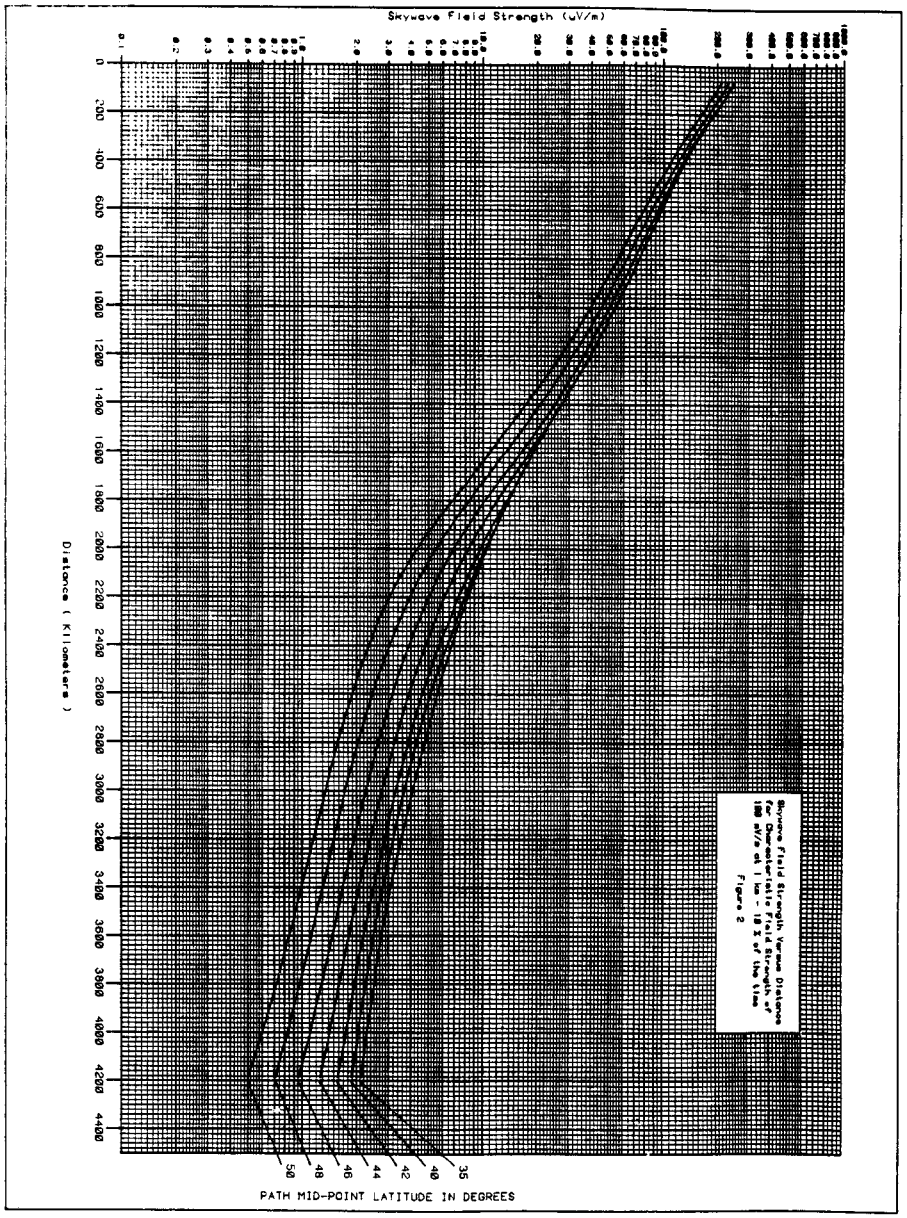


FIGURE 1b
SKYWAVE CURVES FOR THE HIGH-LATITUDE AREAS 100 mV/m at 1 km 2 Hours After Sunset
Note: If d is less than 250 km, Fc is evaluated for d = 250 km. However, the actual value of d is to be used in determining angle of departure.
Fc = 95 - 20 log d -20((d+300)/1000)½
dB (1 uV/m)
d = distance, km
10%
50%
13 dB
KILOMETERS
MICROVOLTS PER METER
dB (1uV/m)
60
40
20
0
-20
250
500
750
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
7500
1000
100
10
1
0.1


Skywave Field Strength (uV/m)
Distance (Kilometers)
PATH MID-POINT LATITUDE IN DEGREES
35
40
42
44
46
48
50
Skywave Field Strength Versus Distance
for Characteristic Field Strength of
100 mV/m at 1 km - 10 % of the time
Figure 2

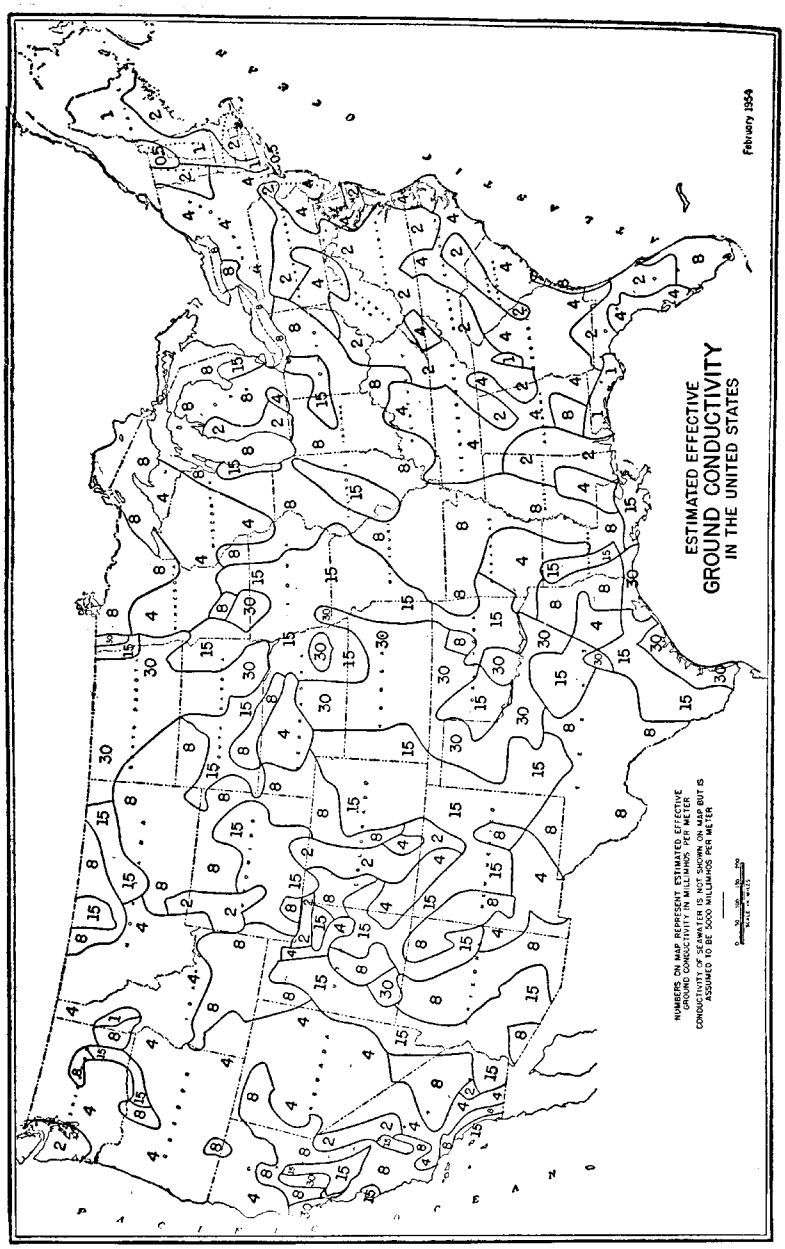

ESTIMATED EFFECTIVE
GROUND CONDUCTIVITY
IN THE UNITED STATES
February 1954
NUMBERS ON MAP REPRESENT ESTIMATED EFFECTIVE GROUND CONDUCTIVITY IN MILLIMHOS PER METER
CONDUCTIVITY OF SEAWATER IS NOT SHOWN ON MAP BUT IS ASSUMED TO BE 5000 MILLIMHOS PER METER

FIGURE R3.

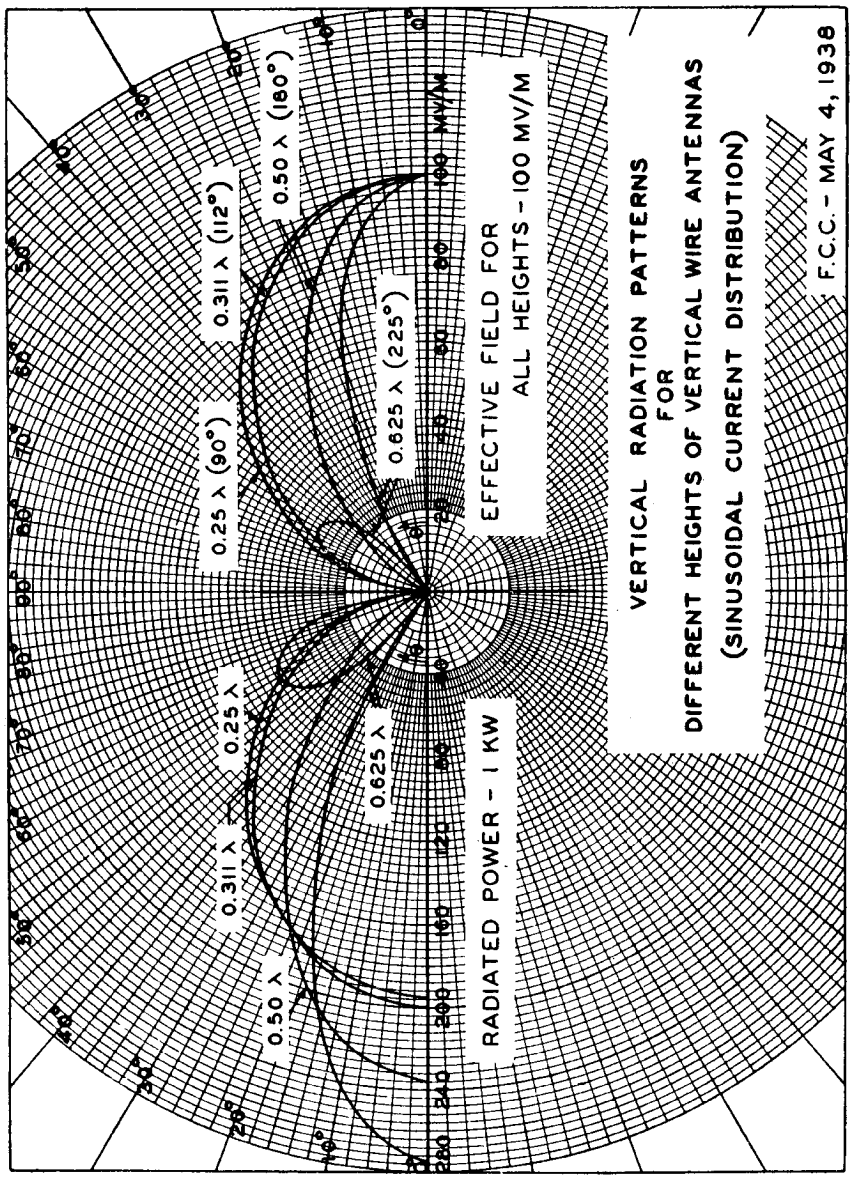
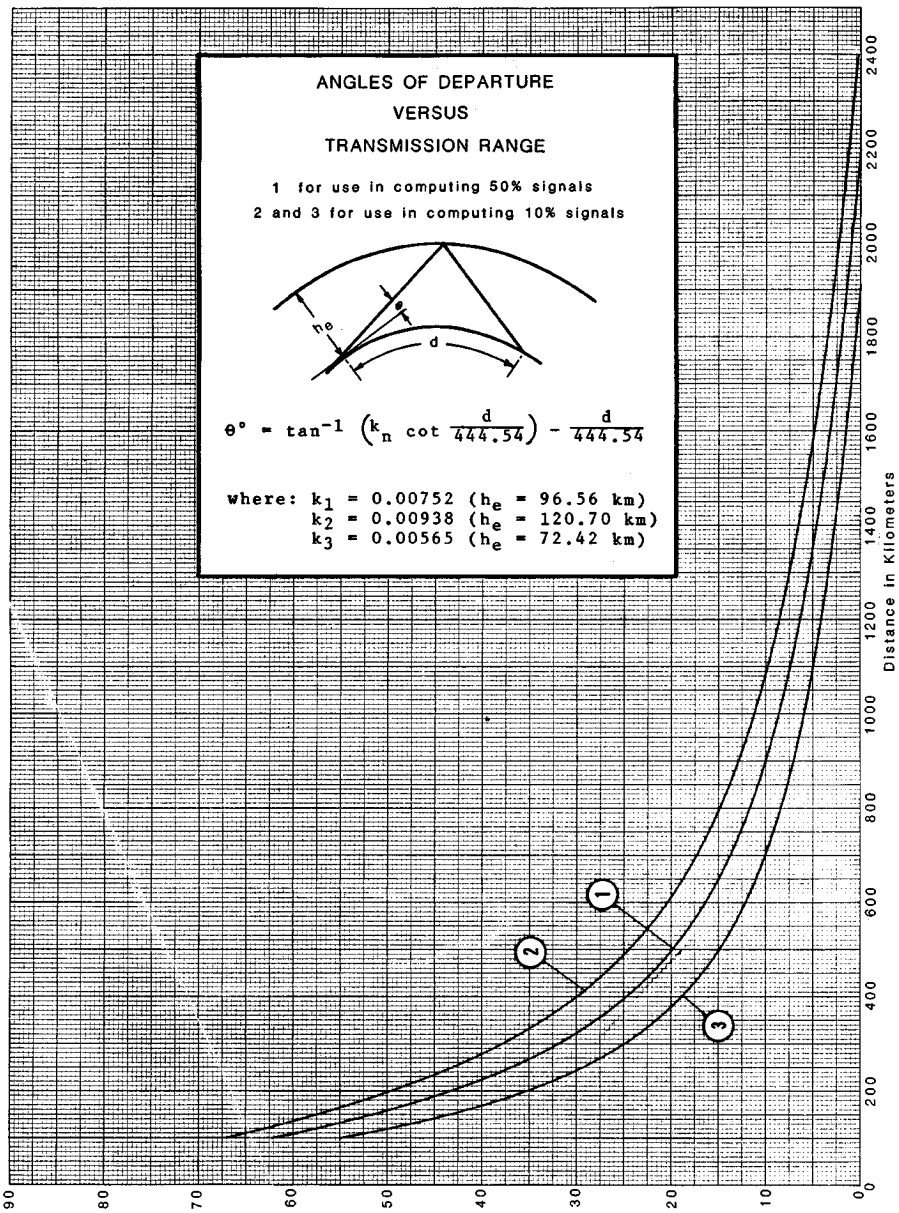

VERTICAL RADIATION PATTERNS
FOR
DIFFERENT HEIGHTS OF VERTICAL WIRE ANTENNAS
(SINUSOIDAL CURRENT DISTRIBUTION)
F.C.C. - MAY 4, 1938
EFFECTIVE FIELD FOR
ALL HEIGHTS - 100 MV/M
RADIATED POWER - 1 KW
0.25 λ (90°)
0.311 λ (112°)
0.50 λ (180°)
0.625 λ (225°)
0.311 λ
0.25 λ
0.625 λ
0.50 λ
100 MV/M
90
80
70
60
50
40
30
20
10
0°
10°
20°
30°
40°
50°
60°
70°
80°
90°
100°
110°
120°
130°
140°
150°
160°
170°
180°
190°
200°
210°
220°
230°
240°
250°
260°
270°

Figure 5



FCC §73.190 FIGURE 6a Corr. 11/86

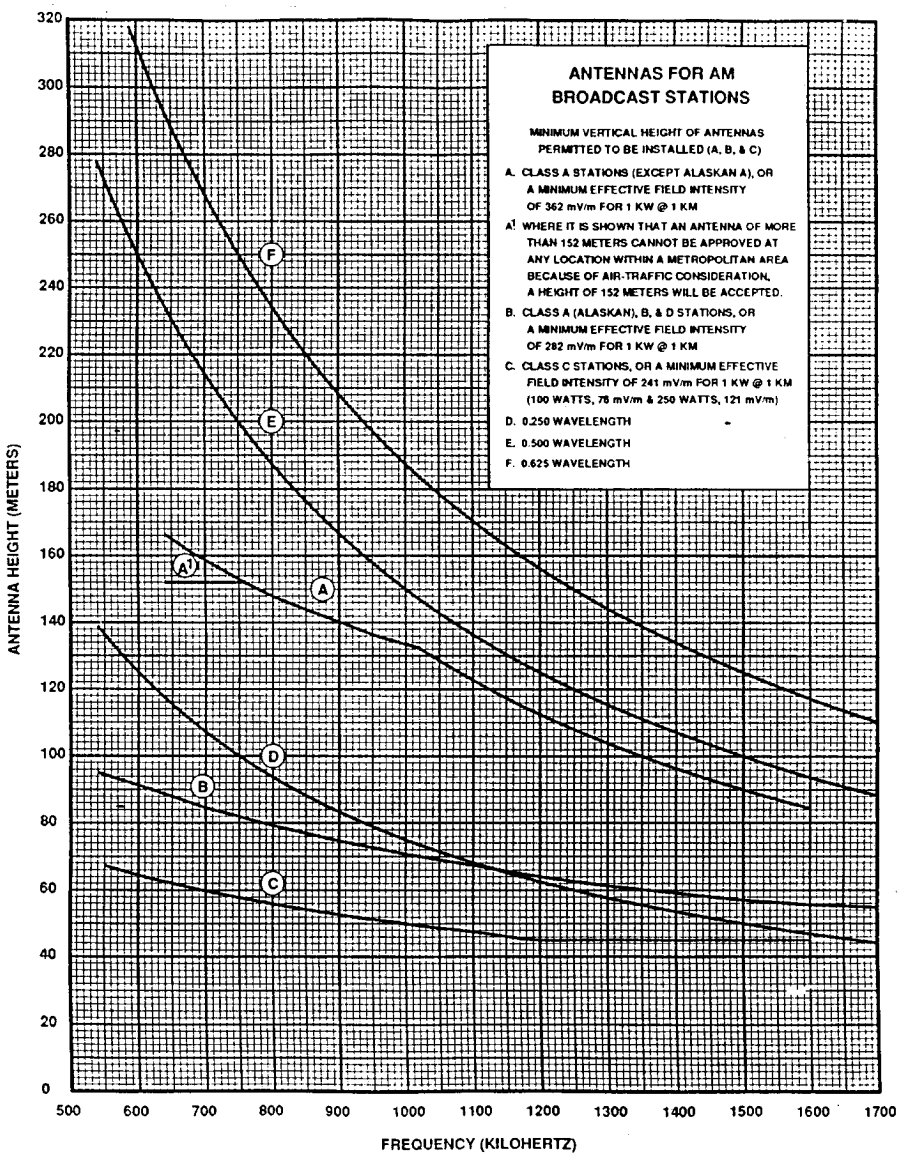

ANTENNAS FOR AM BROADCAST STATIONS
MINIMUM VERTICAL HEIGHT OF ANTENNAS PERMITTED TO BE INSTALLED (A, B, & C)
A. CLASS A STATIONS (EXCEPT ALASKAN A), OR A MINIMUM EFFECTIVE FIELD INTENSITY OF 362 mV/m FOR 1 KW @ 1 KM
A1 WHERE IT IS SHOWN THAT AN ANTENNA OF MORE THAN 152 METERS CANNOT BE APPROVED AT ANY LOCATION WITHIN A METROPOLITAN AREA BECAUSE OF AIR-TRAFFIC CONSIDERATION, A HEIGHT OF 152 METERS WILL BE ACCEPTED.
B. CLASS A (ALASKAN), B, & D STATIONS, OR A MINIMUM EFFECTIVE FIELD INTENSITY OF 282 mV/m FOR 1 KW @ 1 KM
C. CLASS C STATIONS, OR A MINIMUM EFFECTIVE FIELD INTENSITY OF 241 mV/m FOR 1 KW @ 1 KM (100 WATTS, 76 mV/m & 250 WATTS, 121 mV/m)
D. 0.250 WAVELENGTH
E. 0.500 WAVELENGTH
F. 0.625 WAVELENGTH
ANTENNA HEIGHT (METERS)
FREQUENCY (KILOHERTZ)
0
20
40
60
80
100
120
140
160
180
200
220
240
260
280
300
320
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
F
E
A1
A
D
B
C

Figure 7

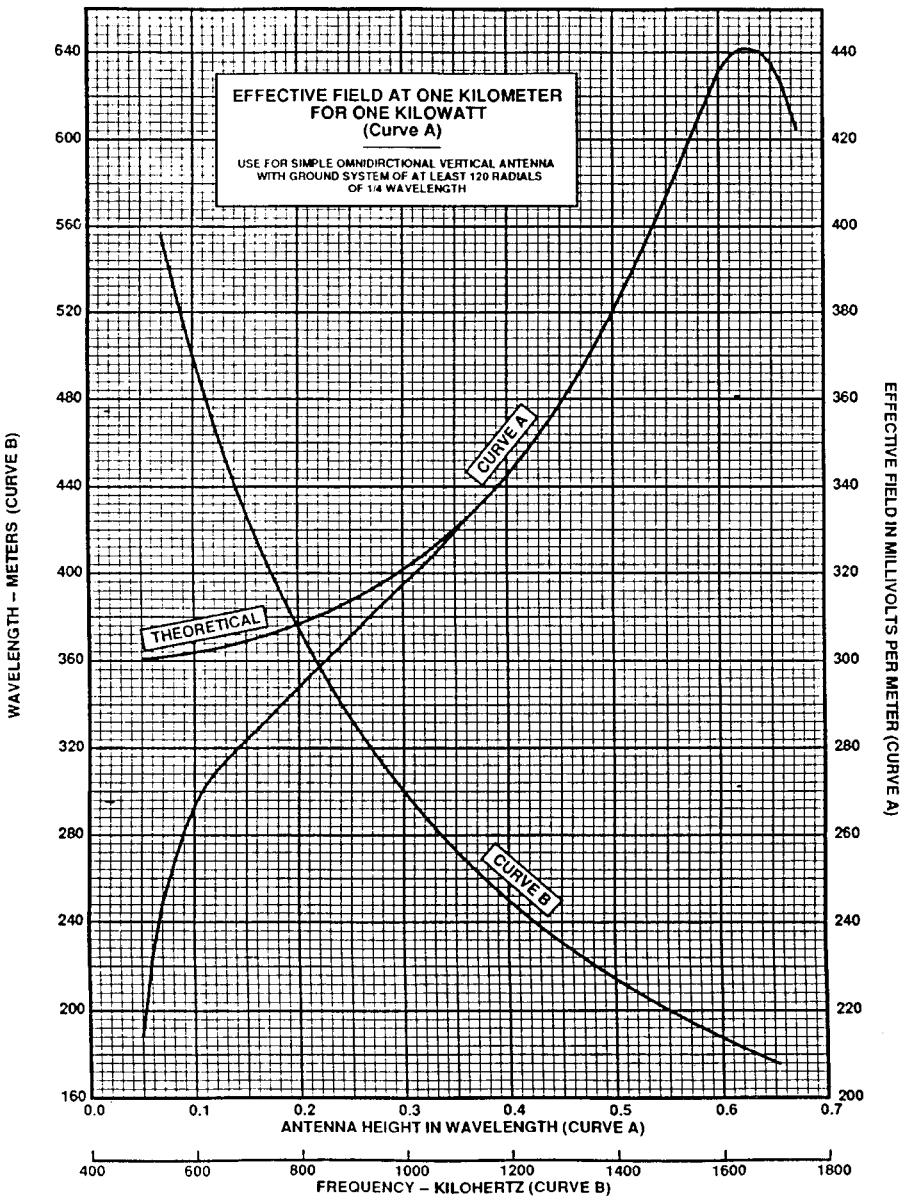

EFFECTIVE FIELD AT ONE KILOMETER
FOR ONE KILOWATT
(Curve A)
USE FOR SIMPLE OMNIDIRCTIONAL VERTICAL ANTENNA
WITH GROUND SYSTEM OF AT LEAST 120 RADIALS
OF 1/4 WAVELENGTH
THEORETICAL
CURVE A
CURVE B
WAVELENGTH – METERS (CURVE B)
EFFECTIVE FIELD IN MILLIVOLTS PER METER (CURVE A)
640
600
560
520
480
440
400
360
320
280
240
200
160
440
420
400
380
360
340
320
300
280
260
240
220
200
0.0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
ANTENNA HEIGHT IN WAVELENGTH (CURVE A)
400
600
800
1000
1200
1400
1600
1800
FREQUENCY – KILOHERTZ (CURVE B)

Figure 8

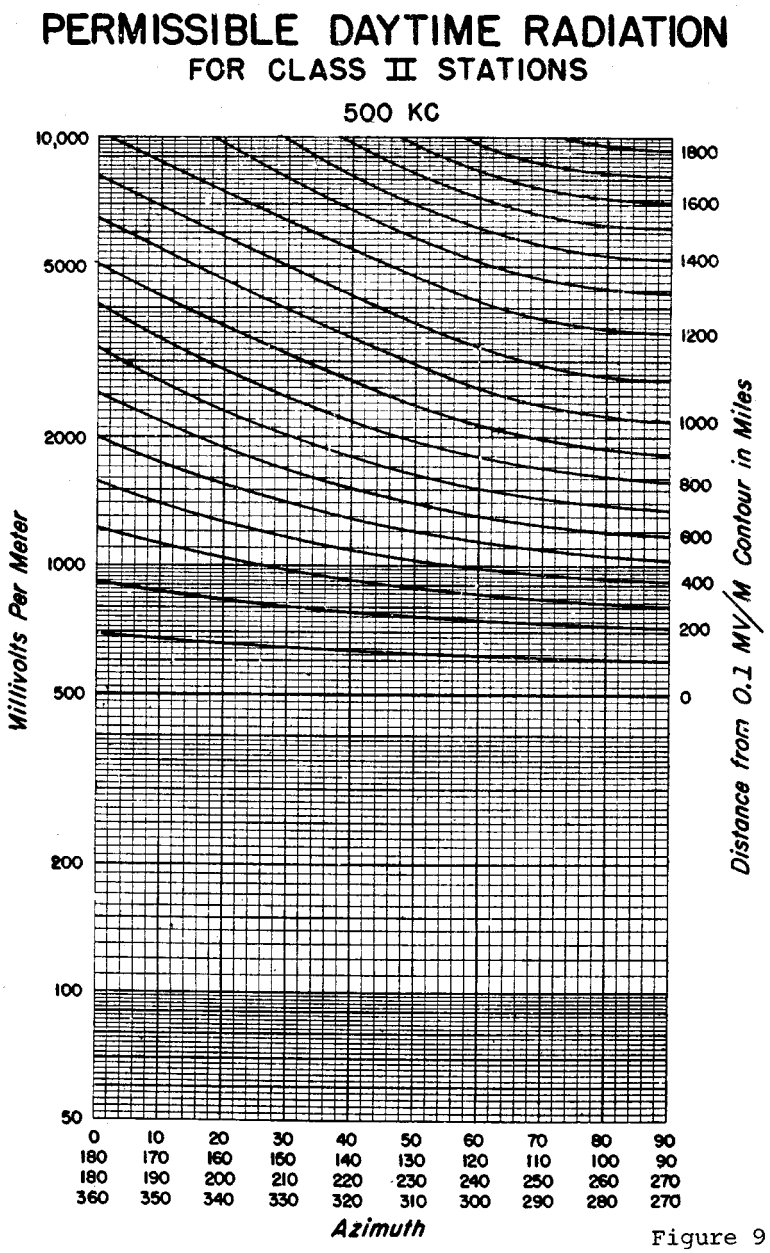

PERMISSIBLE DAYTIME RADIATION
FOR CLASS II STATIONS
500 KC
Millivolts Per Meter
10,000
5000
2000
1000
500
200
100
50
Distance from 0.1 MV/M Contour in Miles
1800
1600
1400
1200
1000
800
600
400
200
0
0 10 20 30 40 50 60 70 80 90
180 170 160 150 140 130 120 110 100 90
180 190 200 210 220 230 240 250 260 270
360 350 340 330 320 310 300 290 280 270
Azimuth

Figure 9

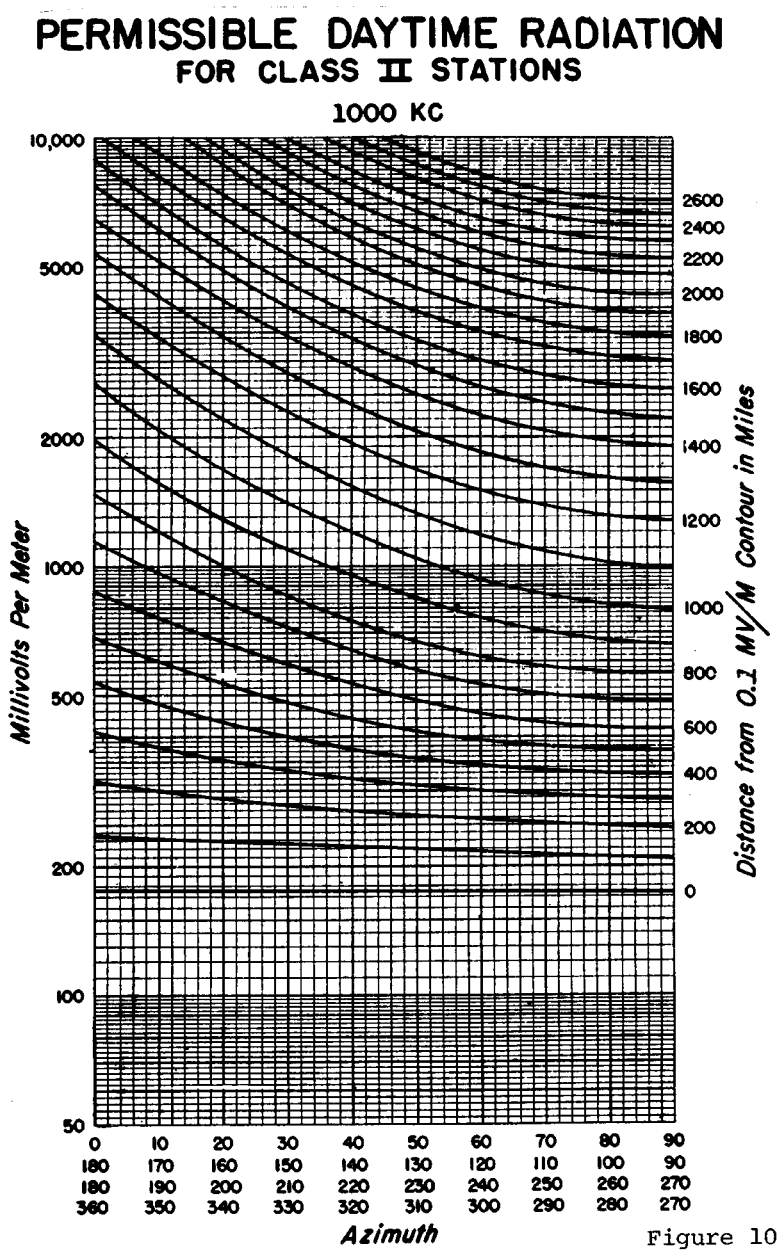

PERMISSIBLE DAYTIME RADIATION
FOR CLASS II STATIONS
1000 KC
10,000
5000
2000
1000
500
200
100
50
Millivolts Per Meter
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
Distance from 0.1 MV/M Contour in Miles
0 10 20 30 40 50 60 70 80 90
180 170 160 150 140 130 120 110 100 90
180 190 200 210 220 230 240 250 260 270
360 350 340 330 320 310 300 290 280 270
Azimuth

Figure 10

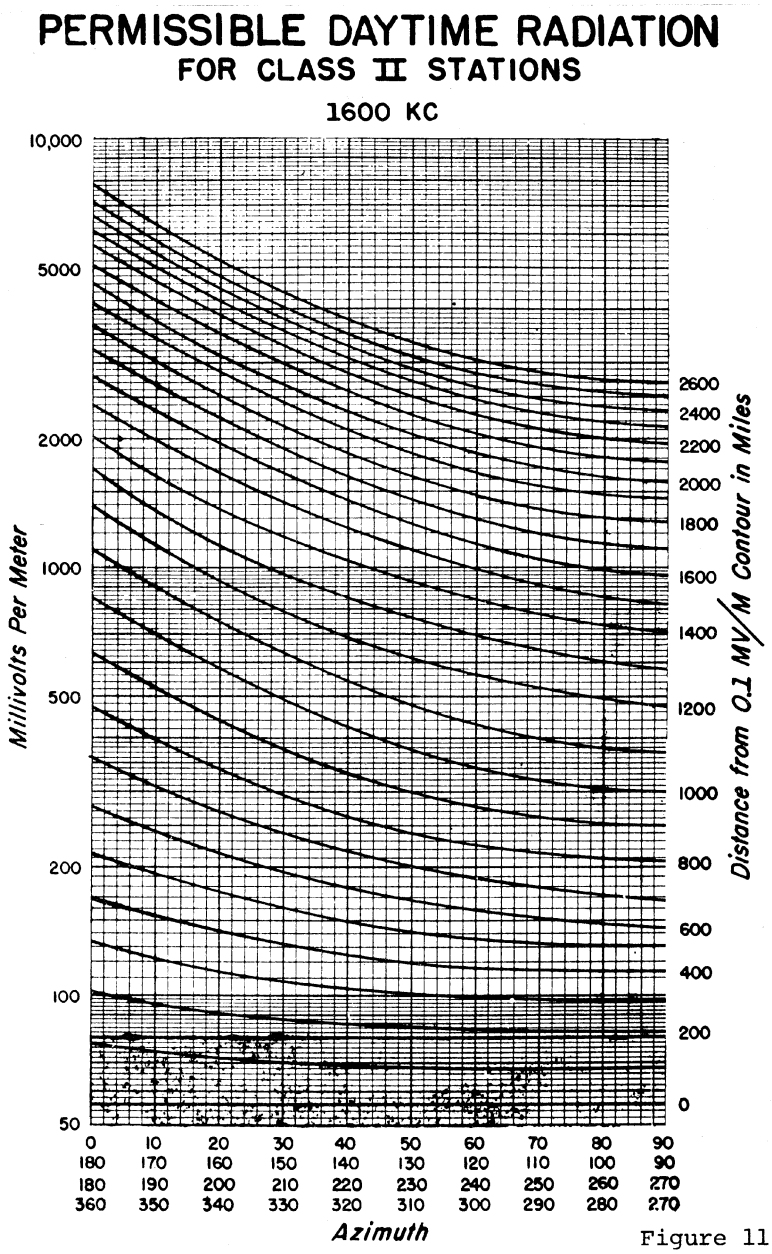
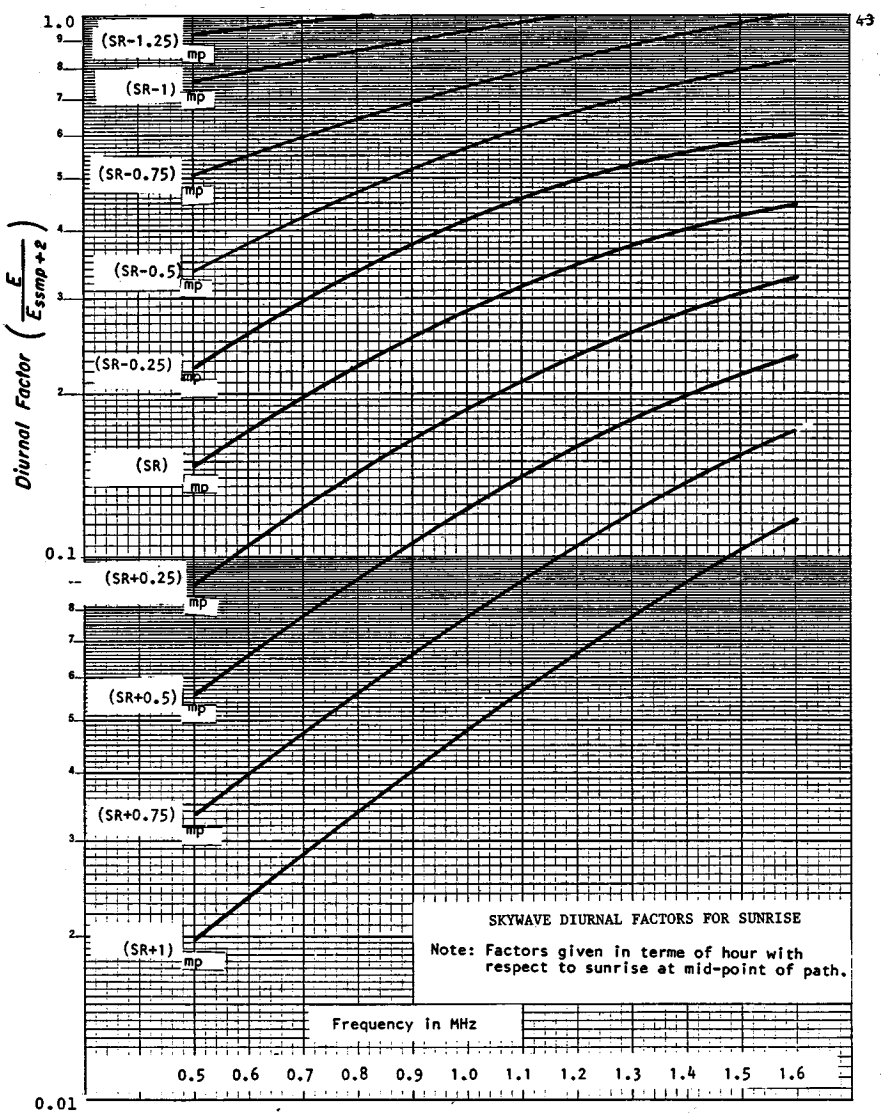
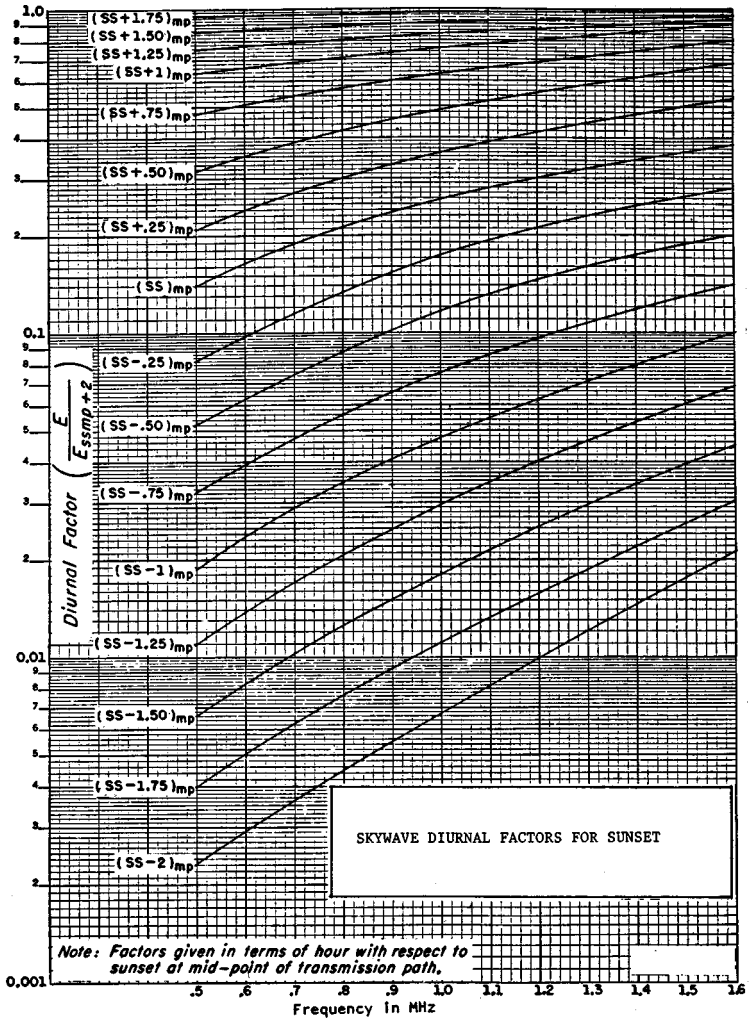

PERMISSIBLE DAYTIME RADIATION
FOR CLASS II STATIONS
1600 KC
Millivolts Per Meter
10,000
5000
2000
1000
500
200
100
50
Distance from 0.1 MV/M Contour in Miles
2600
2400
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0 10 20 30 40 50 60 70 80 90
180 170 160 150 140 130 120 110 100 90
180 190 200 210 220 230 240 250 260 270
360 350 340 330 320 310 300 290 280 270
Azimuth

Figure 11



FCC §73.190 Figure 12



FCC § 73.190 Figure 13

[28 FR 13574, Dec. 14, 1963, as amended at 30 FR 12720, Oct. 6, 1965; 33 FR 15420, Oct 17, 1968; 48 FR 42959, Sept. 20, 1983; 49 FR 43963, Nov. 1, 1984; 50 FR 18844, May 2, 1985; 51 FR 4753, Feb. 7, 1986; 52 FR 36879, Oct. 1, 1987; 56 FR 64869, Dec. 12, 1991]

Subpart B—FM Broadcast Stations

§ 73.201 Numerical designation of FM broadcast channels.

The FM broadcast band consists of that portion of the radio frequency spectrum between 88 MHz and 108 MHz. It is divided into 100 channels of 200 kHz each. For convenience, the frequencies available for FM broadcasting (including those assigned to noncommercial educational broadcasting) are given numerical designations which are shown in the table below:

Frequency (Mc/s)	Channel No.
88.1	201
88.3	202
88.5	203
88.7	204
88.9	205
89.1	206
89.3	207
89.5	208
89.7	209
89.9	210
90.1	211
90.3	212
90.5	213
90.7	214
90.9	215
91.1	216
91.3	217
91.5	218
91.7	219
91.9	220
92.1	221
92.3	222
92.5	223
92.7	224
92.9	225
93.1	226
93.3	227
93.5	228
93.7	229
93.9	230
94.1	231
94.3	232
94.5	233
94.7	234
94.9	235
95.1	236
95.3	237
95.5	238
95.7	239
95.9	240
96.1	241
96.3	242
96.5	243
96.7	244
96.9	245
97.1	246
97.3	247
97.5	248
97.7	249
97.9	250
98.1	251
98.3	252
98.5	253
98.7	254
98.9	255
99.1	256
99.3	257
99.5	258
99.7	259
99.9	260
100.1	261
100.3	262
100.5	263
100.7	264
100.9	265
101.1	266
101.3	267
101.5	268
101.7	269
101.9	270
102.1	271
102.3	272
102.5	273
102.7	274
102.9	275
103.1	276
103.3	277
103.5	278
103.7	279
103.9	280
104.1	281
104.3	282
104.5	283
104.7	284
104.9	285
105.1	286
105.3	287
105.5	288
105.7	289
105.9	290
106.1	291
106.3	292
106.5	293
106.7	294
106.9	295
107.1	296
107.3	297
107.5	298
107.7	299
107.9	300

NOTE: The frequency 108.0 MHz may be assigned to VOR test stations subject to the condition that interference is not caused to the reception of FM broadcasting stations, present or future.

[28 FR 13623, Dec. 14, 1963, as amended at 30 FR 4480, Apr. 7, 1965; 52 FR 10570, Apr. 2, 1987]

§ 73.202 Table of Allotments.

(a) *General.* The following Table of Allotments contains the channels (other than noncommercial educational Channels 201–220) designated for use in communities in the United States, its territories, and possessions. All listed channels are for Class B stations in Zones I and I–A and for Class C stations in Zone II unless otherwise specifically designated.

(1) Channels designated with an asterisk may be used only by noncommercial educational broadcast stations. The rules governing the use of those channels are contained in § 73.501.

(2) Each channel listed in the Table of Allotments reflects the class of station that is authorized, or has an application filed, to use it based on the minimum and maximum facility requirements for each class contained in § 73.211.

NOTE: The provisions of this paragraph [(a)(2) of this section] become effective [3 years from the effective date of the Report and Order in BC Docket 80–90].

(b) *Table of FM Allotments.*

ALABAMA

	Channel No.
Abbeville	232C3
Addison	289A
Albertville	286C
Alexander City	291C1
Andalusia	251C1, 279A
Anniston	263C
Arab	224A
Ashland	238A
Athens	282C
Atmore	290A
Auburn	249A
Bay Minette	288A
Birmingham	229C, 233C, 243C, 258C, 284C, 295C, 299C
Brantley	262A
Brewton	292A
Brundidge	234A
Butler	228C2
Camden	272A
Carrollton	231C
Centre	290A
Chickasaw	252C2
Citronelle	271C3
Clanton	249A
Columbia	221A
Columbiana	268A
Cordova	237A
Cullman	221A, 266C
Dadeville	247A
Daphne	293C2
Decatur	245C, 271C1
Demopolis	293C3
Dora	223A
Dothan	238C, 259C1, 267A, 273C3
East Brewton	239A
Elba	266A
Enterprise	245C, 294C
Eufaula	224C2, 250A
Eutaw	282A
Eva	260A
Evergreen	227C1
Fairhope	221C3
Fayette	251C1
Florence	241A, 297C
Fort Mitchell	252A
Fort Rucker	263A
Fruithurst	274A
Gadsden	279C
Geneva	229C1

ALABAMA—Continued

	Channel No.
Georgiana	299C2
Glencoe	226A
Greensboro	256A
Greenville	232A, 240A
Grovehill	291C3
Guntersville	240C3
Haleyville	224A
Hamilton	221A
Hartselle	291C3
Headland	287C3
Homewood	247A
Huntsville	236C2, 256C
Jackson	233C2
Jasper	273C
Linden	275C2, 253C1
Lisman	299A
Luverne	282C1
Meridianville	231A
Millbrook	246A
Mobile	225C, 235C, 241C, 248C, 260C
Monroeville	257C2
Montgomery	222C, 241A, 255C1, 255C2, 270C, 277C
Moulton	276A
Muscle Shoals	288A
Northport	264C3
Oneonta	249A
Opelika	244A
Opp	272A
Orange Beach	289A
Orrville	274A
Oxford	250A
Ozark	280C3, 285A
Phoenix City	261A
Pine Hill	244C3
Prattville	236C2
Reform	269C2
Repton	266A
Roanoke	272C3
Rogersville	230A
Russellville	249A
Scottsboro	252A
Selma	261C2, 265C2, 287C2
Sheffield	292C3
Smiths	267A
Stevenson	269A
Sylacauga	252A
Talladega	224A, 248A
Tallassee	260A
Thomaston	249A
Thomasville	238C3
Trinity	223A
Troy	289C
Trussville	290A
Tuscaloosa	225C1, 239C1, 288A
Tuscumbia	262C
Tuskegee	240A
Union Springs	231A
Uniontown	298A
Valley	237A
Vernon	293A
Warrior	254C1, 254C2
Wetumpka	250A
Winfield	290A
York	285C2

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	Channel No.
Anchorage	225C, 229C2, 247C1, 251C1, 255C1, 263C2, 267C2, 271C3, 276C1, 281C1,287C1, 293C, 298C1
Bethel	252C3, 261C3
College	280A
Cordova	265A
Delta Junction	228A
Dillingham	256A
Fairbanks	240C3, 245C3, 251C1, 266C2, 273C, 284C3
Haines	*272A
Homer	278C
Houston	221A, 234C2, 241A, 242A
Juneau	264A, 274A, 282A, 286A, 292C3
Kasilof	295A
Kenai	261C3
Ketchikan	260A, 290C3, 294A
Kodiak	261A, 266A
Kotzebue	280A
Naknek	265A
Nikiski	227C2
Nome	241A, 262A
North Pole	262C1
Palmer	238C1
Petersburg	*265A
Seward	290A
Sitka	276C2, 284A
Soldotna	243C3, 269C3
Valdez	227A
Wasilla	259C1
Wrangell	*269A
Yakutat	280A

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	Channel No.
Ajo	252A
Apache junction	296C2
Arizona City	293A
Bagdad	276C3
Benson	249A
Bisbee	222A
Buckeye	295C2
Bullhead City	274C
Casa Grande	288C2
Chandler	300C
Chinle	297C2
Chino Valley	280C3
Claypool	291A
Clifton	271C1
Colorado City	296C3
Comobabi	*275A
Cottonwood	240C1, 289C3
Douglas	237A, 243A
Duncan	264A
Eager	223C1
Flagstaff	225C, 230C, 248C, 261C2
Florence	276C1
Gilbert	280C2
Glendale	222C, 278C
Globe	247C3, 262C
Green Valley	221C2, 246A
Holbrook	221C1
Kachina Village	286C2
Kearny	287C2
Kingman	234C, 260C2, 290C1
Lake Havasu City	224C2, 244C2, 266C3, 283C2, 286C2
Marana	252A

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	Channel No.
Mesa	284C, 227C
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Nogales	252A, 256A
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Oraibi	252A
Oro Valley	248A, 270A
Page	227C2
Paradise Valley	290C3
Parker	230C3, 257C2
Payson	266C1, 282C
Phoenix	233C, 238C, 245C, 254C, 260C, 268C, 273C
Pinetop	294C1
Prescott	256C, 271C
Prescott Valley	252C2, 294C2
Quartzsite	232A
Safford	231C
Seligman	277A
St. Johns	239C
Strasburg	272A
Scottsdale	264C
Sedona	275C, 298C
Show Low	228C3, 243C
Sierra Vista	265A, 269A
Springerville	269A
Sun City	292C2
Tempe	250C
Thatcher	256C
Tuba City	250C1
Tucson	225C, 229C, 235C, 241C, 258C, 281A, 298C
Tusayan	221A
Wellton	283C2
Wickenburg	231C3, 287C2
Willcox	223C3, 285C3
Williams	244A
Window Rock	241C1, 274C3
Winslow	236C
Yuma	226C, 236C, 265A

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Arkadelphia	265A
Ashdown	221A, 280A
Atkins	257A
Augusta	249C2
Bald Knob	296C3
Barling	233A
Batesville	226C, 258A
Beebe	268A
Bella Vista	293C2
Benton	294C2
Bentonville	239A, 252C1
Berryville	296C3
Blossom	224C2
Blytheville	242C1
Booneville	284C2
Brinkley	272A
Cabot	273A
Camden	246C2, 283A
Cherokee Village	252A
Clarendon	281A
Clarksville	224A, 295A
Clinton	221C3
Coalgate	288C2
Conway	224A, 286C1
Corning	228A
Crossett	285A
Danville	288A

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	Channel No.
Dardanelle	272C3
De Witt	247C2
DeQueen	226C2
Dermott	276A, 289A
Des Arc	284A
Dumas	295C3
Earle	280C3
East Camden	237C1
El Dorado	227C3, 240A, 254C3, 268A, 277C1
England	243C3
Eudora	268A
Eureka Springs	265A
Fairfield Bay	291C2
Fayetteville	221C3, 280C1, 300C
Fordyce	272A
Forrest City	228C3
Fort Smith	229C, 256C, 260C, 264C2
Glenwood	283A
Gosnell	297A
Gould	273A
Greenwood	268A, 292C3
Grosnell	230A
Gurdon	224A
Hamburg	258A
Hampton	293C3
Hardy	284A
Harrisburg	240C3
Harrison	244A, 241C2, 275C1
Hatfield	281C2
Heber Springs	264C2
Helena	233C3, 276C3
Hope	269C2, 285A
Horseshoe Bend	293A
Hot Springs	244A, 248C1, 290C1
Hot Springs Village	225A
Hoxie	287A
Humnoke	269A
Huntsville	258C3
Jacksonville	262C1
Jonesboro	263C2, 270C, 300C1
Lakeview	228C3
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Lake Village	240A, 278A
Little Rock	231C, 239C, 253C, 258A, 279C
Lonoke	292C2
Lowell	270C2
Magnolia	300C1
Malvern	227A, 268A
Mammoth Spring	236C1
Marianna	287A
Marion	296A
Marked Tree	229A
Marshall	282C
Maumelle	235C, 245A
Mena	242C1, 271C3, 287C3
Monticello	228A, 260C3
Morrilton	269A
Mountain Home	250C2, 288C2, 298C1
Mountain Pine	270A
Mountain View	277C
Murfreesboro	258C3
Nashville	245A, 288A
Newport	244C2
North Crossett	274C3
North Little Rock	266A
Ola	267A
Ozark	244A
Pangburn	256A
Paragould	296A
Paris	237C2
Piggott	288A
Pine Bluff	222C1, 257A, 267C3

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Prairie Grove	235C2
Rogers	232C2
Russellville	265A
Salem	265A
Searcy	260C2
Sheridan	275C2
Sherwood	271A
Siloam Springs	*266A, 289C
Springdale	285A
Stamps	263C2, 282A
Stuttgart	288A
Texarkana	284A, 292C2, 296A
Trumann	294A
Van Buren	274C3
Viola	232C3
Waldo	256A
Waldron	276C3
Walnut Ridge	292A
Warren	288A
West Helena	233C3, 285A
White Hall	283A
Wilson	234A
Wrightsville	299C2
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Alameda	224A
Alturas	267C, 293C1, 297C
Anaheim	240A
Anderson	234C2
Apple Valley	272A
Arcadia	296A
Arcata	226C
Arnold	240A, 291B1
Arvin	223A
Atascadero	283B
Atwater	223A
Auberry	286B1
Auburn	266B
Avalon	224A
Avenal	289A
Baker	235B1, 268B
Bakersfield	221A, 231B, 243B, 257B1, 268B, 296A, 300B
Barstow	232B1, 240B1
Beaumont	265A
Berkeley	231B, 275B
Big Bear City	227A
Big Bear Lake	269A
Big Pine	227B
Bishop	264B
Blythe	262B
Brawley	233B, 241B
Burney	291C
Calexico	249A
California City	295A
Calipatria	265A
Calistoga	265A
Camarillo	212B, 240B1
Cambria	235B1, 278A
Carlsbad	239B
Carmel	238A, 269A
Carnelian Bay	279C1
Carpinteria	269A
Cartago	275A
Cathedral City	253B

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Central Valley	257C2
Chester	255C, 259A
Chico	230B1, 236B, 224A
China Lake	274A
Chowchilla	227A
Clovis	221B1
Coachella	229B
Coalinga	261B
Columbia	255A
Colusa	276A, 298B
Compton	272A
Copperopolis	288A
Corcoran	272B1
Corning	264C1
Cresent City	232C3
Cresent North	250C2
Davis	282A
Delano	253B, 287B
Desert Center	288A
Dinuba	255B
Dunnigan	288B1
Dunsmuir	261C3
Earlimart	228A
East Hemet.	
East Los Angeles	250B
East Porterville	263B1
El Cajon	227B
El Centro	298B
El Rio	279A
Ellwood	233B
Escondido	221A
Esparto	250A
Essex	255B, 280B
Eureka	222C1, 242C, 268C, 288C1
Fair Oaks	234B1
Fallbrook	296A
Farmington	232A
Felton	229A
Ferndale	257A
Firebaugh	234A
Ford City	271A
Fort Bragg	228B, 237B1, 253B1
Fortuna	262C1
Fowler	244B1
Freedom	298A
Fremont	285A
Fresno	229B, 239B, 250B, 257A, 266B, 270B, 274B, 290B
Garberville	279C1, 284C
Garden Grove	232A
George	264A
Gilroy	233B
Glendale	270B
Goleta	292A
Gonzales	282A
Grass Valley	232B1, 257A, 277A
Greenacres	291B1
Greenfield	258B, 300B
Gridley	268A
Grover City	297B
Guadalupe	288A
Gualala	263b1
Hanford	233A, 279B, 298B
Healdsburg	225B, 240A, 244A
Hollister	228A
Holtville	261A
Huron	252A
Hydesville	231C1
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Imperial	257A
Independence	223B
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Jackson	259A
Johannesburg	280B1
Joshua Tree	221A
Julian	261A
Kerman	232A, 237A
Kernville	273A
King City	230B1, 271B
Kings Beach	299C3
Kingsburg	292A
La Quinta	244A
Lake Arrowhead	280A
Lake Isabella	283A
Lakeport	252A, 258B
Lancaster	292A
Lenwood	245A, 283A
Lindsay	277B1
Livermore	269A
Livingston	240A
Lodi	249A
Lompoc	262B1, 281B1, 285A, 294B1
Long Beach	288A
Los Altos	249A
Los Angeles	222B, 226B, 230B, 234B, 238B, 242B, 246B, 254B, 258B, 262B, 266B, 274B, 278B, 282B, 286B, 290B, 298B
Los Banos	284B, 295A
Los Gatos	237A
Los Molinos	269A
Los Osos-Baywood Pk.	267B
Lucerne Valley	293A
Ludlow	261B1, 289A
Madera	296B1
Mammoth Lakes	293B1
Manteca	244A
Marina	224B1
Mariposa	242B, 280A
Marysville	260B
McCloud	238C3
McFarland	275B1
Mecca	249A
Mendocino	224A
Mendota	263A
Merced	231A, 248B, 292A, 299A
Middletown	254A
Modesto	230A, 272A, 277B, 281B
Mojave	249A
Monte Rio	249B1
Montecito	225A
Monterey	245B
Morro Bay	231A, 259A
Morgan Hill	241A
Mount Bullion	260B
Mount Shasta	300A
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Needles	250C1, 296B
Newberry Springs	279A
Newport Beach	276A
Oakdale	236B
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Oceanside	271B
Oildale	237B1
OJAI	288A
Ontario	228A
Orange Cove	262A
Orcutt	239B1
Orland	294B
Oroville	249B1
Oxnard	252B1, 275A, 284B
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Pasadena	294B
Paso Robles	223B, 276A
Patterson	226B, 246A
Pismo Beach	237A
Placerville	221A
Point Arena	272B1
Porterville	259B
Quincy	240A, 262A
Rancho Mirage	258A
Red Bluff	239B, 274C2
Redding	247C, 251C, 282C
Redlands	244A
Redondo Beach	228A
Ridgecrest	224B1, 285B1
Rio Del	297C2
Riverside	224A, 248B, 256B
Rohnert Park	285A
Rosamond	228A, 288A
Roseville	229B1
Sacramento	223B, 241B, 245B, 253B, 263B, 278A, 286B, 293B, 300B
Salinas	250A, 264B, 273B, 278A
San Bernardino	236B, 260B
San Clemente	300B
San Diego	231B, 235B, 243B, 247B, 251B, 264B, 268B, 275B, 279B, 287B, 293B
San Fernando	232A
San Francisco	227B, 235B, 239B, 243B, 247B, 251B, 255B, 259B, 267B, 271B, 279B, 283B, 287B, 291B, 295B
San Jacinto	241A
San Joaquin	288A
San Jose	222B, 253B, 262B, 293B
San Luis Obispo	227B, 241B, 246B1, 251B
San Mateo	299B
San Rafael	264A
Santa Ana	244A, 292A
Santa Barbara	229B, 248B, 260B, 277B, 299B1
Santa Clara	289B
Santa Cruz	256B
Santa Margarita	291B1
Santa Maria	256B, 273B
Santa Paula	244A
Santa Rosa	261B1, 269A
Santa Ynez	290A
Searcy	260C2
Seaside	280A, 296A
Sebastopol	229A
Shafter	249A, 282A
Shasta Lake City	257C3, 296C3
Shingle Springs	270B
Shingletown	241A, 287C2
Soledad	292A
Solvang	244A
Sonora	224A
South Lake Tahoe	230B1, 275C
South Oroville	285A
St. Helena	257A
Stockton	257A, 261A, 297B
Sun City	225A
Susanville	222C2, 227C, 242C3
Sutter Creek	298A
Taft	280A
Tahoe City	243C1
Tehachapi	261A, 276A
Temecula	233A, 277A
Templeton	263A
Thousand Oaks	216B, 224A, 234A

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Tracy	265A
Truckee	268A
Tulare	235B, 294B
Tulelake	243C
Turlock	252A
Twin Harte	228A
Twentynine Palms	242A, 299B1
Ukiah	233B, 246A, 277B, 290B
Vacaville	237B1
Ventura	236B, 264B, 296A
Victorville	276A
Visalia	255B, 241A, 246B
Walnut Creek	221A
Weaverville	266A, 276C2
Weed	272C1
West Covina	252A
Williams	256A
Willows	292A
Windon	254A
Windsor	281A
Woodlake	281B
Woodland	281B
Yermo	251B
Yreka	280C1
Yuba City	280B1
Yucca Valley	295B

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Alamosa	228A
Aspen	249C3, 296C3
Avon	276C2
Basalt	291A
Boulder	247C
Buena Vista	281C3
Breckenridge	272A
Brush	292A, 296A
Burlington	257C1, 281C1
Canon City	280A
Castle Rock	221C2
Colorado Springs	225C, 232C, 236C, 251C, 270C
Cortez	250C, 254C
Craig	229C1, 273C
Delta	236C, 277C2
Denver	239C, 253C, 258C, 262C, 266C, 278C, 286C, 290C, 294C
Dolores	227C2
Durango	259C2, 263C1, 267C1, 287A
Eagle	268C
Estes Park	271A
Evergreen	243C
Fort Collins	227C, 300C1
Fort Morgan	269A
Fountain	241C3
Frisco	230A
Fruita	260C
Glenwood Springs	224C, 238A, 256C3
Grand Junction	222C, 226C, 264C1, 282C, 300C
Greeley	223C1, 241C1
Gunnison	252C3, 272A
Hayden	240C3, 297A
Holyoke	222C2
Idalia	231A
Julesburg	243C1
Kremmling	292C3
La Junta	221C3, 293C1,
Lafayette	234C
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Las Animas	297A
Leadville	228A
Limon	229A, 276C1
Longmont	282C1
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Meeker	251C
Monte Vista	237A
Montrose	231C, 241C
Oak Creek	281C3
Ouray	289C3
Pagosa Springs	292C3
Pueblo	245C, 255C, 260C, 264C, 283C2, 296C2, 300C1
Rifle	287C
Rocky Ford	238C1
Salida	222C3, 229C3
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Snowmass Village	280A
Strasburg	*249C3, 272A
Steamboat Springs	245A, 255A
Sterling	284C1, 288A
Telluride	285C3
Trinidad	223C1
Vail	284C1
Walsenburg	272C3
Wellington	232C3
Widefield	292C2
Windsor	256C
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Bridgeport	260B
Brookfield	236B
Danbury	252A
East Lyme	254A
Enfield	250A
Groton	288A
Hamden	267B
Hartford	229B, 243B, 275B, 290B, 295B
Hartford-Meriden	239B
Ledyard	293A
Litchfield	247A
Middletown	285A
New Britain	263B
New Haven	232A, 256B
New London	265A
Norwalk	240A
Norwich	249A
Pawcatuck	299A
Salisbury	251A
Sharon	277A
Stamford	244A
Stonington	272A
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Laurel	237A
Lewes	290A
Milford	249A, 267A
Millsboro	228B
Ocean View	269A
Rehoboth Beach	224A
Seaford	252A
Selbyville	250A
Smyrna	225A
Wilmington	229B, 258B

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Washington	230B, 242B, 246B, 254B, 258B, 262B, 266B, 278B, 297B

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Alachua	223A
Apalachicola	263C3, 288A
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Arcadia	252C3
Atlantic Beach	283C
Avon Park	256C3
Baldwin	289A
Belle Glade	228A
Beverly Hills	292C3
Big Pine Key	284C
Blountstown	272A
Boca Raton	260C
Bonifay	249C1
Bonita Springs	241C
Bradenton	278C
Callahan	227C2
Callaway	278C1
Cape Coral	280C1, 292A
Carrabelle	293C1
Cedar Key	274C3
Century	286C3
Charlotte Harbor	225C1
Chiefland	300A
Clearwater	239C1, 250C
Clewiston	292A
Cocoa	257C2
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Coral Cove	300C2
Coral Gables	286C
Crawfordville	231A
Crestview	284C1
Cross City	295C1
Crystal City	253C
Dade City	241A
Daytona Beach	233C, 270C1
Defuniak Springs	276C2
Deland	290C
Destin	221C3
Dunnellon	272C2
Edgewater	226C3
Englewood	290A
Fernandina Beach	287A
Five Points	293A
Fort Lauderdale	264C, 278C, 290C, 294C
Fort Myers	237C1, 245C, 270C
Fort Myers Beach	257C2
Fort Myers Villas	292A

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Gainesville	265A, 279C1, 287A
Gifford	234A
Goulds	252C
Graceville	269A
Green Cove Springs	224A
Gretna	227A
Gulf Breeze	291A
Havana	285C2
Hialeah	222C2
High Springs	285A
Hobe Sound	288C2
Holiday	246C2
Holly Hill	277A
Holmes Beach	254C3
Homosassa Springs	237A
Immokalee	221A
Indian River Shores	246C3
Indiantown	276C2
Inglis	282A
Jacksonville	236C, 241C, 245C, 256C, 275C, 297C1
Jensen Beach	272C3
Jupiter	258A
Key Colony Beach	280C2
Key Largo	292C2
Key West	223C1, 228C2, 254C1, 258C1, 296A, 300C1
LaBelle	223A
LaCrosse	258A
Lafayette	260C2
LaCrosse	258A
Lake City	232C2
Lakeland	231C
Lehigh Acres	296C2
Live Oak	251C2, 291A
MacClenny	221C3
Madison	274A
Marathon	232C2, 249C1, 288C2
Marco	255A, 266C1
Marianna	231A, 265A
Mary Esther	288C3
Melbourne	236A, 292A, 296C1
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Miami	226C, 243C 247C, 256C1, 268C1, 298C
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Micanopy	247C2
Midway	264C3
Milton	274C
Miramar Beach	292A
Monticello	289C3
Mount Dora	299C
Murdock	255A
Naples	228A, 233C, 276C3
Naples Park	288C2
Newberry	263C3
New Port Richey	288C1
Niceville	262A
Nocatee	287A
North Miami Beach	239C2
Ocala	224A, 229C
Orlando	222C, 243C, 255C2, 262C, 286C
Ormond-By-The-Sea	239C3
Othello	248C2
Palatka	260C
Palm Beach	250C
Panama City	223C1, 253C, 290C2, 300C1
Panama City Beach	261C3, 286C2
Parker	233C
Pensacola	231C, 254C2, 264C, 268C, 297C

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Plantation Key	262C1, 276C3
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Port Charlotte	261C1
Port St. Joe	228C2
Port St. Lucie	267A
Punta Rassa	249A
Quincy	268C1
Riviera Beach	232C3
Rock Harbor	271C2
Rockledge	274C2
Safety Harbor	223C2
San Carlos Park	253A
Santa Rosa Beach	271C3
Sarasota	273C, 282A, 293C2
Sebastian	240C3
Sebring	289C3
Silver Springs	238A
Solana	285A
Springfield	240C2, 266A
St. Augustine	231C3, 250C2
St. Augustine Beach	288C3
St. Petersburg	258C, 268C1, 297C1
Starke	292A
Stuart	224C2
Summerland Key	273C2
Tallahassee	235C1, 241C2, 255C1, 276C2, 281C, 291A
Tampa	227C, 235C, 264C, 284C1
Tavares	294C1
Tavernier	245A
Tice	229A
Titusville	251C1
Trenton	269C3
Venice	221C3
Vero Beach	229C2, 259C2, 269C3, 279C2
Watertown	271C3, 289A
West Palm Beach	221C3, 282C, 300C1
White City	284A
Williston	267A
Wilson Creek	277C3
Winter Haven	248C
Winter Park	276C3
Woodville	250A
Yankeetown	242A
Zolfo Springs	295A

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	Channel No.
Adel	221A
Albany	242C1, 269A, 283C1
Alma	282A
Americus	234C3, 254C3
Ashburn	289A
Athens	238C, 284C
Atlanta	225C1, 235C, 241C, 253C, 259C, 277C
Augusta	272A, 276A, 282C, 289C
Bainbridge	247C, 270A
Baxley	233C
Blackshear	286C3
Blakely	266C3
Blue Ridge	280A
Bolingbroke	271A
Boston	292A
Bostwick	222A
Bowdon	288A
Broxton	279A

GEORGIA—Continued

	Channel No.
Brunswick	264C1, 268C, 281A
Buford	272A
Cairo	272A
Camilla	288A
Canton	289C2
Carrollton	221A
Chatsworth	255A
Chauncey	267C2
Clarkesville	275C3
Claxton	297C3
Clayton	281A
Cleveland	270A
Cochran	244A
Columbus	275C, 285A, 297C
Coosa	237A
Cordele	252A
Cornelia	257C2
Crawford	271C3
Cusseta	279A
Cuthbert	264A
Dahlonega	282A
Dalton	283A
Dawson	221A
Dock Junction	290C3
Donalsonville	292A, 298A
Douglas	258C1, 294C1
Dublin	224C2, 240C1
Eastman	248A
Eatonton	249C3
Elberton	221A, 286A
Ellijay	228A
Evans	222A
Fayetteville	248C3
Fitzgerald	245A
Folkston	223A
Forsyth	261A
Fort Valley	250C3, 292C2
Gainesville	246C
Gainsville	294C
Gibson	232A
Glennville	292A
Gordon	296A
Gray	243A
Greensboro	280A
Greenville	239C3
Harlem	236C3
Hawkinsville	280C3
Hazlehurst	228C2
Helen	286A
Hinesville	222C2, 284C3
Hogansville	251C3
Homerville	254A
Irwinton	279A
Jackson	221A
Jeffersonville	229C2
Jesup	288C3
Kingsland	292A
LaFayette	298A
La Grange	281C1
Lakeland	290C3
Leesburg	278C3
Louisville	221A
Lumpkin	257C2
Lyons	265A
Mableton	273A
Macon	222A, 256C1, 287C1, 300C1
Manchester	227C
Marietta	268C
Martinez	230C3, 299C2
McRae	274A
Metter	279A
Midway	252C1

GEORGIA—Continued

	Channel No.
Milan	285C2
Milledgeville	264A, 272A
Millen	235C3
Montezuma	236A
Moultrie	230C1
Mt. Vernon	269A
Nashville	237C3
Ocilla	249A, 253A
Omega	298A
Peachtree City	244A
Pearson	270A
Pelham	222A
Perry	265A
Quitman	287A
Reidsville	281A
Richmond Hill	287C3
Ringgold	229A, 270A
Rockmart	296C2
Rome	249C3, 272A
Rossville	288A
Roswell	298A
Royston	279C3
Sandersville	260A
Savannah	226C1, 231C, 238C1, 243C, 247C, 271C
Smithville	293A
Smyrna	231C
Soperton	291A
Sparta	274A
Springfield	280A
St. Marys	227C2
St. Simons Island	224A
Statenville	248A
Statesboro	261C2, 275C3
Swainsboro	251A, 263A
Sylvania	293A
Sylvester	271A, 291A
Talking Rock	261A
Tennille	270A
Thomaston	266A
Thomasville	296C1
Thomson	269A
Tifton	223C3, 262C
Toccoa	291C
Trenton	274A
Trion	239A
Unadilla	260A
Valdosta	225C1, 239C2, 244C2, 266C1, 299A
Vidalia	249A
Warner Robins	269A, 273A
Warrenton	226A
Washington	261A
Waycross	249A, 273C1, 277C
Waynesboro	265A, 296C3
Westpoint	265A
Wrens	245C3
Wrightsville	298A
Zebulon	223A

EFFECTIVE DATE NOTE: At 62 FR 47762, Sept. 11, 1997, Georgia was amended by adding channel 270A at Bainbridge, effective Oct. 20, 1997

HAWAII

	Channel No.
Aiea	300C
Hali'imaile	288A

HAWAII—Continued

	Channel No.
Hilo	224A, 234C1, 240C2, 246C2, 250C1, 262C1
Honolulu	226C, 230C1, 234C1, 238C, 248C1, 253C1, 258C1, 262C1, 286C, 290C
Kahalu'u	291C
Kahului	260C1
Kailua	242C
Kailua-Kona	230C
Kaneohe	282C
Kawaihae	295A
Keaau	286C2
Kealakekua	268C1
Kekaha	277C1
Lahaina	228C, 266C1
Lanai City	284C2
Lihue	228C1, 245C1, 251C
Makawao	232A
Paauilo	279C
Pearl City	270C
Poipu	240A
Princeville	255C1, 260C1
Pukalani	252C2
Volcano	299C3
Wailuku	236C
Waimea	256C
Waipahu	222C, 274C

IDAHO

	Channel No.
American Falls	281C1
Blackfoot Falls	247C, 268C,
Boise	222C, 250C, 282C, 286C
Bonners Ferry	221A
Burley	260C
Caldwell	231C, 277C, 296C
Chubbuck	253C2
Coeur D'Alene	272A, 276C2
Driggs	271A
Eagle	300C
Emmett	270C
Franklin	249A
Fruitland	258C1
Garden City	290C
Gooding	264C3
Grangeville	224C3
Hayden	233C
Homedale	292C
Idaho Falls	241C, 256C1, 277C1, 288C1, 296A
Island Park	293C
Jerome	275C1
Ketchum	284C
Lewiston	243C1, 268C1, 286A, 295C
McCall	252A, 266C1, 294A
Moscow	291C1
Mountain Home	256C1
Nampa	235C, 245C
New Plymouth	226C
Orofino	237C3, 253A
Payette	262C1
Pocatello	221A, 229C, 235C, 273C
Preston	244C1
Rexburg	232C3, 251C1, 263C1
Rupert	223C
Salmon	224A
Sandpoint	237C1, 273A
Shelley	300C
Soda Springs	261A
Sun Valley	237C1, 279C, 298C

IDAHO—Continued

	Channel No.
Twin Falls	239C1, 243C1, 252C1
Victor	222A, 282A
Weston	240A
Wallace	248C2, 264C

ILLINOIS

	Channel No.
Aledo	272A
Alton	262B
Anna	243C2
Arcola	300A
Arlington Heights	224A
Atlanta	242A
Augusta	253A
Aurora	240A, 300B
Ava	280A
Bartonville	260A
Beardstown	232A
Belvidere	285A
Benton	292B1
Bethalto	238A
Bloomington	268B
Breese	248A
Bushnell	284A
Canton	266A, 300B1
Carbondale	268B
Carlyle	244A
Carmi	247B
Carrier Mills	283A
Carterville	236A
Carthage	221B1, 230A
Casey	282B1
Centralia	237A
Champaign	233B, 248B, 262B1
Charleston	221A
Chicago	226B, 230B, 234B, 238B, 242B, 246B, 250B, 254B, 258B, 262B, 266B, 278B, 282B, 298B
Chillicothe	232A
Christopher	278A
Clinton	240A
Coal City	264A
Colchester	281A
Colfax	255A
Columbia	285C3
Crest Hill	252A
Crete	272A
Danville	235A, 256B, 271B
Decatur	226A, 236B, 275B
DeKalb	223B, 235A
Des Planes	294B
Dixon	269A
Duquoin	240A
Dundee	280A
Dwight	255A
Earlville	275A
East Moline	267B
East St. Louis	266C2
Effingham	239B, 249A
Eldorado	272A
Elgin	232A
Elmwood	247B1
Elmwood Park	290B
Eureka	253A
Evanston	286B
Fairbury	299B1
Fairfield	285A, 290A
Farmer City	252A
Farmington	234A

ILLINOIS—Continued

	Channel No.
Fisher	273A
Flora	280A
Freeport	221A, 253B
Galatia	255A
Galena	298A
Galesburg	224A, 235B
Galva	273A
Geneseo	285A
Gibson City	292A
Golconda	232A
Granite City	293C1
Greenville	269A
Harrisburg	260B
Havana	257A
Henry	263A
Herrin	224B1
Highland Park	276A
Hillsboro	259B
Hoopeston	265A
Jacksonville	263B
Jerseyville	281B
Joliet	228A, 244A
Kankakee	224A, 236A, 260B
Kewanee	230A
Knoxville	287A
La Salle	257B1
Lansing	292A
Lawrenceville	276A
Le Roy	281B
Lena	271A
Lexington	258A
Lincoln	230B1
Litchfield	291B
Loves Park	244A
Lynnville	296A
Macomb	240A, 261A, 274B1
Mahomet	290A
Marion	297B
Maroa	297A
Marseilles	243A
Marshall	290A
Mattoon	245B
Mendota	261A
Metropolis	252C2, 288A
Moline	245B
Monmouth	249A
Monticello	288A
Morris	276A, 284B
Morrison	274A
Morton	272A
Mount Carmel	235B
Mount Morris	239A
Mount Olive	287A
Mount Vernon	231B, 271B1
Mount Zion	257A
Murphysboro	286B1
Nashville	284A
Neoga	255A, 267B1
Newton	278B1
Normal	244A
Oak Park	274B
Ogelsby	271A
Olney	225B
Oregon	291A
Ottawa	237A
Pana	265A
Paris	253B
Paxton	285A
Pekin	238B1, 285A
Peoria	222A, 227B, 289B, 295B
Peru	265A
Petersburg	249A

ILLINOIS—Continued

	Channel No.
Pinckneyville	282A
Pittsfield	248B1
Plano	296A
Polo	299A
Pontiac	229B1
Princeton	251A
Quincy	258B, 280A, 286B
Ramsey	227A
Rantoul	237A, 241A
Robinson	269A
Rochelle	272A
Rock Island	255B
Rockford	248B, 265A
Rockton	276A
Rushville	223A
Salem	261A
Savanna	262B1
Seneca	239A
Shelbyville	286B1
Skokie	270B
South Jacksonville	288A
Spring Valley	277A
Springfield	254B, 270B, 279B, 283B
Sterling	232A
Streator	249A, 291A
Sullivan	294B1
Taylorville	224B1, 232A, 247A
Teutopolis	272A
Tower Hill	252A
Tuscola	228A
Urbana	223B1, 296A
Vandalia	296A
Virden	244A
Virginia	267A
Watseka	231B
Waukegan	272A
West Frankfort	249A
Wilmington	288A
Winnebago	237A
Woodlawn	295A
Woodstock	288A
Zion	245B

INDIANA

	Channel No.
Alexandria	224A
Anderson	250B, 254A
Angola	262A
Attica	239A
Auburn	272A
Aurora	257A
Austin	224A, 242A
Batesville	280A
Battle Ground	254A
Bedford	288A
Berne	224A
Bicknell	289A
Bloomfield	266A
Bloomington	222B, 224A, 279B
Bluffton	261A
Booneville	296A
Brazil	249A
Bremen	245A
Brookston	237A
Brownsburg	270A
Cannelton	275C3
Chandler	228A
Charlestown	282A
Churubusco	242B1

INDIANA—Continued

	Channel No.
Clarksville	226A
Clinton	230A
Columbia City	292A
Columbus	268B, 285A
Connersville	262B
Corydon	243A, 299B
Covington	276A
Crawfordsville	280A, 292A
Crown Point	280A
Danville	296A
Decatur	286B1
Delphi	275A
Earl Park	251B1
Edinburgh	275A
Elkhart	264B, 284B
Ellettsville	286A
Elwood	269A
Evansville	281B, 287B, 298A
Ferdinand	253A
Fort Branch	268A
Fort Wayne	222A, 236B, 247B, 269A, 280A
Frankfort	259B
Franklin	240A
French Lick	261A
Goshen	249A
Greencastle	232A
Greenfield	258B
Greensburg	297B
Greenwood	294A
Hammond	222B
Hardinsburg	245A
Hartford City	228A
Huntingburg	265B1
Huntington	275A
Indianapolis	226B, 234B, 238B, 242A, 277B, 283B, 289B, 300B
Jasper	284B
Jeffersonville	239B
Kendallville	227B
Kentland	269A
Knox	257A
Kokomo	223A, 263B
La Porte	244A
Lafayette	228A, 243B, 287B
Lagrange	288A
Lebanon	265A
Ligonier	274A
Linton	227B1
Logansport	272A
Loogootee	231A
Lowell	296A
Madison	244A
Marion	295B
Martinsville	272A
Michigan City	240A
Mitchell	273A
Monticello	299A
Mount Vernon	294A
Muncie	221A, 281B, 285A
Nappanee	239A
Nashville	236A
New Albany	234A
New Carlisle	272A
New Castle	273B
New Haven	300A
Newburgh	291A
Noblesville	230A
North Vernon	291B
Paoli	237A
Peru	252A
Petersburg	272A
Plainfield	252A

INDIANA—Continued

	Channel No.
Plymouth	232B1
Portland	265A
Princeton	251B, 263A
Rensselaer	249A
Richmond	241B, 267B
Roann	270A
Roanoke	231A
Rochester	221A
Rockville	285A
Royal Center	279A
Rushville	232A
Salem	250A
Santa Clause	277A
Scottsburg	287A
Seelyville	240A
Seymour	229B
Shelbyville	246B
South Bend	225B, 268B, 276A, 280A, 292A
South Whitley	266A
Spencer	224A
Sullivan	237A
Syracuse	278A
Tell City	289A
Terre Haute	260B, 264B, 274B, 298B
Valparaiso	288A
Van Buren	257A
Veedersburg	225A
Versailles	276A
Vevay	240A
Vincennes	221A, 244A
Wabash	240A, 290A
Walton	229A
Warsaw	297B
Washington	293B, 300A
West Lafayette	*267A, 294A
West Terre Haute	288A
Winamac	261A
Winchester	252A

IOWA

	Channel No.
Albia	244C3
Algona	224C2
Alta	248A
Ames	281C, 286C3
Ankeny	223C2, 292A
Asbury	277C3
Atlantic	239C3
Audubon	243C1
Belle Plaine	238C3
Bettendorf	228A
Bloomfield	292C3
Boone	252C2, 257A
Britt	258A
Brooklyn	256C2
Burlington	228A, 297C1, 276C3
Carroll	229C1
Castana	298A
Cedar Falls	253C3
Cedar Rapids	243C1, 251C1, 275C1, 283C1
Centerville	254C1
Chariton	287C2
Charles City	240A
Cherokee	221A 272A
Clarinda	257C2
Clarion	245C1
Clear Lake	276A
Clinton	241C1, 234A
Council Bluffs	253C

IOWA—Continued

	Channel No.
Cresco	272A
Creston	267C3
Davenport	279C, 293C1
Decorah	263C2, 284A
Denison	296A
Des Moines	227C, 235C, 247C1, 262C, 273C, 298C1
Dubuque	225C1, 272A, 287C2
Dyersville	257A
Eagle Grove	264C3
Eddyville	268C2
Eldon	282C3
Eldora	258A
Emmetsburg	252A, 261A
Epworth	247C3
Estherville	240C3
Fairfield	240A
Forest City	297C2
Fort Dodge	221A, 233C1
Fort Madison	269A
Garnavillo	261A
Glenwood	279C
Grinnell	294C2
Grundy Center	249C3
Hampton	285A
Harlan	287C3
Hudson	241A
Humboldt	249A
Ida Grove	225C3
Independence	237A
Iowa City	231C1, 264C1
Iowa Falls	237A
Jefferson	255C3
Keokuk	237C1
Knoxville	221C3
Lake City	294C3
Lamoni	250C3
Le Mars	258C1
Madrid	241A
Manchester	234C3
Maquoketa	236A
Marshalltown	266C1
Mason City	230C1, 250A, 291C1
Milford	271C2
Mount Pleasant	288C3
Muscatine	226A, 259C1
New Hampton	236A
New Sharon	260C3
Newton	240A
Northwood	274A
Oelwein	222C
Onawa	272C1
Osage	279A
Osceola	295C2
Oskaloosa	285C2
Ottumwa	224C3, 249C3
Parkersburg	255A
Pella	277C1
Perry	288A
Red Oak	237C3
Rock Valley	295C3
Sac City	284A
Sageville	291A
St. Ansgar	238A
Sheldon	287C2
Sibley	262A
Sioux Center	230C2
Sioux City	238C1, 250C1, 277C1
Sioux Rapids	275C2
Spencer	285C3, 299C1
Spirit Lake	280C2
Storm Lake	269C1

IOWA—Continued

	Channel No.
Stuart	300C3
Twin Lakes	290C3
Washington	291A
Waterloo	270C, 289C, 300C
Waukon	278C2
Waverly	257A
Webster City	239C3
Winterset	258A

KANSAS

	Channel No.
Abilene	253C1
Andover	230C3
Arkansas City	273A, 293C
Atkins	257A
Augusta	283C2
Baxter Springs	296A
Belle Plaine	224C3
Belleville	221C3
Beloit	288C2
Burlington	237A
Caney	266A
Cawker City	242C3
Chanute	228A
Clay Center	265A
Clearwater	254C2
Coffeyville	225A
Colby	250C1, 262C1
Columbus	287C3
Concordia	237A
Copeland	251C1, 256C1, *280C1
Dearing	251A
Derby	242C2
Dodge City	230C1, 238C1
Downs	231C2
El Dorado	256C1
Emporia	258A, 269A, 285A
Eureka	228A
Fort Scott	280A, 284C3
Fredonia	281A
Galena	282A
Garden City	247C1
Girard	256A
Goodland	273C1, 299C1
Great Bend	282C1, 300C1
Hays	258C1, 277C1
Haysville	287C
Herington	289C3
Hiawatha	280C2
Hill City	270C
Hoisington	264C1
Horton	229C3
Hugoton	294C2
Humboldt	232C3
Hutchinson	246C3, 271C, 275C
Independence	275A
Ingalls	242C1, 290A
Iola	257A
Junction City	233C1
Kansas City	231C, 251C
Kingman	232C2, 262C2
Kiowa	252C1
Larned	244A, 295C1
Lawrence	290C1
Leavenworth	255C
Leoti	260C1
Liberal	268C1, 274C1, 286C1, 298C1
Lindsborg	238C3
Lyons	291C1

KANSAS—Continued

	Channel No.
Manhattan	268C2, 284C2
Marysville	276C3
McPherson	244A
Medicine Lodge	269C2
Minneapolis	224C2
Ness City	285A
Newton	222C1
North Fort Riley	273C1
Norton	294A
Oberlin	266C1
Ogden	278C2
Olathe	222C3
Osage City	225C2
Ottawa	239C1
Parsons	228A
Phillipsburg	223C1, 237A
Pittsburg	245C1
Plainville	244A
Pratt	226C
Riley	242C3
Russell	240A
Salina	229C1, 260C1, 285A
Scott City	223C1
Seneca	221A
Silver Lake	223A
Sterling	234C3
St. Marys	275C2
Topeka	247C, 257A, 262C, 295C, 299C
Wamego	237A
Wellington	228A
Wichita	236C1, 250C, 267C, 279C1, 297C1
Winfield	240C3, 300C2

KENTUCKY

	Channel No.
Albany	292A
Allen	261A
Ashland	229C1
Barbourville	241C3
Bardstown	244A
Beattyville	271A
Beaver Dam	264A
Benton	256A
Berea	294A
Bowling Green	244C3, 227C3
Brandenburg	228A
Burkesville	300A
Burnside	230C2
Calvert City	239A
Campbellsville	281C3
Campton	279A
Carlisle	221C3, 264A
Carrollton	237A
Catlettsburg	224A
Cave City	279C3
Central City	270C1
Clinton	271C3
Columbia	228A
Corbin	258C2, 297C2
Cumberland	274A
Cynthiana	272A
Danville	296A
Drakesboro	280A
Edmonton	256A
Elizabethtown	252C3, 261A
Elkhorn City	276A
Eminence	289A
Erlanger	265A
Falmouth	298A

KENTUCKY—Continued

	Channel No.
Flemingsburg	236A
Fort Campbell	300C1
Fort Knox	288A
Frankfort	279A, 285A
Fulton	257A
Garrison	252A
Georgetown	277A
Glasgow	231A, 236C, 287C3
Grayson	272A
Greensburg	276A
Greenup	289C3
Greenville	228C3
Hardinsburg	232C2, 282A
Harlan	286A
Harold	285A
Harrodsburg	257A
Hartford	292A
Hawesville	246A
Hazard	266C, 284A
Henderson	258C, 276A
Hindman	296A
Hodgenville	292A
Hopkinsville	248A, 254C1, 262C
Horse Cave	294A
Hyden	250C3
Irvine	264C3, 291A
Jackson	293A
Jamestown	285A
Jeffersontown	267A
Jenkins	232C2
Lancaster	286A
Lawrenceburg	271A
Lebanon	265C3
Leitchfield	285A
Lexington	225C1, 233C1, 251C1
Lexington-Fayette	283C2
Liberty	254C3
London	222C2, 280A
Louisa	222A
Louisville	248C1, 259B, 263C2, 272A, 280A, 295B
Madisonville	230C2
Manchester	276A, 289A
Mannsville	260C3
Marion	274A
Mayfield	234C2
Maysville	240A
McKee	300A
Middlesboro	224A
Midway	300A
Monticello	226A, 269A
Morehead	221A, 242A, 291C3
Morganfield	237A
Mount Sterling	288A, 294B1
Mount Vernon	275A
Munfordville	272A
Murray	279C1
Nicholasville	273A
Oak Grove	293C3
Owensboro	223C, 241C
Owingsville	299A
Paducah	227C1, 245C1
Paintsville	255C1
Paris	245C2
Philpot	234A
Pikeville	226C2
Pineville	292A
Prestonsburg	238C, 288A
Princeton	285A
Providence	249A
Radcliff	278C3
Reidland	294A

KENTUCKY—Continued

	Channel No.
Richmond	268C3
Russellville	266C1
Russell Springs	224A
St. Matthews	276A
Salyersville	247A
Scottsville	257A
Shelbyville	269A
Shepherdsville	286A
Smiths Grove	296C2
Somerset	246C2, 272A
Springfield	274A
Stamping Ground	241A
Stanford	242C3
Stanton	285A
Tompkinsville	221A, 274A
Valley Station	290A
Vanceburg	285A
Vancleve	260A
Versailles	292A
Vine Grove	268A
Virgie	298A
Whitesburg	280A
Whitley City	252A
Wickliffe	240A
Williamsburg	282A
Williamstown	293A
Wilmore	290A
Winchester	261C2
West Liberty	275A
Westwood	259A

EFFECTIVE DATE NOTE: At 62 FR 45764, Aug. 29, 1997, Kentucky was amended by removing channel 264A and adding channel 221C3 at Carlisle; by removing channel 291A and adding channel 264C3 at Irvine; and by removing channel 221A and adding channel 291C3 at Morehead, effective Oct. 9, 1997.

LOUISIANA

	Channel No.
Abbeville	286C3
Alexandria	226C, 230A, 245C, 262C, 295A
Amite	243A
Arcadia	223A
Atlanta	293A
Baker	297A
Ball	288A
Basile	271C1
Bastrop	230C3, 232A, 261C2, 247A
Baton Rouge	251C, 264C1, 268C, 273C
Bayou Vista	237C3
Belle Chasse	275C3
Benton	221A
Berwick	290A
Blanchard	271C3
Boyce	272C3
Breaux Bridge	243C3
Brusly	241C2
Bunkie	282C3
Clayton	257A
Clinton	224C2
Columbia	276C3
Coushatta	235C3
Crowley	275C
Delhi	228A
Deridder	221C3, 269A
Donaldsonville	285A

LOUISIANA—Continued

	Channel No.
Dubach	249C3
Erath	300C1
Eunice	288A
Farmerville	224A
Ferriday	296C3
Folsom	285A
Franklin	288A
Franklinton	255A
Galliano	232C1
Gibsland	283A
Grand Isle	283A
Hammond	277C, 296A
Haughton	279A
Haynesville	288A
Homer	272A, 294C2
Houma	281C, 298C1
Jackson	283A
Jena	274A
Jennings	225C2
Jonesboro	285C3
Jonesville	286A
Kaplan	247C2
Kenner	287C1
Kentwood	231C1
Lacombe	234A
Lafayette	233C, 238C2, 260C
Lake Arthur	298C2
Lake Charles	241C, 258C1, 279C1, 287C2
Lake Providence	224A
LaPlace	222C
Larose	262C2
Leesville	224A, 289C3
Mamou	266C3
Mansfield	224A, 284C3
Mansura	240A
Many	296C3
Marksville	249A
Maurice	292A
Minden	239C2
Monroe	270C, 281C, 287C2, 291C
Moreauville	221A
Morgan City	244A
Natchitoches	247C3, 264A
New Iberia	229C1, 256C
New Orleans	227C, 239C, 246C, 253C1, 258C, 266C, 270C
New Roads	293C2
North Fort Polk	294A
Oak Grove	244C3
Oakdale	254C1
Opelousas	290A, 296A
Port Sulphur	294C1
Rayne	294A
Rayville	222C2
Reserve	235C3
Richwood	265A
Ruston	258A, 298C
Shreveport	229C, 233C, 243C1, 259C2, 266C, 275C2
Slidell	287C1
South Fort Polk	239A
Springhill	225C3
Sulphur	267C3
Tallulah	283C3
Thibodaux	292C3
Tioga	278C2
Varnado	225A
Vidalia	284A
Ville Platte	223A
Vivian	287A
Washington	284C3
West Monroe	252C2

LOUISIANA—Continued

	Channel No.
Winnfield	221A
Winnsboro	240A

EFFECTIVE DATE NOTES: 1. At 62 FR 45763, Aug. 29, 1997, Louisiana was amended by adding Grand Isle, channel 283A, effective Oct. 6, 1997.

2. At 62 FR 50875, Sept. 29, 1997, Louisiana was amended by removing Slidell, channel 287C1, and adding Kenner, channel 287C1, effective Nov. 3, 1997.

MAINE

	Channel No.
Auburn	260B
Augusta	222B, 267B
Bangor	225B, 246B
Bar Harbor	256B, 299B1
Bath	290B
Belfast	284B
Biddeford	232B1
Boothbay Harbor	244B1
Brewer	262B, 293C
Brunswick	255B
Calais	224A
Camden	273B
Caribou	249C3
Dennysville	275C1
Dexter	271C2
Dover-Foxcroft	276A
Ellsworth	233B, 239B
Fairfield	228C3
Farmington	257A
Fort Kent	*293C3
Gardiner	282B
Houlton	261C3
Howland	280C
Islesboro	288B1
Kennebunk	257A
Kennebunkport	284A
Kittery	287A
Lewiston	230B, 298B
Lincoln	289C2
Machias	237A, 266B
Madawaska	272A
Madison	248A
Mexico	264A
Milbridge	229B
Millinocket	235C2
North Windham	294A
Norway	224A
Old Town	297C2
Pittsfield	258A
Portland	226B, 250B, 270B, 275C
Presque Isle	241C, 245C, 270C2, 291C
Rockland	277B
Rumford	242C
Saco	240A
Sanford	221A
Scarborough	292A
Searsport	269A
Skowhegan	286C, 300C3
Thomaston	295, 295B
Topsham	238A
Van Buren	251A
Waterville	253C2
Westbrook	265B1
Winslow	237A

MAINE—Continued

	Channel No.
Winter Harbor	249B
York Center	237A

MARYLAND

	Channel No.
Annapolis	256B, 300B
Baltimore	222B, 226B, 236B, 250B, 270B, 274B, 282B, 293B
Berlin	280A
Bethesda	234B, 272A
Braddock Heights	280A
California	275A
Cambridge	292A
Catonsville	289B
Crisfield	245A
Cumberland	275B, 291B
Easton	244B1
Federalsburg	296A
Frederick	260B
Frostburg	*246A, 287B
Glen Burnie	240A
Grasonville	276A
Hagerstown	284B, 295B
Halfway	244A
Havre De Grace	279B
Hurlock	263A
Lexington Park	249A
Mechanicsville	252A
Middletown	276A
Morningside	238B
Mountain Lake Park	283A
Oakland	222A
Ocean City	260B, 295A
Ocean City-Salisbury	284B
Ocean Pines	246A
Pocomoke City	223A, 293A
Prince Frederick	224A
Princess Anne	273B
Salisbury	248A, 255A, 288A
Snow Hill	266A
St. Michaels	232A
Waldorf	281, 281B
Westernport	266A
Westminster	264B
Williamsport	240A

MASSACHUSETTS

	Channel No.
Amherst	265A
Athol	260A
Barnstable	260B
Boston	233B, 245B, 253B, 264B, 277B, 281B, 294B
Brockton	249A
Brookline	225B
Cambridge	237A
Chatham	298B
Fairhaven	296A
Falmouth	270B
Fitchburg	283B
Framingham	289B
Gloucester	285A
Great Barrington	286A
Greenfield	237A, 252A
Harwichport	228A
Haverhill	223B

MASSACHUSETTS—Continued

	Channel No.
Hyannis	275A, 291B
Lawrence	229B
Lowell	258B
Lynn	269A
Marshfield	240A
Mashpee	266A
Medford	300B
Nantucket	242B
New Bedford	247B, 251B
North Adams	261A
Northampton	257A, 292A
Orange	247A
Orleans	284B
Pittsfield	240A, 269A, 288A
Plymouth	256B
Provincetown	*221A
Southbridge	261A
South Yarmouth	280A
Springfield	226B, 234B, 271B
Taunton	227B
Tisbury	224A
Truro	272A
Turners Falls	230A
Waltham	273B
Webster	255A
West Yarmouth	235B
Winchendon	249A
Worcester	241B, 297B

MICHIGAN

	Channel No.
Adrian	237A, 280A
Albion	244A
Allegan	222A
Alma	285A
Alpena	257C2, 299C1
Ann Arbor	275B, 296A
Ashley	223A
Atlanta	223C
Bad Axe	271C2
Baraga	282C1
Battle Creek	237A, 277B
Bay City	241C, 273B
Bear Lake	261A
Beaverton	249A
Benton Harbor	235A, 260B
Beulah	221A
Big Rapids	265A, 272C3
Birmingham	234B
Boyne City	228C2
Bridgman	248A
Bronson	*234A
Brooklyn	287A
Buchanan	256A
Cadillac	225C, 244C3, 296A
Caro	221A
Carrollton	263A
Charlevoix	290C1, 300A
Charlotte	224A
Cheboygan	286C1
Clare	237A
Coldwater	253B
Coleman	269A
Crystal Falls	264C1
Dearborn	262B
Detroit	222B, 226B, 238B, 242B, 246B, 250B, 254B, 258B, 266B, 270B, 278B, 282B, 286B, 290B, 294B, 298B

MICHIGAN—Continued

	Channel No.
Dewitt	243A
Dowagiac	221A
East Jordan	265A
East Lansing	235B, 256B
Escanaba	284C, 246C
Essexville	247A
Fife Lake	240A
Flint	224A, 236B, 288B1, 300B
Frankenmuth	229A
Frankfort	257C2
Fremont	261A
Gaylord	237A, 294C1
Gladstone	288C1
Gladwin	276C3,
Glen Arbor	227A, 238C2, 251C2
Grand Haven	221A
Grand Rapids	229B, 239B, 245B, 250B, 254A, 267B, 275B, 281B, 289B
Grayling	262C1
Greenville	297B
Gulliver	234C1
Hancock	228C3, 254C2
Harbor Beach	279C2
Harbor Springs	280C2
Harrietta	229A
Harrison	221A
Hart	287C1
Hartford	279A
Hastings	261A
Hillman	235C2
Hillsdale	221A
Holland	233B, 241B
Honor	264A
Houghton	242C1, 249A, 272C2
Houghton Lake	253C1
Howell	228A
Hudson	273A
Iron Mountain	226C1, 268C1, 294A
Iron River	256C2
Ironwood	259C1, 295C1
Ishpeming	222C, 298C1
Jackson	231B, 283A, 291B
Kalamazoo	271B, 293B, 299B
Kalkaska	248C2
Kingsford	251A
L'Anse	291C2
Lake City	*285A
Lakeview	292A
Lansing	248B, 264B, 269A
Lapeer	276A
Leland	232C2
Lexington	245A
Ludington	292A
Mackinaw City	233C3
Manistee	249A, 268A
Manistique	260A
Marlette	223A
Marquette	239C1, 277C1, 231A
Marshall	285A
Menominee	279C3
Midland	227C2, 259C
Mio	280C2
Monroe	252A
Mount Clemens	274B
Mount Pleasant	233C1, 282A
Munising	252 C2
Muskegon	283B, 295B, 300B1
Muskegon Heights	269B1
Negaunee	258A, 270A
Newberry	229A, 250C2
Niles	237A
North Muskegon	252A

MICHIGAN—Continued

	Channel No.
Norway	232C3
Ontonagon	266C2
Oscoda	239 C2, 264C3
Otsego	265A
Owosso	280A
Pentwater	231C3, 276A
Petoskey	242C1, 255C1
Pickford	288A
Pinconning	265A, 281A
Port Huron	272A, 296A
Portage	243A
Reed City	247A
Rogers City	244C2, 260C2
Roscommon	266A
Saginaw	251B, 283A, 292A, 296A
Sandusky	249A
Saugatuck	224A
Sault Ste. Marie	252C3, 258C2, 267C1
Scottville	235C3
South Haven	252A
Spring Arbor	295A
St. Ignace	275C
St. Johns	221A
St. Joseph	296A
Standish	245A
Stephenson	257A, 292C2
Sturgis	257A
Tawas City	277A, 284C2, 291C3
Three Rivers	240A
Traverse City	270C1, 278C, 283A, 29C2
Tuscola	268A
Vassar	255A
Walker	263A
West Branch	288A
Whitehall	237A, 248A
Zeeland	257A

MINNESOTA

	Channel No.
Ada	292A
Aitkin	232C3
Albany	288A
Albert Lea	235A, 241A
Alexandria	222C3, 257A, 264C1
Anoka	300C
Atwater	231A
Austin	260C1
Babbitt	294C2
Bagley	244C3
Bemidji	238C1, 266C1, 279C1
Benson	228A
Belview	290A
Blackduck	252C2
Blooming Prarie	265C1
Blue Earth	251C3, 283C2
Brainerd	278C3, 294C1, 298C1
Breckenridge	286C1
Breezy Point	282 C2
Browerville	259A
Buhl	*223C2
Caledonia	234A
Cambridge	287C3
Cloquet	243C3, 263C1
Cold Spring	235C2
Coleraine	241C1
Crookston	241C1, 246C1
Crosby	268C3
Deer River	288C1
Detroit Lakes	236C1, 272C2

MINNESOTA—Continued

	Channel No.
Duluth	225C1, 235C1, 239C1, *240C2, 255C2, 269C2, 277C1, 286C1
East Grand Forks	282C1
Eden Prairie	289A
Ely	233A
Eveleth	250C1
Farimont	293C1
Fairbault	298C2
Fergus Falls	243C1, 277C1
Forest Lake	240A
Fosston	296C2
Glencoe	242C2
Glenwood	296A
Golden Valley	223C
Grand Marais	237C1
Grand Rapids	245C1
Granite Falls	230A
Hermantown	221C3
Hibbing	230C1, 292C3
Hutchinson	296A
International Falls	258C1, 281C3
Jackson	289C3
La Crescent	274C3
Lake City	235A, 273C3
Lakeville	286A
Little Falls	221A, 231A
Luverne	266C
Madison	221A
Mahnomen	268C3
Mankato	256C1, 278C1
Marshall	259C1, 298C3
Minneapolis	229C, 246C, 253C, 258C, 262C1, 275C
Mantevideo	288A
Moose Lake	296C3
Moorhead	254C1, 260C1
Mora	238C3
Morris	239C1
Nashwauk	275C3
New Prague	238A
New Ulm	226C1
Nisswa	227C
North Mankato	244C3
Olivia	261C3
Ortonville	268C, 292A
Osakis	280A
Owatonna	285A
Park Rapids	223A, 248C1
Paynesville	255C2
Pelican Rapids	281C2
Perham	258A
Pequot Lakes	261A, 274C2
Pillager	240A
Pine City	265A
Pipestone	254C
Preston	276C3
Princeton	291C2
Proctor	299C2
Red Lake	231C1
Red Wing	290A, 290C3
Redwood Falls	249C1
Richfield	267C
Rochester	*225A, 243C2, 248C, 269C2, 295C
Roseau	271C2, 278C2
Rushford	257C3
Saint Joseph	260A
Sartell	244C2
Sauk Centre	232A
Sauk Rapids	269C2
Slayton	291C2
Sleepy Eye	297A
Spring Grove	252C2

MINNESOTA—Continued

	Channel No.
Spring Valley	282A
Springfield	234C2
St. Charles	299A
St. Cloud	251C, 284C
St. James	263C2, 268C3
St. Joseph	225C3
St. Louis Park	281C
St. Paul	233C, 237A, 271C
St. Peter	288A
Staples	234C2
Starbuck	247C2
Stewartville	287C2
Thief River Falls	257C3, 262C1, 274C1
Tracy	286C2
Two Harbors	282C2
Virginia	260C1
Wadena	290C1
Waite Park	279C3
Walker	256C1, 270A, 275C3
Warroad	223C1
Waseca	221C3
Willmar	237C2, 273C1
Windom	232A
Winona	237C3, 266C3
Worthington	228A, 236C1

EFFECTIVE DATE NOTE: At 62 FR 50876, Sept. 29, 1997, Minnesota was amended by adding channel 235A at Lake City, effective Nov. 3, 1997.

MISSISSIPPI

	Channel No.
Aberdeen	287C2
Ackerman	300C
Amory	237A
Artesia	261A, 260C2
Baldwyn	223A
Batesville	263C2
Bay Springs	232C2
Bay St. Louis	300C
Belzoni	292A, 296C3
Biloxi	229C
Booneville	257A
Brandon	249A
Brookhaven	221A
Brooksville	255C3
Bruce	233A
Bude	282C3
Byhalia	235A
Calhoun City	272A
Canton	269A
Carthage	252C3
Centreville	285A
Charleston	239A
Clarksdale	221A, 243A, 268C3, 293C2
Cleveland	225C2, 252C3, 280C3
Clinton	228A
Coldwater	237A
Collins	296A
Columbia	244A
Columbus	235C2, 276C2, 280C2
Como	278C
Corinth	232A, 237A
Crenshaw	295A
D'Iberville	250C2
De Kalb	289C2
Drew	237A
Durant	266A

MISSISSIPPI—Continued

	Channel No.
Ellisville	273C2
Eupora	241C2
Fayette	249A
Flora	247C3
Forest	223C
Fulton	270C2
Gluckstadt	269C2
Greenville	250C2, 264C1, 284C2
Greenwood	230C3, 256C, 282C2
Grenada	222A, 261C2, 267A
Gulfport	244A, 272C3, 296A
Hattiesburg	221A, 226A, 279C, 283C1
Hazlehurst	225A
Heidelberg	257C2
Holly Springs	224A
Houston	227C
Indianola	245C2, 288A
Iuka	285C2
Jackson	234C, 238C, 242C, 259C, 275C
Kosciusko	277C3, 286C1
Laurel	251A, 262C
Leland	232C2, 272A
Lexington	273C3
Liberty	299C3
Long Beach	233A
Louisville	296C3
Lucedale	295A
Lumberton	237C1
Magee	298C
Marion	236C2
McComb	289C1
McLain	245A
Meridian	246C, 267C1, 271A
Monticello	271C2
Moss Point	285C2
Mound Bayou	271A
Natchez	236C, 247A
New Albany	294C2
Newton	250A
Ocean Springs	223A, 276C2
Olive Brance	239A
Oxford	229C3, 238A, 248C1, 286A
Pascagoula	256C1, 290C3
Pearl	230C3
Petal	292C3
Philadelphia	272A
Picayune	291C2
Pickens	290C2
Pontotoc	244A
Port Gibson	263A
Potts Camp	240A
Prentiss	252A
Quitman	255C3
Richtown	243A
Ripley	272A
Rosedale	298C3
Starkville	221A, 291C2
State College	283C3
Stonewall	295A
Sumrall	247A
Taylorsville	240C2
Tunica	241C3
Tupelo	253C1
Tylertown	249A
Union	281C2
University	221A
Utica	265C2
Vicksburg	254C1, 267A, 294C
Water Valley	288A
Waynesboro	288A
West Point	265A
Winona	236A

MISSISSIPPI—Continued

	Channel No.
Yazoo City	221C3, 226A

MISSOURI

	Channel No.
Ash Grove	281C3
Asbury	278C3
Ashland	791C1
Aurora	263C2
Ava	221A
Bethany	238C2
Birch Tree	296C3
Bismarck	258C3
Bonne Terre	282A
Boonville	226A, 257C2
Bowling Green	231C3
Bourbon	231A
Branson	292C2
Brookfield	245C2
Brookline	271A
Buffalo	260C3
Butler	221A
Cabool	251A
California	232C2
Cameron	261C2
Campbell	298C3
Canton	265C2
Cape Girardeau	264C, 275B
Carrollton	264C1
Carthage	236C2
Caruthersville	286A
Centralia	221A
Chaffee	284A
Channel	223A
Charleston	291C2
Chillicothe	280C3
Clayton	256C
Clinton	237C3, 241C
Columbia	244C1, 252C2, 268C1, 272A
Crestwood	234C
Cuba	271A, 297C3
De Soto	261A
Deerfield	264C3
Dexter	272A
Dixon	221A
Doniphan	248C2
Doolittle	283A
East Prairie	287A
Eldon	224C2, 270A
Eldorado Springs	288A
Ellington	280A
Farmington	253C
Fayette	230C3
Florissant	246C1
Fulton	263A
Gainesville	259C2
Gallatin	269C3
Garden City	287A
Gordonville	257A
Halfway	256C3
Hannibal	225C1
Harrisonville	264C1
Houston	257C2
Huntsville	278C2
Ironton	225A
Jefferson City	261C2, 281A, 295C
Joplin	223C1, 273C1
Kansas City	227C, 235C, 243C, 259C, 271C, 277C, 282C
Kennett	255C, 282A

MISSOURI—Continued

	Channel No.
Kimberling City	261C2
Kirksville	229C2, 233C1, 299C2, 300C1
Knob Noster	289C2
Lake Ozark	274A
Lamar	260A
La Monte	246C3
Lebanon	279C, 300C2
Lexington	297C
Liberty	293C1
Louisiana	269A, 271C3
Lutesville	281A
Macon	260A
Malden	225C3
Malta Bend	248C3
Mansfield	240A
Marble Hill	247A
Marshall	275C1
Marshfield	284C2
Maryville	246C3
Memphis	263C3
Mexico	239C
Miner	296A
Moberly	247C3, 284C, 288C2
Monett	240A
Monroe City	298A
Montgomery City	280A
Mount Vernon	294C3
Mountain Grove	223A
Mountain View	245C2
Neosho	259A
Nevada	249A
New London	290C3
New Madrid	293C2
Nixa	290C2
Osage Beach	228C3
Osceola	222A
Otterville	299A
Owensville	237A
Ozark	225C2
Palmyra	250C2
Perryville	266A
Piedmont	285C3
Pleasant Hope	238C2
Poplar Bluff	223A, 233C, 238C1, 244A, 278C2
Potosi	249C3
Republic	258A
Richmond	223A
Rolla	248A, 287C1
Saint Robert	255A
Salem	240A
Savannah	224C2
Scott City	230A
Sedalia	221A
Seligman	227C1
Shell Knob	249A
Sikeston	250C2
Southwest City	262A
Sparta	243C2
Springfield	234C, 247C1, 254C1, 267C
St. Genevieve	289C
St. James	259C3
St. Joseph	286C1
St. Louis	222C, 229C1, 242C1, 251C1, 273C, 277C1, 299C
Steelville	227C2
Stockton	299A
Sullivan	265A
Tarkio	228C3
Thayer	222A
Trenton	222C3
Troy	264A
Union	269A

MISSOURI—Continued

	Channel No.
Vandalia	282A
Versailles	236C3
Warrenton	260C3
Warsaw	249A, 253A
Washington	283A
Waynesville	249A, 250A, 272A
Webb City	250A
West Plains	230C1, 273C2
Wheeling	290A
Willard	286C2
Willow Springs	262C2

EFFECTIVE DATE NOTE: At 62 FR 45763, Aug. 29, 1997, Missouri was amended by adding Deerfield, channel 264C3, effective Oct. 6, 1997.

MONTANA

	Channel No.
Anaconda	249C3
Baker	263C1
Belgrade	244C2, 256A
Big Sky	283A
Billings	227C1, 231C1, 242C1, 246C2, 253C1, 275C1, 279C1, 286A, 298C
Bozeman	229C1, 236C1, 260C1, *271C2, 278C1
Butte	223C1, 231C, 238C, *295A
Cascade	285C
Chinook	267C1
Colstrip	229A
Columbia Falls	240C2
Conrad	229C1
Cut Bank	274C1
Deer Lodge	243C2
Dillon	252C3
East Helena	281C3
Ennis	254C2
Forsyth	267C
Glasgow	228A
Glendive	243C1
Great Falls	225C1, 233C1, 255C1, 262C, 291C1, 297C
Hamilton	240C3, 251C3
Hardin	238C
Havre	223C, 236C
Helena	258C1, 266C, *276C, 287C
Kalispell	246C, 253C, 280C1, 292C
Lewistown	240A
Laurel	269C1
Libby	269A
Livingston	248C1, 264C
Malta	261A
Miles City	223C
Missoula	227C, 235C, 261C1, 273C1
Outlook	289C
Plentywood	261A
Red Lodge	257A
Ronan	222C
Scobey	239C1
Shelby	242C1, 250C
Sidney	226C1, 236C1
Superior	298A
West Yellowstone	243A
Wolf Point	224A

NEBRASKA

	Channel No.
Ainsworth	224A
Albion	224C2
Alliance	271C1, 290C1
Auburn	288A
Aurora	247C1
Beatrice	225C1
Bennington	227A
Blair	247C3, 268C3
Bridgeport	267C
Broken Bow	252A
Central City	262C
Chadron	234C1, 248C1
Columbus	228C1, 266C1
Cozad	283C1
Crete	280A
Crookston	241C1
Fairbury	258C1
Falls City	267A
Fremont	288A
Gering	280C1
Gordon	238C2
Grand Island	239C1, 243C1, 299C1
Hastings	233C2, 268C
Holdrege	249C1
Imperial	276A
Kearney	255C1, 272C3, 290C
Kimball	261A
Lexington	226C1
Lincoln	236C2, 270C, 274C1, 287A, 292C2, 297C1
McCook	230C2, 241A, 253C2, 287C1
Milford	251C
Nebraska City	249C1
Norfolk	234C1, 294C
North Platte	235C, 246C1, 278C1
O'Neil	275C1
Ogallala	259C1, 293C1
Omaha	222C, 231C, 241C, 260C, 264C, 283C, 290C2
Orchard	287C1
Ord	280C3
Plattsmouth	295A
Sargent	221C1
Scottsbluff	225C, 231C1
Seward	245C1
Sidney	254C1
South Sioux City	296A
Superior	280A
Terrytown	245C1
Wayne	285A
West Point	300C2
Winnebago	289C2
York	285C3

NEVADA

	Channel No.
Amargosa Valley	266A
Battle Mountain	253A
Beatty	262A
Boulder City	288C2
Carson City	247C, 251C
Elko	229C2, 237C1
Ely	224C3, 243A, 269C3
Fallon	257A, 267C2
Gardnerville-Minden	256C3
Hawthorne	228A
Henderson	231C, 238C, 263C
Incline Village	261C2
Indian Springs	257A

NEVADA—Continued

	Channel No.
Las Vegas	222C, 226C, 242C, 246C, 253C, 270C, 278C, 286C2, 293C
Laughlin	228C1
Mesquite	248C1
Moapa Valley	284A
North Las Vegas	282C
Pahrump	236A, 298C
Pioche	255A
Reno	225C, 238C, 271C3, 283C, 289C, 295C
Smith	222C3
Sparks	221A, 265A
Sun Valley	229A, 233C2
Tonopah	224A
Wendover	272C
Winnemucca	224C3

NEW HAMPSHIRE

	Channel No.
Bedford	243A
Belmont	227A
Berlin	279C
Campton	289A
Claremont	291B
Concord	272A, 288A
Conway	228A, 283A
Dover	248B
Exeter	296A
Farmington	293A
Franklin	231A
Gorham	296A
Hampton	271A
Hanover	222A, 257A
Haverhill	267A
Henniker	256A
Hillsboro	299A
Hinsdale	285A
Jackson	258A
Keene	279B
Laconia	252A
Lancaster	272A
Lebanon	263C3
Lisbon	244A
Littleton	292A
Manchester	239B, 266B
Meredith	268A
Moultonborough	295A
Mount Washington	235C
Nashua	292A
Newport	269A
New London	259A
Peterborough	221A
Plymouth	261A
Portsmouth	262B
Rochester	244A
Somersworth	254A
Walpole	242A
Winchester	254A
Wolfeboro	285A

NEW JERSEY

	Channel No.
Asbury Park	232A
Atlantic City	236B, 245B, 279B, 297B1
Avalon	232A
Belvidere	296A

NEW JERSEY—Continued

	Channel No.
Blairstown	292A
Bridgeton	299B
Camden	295B
Canton	269A
Cape May	272A
Cape May Court House.	288A
Dover	288A
Eatontown	292A
Egg Harbor	285B1
Franklin	272A
Long Branch	296A
Manahawkin	261A, 289B1
Margate City	241A
Millville	247B
New Brunswick	252A
Newark	234B, 262B, 290B1
Newton	279B1
North Cape May	294A
Ocean Acres	253A
Ocean City	252A, 292A
Paterson	226B
Peterson	274A
Pleasantville	257A
Point Pleasant	240A
Princeton	277B
Toms River	224A
Trenton	233B, 248B, 268B
Tuckerton	259A
Villas	254A
Vineland	221A
Wildwood	264B
Wildwood Crest	226A
Zarephath	256B

NEW MEXICO

	Channel No.
Alamogordo	232C3, 279A, 287C2, 300A
Albuquerque	222C, 227C, 231C, 242C, 258C, 262C, 267A, 277C, 300C
Angel Fire	256C2
Armijo	296C2
Artesia	225C
Aztec	235C1
Bayard	275C1
Belen	249C1
Bloomfield	283C
Bosque Farms	284C
Carlsbad	221A, 281C1, 291C2
Chama	255A
Clayton	228A
Cloudcroft	244C, 250C1
Clovis	256C1, 260C1, 268C1, 272C3, 298C1
Corrales	236C1
Deming	232A
Espanola	225C2
Eunice	265A
Farmington	225C1, 239C1, 245C, 271C
Gallup	229C, 233C, 256C, 268A, 291C2
Grants	224C2, 264C2, 279C, 288C
Hatch	266C
Hobbs	231C1, 239C3, 243A, 275C1
Jal	279C1
Kirtland	275C
La Luz	224A
Las Cruces	258C, 276A, 280A
Las Vegas	244A, 251C, 264C3
Lordsburg	250C, 279C3, 289C3

NEW MEXICO—Continued

	Channel No.
Los Alamos	253C, 294C1, 298C1
Los Lunas	273C, 292C1
Lovington	269C3
Maljamar	*254C1, 286C
Mesilla Park	285A
Portales	237A
Raton	229C2, 243A, 249A
Reserve	283C3
Rio Rancho	269A
Roswell	235C, 246C1, *258A, 263C1, 284C2, 293C1
Ruidoso	228C3, 268A
Santa Clara	237C1
Santa Fe	234C1, 238C1, 247C, 281C, 286C, 290C
Santa Rosa	240A
Silver City	225C2
Socorro	225A
Taos	260, 268C1
Tatum	296C
Texico	243A
Thoreau	260C
Truth or Consequences.	254C
Tucumcari	224A
White Rock	266A

NEW YORK

	Channel No.
Albany	238B, 265A, 276A, 293B, 299B
Albion	238A
Alfred	270A
Amsterdam	249A
Arlington	245A
Attica	269A
Auburn	295B
Avon	227A
Babylon	272A
Baldwinsville	221B1
Ballston Spa	272A
Bath	252A, 276A
Bay Shore	276A
Big Flats	249A
Binghamton	251B, 256B
Boonville	267A
Briarcliff Manor	296A
Bridgehampton	273A
Bridgeport	258A
Brighton	231A
Brockport	288A
Buffalo	225B, 233B, 241B, 245B, 258B, 273B, 277B, 281B, 293B
Calverton-Roanoke	287A
Canajoharie	227A
Canandaigua	272A
Canton	268A
Cape Vincent	234A, 274A
Carthage	276A
Catskill	253A
Center Moriches	241A
Chateaugay	234C2
Chenango Bridge	281A
Cherry Valley	270B
Clifton Park	244A
Clyde	229A
Cobleskill	278B
Conklin	263A
Copenhagen	294C3
Corinth	228A

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	Channel No.
Corning	254A, 291B
Cortland	260B
Dansville	230A
Delhi	262A
Depew	229B
Deposit	234A
Deruyter	286B
Dundee	240A
East Hampton	244A
Ellenville	257A
Elmira	224A, 232A
Endicott	289B
Endwell	298A
Essex	267A
Port Plain	266A
Frankfort	235B
Fredonia	243A
Fulton	284B
Garden City	224A
Geneva	269A
Glens Falls	240A
Gouverneur	237A
Grand Gorge	287A
Hague	229A
Hammondsport	252A
Hampton Bays	296A
Hempstead	252A
Henderson	264A
Herkimer	224A
Highland	297A
Homer	268A
Honeoye Falls	297A
Hoosick Falls	248A
Hornell	221A, 287B
Horseheads	265A
Hudson	228A
Hudson Falls	269A, 296A
Hyde Park	249A
Irondequoit	294A
Ithaca	228A, 247B, 279B
Jamestown	227B, 270A
Jeffersonville	271A, 291A
Jewett	250A
Johnstown	285A
Kingston	232A
Lake George	253A
Lake Luzerne	234A
Lake Placid	288A
Lake Success	278B
Lakewood	295B1
Liberty	240A
Little Falls	288A
Lowville	257A
Malone	243A
Manlius	237A
Mechanicville	283A
Mexico	280A
Middletown	224A
Minetto	293A
Montauk	235A, 284A
Monticello	252A, 259A
Montour Falls	285A
Morristown	275A
Mount Kisco	292A
New Paltz	277A
New Rochelle	228A
New York	222B, 230B, 238B, 242B, 246B, 250B, 254B, 258B, 266B, 270B, 274B, 282B, 286B, 294B, 298B
Newburgh	276A
Niagara Falls	253B
North Syracuse	265A

NEW YORK—Continued

	Channel No.
Norwich	237A, 230B
Norwood	241A
Ogdensburg	224A, 254A
Old Forge	231A, 259A
Olean	239B, 268A
Oneonta	276A, 280A
Oneida	292A
Oswego	244A, 288A
Owego	269A
Palmyra	259A
Patchogue	248B, 291B
Patterson	288A
Peekskill	264B
Phoenix	271A
Plattsburgh	260C, 286C3
Port Henry	221C3
Port Jervis	244A
Potsdam	257A
Poughkeepsie	221A, 241A, 268B, 284B
Pulaski	269A
Queensbury	289B1
Ravena	233A
Remsen	228A
Rensselaer	280A
Riverhead	280A
Rochester	223B, 243B, 250B, 255B, 263B, 267B, 280A, 290A
Rome	240A, 273B
Rosendale	273A
Rotterdam	252A
Sag Harbor	221A
Salamanca	252A
Saranac Lake	269A, 292C3
Saugerties	225A
Schenectady	258B
Seneca Falls	257A
Sidney	265A
Smithtown	232A
Sodus	278A
South Bristol Twsp	236B
Southampton	225A, 237A
Southhold	269A
Southport	258A
Star Lake	290B1
Stillwater	267A
Sylvan Beach	262A
Syracuse	226B, 233B, 275B, 290A, 300B
Ticonderoga	280A
Troy	222B
Tupper Lake	272A
Utica	245B, 254B, 264A, 282B, 297B
Vestal	277B1
Walton	221A
Warrensburg	262B1
Waterloo	253A
Watertown	228A, 248C1
Waverly	271A
Webster	274A
Wellsville	278A
Westhampton	253A
Westport	273A
Wethersfield Townsh	299B
White Plains	280A
Whitehall	231A
Whitesboro	250A
Woodstock	261A
Wurtsboro	247A

NORTH CAROLINA

	Channel No.
Ahoskie	257A
Albemarle	265A
Asheboro	222C
Ashville	260C
Atlantic	297C3
Aurora	283A
Banner Elk	264A
Bayboro	250C3
Beech Mountain	272A
Belhaven	266C2
Biltmore Forest	243A
Black Mountain	295C
Burgaw	260C1
Burlington	230C, 266C
Calabash	285C3
Carolina Beach	294A
Charlotte	236C, 279C, 284C, 300C
Clinton	297C3
Columbia	273C1, 289C1
Concord	250C
Dunn	278C2
Durham	286C, 296A
Eden	233C1
Edenton	261C2
Elizabeth City	244A
Elizabethtown	289A
Elkin	265A
Fairbluff	287A
Fairmont	265C2
Farmville	232A
Fayetteville	251C1
Forest City	227C
Franklin	244A
Fuquay-Varina	280C3
Gaston	250A
Gastonia	270C
Goldsboro	245C, 272A
Greensboro	246C, 254C
Greenville	300C
Grifton	258C2
Hamlet	282A
Harkers Island	262C1
Harrisburg	224A
Hatteras	233C1, 246C2
Havelock	286C3
Henderson	223C
Hendersonville	273C1
Hertford	285C2
Hickory	239C, 275C1
Highlands	283A
High Point	238C1, 258C, 262C
Hope Mills	283A
Jacksonville	222C2, 254C1, 288C2
Jefferson	291C3
Iniannapolis	259C
Kill Devil Hills	281C1
Kinston	236C, 249A, 275A
Laurinburg	243C
Leland	231A
Lenoir	277A
Lexington	231C
Louisburg	273A
Lumberton	239C, 272A
Manteo	252A, 256C2
Morehead City	242C1
Morganton	221A
Moyock	221C3
Murfreesboro	252A
Murphy	274A
Nags Head	223C3
Nashville	259A
New Bern	270C1, 293C1

NORTH CAROLINA—Continued

	Channel No.
Newport	277C1
Norlina	232A
North Wilkesboro	247C
Ocean Isle Beach	228A
Ocracoke	224C1
Old Fort	282A
Oriental	231C3
Pinetops	238C3
Plymouth	240A
Raleigh	234C, 241C, 268C, 275A
Reidsville	271C
Roanoke Rapids	272A
Robbins	276A
Robbinsville	240A
Rocky Mount	221A, 253C3, 264C
Rose Hill	284A
Roxboro	244A
St. Pauls	297A, 299A
Salisbury	293C
Sanford	288A
Semora	294A
Shallottee	252C3, 279C3, 292A
Shelby	241C
Southern Pines	273A, 295C2
Southern Shores	265C2
Southport	298C2
Statesville	245C, 289C
Tarboro	282C1
Thomasville	252A
Topsail Beach	280C3
Wadesboro	228C3
Wallace	232A
Wanchese	237C3
Warrenton	297C2
Washington	227C, 252A
Waxhaw	291C3
Waynesville	285A
Whiteville	256C1
Williamston	279C1
Wilmington	247C1, 267C2, 274C1, 283A
Wilson	291C
Windsor	249A, 255A
Winston-Salem	226C, 281C, 298C
Wrightsville Beach	229A

NORTH DAKOTA

	Channel No.
Arthur	244A
Beulah	250A
Bismarck	225C, 233C, 243C, 248C, 254C, 268C
Bottineau	270C1
Carrington	252A
Cavalier	286C2
Devils Lake	244C2, 273C1, 278C1
Dickinson	221C3, 256C1
Fargo	229C, 250C, 270C1, 300C1
Grafton	265C3
Grand Forks	225C1, 234C1, 298C1
Harwood	264C3
Hettinger	228A
Hope	284A
Jamestown	227C1, 238C1
Kindred	224C3
Langdon	239A
Lisbon	291C2
Mandan	284C1
Mayville	288C3
Minot	229C1, 246C, 260C1, 287C1, 295A

NORTH DAKOTA—Continued

	Channel No.
Rugby	237A
Sarles	290C
Tioga	280A
Valley City	266C2
Wahpeton	295C2
Walhalla	294C2
Williston	241C1, 253C1, 266C1
Wishek	262C1

OHIO

	Channel No.
Ada	235A
Akron	243B, 248B
Alliance	223B
Archbold	241A
Ashland	267B
Ashtabula	246B, 252A
Athens	240A, 288A
Barnesville	228A
Beavercreek	280A
Bellaire	263A
Bellefontaine	252A
Bellevue	221A
Belpre	296A
Bowling Green	228A
Bryan	265A
Bucyrus	224A
Byesville	249A
Cadiz	292A
Caldwell	285A
Cambridge	244A
Canton	231B, 251B, 295B
Castalia	249A
Celina	232A, 244A
Chillicothe	227B, 232B1
Cincinnati	223B, 227B, 231B, 253B, 270B, 274B, 286B
Circleville	296A
Cleveland	226B, 238B, 253B, 258B, 264B, 271B, 277B, 281B, 289B, 293B 300B
Cleveland Heights	222B
Clyde	265A
Coal Grove	246A
Columbus	222B, 234B, 242B, 246B, 250B, 259B, 298A
Conneaut	288A
Coshocton	257A
Crestline	254A
Crooksville	297A
Dayton	256B, 284B, 299B
Defiance	251B, 290A
Delaware	300A
Delphos	296A
Delta	293A
Dover	269A
East Liverpool	282B
Eaton	225B
Edgewood	273A
Elyria	297B
Englewood	233A
Fairfield	235B
Findlay	263B
Fort Shawnee	298A
Fostoria	244A
Fredericktown	252A
Fremont	256B1
Gahanna	285A
Galion	272A

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	Channel No.
Gallipolis	268B
Geneva	284A
Georgetown	249A
Gibsonburg	239A
Greenfield	248A
Greenville	293B
Grove City	266A
Hamilton	243B, 278B
Harrison	282A
Hicksville	294A
Hillsboro	294B
Holland	272A
Hubbard	270A
Huron	241A
Ironton	296A
Jackson	249A
Johnstown	276A
Kent	261A
Kenton	237A
Kettering	260B
Lancaster	238B, 278A
Lebanon	247A
Lima	226A, 249A, 271B, 285A
Logan	252A
London	292A
Lorain	285A
Loudonville	299A
Manchester	267A
Mansfield	287B, 291B
Marietta	271B1
Marion	232A, 295B
Marysville	289A
McArthur	254A
McConnelsville	265A
Medina	235B
Miamisburg	229B
Middleport	221A
Middletown	290B
Milford	296A
Millersburg	237A
Montpelier	283A
Mount Gilead	236
Mount Vernon	229B
Napoleon	276A
Nelsonville	299A
New Lexington	292A
New Philadelphia	240A
Newark	262B, 269A
Niles	291A
North Baltimore	299A
North Kingsville	298A
North Madison	229A
Norwalk	237A
Oak Harbor	247A
Ottawa	292A
Oxford	249A
Paulding	259A
Piketon	261A
Piqua	239B
Pleasant City	221A
Port Clinton	233B
Portsmouth	257A, 281C, 298A
Richwood	282A
Ripley	258C3
St. Marys	277A
Salem	286B
Sandusky	274B
Shadyside	239B1
Shelby	261A
Sidney	288A
South Webster	235A
South Zanesville	224B1

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	Channel No.
Springfield	264B, 275B
Steubenville	278B
Swanton	297A
Sylvania	288A
Tiffin	279B
Toledo	223B, 260B, 268B, 284B
Troy	245A
Uhrichsville	260A
Union City	248A
Upper Arlington	255A
Upper Sandusky	240A
Urbana	269A
Van Wert	230A, 255B
Wapakoneta	221A
Washington Court-house.	288A
Wauseon	245A
Waverly	265A
Wellston	244B1
West Carrollton	221A
West Union	276A
Westerville	280A
Willard	245A
Wilmington	272A
Wooster	283B
Xenia	237A
Youngstown	227B, 255B, 266B
Zanesville	273B

OKLAHOMA

	Channel No.
Ada	257A
Altus	228C2, 300C3
Alva	259C1, 278C1, 289C2
Anadarko	279C1
Antlers	284A
Ardmore	239C1, 253A
Atoka	276C2
Bartlesville	261C1
Bethany	285A
Bixby	287C2
Blossom	224C2
Bristow	285A
Broken Arrow	221C2
Broken Bow	291C2
Byng	261C2
Chelsea	264A
Chickasha	288A
Clinton	238C2, 295C1
Coalgate	288C2
Collinsville	268C3
Comanche	246A
Cordell	229A, 257A
DeQueen	227A
Dickson	278C3
Duncan	272A
Durant	248C2, 296C2
Edmond	250A
Eldorado	246A
Elk City	232C3, 243C1, 253C
Enid	245C1, 276C3
Eufaula	273C3
Frederick	240A
Grove	257A
Guymon	224C3
Healdton	229C2
Heavener	223A
Henryetta	258C1
Hobart	290C

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	Channel No.
Holdenville	293C3
Hollis	223A
Hugo	238C2
Idabel	244C3
Ketchum	298C1
Kingfisher	287A
Lahoma	239C3
Lawton	231C, 237C3, 251C1, 258C3, 268C1, 297C2
Lindsay	286A
Locust Grove	233A
Lone Grove	294A
Madill	273A
Mangum	249A
Marlow	221C1
McAlester	267C1, 286A
Miami	265A
Muskogee	246C, 295C
Newcastle	227C1
Norman	292A
Nowata	285A
Oklahoma City	223C, 234C, 241C, 255C, 263C, 270C, 274C, 281C, 299C
Okmulgee	231C1
Owosso	291C
Pauls Valley	249C3
Pawhuska	280A
Perry	286A
Ponca City	257A, 265A, 284A
Poteau	250C, 297C
Pryor	283C1
Roland	222A
Sallisaw	240C2
Sand Springs	272A
Sapulpa	265A
Seminole	290A
Shawnee	236C
Snyder	262A
Spencer	289A
Stillwater	229C2, 251A, 288A
Sulphur	265C3
Taft	262A
Tahlequah	269C3
Tishomingo	259C3
Tulsa	225C, 238C, 243C, 248C, 253C, 277C
Vinita	240A, 241C2
Warner	271A
Watonga	230A
Weatherford	247C1
Wewoka	284A
Wilburton	279C1
Woodward	221C3, 240A, 261C1, 266C, 272A

OREGON

	Channel No.
Albany	260C, 300C
Altamont	249C1, 267C1
Ashland	270C, 298C2
Astoria	225C1
Baker	237C3, 284C
Bandon	243C3
Banks	298C3
Beaverton	277C
Bend	231C, 248C1, 252C3, 259A, 264C1, 289C1
Bonanza	275A
Brookings	237C2
Brownsville	272C1

OREGON—Continued

	Channel No.
Burns	224A
Cannon Beach	243A
Canyon City	233A
Cave Junction	274C
Coos Bay	228A, 254C2, 290C2
Coquille	247C1
Corvallis	268C2, 292C
Cottage Grove	263A, 288A
Creswell	237C3
Depoe Bay	288A
Eagle Point	292C3
Enterprise	221A
Eugene	233C, 241C, 250C, 256C
Florence	284C, 295A
Gleneden Beach	248C2
Gold Beach	224C1
Gold Hill	262C1
Grants Pass	245C
Harbeck-Fruitdale	252C2
Hermiston	257A
Hood River	288A
Keno	253A
Klamath Falls	223C, 258C1, 284C1, 295C1
La Grande	254C2, 260C1
Lake Oswego	294C
Lakeview	228C2, 237C2
Lebanon	279C
Lincoln City	236C2, 244C2
Malin	263A
Medford	229C, 239C1, 278C1
Merrill	289A
Milton-Freewater	250C2
Myrtle Point	231A
Newport	224C2, 274C1
North Bend	235C1, 297C1
Nyssa	254C1
Oakridge	221A
Ontario	241C1
Pendleton	279C1, 299C
Phoenix	286C1
Portland	222C, 229C, 238C, 246C, 254C1, 258C1, 262C, 266C, 270C
Prineville	236C1
Redmond	275C1, 298C1
Reed City	247A
Reedsport	221A, 258C3
Rogue River	234A
Roseburg	276A
Salem	286C
Seaside	251A, 272A
Sisters	281C1
Springfield-Eugene	226C
Sutherlin	266A
Sweet Home	296C1
The Dalles	224C3, 244C3, 249C2, 283C
Tillamook	231A, 281C3
Toledo	264C2
Tri-City	282C2
Warm Springs	243C

PENNSYLVANIA

	Channel No.
Allentown	264B, 281B
Altoona	251B, 261B1
Avis	260A
Barnesboro	228A
Beaver Falls	294B
Beaver Springs	291A
Bedford	265A, 298A

PENNSYLVANIA—Continued

	Channel No.
Bellefonte	237A
Bellwood	280A
Benton	240A
Berwick	278A
Bethlehem	236B
Blairsville	292A
Bloomsburg	293B
Boalsburg	229A
Boyertown	298B
Braddock	245B
Bradford	261A
Brookville	277B1, 288B1
Burnham	244A
Butler	249A
Cambridge Springs	283A
Canton	262B1
Carbondale	232A
Carlisle	272A
Central City	269A
Chambersburg	236B
Charleroi	252A
Clarendon	282A
Clarion	224A
Clearfield	226B1
Cooperstown	299A
Coudersport	244A
Covington	268A
Cresson	232A
Curwensville	275A
Dallas	229A
Danville	244A
Dubois	271B, 297B
Easton	241B, 260B
Ebensburg	256B
Edinboro	250B1
Elizabethville	263A
Ellwood City	221A
Emporium	257A
Ephrata	286B
Erie	234A, 260B, 272A, 279B
Everett	282A
Fairview	230A
Forest City	261A
Franklin	257B1
Freeland	276A
Galeton	264B1
Gettysburg	299B
Greencastle	232A
Greensburg	296A
Greenville	296A
Grove City	236B
Harrisburg	235B, 247B, 257A, 281B
Hawley	287A
Hazleton	250B
Hershey	294B
Hollidaysburg	285A
Honesdale	237A
Huntingdon	278A, 292A
Indiana	223A
Jenkintown	280A
Jersey Shore	242B1, 249A
Johnsonburg	263A
Johnstown	221A, 238B, 243B
Kane	280A
Lancaster	233B, 245B, 267B
Laporte	280A
Lebanon	261A
Lewisburg	279A
Lewistown	240A, 288A
Linesville	269A
Lock Haven	221A
Mansfield	222A

PENNSYLVANIA—Continued

	Channel No.
Martinsburg	224A
Masontown	295A
McConnellsburg	279A
Meadville	262B
Mechanicsburg	228A
Media	262B
Mercer	244A, 280A
Mercersburg	221A
Mexico	223A
Meyersdale	227A
Mifflinburg	252A
Mifflintown	296A
Mill Hall	254A
Millersburg	255A
Milton	265A
Montrose	243B
Mountaintop	246A
Mount Carmel	259A
Mount Union	258A
Muncy	227B1
Nanticoke	221A
New Kensington	264B
North East	265B1
Northumberland	297A
Oil City	242A, 253B1
Oliver	235B1
Olyphant	239A
Palmyra	221A
Patton	234A
Philadelphia	223B, 227B, 231B, 239B, 243B, 251B, 255B, 266B, 271B, 275B, 283B, 287B, 291B
Philipsburg	290A
Pittsburgh	225B, 229B, 233B, 241B, 259B, 268B, 273B, 284B, 290B, 300B
Pittston	272A
Pocono Pines	290A
Port Allegany	235A
Port Matilda	300A
Portage	289A
Pottsville	270B
Punxsutawney	281A
Reading	273B
Red Lion	241B
Renovo	295A
Reynoldsville	293A
Ridgebury	245A
Riverside	222A
Russell	276A
Saegertown	232A
Salladsburg	238A
Scottdale	280A
Scranton	258, 267B, 285A, 295A
Shamokin	237A
Sharon	275B
Sharpsville	240A
Smethport	292A
Somerset	249A
South Waverly	241A
South Williamsport	257A
Spangler	247A
St. Marys	230B1, 248B
Starview	224A
State College	233A, 276A
Stroudsburg	228A
Sunbury	231B
Susquehanna	223A
Tamaqua	288A
Tioga	234B1
Tobyhanna	300A
Towanda	237A
Tunkhannock	299A

PENNSYLVANIA—Continued

	Channel No.
Tyrone	266B
Union City	292A
Uniontown	257A
University Park	246A
Warren	222B
Washington	237A
Waynesboro	268B
Waynesburg	276A
Wellsboro	283B
Whitneyville	296A
Wilkes-Barre	225B, 253B
Williamsport	274B, 286B, 300A
York	277B, 289B
York-Hanover	253B

RHODE ISLAND

	Channel No.
Block Island	257A
Middletown	262A
Narragansett Pier	274A
Providence	222B, 231B, 238B, 268B, 286B
Wakefield-Peacedale	259A
Westerly	279B
Woonsocket	292A

SOUTH CAROLINA

	Channel No.
Abbeville	225A
Aiken	242C2, 258C2
Allendale	228A
Anderson	266C, 297C
Andrews	264A
Atlantic Beach	262A
Bamberg	239A
Barnwell	256C3
Batesburg	226A
Beaufort	254C1
Bishopville	229A
Blackville	250A
Bluffton	295C1
Bowman	233A
Branchville	286A
Bucksport	300C2
Camden	274A
Cayce	244A
Charleston	236C, 245C, 263C3, 278C1
Cheraw	277C2
Chester	257C3
Chesterfield	297A
Clearwater	252A
Clemson	285A
Columbia	228A, 248C1, 276A, 284C
Conway	230A
Cross Hill	231A
Darlington	288C3
Dillon	225C
Easley	280A
Elloree	262A, 262C3
Florence	292A
Folly Beach	251C2
Forest Acres	232A
Gaffney	287C
Garden City	249C1
Georgetown	229A, 249C1, 293C2
Goose Creek	232C3
Gray Court	263C

SOUTH CAROLINA—Continued

	Channel No.
Greenville	223C, 229C, 233C
Greenwood	244A, 278C3
Greer	277A
Hampton	276A
Hanahan	241C1
Hardeeville	266C2
Hartsville	253A
Hilton Head Island	291C2, 300C2
Honea Path	276A
Johnsonville	286A
Johnston	224A
Kingstree	231A, 257C3
Ladson	292A
Lake City	261A
Lancaster	296A
Latta	232C3
Lexington	253A
Loris	235A
Manning	223C
Marion	263C3
McClellanville	255C2
Moncks Corner	287C3
Mount Pleasant	283C2
Mullins	296C2
Murrell's Inlet	233A
Myrtle Beach	221C2, 269C2, 281C1
New Ellenton	274A
Newberry	292C3
North Charleston	273C
North Myrtle Beach	290C3
Orangeburg	275A, 280C3, 294C1
Pageland	272A
Pamplico	271C2
Parris Island	221A
Pawley's Island	253A
Port Royal	259C
Ravenel	269C3
Ridgeland	285C3
Ridgeville	265C3
St. Andrews	272A
St. George	298C
St. Matthews	230A
St. Stephen	291A
Saluda	221A
Scranton	275A
Seneca	251C
Socastee	258C3
South Congaree	237A
Spartanburg	255C
Summerton	252A
Summerville	227C2
Sumter	234A, 267C
Surfside Beach	276C3
Walhalla	242A
Walterboro	229A
Wedgefield	238A
West Columbia	261A
Williston	234A

EFFECTIVE DATE NOTE: At 62 FR 47763, Sept. 11, 1997, South Carolina was amended by removing channel 249C1 at Georgetown and adding Garden City, channel 249C1, effective Oct. 20, 1997

SOUTH DAKOTA

	Channel No.
Aberdeen	231C1, 235C, 294C1

SOUTH DAKOTA—Continued

	Channel No.
Belle Fourche	240C1, 271C3
Brookings	229C1
Canton	274C2
Clear Lake	296C3
Custer	286C2
Deadwood	236C
Dell Rapids	239C3
Faith	246C
Flandreau	300C3
Gregory	268C1
Hot Springs	244C2
Huron	256A, 286A
Lead	232C
Lowry	264C1
Madison	276C2
Martin	273C1
Milbank	282C1
Mission	264A
Mitchell	290C1, 297C1
Mobridge	258C1
Pierre	224C1, 237C2
Pine Ridge	228A
Rapid City	222C, 230C1, 250C1, 254C1, 262C1, 281C1, 292C
Redfield	249A, 279C1
Reliance	233C
Salem	263C1
Sioux Falls	223C, 233A, 243C, 247C1, 270C2, 279C2, 284C
Sisseton	258C2, 275C1
Spearfish	266C, 297C
Sturgis	226C
Vermillion	292C2
Volga	272C3
Watertown	225C1, 241C1, 245C
Winner	229C1, 253C1
Yankton	226C1, 281C1

TENNESSEE

	Channel No.
Alamo	226C3
Athens	269C3
Atwood	229A
Baxter	299C3
Belle Meade	294A
Benton	226A
Bolivar	244A
Bristol	245C
Brownsville	237A
Bulls Gap	264A
Byrdstown	244A
Calhoun	281A
Camden	240A
Carthage	281A
Celina	268A
Centerville	244A
Chattanooga	222C, 243C, 293C
Cleveland	237A, 264C
Clifton	293A
Clinton	237A
Coalmont	284A
Collinwood	235C3
Colonial Heights	240C2
Columbia	269A
Cookeville	234C, 253C2
Covington	228A
Crossville	257A, 273C3
Dayton	285A
Dickson	229A, 273C1

TENNESSEE—Continued

	Channel No.
Dresden	236A
Dyer	232A
Dyersburg	261C2
East Ridge	300C3
Elizabethton	257C3
Erwin	280A
Etowah	276C2
Fayetteville	288A
Franklin	261A
Gallatin	283C1
Gatlinburg	288A
Germantown	231C2, 298C3
Goddlettsville	246C2
Graysville	239A
Greensville	235C
Harriman	224A
Harrogate	243A
Henderson	239A, 299C3
Hendersonville	221A
Humboldt	272A, 287A
Huntingdon	265C3
Jackson	268A, 276C2, 281C1
Jamestown	280A, 286A
Jefferson City	257A
Jellico	274A
Johnson City	268C
Karns	226A
Kingsport	253C, 285A
Kingston Springs	229A
Knoxville	248C, 278C, 283A, 299C
Lafayette	271A
La Follette	285A
Lawrenceburg	240A, 248A
Lebanon	255A, 298C
Lenoir City	228A
Lewisburg	232A
Lexington	257A
Livingston	240C2
Lobelville	233C2
Loudon	256A, 287A
Madisonville	258A
Manchester	259C
Martin	269A
Maryville	239A
McKenzie	295C1
McKinnon	268A
McMinnville	280A
Memphis	246C1, 259C, 266C1, 274C1, 283C1, 290C
Middleton	264C3
Milan	222C
Millington	251C
Minor Hill	221A
Monterey	226A, 284A, 295C2
Morristown	231A
Murfreesboro	242C1
Nashville	225C, 238C, 250C, 277C, 290C
Newport	225A
Norris	294A
Oak Ridge	232A, 262C
Oliver Springs	254C3
Oneida	288A
Paris	231C3
Parsons	247A
Pulaski	252A
Red Bank	232A
Ripley	235A
Rockwood	289A
Rogersville	293A
St. Joseph	268A
Savannah	228A, 269A
Selmer	230A, 288A

TENNESSEE—Continued

	Channel No.
Sevierville	271C1
Seymour	242A
Shelbyville	275C1
Signal Mountain	251A
Smithville	269A
Smyrna	231A
Soddy-Daisy	272A
South Pittsburg	247C2
Sparta	288A
Spencer	297A
Spring City	230C3
Springfield	232A
Surgoinsville	282A
Sweetwater	252A
Tazewell	290A
Tiptonville	267C3
Trenton	248C3
Tullahoma	227C
Tusculum	276A
Union City	285A, 289A
Wartburg	267C3
Waverly	286C2
Waynesboro	235C3
Woodbury	285A

EFFECTIVE DATE NOTES: 1. At 62 FR 47762, Sept. 11, 1997, Tennessee was amended by removing Waynesboro, channel 235C3, and adding Collinwood, channel 235C3, effective Oct. 20, 1997.

2. At 62 FR 49171, Sept. 19, 1997, Tennessee was amended by removing channel 229A at Dickson and by adding Kingston Springs, channel 229A, effective Oct. 27, 1997

TEXAS

	Channel No.
Abilene	223C2, 264C, 286C1, 292C2, 300C1
Alamo	285A
Alice	221A, 272A
Alpine	224A
Amarillo	226C1, 231C, 245C1, 250C, 254C1, 259A, 265C1, 270C1, 275C1, 289C3
Andrews	288A
Anson	252A
Arlington	235C
Atlanta	261C2
Austin	229C, 238C, 251C1, 264C, 272C2
Ballinger	276A
Bandera	252A
Bastrop	296C2
Bay City	269C1, 273C1
Beaumont	231C, 236C1, 248C, 273C2, 300C
Beeville	250C2, 289C3
Bells	226A
Belton	292C3
Benavides	299C2
Big Lake	252A, 280A
Big Spring	240C3, 232C3
Bishop	295C3
Bloomington	295C3
Blossom	224C2
Bonham	252C3
Borger	282C1, 294A
Bowie	264C3
Brackettville	234A
Brady	237A

TEXAS—Continued

	Channel No.
Breckenridge	228C2
Brenham	231C3, 291C2
Bridgeport	252A
Brownfield	282C2
Brownsville	258C, 262C
Brownwood	257C2, 268C1, 281C1
Bryan	252A, 258A, 284C2
Burkburnett	284C
Burnet	223A, 295A
Caldwell	297A
Cameron	232A, 280C2
Campwood	256A
Canadian	235C1
Canyon	296A, 300C1
Carrizo Springs	221A, 228A
Carthage	255C1, 282A
Center	272A
Centerville	290A
Childress	241C2
Claude	239C1
Clarksville	253C
Cleveland	246C
Clifton	277C3
Coahoma	288A
Coalgate	288C2
Coleman	296C3
College Station	263C2
Colorado City	291A
Columbus	252A
Comanche	232C2
Comfort	236C2
Commerce	277C3
Conroe	295C
Copperas Cove	276C3
Corpus Christi	230C1, 234C3, 238C, 243C1, 256C1
Corsicana	300C1
Cotulla	249A
Crane	267C1
Crockett	224C2, 228C2
Crystal Beach	268C3
Crystal City	232A
Cuero	249C3
Daingerfield	295A
Dalhart	240A
Dallas	223C, 250C, 254C, 262C, 266C, 275C, 283C, 287C
Decatur	289C1
Del Rio	232A, 242C1
Denison-Sherman	269C1
Denton	256C, 291C
Denver City	248C2
DeQueen	227A
Devine	221A
Diboll	238C1
Dilley	255C2
Dimmitt	263C3
Dublin	226C3
Dumas	237C3
Eagle Pass	224A
Eastland	236A, 249A
Edinburg	281C, 300C1
Edna	241C3
El Campo	245C1
El Paso	222C, 226C, 230C, 234C, 238C, 242C, 248C, 260C, 271C
Electra	235C2
Elgin	223A
Fabens	276A
Fairfield	256C3
Falfurrias	292A
Farmersville	221A
Farwell	222C1, 252C2

TEXAS—Continued

	Channel No.
Floresville	231C2
Flower Mound	244C
Floydada	237A
Fort Stockton	232A
Fort Worth	231C, 242C, 258C, 298C1
Fort Worth-Dallas	246C, 271C
Franklin	270C3
Fredericksburg	266C
Freeport	277C
Freer	240A
Friona	234C2
Gainesville	233C, 300C2
Galveston	285A, 293C
Ganado	284C2
Gatesville	252A
George West	281A
Georgetown	244C1, 299C3
Giddings	268C1
Gilmer	237C3
Glen Rose	221C2
Goliad	240C3
Gonzales	292C2
Graham	296C3
Granbury	294C
Greenville	228C3
Gregory	283A
Groves	223C2
Haltom City	227C2
Hamlin	279C
Harker Heights	288C2
Harlingen	233C, 241C
Haskell	238C
Hearne	276A
Hebbronville	269A
Hemphill	280A
Hempstead	287C3
Hereford	278C2, 292C3
Higland Park-Dallas	279C
Hillsboro	273C1
Hondo	253A
Hooks	240C3
Houston	229C, 233C, 239C, 243C, 250C, 256C, 262C, 266C, 271C, 275C, 281C, 289C
Howe	237C3
Hudson	242A
Huntington	270C2
Huntsville	259C3, 269A
Hutto	221A
Idalou	289A, 299A
Ingleside	297C3
Jacksboro	299A
Jacksonville	272A, 293C
Jasper	274C2, 297A
Jefferson	283A
Johnson City	300C2
Jourdanton	239A
Junction	228A
Karnes City	276C2
Kennedy	221A
Kermit	292A
Kerrville	222C2, 232C2
Kilgore	241C2
Killeen	222A, 227C
Kingsville	224C2, 248C1
La Grange	285A
Lake Jackson	298C
Lamesa	284C1
Lampasas	255C1
Laredo	224A, 235C1, 251C1, 291A
Leakey	282A
Levelland	288A

TEXAS—Continued

	Channel No.
Liberty	260C2
Linden	257C2
Littlefield	238C3
Livingston	222C2
Llano	242A
Lometa	270A
Longview	247C2, 289C
Lorenzo	251C2
Los Ybanez	253C2
Lubbock	229C1, 233C1, 242C1, 258C1, 266C1, 273C1, 293C2
Lufkin	257C2, 286C
Luling	234C
Madisonville	241C2, 263C3
Malakoff	240A
Marble Falls	285C3
Marfa	228A
Markham	223A
Marlin	225C2
Marshall	222A, 280A
Mason	249C2
McAllen	245C, 253C
Mc Camey	237A
McKinney	295A
Memphis	287C1
Mercedes	292A
Merkel	274C1
Mexia	285A
Midland	222C, 227C1, 236C3, 277C1, 294C1
Mineola	260A
Mineral Wells	240C1
Mirando City	263C2
Mission	288A
Monahans	260C1, 271C
Mt. Enterprise	260A
Mount Pleasant	264C
Muenster	293A
Muleshoe	276A
Nacogdoches	221A, 277C1
Navasota	223A
New Boston	236A, 278C2
New Braunfels	221A
New Ulm	222A
Nolanville	297A
Odem	252C2
Odessa	241C2, 245C1, 250C1, 256C1, 300C1
Olney	248C2
Orange	283C, 291C
Ozona	232A
Palacios	259A
Palestine	244A, 252C2
Pampa	262C2
Paris	230C2, 282C2, 299C2
Pasadena	225C
Pearsall	237A, 281A
Pecos	247C1, 252A
Perryton	240A
Pilot Point	285C2
Pittsburg	245A, 276A
Plainview	247C1, 280C1, 295C2
Pleasanton	252A
Point Comfort	231C3
Port Arthur	227C, 253C
Port Isabel	266A
Port Lavaca	227C1
Portland	288A
Post	297C2
Premont	264C3
Quanah	265C3
Raymondville	271C2, 289A
Refugio	291C3

TEXAS—Continued

	Channel No.
Rio Grande City	276A
Robstown	260C1, 286A
Rockdale	253A
Rockport	272C2
Roma	249A
Rosenberg	285A
Round Rock	290C2
Rusk	249C3
San Angelo	225C1, 230C1, 234C1, 248C1, 254C, 261C2, 270C1, 289C3, 298C1
San Antonio	225C, 241C1, 247C, 258C, 262C, 270C1, 274Cl, 283C1, 298C
San Augustine	223A
San Diego	290C3
San Marcos	278C
Sanger	281C3
San Saba	246A
Seabrook	221C1
Seadrift	286a
Seguin	287C
Seminole	292A
Seymour	230C2
Shamrock	224A
Silsbee	269A
Sinton	267C1, 279C1
Slaton	224C1
Snyder	246A, 268C2
Sonora	221A
South Padre Island	224A, 237A
Spearman	252A
Stamford	221C2
Stanton	290C2
Stephenville	252A
Sterling City	243C2
Sulphur Springs	240A
Sweetwater	244A
Tahoka	237A, 262C1
Tatum	262A
Taylor	221A, 282C2
Temple	269C3, 282C2
Terrell	296A
Terrell Hills	294C
Texarkana	251C, 273C1
Thorndale	257A
Three Rivers	233C2
Tulia	285C3
Tye	259C1
Tyler	221C3, 226C1, 268C, 281C2
Uvalde	229A, 272A, 285C3
Vernon	272A
Victoria	222A, 236C1, 254C1, 265A, 300C1
Waco	233A, 238C, 248C, 260C, 296A
Wake Village	233A
Whitehouse	297C2
Wichita Falls	225C1, 260C1, 277C1, 273A, 292C2
Willis	279C3
Winfield	249C3
Winnie	264C
Winnsboro	285A
Winona	274A
Winters	241A
Woodville	234C2
Yoakum	223A
Zapata	228A

EFFECTIVE DATE NOTE: At 62 FR 49622, Sept. 23, 1997, Texas was amended by removing channel 282C2 at Temple; by removing channel 221A and adding channel 282C2 at Taylor; and by adding Hutto, channel 221A, effective Oct. 27, 1997.

UTAH

	Channel No.
Blanding	221A
Bountiful	258C
Brian Head	251C
Brigham City	264C, 295C
Cedar City	223C, 235C1
Centerville	289C
Coalville	223A
Delta	239C1
Huntsville	276C3
Kanab	266C1
Levan	256A
Logan	225C2, 233C
Manti	286C
Midvale	274C
Moab	246C1
Nephi	224A, 280C1
Oakley	268C1
Ogden	238C1, 250C, 266C, 270C
Orem	298C
Payson	222A
Price	252C3, 265A
Provo	235C, 242C
Randolph	272A
Richfield	229C, 248
Roosevelt	230A, 253C2
Roy	300C
St. George	228A, 240C, 259C
Salt Lake City	227C, 231C, 246C, 254C, 262C, 278C, 282C
Smithfield	280A
Spanish Fork	293C1
Tooele	221C3
Torrey	253A
Tremonton	286C2
Vernal	290C3

EFFECTIVE DATE NOTE: At 62 FR 47763, Sept. 11, 1997, Utah was amended by adding Levan, channel 256A; and by adding Oakley, channel 268C1; effective Oct. 20, 1997.

VERMONT

	Channel No.
Barre	296A
Bellows Falls	296A
Bennington	232A
Brandon	268A
Brattleboro	224A, 244A
Burlington	225C, 255C1, 300C
Canaan	231C3
Danville	239A
Derby Center	221C3
Hartford	282A
Killington	287C2
Lyndon	249C3
Manchester	274B
Marlboro	268A
Middlebury	265A
Montpelier	284C2
Randolph	271C3
Royalton	276A
Rupert	281A
Rutland	233C3, 246C2, 251C2
South Burlington	238C3
Springfield	228A

VERMONT—Continued

	Channel No.
St. Albans	272A
St. Johnsbury	288A
Stowe	269A
Vergennes	244A, 294C2
Warren	241A
Waterbury	277C3
West Rutland	298C3
White River Junction	237A
Wilmington	264A
Woodstock	230A

VIRGINIA

	Channel No.
Abingdon	224A
Accomac	257B1
Alberta	276A
Alta Vista	288A
Amherst	300C1
Appomattox	274C1, 296A
Arlington	286B
Ashland	261A
Bedford	295A
Berryville	288A
Big Stone Gap	228C2
Blacksburg	287C3
Blackstone	228C3
Bluefield	292A
Bowling Green	245A
Bridgewater	286A
Broadway	238A
Buena Vista	244A
Buffalo Gap	238A
Cape Charles	241B
Cedar Bluff	299A
Charlottesville	224A, 236A, 248B, 298A
Chase City	260C3
Chesa-Portsm-Va Bea	271A
Chesapeake	229C1
Chester	266A
Chincoteague	243A
Christiansburg	264A
Churchville	292B1
Clarksville	252C3
Clifton Forge	280A
Clinchco	221A
Coeburn	259C3
Colonial Beach	240A
Colonial Heights	237B1
Covington	265A
Crewe	284C1
Crozet	272A, 278A
Culpeper	276A
Danville	277C1
Deltaville	222A
Dillwyn	287A
Elkton	252A
Emporia	258A
Ettrick	226A
Exmore	291B1, 298B
Falmouth	283A
Farmville	225A, 239B, 267A
Fort Lee	243B
Franklin	269A
Fredericksburg	227B, 268B
Front Royal	237A, 257A
Galax	251C
Gloucester	256A
Goochland	263A
Gretna	292A

VIRGINIA—Continued

	Channel No.
Grundy	249A
Hampton	267B
Harrisonburg	264B, 282B
Hot Springs	296A
Jonesville	256A
Kilmarnock	269A
Lawrenceville	288A
Lebanon	297A
Louisa	288A
Luray	280A, 289A
Lynchburg	250C3, 261C3, 269C3, 290A
Manassas	294B
Marion	230C, 273A, 278A
Martinsville	242C1
Mechanicsville	221B1
Mount Jackson	245A
Narrows	267A
Newport News	247B
Norfolk	239B, 254B, 259B, 263B, 275B, 283B, 287B
Norton	292A
Onley-Onancock	277B
Orange	244A
Pennington Gap	288A
Petersburg	257A, 262A
Pound	272A
Pulaski	296C3
Radford	269A
Richlands	264A, 288A
Richmond	233B, 251B, 271B, 279B, 289A, 293B
Roanoke	222C, 235C, 256C, 285C3
Ruckersville	270A
Rural Retreat	237A
Salem	228A
Shawsville	273A
South Boston	237A, 248C1
South Hill	255C3
Spotsylvania	257A
Stanleytown	260C3
Staunton	228A, 232B1, 259B
Strasburg	285A
Suffolk	225B, 295C
Tappahannock	288A
Tazewell	261A
Vinton	268A, 291A, 296A
Virginia Beach	235B
Warrenton	232A, 299B
Warsaw	265A
West Point	300A
White Stone	285A
Winchester	223B, 273B
Windsor	299A
Woodbridge	290B
Woodstock	229B1
Yorktown	231B

WASHINGTON

	Channel No.
Aberdeen	257C1, 284C2
Bellevue	223C
Bellingham	225C, 282C
Bremerton	295C
Camas	234C2
Cashmere	294A
Castle Rock	296C3
Centralia	275C
Chelan	228A
Cheney	266C

WASHINGTON—Continued

	Channel No.
Clarkston	231C, 275A
Cle Elum	229A
Colfax	273C3
Colville	221A
Davenport	247C3
Dayton	223C1, 272A
Deer Park	296C3
Dishman	293A
East Wenatchee	249A
Eatonville	285A
Edmonds	287C1
Ellensburg	237C2, 276C2
Elma	271C3
Ephrata	222C2, 230C2
Forks	280A
Goldendale	272C3
Grand Coulee	253C
Grandview	265C2
Hoquiam	237C3
Ilwaco	280C3
Kelso	233A
Kennewick	287C
Leavenworth	266A
Long Beach	232A
Longview	288A
Lynden	293C
Mabton	254A
McCleary	245C3
Medical Lake	270C2
Moses Lake	257A, 262C1
Naches	245A, 257A
Newport	285A
Olympia	241C
Omak	224C2, 282C2
Opportunity	241C
Othello	248C3
Pasco	252A, 267C3, 229A
Prosser	269C3
Pullman	249A, 258C1, 282C1
Quincy	240C3, 244A
Raymond	249C3
Richland	235C, 274C, 293C
Rock Island	258A
Royal City	242C3
Seattle	227C, 231C, 235C1, 239C, 243C, 251C, 255C, 260C, 264C, 268C, 273C, 299C
Shelton	233A
South Bend	289C3
Spokane	225C, 229C, 245C3, 251C, 255C, 260C, 280C2, 284A, 289C, 300C
Sunnyside	244A
Tacoma	247C, 279C, 291C
Toppenish	225C2
Vancouver	290C2
Wisp	292A
Walla Walla	227C1, 239C, 246C, 256A, 264C3, 265A
Wenatchee	271C, 285C2
Wilson Creek	278C1
Winlock	236A
Yakima	233C1, 252A, 259C3, 281C, 289C1, 297C

WEST VIRGINIA

	Channel No.
Barrackville	226A
Beckley	258B, 279B
Berkeley Springs	228A

WEST VIRGINIA—Continued

	Channel No.
Bethlehem	288B1
Bluefield	283C
Bridgeport	281A
Buckhannon	228B1, 267B
Charles Town	252A
Charleston	241B, 248B, 260B, 274B
Clarksburg	224A, 285A, 293B
Danville	223A
Dunbar	233A
Elkins	234B1, 255B1
Elizabeth	291A
Fairmont	232A, 250B
Fisher	279A
Grafton	240A
Hinton	272A
Huntington	263B, 277B, 300B
Keyser	231B, 296A
Kingwood	244A, 299A
Lewisburg	276A
Logan	270B
Lost Creek	242A
Mannington	274A
Martinsburg	248B
Matewan	294C3
Miami	297B
Milton	292B1
Morgantown	261A, 270B
Moundsville	243A
Mount Gay-Shamrock	234A
Mount Hope	290B
Mullens	224A
New Martinsville	258A, 280A
Oak Hill	231B
Parkersburg	236B, 256B1, 276A
Petersburg	269A
Pocatalico	254A
Point Pleasant	258A
Princeton	240A, 265A
Rainelle	237B1
Ravenswood	226A
Ripley	252A
Romney	261A, *281A
Ronceverte	249A
Salem	277A, 289A
South Charleston	265A
Spencer	284A
St. Albans	286B
St. Marys	230B1
Summersville	225B
Sutton	246B1
Vienna	261A
Webster Springs	262B
Welch	275A
Weston	272B1
Westover	265A
Wheeling	247B, 254B, 298B
White Sulphur Springs	227A
Williamson	243B
Williamstown	245A

WISCONSIN

	Channel No.
Adams	291A
Algoma	244C3, 281A
Allouez	294C3
Altoona	251C3
Antigo	287C1, 291C3
Appleton	289C
Ashland	244C2, 227C1

WISCONSIN—Continued

	Channel No.
Balsam Lake	285C3
Baradoo	235B
Barron	249A
Beaver Dam	237A
Berlin	284A
Birnamwood	225A
Black River Falls	259C3
Bloomer	236C3
Brillion	298C3
Brookfield	295A
Chetek	294C2
Chippewa Falls	289C3
Cleveland	251A
Clintonville	222A
Columbus	263A
Cornell	260C3
Crandon	276A
De Forest	226A
De Pere	240C3
Dickeyville	266A
Dodgeville	257A
Durand	240A
Eagle River	233C2
Eau Claire	231C1, 264C1, 283C
Elk Mound	225A
Evansville	290A
Fond Du Lac	296A
Forestville	271A
Fort Atkinson	297B
Green Bay	253C1, 266C
Hallie	279C1
Hartford	285A
Hayward	222A, 266A
Iron River	297C3
Janesville	260B1
Kaukauna	276C3, 285A
Kenosha	236B
Kewaunee	224A
La Crosse	227C, 239C2, 285A, 292C3
Ladysmith	224A, 226A
Lake Geneva	241A
Lancaster	249C3
Lomira	249A
Madison	251B, 268B, 273B, 281B
Manitowoc	221A, 272A
Marathon	285C3
Marinette	236C1
Marshfield	293C1
Mauston	221A
Mayville	254A
Medford	257C3
Menomonee Falls	252A
Merrill	281C3
Middleton	292A
Milwaukee	227B, 233B, 239B, 243B, 247B, 256B, 271B, 275B, 299B
Minocqua	240C3
Mishicot	234A
Monomonie	221C3
Monroe	229B
Mosinee	234C2
Mount Horeb	294A
Mukwonago	287A
Neehah-Menasha	232C3, 262C2
Neillsville	224A, 298C1
Nekoosa	230C3, 288A
New Holstein	225A
New London	228C2
New Richmond	296C3
Oconto	296A
Omro	258C2
Oshkosh	245A

WISCONSIN—Continued

	Channel No.
Park Falls	254C2
Peshtigo	242C2
Platteville	296A
Plymouth	283A
Port Washington	261A
Portage	240A, 261A
Prairie Du Chien	232C2
Racine	221A, 264B
Reedsburg	275A, 285A
Rhinelander	248C1, 261C1
Rice Lake	242C1, 256C2
Richland Center	265A
Ripon	241A
River Falls	292A
Rudolph	260C3
Sauk City	242B1
Seymour	282A
Shawano	257C3
Sheboygan	229A
Sheboygan Falls	293A
Shell Lake	237C3
Siren	289A
Sparta	246C1
Spencer	222A
Spooner	292A
Sturgeon Bay	230C1, 249A, 259C2
Sturtevant	284A
Sun Prairie	221A
Superior	273C1
Suring	274C1
Three Lakes	229C2
Tomah	241C2, 255C, 233C3
Tomahawk	223C3
Trempealeau	288A
Two Rivers	255A,
Verona	288A
Viroqua	272A
Washburn	290C1
Watertown	231B
Waukesha	291B
Waunakee	286A
Waupaca	224A
Wausau	238C, 270C, 300C
Wautoma	272A
Wauwatosa	279B
West Bend	223B
West Salem	261A
Whitehall	272A
Whitewater	283A, 293A
Whiting	244C2
Winneconne	280C3
Wisconsin Dells	295A
Wisconsin Rapids	277C1

WYOMING

	Channel No.
Afton	254A
Albin	297C2
Buffalo	225C1
Burns	270C2
Casper	233C, 238C, 247A, 273A, 279C, 284A, 295C
Centennial	224A
Cheyenne	250C1, 260A, 264C1, 285A, 292C3
Cody	250C
Diamondville	287C2
Douglas	257A
Evanston	291C3
Fort Bridger	257A

WYOMING—Continued

	Channel No.
Gillette	245C1, 249A, 264C1
Glendo	261A
Glenrock	252A
Green River	221C, 268C
Greybull	262C
Jackson	227C, 237C, 245C1
Kemmerer	297A
Lander	248C1
Laramie	236C, 244A, 275C, 283C2, 288C3
Lost Cabin	256C
Midwest	300A
Newcastle	257A
Pine Bluffs	287C2
Pinedale	2266A
Powell	233C, 281C
Rawlins	224A
Riverton	226C1, 230C1
Rock Springs	236C, 243C, 283C
Sheridan	235C1, 243C3
Sundance	276C1
Thermopolis	252A, 269A
Torrington	252C3
Wheatland	269A
Worland	241C2

EFFECTIVE DATE NOTE: At 62 FR 47763, Sept. 11, 1997, Wyoming was amended by removing channel 268C and adding channel 221C at Green River, effective Oct. 20, 1997.

AMERICAN SAMOA

	Channel No.
Fagaitua	276C2
Leone	230C1
Pago Pago	221C3, 226C1

CENTRAL MARIANAS

	Channel No.
Saipan	230A

GARAPAN

	Channel No.
Saipan	258C1, 262C2, 266A, 280A

GUAM

	Channel No.
Agana	230C2, 238C2, 248C2, 262C2, 270C2, 275C
Dededo	286C

PUERTO RICO

	Channel No.
Aguada	288A
Aguadilla	225B, 262B
Arecibo	293B1, 297B
Bayamon	234B, 264B
Cabo Rojo	272A

PUERTO RICO—Continued

	Channel No.
Caguas	277B
Camuy	275B
Carolina	299B
Cidra	249A
Corozal	223B
Culebra	254A
Fajardo	243B
Guayama	295B
Hormigueros	221A, 291A
Isabela	268B
Lajas	279B
Las Piedras	252A
Luguillo	221A
Manati	245B
Maricao	241B
Mayaguez	231B, 248B, 254B
Naguabo	225A
Ponce	227B1, 266B, 270B, 286B
Quebradillas	258A
Rio Grande	247A
Rio Piedras	239B
San German	236B
San Juan	229B, 256B, 260B, 273B, 284B, 289B
Santa Isabel	251A
Utuado	281B
Vieques	291B

VIRGIN ISLANDS

	Channel No.
Charlotte Amalie	*226A, 241B1, 250B, 271B, *275A, 282B, 287B, 297B1
Christiansted	228B, 236B, 258B, 262B, 285A
Cruz Bay	267B
Frederiksted	253A, 269B1, 278A

(Sec. 316, 66 Stat. 717; 47 U.S.C. 316; sec. 5, 48 Stat., as amended, 1068; 47 U.S.C. 154, 155; secs. 2, 3, 4, 301, 303, 307, 308, 309, 315, 317, 48 Stat. as amended, 1064, 1065, 1066, 1081, 1082, 1083, 1084, 1085, 1088, 1089; (47 U.S.C. 152, 153, 301, 303, 307, 308, 309, 315, 317); secs 1, 201–205, 208, 215, 218, 313, 314, 403, 404, 410, 602; 48 Stat. as amended; 1070, 1071, 1072, 1073, 1076, 1077, 1087, 1094, 1098, 1102 (47 U.S.C. 151, 201–205, 208, 215, 218, 313, 314, 403, 404, 410, 602))

[FR 12711, Oct. 6, 1965]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 73.202 see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 73.203 Availability of channels.

(a) Except as provided for in paragraph (b) of this section, applications may be filed to construct FM broadcast stations only at the communities and on the channels contained in the Table of Allotments (§ 73.202(b)). Applications that fail to comply with this requirements, whether or not accompanied by

a petition to amend the Table, will not be accepted for tender.

(b) Applications filed on a first come, first served basis may propose a lower or higher class adjacent, intermediate frequency or co-channel. Applications for the modification of an existing FM broadcast station may propose a lower or higher class adjacent, intermediate frequency or co-channel, or an same class adjacent channel. In these cases, the applicant need not file a petition for rule making to amend the Table of Allotments (§ 73.202(b)) to specify the modified channel class.

NOTE: Changes in channel and/or class by application are limited to modifications on first, second and third adjacent channels, intermediate frequency (IF) channels, and co-channels which require no other changes to the FM Table of Allotments. Applications requesting such modifications must meet either the minimum spacing requirements of § 73.207 at the site specified in the application, without resort to the provisions of the Commission's Rules permitting short spaced stations as set forth in §§ 73.213 through 73.215 or demonstrate by a separate exhibit attached to the application the existence of a suitable allotment site that fully complies with §§ 73.207 and 73.315 without resort to §§ 73.213 through 73.215.

[54 FR 11954, Mar. 23, 1989, as amended at 58 FR 38535, July 19, 1993]

§ 73.204 International agreements and other restrictions on use of channels.

See §§ 73.207, 73.220 and 73.1650.

[49 FR 10264, Mar. 20, 1984]

§ 73.205 Zones.

For the purpose of allotments and assignments, the United States is divided into three zones as follows:

(a) Zone I consists of that portion of the United States located within the confines of the following lines drawn on the United States Albers Equal Area Projection Map (based on standard parallels 291/2° and 451/2°; North American datum): Beginning at the most easterly point on the State boundary line between North Carolina and Virginia; thence in a straight line to a point on the Virginia-West Virginia boundary line located at north latitude 37°49′ and west longitude 80°12′30″; thence westerly along the southern boundary lines of the States of West Virginia, Ohio, Indiana, and Illinois to a point at the junction of the Illinois, Kentucky, and Missouri State boundary lines; thence northerly along the western boundary line of the State of Illinois to a point at the junction of the Illinois, Iowa, and Wisconsin State boundary lines; thence easterly along the northern State boundary line of Illinois to the 90th meridian; thence north along this meridian to the 43.5° parallel; thence east along this parallel to the United States-Canada border; thence southerly and following that border until it again intersects the 43.5° parallel; thence east along this parallel to the 71st meridian; thence in a straight line to the intersection of the 69th meridian and the 45th parallel; thence east along the 45th parallel to the Atlantic Ocean. When any of the above lines pass through a city, the city shall be considered to be located in Zone I. (See Figure 1 of § 73.699.)

(b) Zone I–A consists of Puerto Rico, the Virgin Islands and that portion of the State of California which is located south of the 40th parallel.

(c) Zone II consists of Alaska, Hawaii and the rest of the United States which is not located in either Zone I or Zone I–A.

[29 FR 14116, Oct. 14, 1964, and 31 FR 10125, July 27, 1966, as amended at 48 FR 29504, June 27, 1983]

§ 73.207 Minimum distance separation between stations.

(a) Except for assignments made pursuant to § 73.213 or 73.215, FM allotments and assignments must be separated from other allotments and assignments on the same channel (co-channel) and five pairs of adjacent channels by not less than the minimum distances specified in paragraphs (b) and (c) of this section. The Commission will not accept petitions to amend the Table of Allotments unless the reference points meet all of the minimum distance separation requirements of this section. The Commission will not accept applications for new stations, or applications to change the channel or location of existing assignments unless transmitter sites meet the minimum distance separation requirements of

this section, or such applications conform to the requirements of § 73.213 or 73.215. However, applications to modify the facilities of stations with short-spaced antenna locations authorized pursuant to prior waivers of the distance separation requirements may be accepted, provided that such applications propose to maintain or improve that particular spacing deficiency. Class D (secondary) assignments are subject only to the distance separation requirements contained in paragraph (b)(3) of this section. (See § 73.512 for rules governing the channel and location of Class D (secondary) assignments.)

(b) The distances listed in Tables A, B, and C apply to allotments and assignments on the same channel and each of five pairs of adjacent channels. The five pairs of adjacent channels are the first (200 kHz above and 200 kHz below the channel under consideration), the second (400 kHz above and below), the third (600 kHz above and below), the fifty-third (10.6 MHz above and below), and the fifty-fourth (10.8 MHz above and below). The distances in the Tables apply regardless of whether the proposed station class appears first or second in the ''Relation'' column of the table.

(1) Domestic allotments and assignments must be separated from each other by not less than the distances in Table A which follows:

TABLE A—MINIMUM DISTANCE SEPARATION REQUIREMENTS IN KILOMETERS (MILES)

Relation	Co-channel	200 kHz	400/600 kHz	10.6/10.8 MHz
A to A	115 (71)	72 (45)	31 (19)	10 (6)
A to B1	143 (89)	96 (60)	48 (30)	12 (7)
A to B	178 (111)	113 (70)	69 (43)	15 (9)
A to C3	142 (88)	89 (55)	42 (26)	12 (7)
A to C2	166 (103)	106 (66)	55 (34)	15 (9)
A to C1	200 (124)	133 (83)	75 (47)	22 (14)
A to C	226 (140)	165 (103)	95 (59)	29 (18)
B1 to B1	175 (109)	114 (71)	50 (31)	14 (9)
B1 to B	211 (131)	145 (90)	71 (44)	17 (11)

TABLE A—MINIMUM DISTANCE SEPARATION REQUIREMENTS IN KILOMETERS (MILES)—Continued

Relation	Co-channel	200 kHz	400/600 kHz	10.6/10.8 MHz
B1 to C3	175 (109)	114 (71)	50 (31)	14 (9)
B1 to C2	200 (124)	134 (83)	56 (35)	17 (11)
B1 to C1	233 (145)	161 (100)	77 (48)	24 (15)
B1 to C	259 (161)	193 (120)	105 (65)	31 (19)
B to B	241 (150)	169 (105)	74 (46)	20 (12)
B t0 C3	211 (131)	145 (90)	71 (44)	17(11)
B to C2	241 (150)	169 (105)	74 (46)	20 (12)
B to C1	270 (168)	195 (121)	79 (49)	27 (17)
B to C	274 (170)	217 (135)	105 (65)	35 (22)
C3 to C3	153 (95)	99 (62)	43 (27)	14 (9)
C3 to C2	177 (110)	117 (73)	56 (35)	17 (11)
C3 to C1	211 (131)	144 (90)	76 (47)	24 (15)
C3 to C	237 (147)	176 (109)	96 (60)	31 (19)
C2 to C2	190 (118)	130 (81)	58 (36)	20 (12)
C2 to C1	224 (139)	158 (98)	79 (49)	27 (17)
C2 to C	249 (155)	188 (117)	105 (65)	35 (22)
C1 to C1	245 (152)	177 (110)	82 (51)	34 (21)
C1 to C	270 (168)	209 (130)	105 (65)	41 (25)
C to C	290 (180)	241 (150)	105 (65)	48 (30)

(2) Under the Canada-United States FM Broadcasting Agreement, domestic U.S. allotments and assignments within 320 kilometers (199 miles) of the common border must be separated from Canadian allotments and assignments by not less than the distances given in Table B, which follows. When applying Table B, U.S. Class C2 allotments and assignments are considered to be Class B; also, U.S. Class C3 allotments and assignments and U.S. Class A assignments operating with more than 3 kW ERP and 100 meters antenna HAAT (or equivalent lower ERP and higher antenna HAAT based on a class contour distance of 24 km) are considered to be Class B1.

TABLE B—MINIMUM DISTANCE SEPARATION REQUIREMENTS IN KILOMETERS

Relation	Co-Channel	Adjacent Channels			I.F.
	0 kHz	200 kHz	400 kHz	600 kHz	10.6/10.8 MHz
A–A	132	85	45	37	8
A–B1	180	113	62	54	16
A–B	206	132	76	69	16
A–C1	239	164	98	90	32
A–C	242	177	108	100	32
B1–B1	197	131	70	57	24
B1–B	223	149	84	71	24
B1–C1	256	181	106	92	40
B1–C	259	195	116	103	40
B–B	237	164	94	74	24
B–C1	271	195	115	95	40
B–C	274	209	125	106	40
C1–C1	292	217	134	101	48
C1–C	302	230	144	111	48
C–C	306	241	153	113	48

(3) Under the 1992 Mexico-United States FM Broadcasting Agreement, domestic U.S. assignments or allotments within 320 kilometers (199 miles) of the common border must be separated from Mexican assignments or allotments by not less than the distances given in Table C in this paragraph (b)(3). When applying Table C—

(i) U.S. or Mexican assignments or allotments which have been notified internationally as Class A are limited to a maximum of 3.0 kW ERP at 100 meters HAAT, or the equivalent;

(ii) U.S. or Mexican assignments or allotments which have been notified internationally as Class AA are limited to a maximum of 6.0 kW ERP at 100 meters HAAT, or the equivalent;

(iii) U.S. Class C3 assignments or allotments are considered Class B1;

(iv) U.S. Class C2 assignments or allotments are considered Class B; and

(v) Class C1 assignments or allotments assume maximum facilities of 100 kW ERP at 300 meters HAAT. However, U.S. Class C1 stations may not, in any event, exceed the domestic U.S. limit of 100 kW ERP at 299 meters HAAT, or the equivalent.

TABLE C—MINIMUM DISTANCE SEPARATION REQUIREMENTS IN KILOMETERS

Relation	Co-Channel	200 kHz	400 kHz or 600 kHz	10.6 or 10.8 MHz (I.F.)
A to A	100	61	25	8
A to AA	111	68	31	9
A to B1	138	88	48	11
A to B	163	105	65	14
A to C1	196	129	74	21
A to C	210	161	94	28
AA to AA	115	72	31	10
AA to B1	143	96	48	12
AA to B	178	125	69	15
AA to C1	200	133	75	22
AA to C	226	165	95	29
B1 to B1	175	114	50	14
B1 to B	211	145	71	17
B1 to C1	233	161	77	24
B1 to C	259	193	96	31
B to B	237	164	65	20
B to C1	270	195	79	27
B to C	270	215	98	35
C1 to C1	245	177	82	34
C1 to C	270	209	102	41
C to C	290	228	105	48

(c) The distances listed below apply only to allotments and assignments on Channel 253 (98.5 MHz). The Commission will not accept petitions to amend the Table of Allotments, applications for new stations, or applications to change the channel or location of existing assignments where the following minimum distances (between transmitter sites, in kilometers) from any TV Channel 6 allotment or assignment are not met:

MINIMUM DISTANCE SEPARATION FROM TV CHANNEL 6 (82–88 MHz)

FM Class	TV Zone I	TV Zones II & III
A	17	22
B1	19	23
B	22	26
C3	19	23
C2	22	26
C1	29	33
C	36	41

[48 FR 29504, June 27, 1983, as amended at 49 FR 10264, Mar. 20, 1984; 49 FR 19670, May 9, 1984; 49 FR 50047, Dec. 26, 1984; 51 FR 26250, July 22, 1986; 54 FR 14963, Apr. 14, 1989; 54 FR 16366, Apr. 24, 1989; 54 FR 19374, May 5, 1989; 54 FR 35338, Aug. 25, 1989; 56 FR 27426, June 14, 1991; 56 FR 57293, Nov. 8, 1991; 62 FR 50256, Sept. 25, 1997]

§ 73.208 Reference points and distance computations.

(a)(1) The following reference points must be used to determine distance separation requirements when petitions to amend the Table of Allotments (§ 73.202(b)) are considered:

(i) First, transmitter sites if authorized, or if proposed in applications with cut-off protection pursuant to paragraph (a)(3) of this section;

(ii) Second, reference coordinates designated by the FCC;

(iii) Third, coordinates listed in the United States Department of Interior publication entitled Index to the National Atlas of the United States of America; or

(iv) Last, coordinates of the main post office.

(The community's reference points for which the petition is submitted will normally be the coordinates listed in the above publication.)

(2) When the distance between communities is calculated using community reference points and it does not meet the minimum separation requirements of § 73.207, the channel may still be allotted if a transmitter site is available that would meet the minimum separation requirements and still permit the proposed station to meet the minimum field strength requirements of § 73.315. A showing indicating the availability of a suitable site should be sumitted with the petition. In cases where a station is not authorized in a community or communities and the proposed channel cannot meet the separation requirement a showing should also be made indicating adequate distance between suitable transmitter sites for all communities.

(3) Petitions to amend the Table of Allotments that do not meet minimum distance separation requirements to transmitter sites specified in pending applications will not be considered unless they are filed no later than:

(i) The last day of a filing window if the application is for a new FM facility or a major change in the non-reserved band and is filed during a filing window established under section 73.3564(d)(3); or

(ii) The cut-off date established in a Commission Public Notice under § 73.3564(d) and 73.3573(e) if the application is for a new FM facility or a major change in the reserved band; or

(iii) The date of receipt of all other types of FM applications. If an application is amended so as to create a conflict with a petition for rule making filed prior to the date the amendment is filed, the amended application will be treated as if filed on the date of the amendment for purposes of this paragraph (a)(3).

NOTE: If the filing of a conflicting FM application renders an otherwise timely filed counterproposal unacceptable, the counterproposal may be considered in the rulemaking proceeding if it is amended to protect the site of the previously filed FM application within 15 days after being placed on the Public Notice routinely issued by the staff concerning the filing of counterproposals. No proposals involving communities not already included in the proceeding can be introduced during the reply comment period as a method of resolving conflicts. The counterproponent is required to make a showing that, at the time it filed the counterproposal, it did not know, and could not have known by exercising due diligence, of

the pendency of the conflicting FM application.

(b) Station separations in licensing proceedings shall be determined by the distance between the coordinates of the proposed transmitter site in one community and

(1) The coordinates of an authorized transmitter site for the pertinent channel in the other community; or, where such transmitter site is not available for use as a reference point,

(2) Reference coordinates designated by the FCC; or, if none are designated,

(3) The coordinates of the other community as listed in the publication listed in paragraph (a) of this section; or, if not contained therein,

(4) The coordinates of the main post office of such other community.

(5) In addition, where there are pending applications in other communities which, if granted, would have to be considered in determining station separations, the coordinates of the transmitter sites proposed in such applications must be used to determine whether the requirements with respect to minimum separations between the proposed stations in the respective cities have been met.

(c) The method given in this paragraph shall be used to compute the distance between two reference points, except that, for computation of distance involving stations in Canada and Mexico, the method for distance computation specified in the applicable international agreement shall be used instead. The method set forth in this paragraph is valid only for distances not exceeding 475 km (295 miles).

(1) Convert the latitudes and longitudes of each reference point from degree-minute-second format to degree-decimal format by dividing minutes by 60 and seconds by 3600, then adding the results to degrees.

(2) Calculate the middle latitude between the two reference points by averaging the two latitudes as follows:

$$ML=(LAT1_{dd}+LAT2_{dd})\div 2$$

(3) Calculate the number of kilometers per degree latitude difference for the middle latitude calculated in paragraph (c)(2) as follows:

$$KPD_{lat}=111.13209-0.56605\cos(2ML)+0.00120\cos(4ML)$$

(4) Calculate the number of kilometers per degree longitude difference for the middle latitude calculated in paragraph (c)(2) as follows:

$$KPD_{lon}=111.41513\cos(ML)-0.09455\cos(3ML)+0.00012\cos(5ML)$$

(5) Calculate the North-South distance in kilometers as follows:

$$NS=KPD_{lat}(LAT1_{dd}-LAT2_{dd})$$

(6) Calculate the East-West distance in kilometers as follows:

$$EW=KPD_{lon}(LON1_{dd}-LON2_{dd})$$

(7) Calculate the distance between the two reference points by taking the square root of the sum of the squares of the East-West and North-South distances as follows:

$$DIST=(NS^{2}+EW^{2})^{0.5}$$

(8) Round the distance to the nearest kilometer.

(9) Terms used in this section are defined as follows:

(i) $LAT1_{dd}$ and $LON1_{dd}$=the coordinates of the first reference point in degree-decimal format.

(ii) $LAT2_{dd}$ and $LON2_{dd}$=the coordinates of the second reference point in degree-decimal format.

(iii) ML=the middle latitude in degree-decimal format.

(iv) KPD_{lat}=the number of kilometers per degree of latitude at a given middle latitude.

(v) KPD_{lon}=the number of kilometers per degree of longitude at a given middle latitude.

(vi) NS=the North-South distance in kilometers.

(vii) EW=the East-West distance in kilometers.

(viii) DIST=the distance between the two reference points, in kilometers.

[28 FR 13623, Dec. 14, 1963, as amended at 29 FR 14116, Oct. 14, 1964; 48 FR 29505, June 27, 1983; 52 FR 37788, Oct. 9, 1987; 52 FR 39920, Oct. 26, 1987; 54 FR 9806, Mar. 8, 1989; 57 FR 36020, Aug. 12, 1992; 58 FR 38537, July 19, 1993]

§ 73.209 Protection from interference.

(a) Permittees and licensees of FM broadcast stations are not protected from any interference which may be caused by the grant of a new station, or of authority to modify the facilities of an existing station, in accordance with

the provisions of this subpart. However, they are protected from interference caused by Class D (secondary) noncommercial educational FM stations. See § 73.509.

(b) The nature and extent of the protection from interference afforded FM broadcast stations operating on Channels 221–300 is limited to that which results when assignments are made in accordance with the rules in this subpart.

[43 FR 39715, Sept. 6, 1978 and 48 FR 29505, June 27, 1983; 54 FR 9802, Mar. 8, 1989]

§ 73.210 Station classes.

(a) The rules applicable to a particular station, including minimum and maximum facilities requirements, are determined by its class. Possible class designations depend upon the zone in which the station's transmitter is located, or proposed to be located. The zones are defined in § 73.205. Allotted station classes are indicated in the Table of Allotments, § 73.202. Class A, B1 and B stations may be authorized in Zones I and I–A, Class A, C3, C2, C1, and C stations may be authorized in Zone II.

(b) The power and antenna height requirements for each class are set forth in § 73.211. If a station has an ERP and an antenna HAAT such that it cannot be classified using the maximum limits and minimum requirements in § 73.211, its class shall be determined using the following procedure:

(1) Determine the reference distance of the station using the procedure in paragraph (b)(1)(i) of § 73.211. If this distance is less than or equal to 28 km, the station is Class A; otherwise,

(2) For a station in Zone I or Zone I–A, except for Puerto Rico and the Virgin Islands:

(i) If this distance is greater than 28 km and less than or equal to 39 km, the station is Class B1.

(ii) If this distance is greater than 39 km and less than or equal to 52 km, the station is Class B.

(3) For a station in Zone II:

(i) If this distance is greater than 28 km and less than or equal to 39 km, the station is Class C3.

(ii) If this distance is greater than 39 km and less than or equal to 52 km, the station is Class C2.

(iii) If this distance is greater than 52 km and less than or equal to 72 km, the station is Class C1.

(iv) If this distance is greater than 72 km and less than or equal to 92 km, the station is Class C.

(4) For a station in Puerto Rico or the Virgin Islands:

(i) If this distance is less than or equal to 42 km, the station is Class A.

(ii) If this distance is greater than 42 km and less than or equal to 46 km, the station is Class B1.

(iii) If this distance is greater then 46 km and less than or equal to 78 km, the station is Class B.

[52 FR 37788, Oct. 9, 1987; 52 FR 39920, Oct. 26, 1987, as amended at 54 FR 16367, Apr. 24, 1989; 54 FR 19374, May 5, 1989; 54 FR 35339, Aug. 25, 1989]

§ 73.211 Power and antenna height requirements.

(a) *Minimum requirements.* (1) Except as provided in paragraphs (a)(3) and (b)(2) of this section, FM stations must operate with a minimum effective radiated power (ERP) as follows:

(i) The minimum ERP for Class A stations is 0.1 kW.

(ii) The ERP for Class B1 stations must exceed 6 kW.

(iii) The ERP for Class B stations must exceed 25 kW.

(iv) The ERP for Class C3 stations must exceed 6 kW.

(v) The ERP for Class C2 stations must exceed 25 kW.

(vi) The ERP for Class C1 stations must exceed 50 kW.

(vii) The minimum ERP for Class C stations is 100 kW.

(2) Class C stations must have an antenna height above average terrain (HAAT) of at least 300 meters (984 feet). No minimum HAAT is specified for Classes A, B1, B, C3, C2, or C1 stations.

(3) Stations of any class except Class A may have an ERP less than that specified in paragraph (a)(1) of this section, provided that the reference distance, determined in accordance with paragraph (b)(1)(i) of this section, exceeds the distance to the class contour for the next lower class. Class A stations may have an ERP less than 100 watts provided that the reference distance, determined in accordance with

paragraph (b)(1)(i) of this section, equals or exceeds 6 kilometers.

(b) *Maximum limits.* (1) Except for stations located in Puerto Rico or the Virgin Islands, the maximum ERP in any direction, reference HAAT, and distance to the class contour for each FM station class are listed below:

Station class	Maximum ERP	Reference HAAT in meters (ft.)	Class contour distance in kilometers
A	6kW (7.8 dBk)	100 (328)	28
B1	25kW (14.0 dBk)	100 (328)	39
B	50kW (17.0 dBk)	150 (492)	52
C3	25kW (14.0 dBk)	100 (328)	39
C2	50kW (17.0 dBk)	150 (492)	52
C1	100kW (20.0 dBk)	299 (981)	72
C	100kW (20.0 dBk)	600 (1968)	92

(i) The reference distance of a station is obtained by finding the predicted distance to the 1mV/m contour using Figure 1 of § 73.333 and then rounding to the nearest kilometer. Antenna HAAT is determined using the procedure in § 73.313. If the HAAT so determined is less than 30 meters (100 feet), a HAAT of 30 meters must be used when finding the predicted distance to the 1 mV/m contour.

(ii) If a station's ERP is equal to the maximum for its class, its antenna HAAT must not exceed the reference HAAT, regardless of the reference distance. For example, a Class A station operating with 6 kW ERP may have an antenna HAAT of 100 meters, but not 101 meters, even though the reference distance is 28 km in both cases.

(iii) Except as provided in paragraph (b)(3) of this section, no station will be authorized in Zone I or I–A with an ERP equal to 50 kW and a HAAT exceeding 150 meters. No station will be authorized in Zone II with an ERP equal to 100 kW and a HAAT exceeding 600 meters.

(2) If a station has an antenna HAAT greater than the reference HAAT for its class, its ERP must be lower than the class maximum such that the reference distance does not exceed the class contour distance. If the antenna HAAT is so great that the station's ERP must be lower than the minimum ERP for its class (specified in paragraphs (a)(1) and (a)(3) of this section), that lower ERP will become the minimum for that station.

(3) For stations located in Puerto Rico or the Virgin Islands, the maximum ERP in any direction, reference HAAT, and distance to the class contour for each FM station class are listed below:

Station class	Maximum ERP	Reference HAAT in meters (ft.)	Class contour distance in kilometers
A	6kW (7.8 dBk)	240 (787)	42
B1	25kW (14.0 dBk)	150 (492)	46
B	50kW (17.0 dBk)	472 (1549)	78

(c) *Existing stations.* Stations authorized prior to March 1, 1984 that do not conform to the requirements of this section may continue to operate as authorized. Stations operating with facilities in excess of those specified in paragraph (b) of this section may not increase their effective radiated powers or extend their 1 mV/m field strength contour beyond the location permitted by their present authorizations. The provisions of this section will not apply to applications to increase facilities for those stations operating with less than the minimum power specified in paragraph (a) of this section.

[53 FR 17042, May 13, 1988, as amended at 54 FR 16367, Apr. 24, 1989; 54 FR 19374, May 5, 1989; 54 FR 35339, Aug. 25, 1989]

§ 73.212 Administrative changes in authorizations.

(a) In the issuance of FM broadcast station authorizations, the Commission will specify the transmitter output power and effective radiated power in accordance with the following tabulation:

Power (watts or kW)	Rounded out to nearest figure (watts or kW)
1 to 3	.05
3 to 10	.1
10 to 30	.5
30 to 100	1
100 to 300	5
300 to 1,000	10

(b) Antenna heights above average terrain will be rounded out to the nearest meter.

[28 FR 13623, Dec. 14, 1963, as amended at 48 FR 29506, June 27, 1983]

§73.213 Grandfathered short-spaced stations.

(a) Stations at locations authorized prior to November 16, 1964 that did not meet the separation distances required by §73.207 and have remained continuously short-spaced since that time may be modified or relocated with respect to such short-spaced stations, provided that no area previously receiving interference-free service would receive co-channel or first-adjacent channel interference as predicted in accordance with paragraph (a)(1) of this section, or that a showing is provided pursuant to paragraph (a)(2) of this section that demonstrates that the public interest would be served by the proposed changes.

(1) The F(50,50) curves in Figure 1 of §73.333 are to be used in conjunction with the proposed effective radiated power and antenna height above average terrain, as calculated pursuant to §73.313(c), (d)(2) and (d)(3), using data for as many radials as necessary, to determine the location of the desired (service) field strength. The F(50,10) curves in Figure 1a of §73.333 are to be used in conjunction with the proposed effective radiated power and antenna height above average terrain, as calculated pursuant to §73.313(c), (d)(2) and (d)(3), using data for as many radials as necessary, to determine the location of the undesired (interfering) field strength. Predicted interference is defined to exist only for locations where the desired (service) field strength exceeds 0.5 mV/m (54 dBu) for a Class B station, 0.7 mV/m (57 dBu) for a Class B1 station, and 1 mV/m (60 dBu) for any other class of station.

(i) Co-channel interference is predicted to exist, for the purpose of this section, at all locations where the undesired (interfering station) F(50,10) field strength exceeds a value 20 dB below the desired (service) F(50,50) field strength of the station being considered (e.g., where the protected field strength is 60 dBu, the interfering field strength must be 40 dBu or more for predicted interference to exist).

(ii) First-adjacent channel interference is predicted to exist, for the purpose of this section, at all locations where the undesired (interfering station) F(50,10) field strength exceeds a value 6 dB below the desired (service) F(50,50) field strength of the station being considered (e.g., where the protected field strength is 60 dBu, the interfering field strength must be 54 dBu or more for predicted interference to exist).

(2) For co-channel and first-adjacent channel stations, a showing that the public interest would be served by the changes proposed in an application must include exhibits demonstrating that the total area and population subject to co-channel or first-adjacent channel interference, caused and received, would be maintained or decreased. In addition, the showing must include exhibits demonstrating that the area and the population subject to co-channel or first-adjacent channel interference caused by the proposed facility to each short-spaced station individually is not increased. In all cases, the applicant must also show that any area predicted to lose service as a result of new co-channel or first-adjacent-channel interference has adequate aural service remaining. For the purpose of this section, adequate service is defined as 5 or more aural services (AM or FM).

(3) For co-channel and first-adjacent-channel stations, a copy of any application proposing interference caused in any areas where interference is not currently caused must be served upon the licensee(s) of the affected short-spaced station(s).

(4) For stations covered by this paragraph (a), there are no distance separation or interference protection requirements with respect to second-adjacent and third-adjacent channel short-spacings that have existed continuously since November 16, 1964.

(b) Stations at locations authorized prior to May 17, 1989, that did not meet the IF separation distances required by §73.207 and have remained short-spaced since that time may be modified or relocated provided that the overlap area of the two stations' 36 mV/m field strength contours is not increased.

(c) Short spacings involving at least one Class A allotment or authorization. Stations that became short spaced on or after November 16, 1964 (including stations that do not meet

the minimum distance separation requirements of paragraph (c)(1) of this section and that propose to maintain or increase their existing distance separations) may be modified or relocated in accordance with paragraph (c)(1) or (c)(2) of this section, except that this provision does not apply to stations that became short spaced by grant of applications filed after October 1, 1989, or filed pursuant to § 73.215. If the reference coordinates of an allotment are short spaced to an authorized facility or another allotment (as a result of the revision of § 73.207 in the Second Report and Order in MM Docket No. 88–375), an application for the allotment may be authorized, and subsequently modified after grant, in accordance with paragraph (c)(1) or (c)(2) of this section only with respect to such short spacing. No other stations will be authorized pursuant to these paragraphs.

(1) *Applications for authorization under requirements equivalent to those of prior rules.* Each application for authority to operate a Class A station with no more than 3000 watts ERP and 100 meters antenna HAAT (or equivalent lower ERP and higher antenna HAAT based on a class contour distance of 24 km) must specify a transmitter site that meets the minimum distance separation requirements in this paragraph. Each application for authority to operate a Class A station with more than 3000 watts ERP (up to a maximum of 5800 watts), but with an antenna HAAT lower than 100 meters such that the distance to the predicted 0.05 mV/m (34 dBμ V/m) F(50,10) field strength contour does not exceed 98 km must specify a transmitter site that meets the minimum distance separation requirements in this paragraph. Each application for authority to operate an FM station of any class other than Class A must specify a transmitter site that meets the minimum distance separation requirements in this paragraph with respect to Class A stations operating pursuant to this paragraph or paragraph (c)(2) of this section, and that meets the minimum distance separation requirements of § 73.207 with respect to all other stations.

MINIMUM DISTANCE SEPARATION REQUIREMENTS IN KILOMETERS (MILES)

Relation	Co-channel	200 kHz	400/600 kHz	10.6/10.8 MHz
A to A	105 (65)	64 (40)	27 (17)	8 (5)
A to B1	138 (86)	88 (55)	48 (30)	11 (6)
A to B	163 (101)	105 (65)	69 (43)	14 (9)
A to C3	138 (86)	84 (52)	42 (26)	11 (6)
A to C2	163 (101)	105 (65)	55 (34)	14 (9)
A to C1	196 (122)	129 (80)	74 (46)	21 (13)
A to C	222 (138)	161 (100)	94 (58)	28 (17)

(2) Applications for authorization of Class A facilities greater than 3,000 watts ERP and 100 meters HAAT. Each application to operate a Class A station with an ERP and HAAT such that the reference distance would exceed 24 kilometers must contain an exhibit demonstrating the consent of the licensee of each co-channel, first, second or third adjacent channel station (for which the requirements of § 73.207 are not met) to a grant of that application. Each such application must specify a transmitter site that meets the applicable IF-related channel distance separation requirements of § 73.207. Applications that specify a new transmitter site which is short-spaced to an FM station other than another Class A station which is seeking a mutual increase in facilities may be granted only if no alternative fully-spaced site or less short-spaced site is available. Licensees of Class A stations seeking mutual increases in facilities need not show that a fully spaced site or less short-spaced site is available. Applications submitted pursuant to the provisions of this paragraph may be granted only if such action is consistent with the public interest.

[52 FR 37789, Oct. 9, 1987, as amended at 54 FR 14964, Apr. 14, 1989; 54 FR 35339, Aug. 25, 1989; 56 FR 27426, June 14, 1991; 62 FR 50521, Sept. 26, 1997]

EFFECTIVE DATE NOTE: At 62 FR 50521, Sept. 26, 1997, § 73.213 was amended by revising paragraph (a), effective Nov. 25, 1997. For

the convenience of the user, the superseded text is set forth as follows:

§73.213 Grandfathered short-spaced stations.

(a) Stations at locations authorized prior to November 16, 1964 that did not meet the separation distances required by §73.207 and have remained short-spaced since that time may be modified or relocated provided that the predicted distance to the 1 mV/m field strength contour is not extended toward the 1 mV/m field strength contour of any short-spaced station. Mutual increase in the facilities of such stations up to the limits set forth in §73.211 may be permitted pursuant to an agreement between the affected stations and a showing of public interest. *See* §73.4235.

* * * * *

§73.215 Contour protection for short-spaced assignments.

The Commission will accept applications that specify short-spaced antenna locations (locations that do not meet the domestic co-channel and adjacent channel minimum distance separation requirements of §73.207); Provided That, such applications propose contour protection, as defined in paragraph (a) of this section, with all short-spaced assignments, applications and allotments, and meet the other applicable requirements of this section. Each application to be processed pursuant to this section must specifically request such processing on its face, and must include the necessary exhibit to demonstrate that the requisite contour protection will be provided. Such applications may be granted when the Commission determines that such action would serve the public interest, convenience, and necessity.

(a) *Contour protection*. Contour protection, for the purpose of this section, means that on the same channel and on the first, second and third adjacent channels, the predicted interfering contours of the proposed station do not overlap the predicted protected contours of other short-spaced assignments, applications and allotments, and the predicted interfering contours of other short-spaced assignments, applications and allotments do not overlap the predicted protected contour of the proposed station.

(1) The protected contours, for the purpose of this section, are defined as follows. For all Class B and B1 stations on Channels 221 through 300 inclusive, the F(50,50) field strengths along the protected contours are 0.5 mV/m (54 dBμ) and 0.7 mV/m (57 dBμ), respectively. For all other stations, the F(50,50) field strength along the protected contour is 1.0 mV/m (60 dBμ).

(2) The interfering contours, for the purpose of this section, are defined as follows. For co-channel stations, the F(50,10) field strength along the interfering contour is 20 dB lower than the F(50,50) field strength along the protected contour for which overlap is prohibited. For first adjacent channel stations (±200 kHz), the F(50,10) field strength along the interfering contour is 6 dB lower than the F(50,50) field strength along the protected contour for which overlap is prohibited. For both second and third adjacent channel stations (±400 kHz and ±600 kHz), the F(50,10) field strength along the interfering contour is 40 dB higher than the F(50,50) field strength along the protected contour for which overlap is prohibited.

(3) The locations of the protected and interfering contours of the proposed station and the other short-spaced assignments, applications and allotments must be determined in accordance with the procedures of paragraphs (c), (d)(2) and (d)(3) of §73.313, using data for as many radials as necessary to accurately locate the contours.

(4) Stations in Puerto Rico and the Virgin Islands may submit application for short-spaced locations provided the predicted distance to their 1 mV/m field strength contour is not extended toward the 1 mV/m field strength contour of any short-spaced station.

(b) Applicants requesting short-spaced assignments pursuant to this section must take into account the following factors in demonstrating that contour protection is achieved:

(1) The ERP and antenna HAAT of the proposed station in the direction of the contours of other short-spaced assignments, applications and allotments. If a directional antenna is proposed, the pattern of that antenna must be used to calculate the ERP in particular directions. See §73.316 for

additional requirements for directional antennas.

(2) The ERP and antenna HAAT of other short-spaced assignments, applications and allotments in the direction of the contours of the proposed station. The ERP and antenna HAATs in the directions of concern must be determined as follows:

(i) For vacant allotments, contours are based on the presumed use, at the allotment's reference point, of the maximum ERP that could be authorized for the station class of the allotment, and antenna HAATs in the directions of concern that would result from a non-directional antenna mounted at a standard eight-radial antenna HAAT equal to the reference HAAT for the station class of the allotment.

(ii) For existing stations that were not authorized pursuant to this section, including stations with authorized ERP that exceeds the maximum ERP permitted by § 73.211 for the standard eight-radial antenna HAAT employed, and for applications not requesting authorization pursuant to this section, contours are based on the presumed use of the maximum ERP for the applicable station class (as specified in § 73.211), and the antenna HAATs in the directions of concern that would result from a non-directional antenna mounted at a standard eight-radial antenna HAAT equal to the reference HAAT for the applicable station class, without regard to any other restrictions that may apply (e.g. zoning laws, FAA constraints, application of § 73.213).

(iii) For stations authorized pursuant to this section, except stations with authorized ERP that exceeds the maximum ERP permitted by § 73.211 for the standard eight-radial antenna HAAT employed, contours are based on the use of the authorized ERP in the directions of concern, and HAATs in the directions of concern derived from the authorized standard eight-radial antenna HAAT. For stations with authorized ERP that exceeds the maximum ERP permitted by § 73.211 for the standard eight-radial antenna HAAT employed, authorized under this section, contours are based on the presumed use of the maximum ERP for the applicable station class (as specified in § 73.211), and antenna HAATs in the directions of concern that would result from a non-directional antenna mounted at a standard eight-radial antenna HAAT equal to the reference HAAT for the applicable station class, without regard to any other restrictions that may apply.

(iv) For applications containing a request for authorization pursuant to this section, except for applications to continue operation with authorized ERP that exceeds the maximum ERP permitted by § 73.211 for the standard eight-radial antenna HAAT employed, contours are based on the use of the proposed ERP in the directions of concern, and antenna HAATs in the directions of concern derived from the proposed standard eight-radial antenna HAAT. For applications to continue operation with an ERP that exceeds the maximum ERP permitted by § 73.211 for the standard eight-radial HAAT employed, if processing is requested under this section, contours are based on the presumed use of the maximum ERP for the applicable station class (as specified in § 73.211), and antenna HAATs in the directions of concern that would result from a non-directional antenna mounted at a standard eight-radial antenna HAAT equal to the reference HAAT for the applicable station class, without regard to any other restrictions that may apply.

NOTE TO PARAGRAPH (b): Applicants are cautioned that the antenna HAAT in any particular direction of concern will not usually be the same as the standard eight-radial antenna HAAT or the reference HAAT for the station class.

(c) Applications submitted for processing pursuant to this section are not required to propose contour protection of any assignment, application or allotment for which the minimum distance separation requirements of § 73.207 are met, and may, in the directions of those assignments, applications and allotments, employ the maximum ERP permitted by § 73.211 for the standard eight-radial antenna HAAT employed.

(d) Stations authorized pursuant to this section may be subsequently authorized on the basis of compliance with the domestic minimum separation distance requirements of § 73.207, upon

filing of an FCC Form 301 or FCC Form 340 (as appropriate) requesting a modification of authorization.

(e) The Commission will not accept applications that specify a short-spaced antenna location for which the following minimum distance separation requirements, in kilometers (miles), are not met:

Relation	Co-Channel	200 kHz	400/600 kHz
A to A	92(57)	49(30)	29(18)
A to B1	119(74)	72(45)	46(29)
A to B	143(89)	96(60)	67(42)
A to C3	119(74)	72(45)	40(25)
A to C2	143(89)	89(55)	53(33)
A to C1	178(111)	111(69)	73(45)
A to C	203(126)	142(88)	93(58)
B1 to B1	143(89)	96(60)	48(30)
B1 to B	178(111)	114(71)	69(43)
B1 to C3	143(89)	96(60)	48(30)
B1 to C2	175(109)	114(71)	55(34)
B1 to C1	200(124)	134(83)	75(47)
B1 to C	233(145)	165(103)	95(59)
B to B	211(131)	145(90)	71(44)
B to C3	178(111)	114(70)	69(43)
B to C2	211(131)	145(90)	71(44)
B to C1	241(150)	169(105)	77(48)
B to C	270(168)	195(121)	105(65)
C3 to C3	142(88)	89(55)	42(26)
C3 to C2	166(103)	106(66)	55(34)
C3 to C1	200(124)	133(83)	75(47)
C3 to C	226(140)	165(103)	95(59)
C2 to C2	177(110)	117(73)	56(35)
C2 to C1	211(131)	144(90)	76(47)
C2 to C	237(147)	176(109)	96(60)
C1 to C1	224(139)	158(98)	79(49)
C1 to C	249(155)	188(117)	105(65)
C to C	270(168)	209(130)	105(65)

[54 FR 9802, Mar. 8, 1989, as amended at 54 FR 35340, Aug. 25, 1989; 56 FR 57294, Nov. 8, 1991; 57 FR 46325, Oct. 8, 1992]

§ 73.220 Restrictions on use of channels.

(a) The frequency 89.1 MHz (channel 206) is revised in the New York City metropolitan area for the use of the United Nations with the equivalent of an antenna height of 150 meters (492 feet) above average terrain and effective radiated power of 20 kWs, and the FCC will make no assignments which would cause objectionable interference with such use.

(b) In Alaska, FM broadcast stations operating on Channels 221–300 (92.1–107.9 MHz) shall not cause harmful interference to and must accept interference from non-Government fixed operations authorized prior to January 1, 1982.

[43 FR 45845, Oct. 4, 1978, as amended at 46 FR 50376, Oct. 13, 1981, 47 FR 30068, July 12, 1982; 48 FR 29507, June 27, 1983]

§ 73.232 Territorial exclusivity.

No licensee of an FM broadcast station shall have any arrangement with a network organization which prevents or hinders another station serving substantially the same area from broadcasting the network's programs not taken by the former station, or which prevents or hinders another station serving a substantially different area from broadcasting any program of the network organization: *Provided, however,* That this section does not prohibit arrangements under which the station is granted first call within its primary service area upon the network's programs. The term ''network organization'' means any organization originating program material, with or without commercial messages, and furnishing the same to stations interconnected so as to permit simultaneous broadcast by all or some of them. However, arrangements involving only stations under common ownership, or only the rebroadcast by one station of programming from another with no compensation other than a lump-sum payment by the station rebroadcasting, are not considered arrangements with a network organization. The term ''arrangement'' means any contract, arrangement or understanding, express or implied.

[42 FR 16422, Mar. 28, 1977, as amended at 57 FR 48333, Oct. 23, 1992]

§ 73.239 Use of common antenna site.

No FM broadcast station license or renewal of FM broadcast station license will be granted to any person who owns, leases, or controls a particular site which is peculiarly suitable for FM broadcasting in a particular area and (a) which is not available for use by other FM broadcast station licensees; and (b) no other comparable site is available in the area; and (c) where the exclusive use of such site by the applicant or licensee would unduly limit the number of FM broadcast stations that can be authorized in a particular area

or would unduly restrict competition among FM broadcast stations.

[28 FR 13623, Dec. 14, 1963]

§ 73.258 Indicating instruments.

(a) Each FM broadcast station shall be equipped with indicating instruments which conform with the specifications described in § 73.1215 for determining power by the indirect method; for indicating the relative amplitude of the transmission line radio frequency current, voltage, or power; and with such other instruments as are necessary for the proper adjustment, operation, and maintenance of the transmitting system.

(b) The function of each instrument shall be clearly and permanently shown in the instrument itself or on the panel immediately adjacent thereto.

(c) In the event that any one of these indicating instruments becomes defective when no substitute which conforms with the required specifications is available, the station may be operated without the defective instrument pending its repair or replacement for a period not in excess of 60 days without further authority of the FCC: *Provided that*, if the defective instrument is the transmission line meter of a station which determines the output power by the direct method, the operating power shall be determined by the indirect method in accordance with § 73.267(c) during the entire time the station is operated without the transmission line meter.

(d) If conditions beyond the control of the licensee prevent the restoration of the meter to service within the above allowed period, informal request in accordance with § 73.3549 may be filed with the Engineer in Charge of the radio district in which the station is located for such additional time as may be required to complete repairs of the defective instrument.

[41 FR 36818, Sept. 1, 1976, as amended at 48 FR 44805, Sept. 30, 1983; 50 FR 32416, Aug. 12, 1985]

§ 73.267 Determining operating power.

(a) The operating power of each FM station is to be determined by either the direct or indirect method.

(b) Direct method. The direct method of power determination for an FM station uses the indications of a calibrated transmission line meter (responsive to relative voltage, current, or power) located at the RF output terminals of the transmitter. This meter must be calibrated whenever there is any indication that the calibration is inaccurate or whenever any component of the metering circuit is repaired or replaced. The calibration must cover, as a minimum, the range from 90% to 105% of authorized power. The meter calibration may be checked by measuring the power at the transmitter terminals while either:

(1) Operating the transmitter into the transmitting antenna, and determining actual operating power by the indirect method described in § 73.267(c); or

(2) Operating the transmitter into a load (of substantially zero reactance and a resistance equal to the transmission line characteristic impedance) and using an electrical device (within ±5% accuracy) or temperature and coolant flow indicator (within ±4% accuracy) to determine the power.

(3) The calibration must cover, as a minimum, the range from 90% to 105% of authorized power and the meter must provide clear indications which will permit maintaining the operating power within the prescribed tolerance or the meter shall be calibrated to read directly in power units.

(c) *Indirect method.* The operating power is determined by the indirect method by applying an appropriate factor to the input power to the last radio-frequency power amplifier stage of the transmitter, using the following formula:

$$\text{Transmitter output power} = Ep \times Ip \times F$$

Where:

Ep=DC input voltage of final radio stage.

Ip=Total DC input current of final radio stage.

F=Efficiency factor.

(1) If the above formula is not appropriate for the design of the transmitter final amplifier, use a formula specified by the transmitter manufacturer with other appropriate operating parameters.

(2) The value of the efficiency factor, *F*, established for the authorized transmitter output power is to be used for maintaining the operating power, even though there may be some variation in *F* over the power operating range of the transmitter.

(3) The value of *F* is to be determined and a record kept thereof by one of the following procedures listed in order of preference:

(i) Using the most recent measurement data for calibration of the transmission line meter according to the procedures described in paragraph (b) of this section or the most recent measurements made by the licensee establishing the value of *F*. In the case of composite transmitters or those in which the final amplifier stages have been modified pursuant to FCC approval, the licensee must furnish the FCC and also retain with the station records the measurement data used as a basis for determining the value of *F*.

(ii) Using measurement data shown on the transmitter manufacturer's test data supplied to the licensee; *Provided*, That measurements were made at the authorized frequency and transmitter output power.

(iii) Using the transmitter manufacturer's measurement data submitted to the FCC for type acceptance and as shown in the instruction book supplied to the licensee.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[44 FR 58731, Oct. 11, 1979, as amended at 45 FR 28141, Apr. 28, 1980; 48 FR 38479, Aug. 24, 1983; 49 FR 4210, Feb. 3, 1984; 49 FR 49851, Dec. 24, 1984]

§ 73.277 Permissible transmissions.

(a) No FM broadcast licensee or permittee shall enter into any agreement, arrangement or understanding, oral or written, whereby it undertakes to supply, or receives consideration for supplying, on its main channel a functional music, background music, or other subscription service (including storecasting) for reception in the place or places of business of any subscriber.

(b) The transmission (or interruption) of radio energy in the FM broadcast band is permissible only pursuant to a station license, program test authority, construction permit, or experimental authorization and the provisions of this part of the rules.

[29 FR 7471, June 10, 1964. Redesignated at 39 FR 38655, Nov. 1, 1974 and amended at 48 FR 28454, June 22, 1983]

§ 73.293 Use of FM multiplex subcarriers.

Licensees of FM broadcast stations may transmit, without further authorization, subcarrier communication services in accordance with the provisions of §§ 73.319 and 73.322.

[51 FR 17028, May 8, 1986]

§ 73.295 FM subsidiary communications services.

(a) Subsidiary communication services are those transmitted on a subcarrier within the FM baseband signal, but do not include services which enhance the main program broadcast service, or exclusively relate to station operations (see § 73.293). Subsidiary communications include, but are not limited to services such as functional music, specialized foreign language programs, radio reading services, utility load management, market and financial data and news, paging and calling, traffic control signal switching, bilingual television audio, and point to point or multipoint messages.

(b) FM subsidiary communications services that are common carrier in nature are subject to common carrier regulation. Licensees operating such services are required to apply to the FCC for the appropriate authorization and to comply with all policies and rules applicable to the service. Responsibility for making the initial determinations of whether a particular activity is common carriage rests with the FM station licensee. Initial determinations by licensees are subject to FCC examination and may be reviewed at the FCC's discretion.

(c) Subsidiary communications services are of a secondary nature under the authority of the FM station authorization, and the authority to provide such communications services may not be retained or transferred in any manner separate from the station's authorization. The grant or renewal of an FM station permit or license is not furthered or promoted by proposed or past services. The permittee or licensee

must establish that the broadcast operation is in the public interest wholly apart from the subsidiary communications services provided.

(d) The station identification, delayed recording and sponsor identification announcements required by §§ 73.1201, 73.1208, and 73.1212 are not applicable to material transmitted under an SCA.

(e) The licensee or permittee must retain control over all material transmitted in a broadcast mode via the station's facilities, with the right to reject any material that it deems inappropriate or undesirable.

[48 FR 28454, June 22, 1983, as amended at 48 FR 44805, Sept. 30, 1983; 49 FR 33663, Aug. 15, 1984; 50 FR 32416, Aug. 12, 1985; 57 FR 48333, Oct. 23, 1992]

§ 73.297 FM stereophonic sound broadcasting.

(a) An FM broadcast station may, without specific authority from the FCC, transmit stereophonic (biphonic, quadraphonic, etc.) sound programs upon installation of stereophonic sound transmitting equipment under the provisions of §§ 2.1001, 73.322, and 73.1590 of the Rules. Prior to commencement of stereophonic sound broadcasting, equipment performance measurements must be made to ensure that the transmitted signal complies with all applicable rules and standards.

(b) Each licensee or permittee engaging in multichannel broadcasting must measure the pilot subcarrier frequency as often as necessary to ensure that it is kept at all times within 2 Hz of the authorized frequency.

[48 FR 28454, June 22, 1983, and 48 FR 38479, Aug. 24, 1983]

§ 73.310 FM technical definitions.

(a) *Frequency modulation.*

Antenna height above average terrain (HAAT). HAAT is calculated by: determining the average of the antenna heights above the terrain from 3 to 16 kilometers (2 to 10 miles) from the antenna for the eight directions evenly spaced for each 45° of azimuth starting with True North (a different antenna height will be determined in each direction from the antenna): and computing the average of these separate heights. In some cases less than eight directions may be used. (See § 73.313(d).) Where circular or elliptical polarization is used, the antenna height above average terrain must be based upon the height of the radiation of the antenna that transmits the horizontal component of radiation.

Antenna power gain. The square of the ratio of the root-mean-square (RMS) free space field strength produced at 1 kilometer in the horizontal plane in millivolts per meter for 1 kW antenna input power to 221.4 mV/m. This ratio is expressed in decibels (dB). If specified for a particular direction, antenna power gain is based on that field strength in the direction only.

Auxiliary facility. An auxiliary facility is an antenna separate from the main facility's antenna, permanently installed on the same tower or at a different location, from which a station may broadcast for short periods without prior Commission authorization or notice to the Commission while the main facility is not in operation (*e.g.,* where tower work necessitates turning off the main antenna or where lightning has caused damage to the main antenna or transmission system) (*See* § 73.1675).

Center frequency. The term ''center frequency'' means:

(1) The average frequency of the emitted wave when modulated by a sinusoidal signal.

(2) The frequency of the emitted wave without modulation.

Composite antenna pattern. The composite antenna pattern is a relative field horizontal plane pattern for 360 degrees of azimuth, for which the value at a particular azimuth is the greater of the horizontally polarized or vertically polarized component relative field values. The composite antenna pattern is normalized to a maximum of unity (1.000) relative field.

Composite baseband signal. A signal which is composed of all program and other communications signals that frequency modulates the FM carrier.

Effective radiated power. The term ''effective radiated power'' means the product of the antenna power (transmitter output power less transmission line loss) times: (1) The antenna power gain, or (2) the antenna field gain squared. Where circular or elliptical

polarization is employed, the term effective radiated power is applied separately to the horizontal and vertical components of radiation. For allocation purposes, the effective radiated power authorized is the horizontally polarized component of radiation only.

Equivalent isotropically radiated power (EIRP). The term ''equivalent isotropically radiated power (also known as ''effective radiated power above isotropic) means the product of the antenna input power and the antenna gain in a given direction relative to an isotropic antenna.

FM Blanketing. Blanketing is that form of interference to the reception of other broadcast stations which is caused by the presence of an FM broadcast signal of 115 dBu (562 mV/m) or greater signal strength in the area adjacent to the antenna of the transmitting station. The 115 dBu contour is referred to as the blanketing contour and the area within this contour is referred to as the blanketing area.

FM broadcast band. The band of frequencies extending from 88 to 108 MHz, which includes those assigned to noncommercial educational broadcasting.

FM broadcast channel. A band of frequencies 200 kHz wide and designated by its center frequency. Channels for FM broadcast stations begin at 88.1 MHz and continue in successive steps of 200 kHz to and including 107.9 MHz.

FM broadcast station. A station employing frequency modulation in the FM broadcast band and licensed primarily for the transmission of radiotelephone emissions intended to be received by the general public.

Field strength. The electric field strength in the horizontal plane.

Free space field strength. The field strength that would exist at a point in the absence of waves reflected from the earth or other reflecting objects.

Frequency departure. The amount of variation of a carrier frequency or center frequency from its assigned value.

Frequency deviation. The peak difference between modulated wave and the carrier frequency.

Frequency modulation. A system of modulation where the instantaneous radio frequency varies in proportion to the instantaneous amplitude of the modulating signal (amplitude of modulating signal to be measured after preemphasis, if used) and the instantaneous radio frequency is independent of the frequency of the modulating signal.

Frequency swing. The peak difference between the maximum and the minimum values of the instantaneous frequency of the carrier wave during modulation.

Multiplex transmission. The term ''multiplex transmission'' means the simultaneous transmission of two or more signals within a single channel. Multiplex transmission as applied to FM broadcast stations means the transmission of facsimile or other signals in addition to the regular broadcast signals.

Percentage modulation. The ratio of the actual frequency deviation to the frequency deviation defined as 100% modulation, expressed in percentage. For FM broadcast stations, a frequency deviation of ±75kHz is defined as 100% modulation.

(b) *Stereophonic sound broadcasting.*

Cross-talk. An undesired signal occurring in one channel caused by an electrical signal in another channel.

FM stereophonic broadcast. The transmission of a stereophonic program by a single FM broadcast station utilizing the main channel and a stereophonic subchannel.

Left (or right) signal. The electrical output of a microphone or combination of microphones placed so as to convey the intensity, time, and location of sounds originating predominately to the listener's left (or right) of the center of the performing area.

Left (or right) stereophonic channel. The left (or right) signal as electrically reproduced in reception of FM stereophonic broadcasts.

Main channel. The band of frequencies from 50 to 15,000 Hz which frequency-modulate the main carrier.

Pilot subcarrier. A subcarrier that serves as a control signal for use in the reception of FM stereophonic sound broadcasts.

Stereophonic separation. The ratio of the electrical signal caused in sound channel A to the signal caused in sound channel B by the transmission of only a channel B signal. Channels A and B

may be any two channels of a stereophonic sound broadcast transmission system.

Stereophonic sound. The audio information carried by plurality of channels arranged to afford the listener a sense of the spatial distribution of sound sources. Stereophonic sound broadcasting includes, but is not limited to, biphonic (two channel), triphonic (three channel) and quadrophonic (four channel) program services.

Stereophonic sound subcarrier. A subcarrier within the FM broadcast baseband used for transmitting signals for stereophonic sound reception of the main broadcast program service.

Stereophonic sound subchannel. The band of frequencies from 23 kHz to 99 kHz containing sound subcarriers and their associated sidebands.

(c) *Visual transmissions.* Communications or message transmitted on a subcarrier intended for reception and visual presentation on a viewing screen, teleprinter, facsimile printer, or other form of graphic display or record.

(d) *Control and telemetry transmissions.* Signals transmitted on a multiplex subcarrier intended for any form of control and switching functions or for equipment status data and aural or visual alarms.

[28 FR 13623, Dec. 14, 1963, as amended at 39 FR 10575, Mar. 21, 1974; 44 FR 36038, June 20, 1979; 48 FR 28454, June 22, 1983; 48 FR 29507, June 27, 1983; 48 FR 37216, Aug. 17, 1983; 49 FR 45145, Nov. 15, 1984; 57 FR 48333, Oct. 23, 1992; 62 FR 51058, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51058, Sept. 30, 1997, § 73.310 was amended by adding the definitions *Auxiliary facility* and *Composite antenna pattern*, effective Dec. 1, 1997.

§ 73.311 Field strength contours.

(a) Applications for FM broadcast authorizations must show the field strength contours required by FCC Form 301 or FCC Form 340, as appropriate.

(b) The field strength contours provided for in this section shall be considered for the following purposes only:

(1) In the estimation of coverage resulting from the selection of a particular transmitter site by an applicant for an FM broadcast station.

(2) In connection with problems of coverage arising out of application of § 73.3555.

(3) In determining compliance with § 73.315(a) concerning the minimum field strength to be provided over the principal community to be served.

(4) In determining compliance with § 73.215 concerning contour protection.

[28 FR 13623, Dec. 14, 1963, as amended at 31 FR 10126, July 27, 1966; 32 FR 11471, Aug. 9, 1967; 52 FR 10570, Apr. 2, 1987; 54 FR 9802, Mar. 8, 1989]

§ 73.312 Topographic data.

(a) In the preparation of the profile graphs previously described, and in determining the location and height above mean sea level of the antenna site, the elevation or contour intervals shall be taken from United States Geological Survey Topographic Quadrangle Maps, United States Army Corps of Engineers Maps or Tennessee Valley Authority maps, whichever is the latest, for all areas for which such maps are available. If such maps are not published for the area in question, the next best topographic information should be used. Topographic data may sometimes be obtained from state and municipal agencies. The data from the Sectional Aeronautical Charts (including bench marks) or railroad depot elevations and highway elevations from road maps may be used where no better information is available. In cases where limited topographic data can be obtained, use may be made of an altimeter in a car driven along roads extending generally radially from the transmitter site.

(b) The Commission will not ordinarily require the submission of typographical maps for areas beyond 24 km (15 miles) from the antenna site, but the maps must include the principal city or cities to be served. If it appears necessary additional data may be requested.

(c) The U.S. Geological Survey Topography Quadrangle Sheets may be obtained from the U.S. Geological Survey Department of the Interior, Washington, DC 20240. The Sectional Aeronautical Charts are available from the U.S. Coast and Geodetic Survey, Department of Commerce, Washington,

DC 20235. These maps may also be secured from branch offices and from authorized agents or dealers in most principal cities.

(d) In lieu of maps, the average terrain elevation may be computer generated except in cases of dispute, using elevations from a 30 second, point or better topographic data file. The file must be identified and the data processed for intermediate points along each radial using linear interpolation techniques. The height above mean sea level of the antenna site must be obtained manually using appropriate topographic maps.

[28 FR 13623, Dec. 14, 1963, as amended at 31 FR 10126, July 27, 1966; 49 FR 48937, Dec. 17, 1984; 58 FR 44950, Aug. 25, 1993]

§73.313 Prediction of coverage.

(a) All predictions of coverage made pursuant to this section shall be made without regard to interference and shall be made only on the basis of estimated field strengths.

(b) Predictions of coverage shall be made only for the same purposes as relate to the use of field strength contours as specified in §73.311.

(c) In predicting the distance to the field strength contours, the F(50,50) field strength chart, Figure 1 of §73.333 must be used. The 50% field strength is defined as that value exceeded for 50% of the time.

(1) The F(50,50) chart gives the estimated 50% field strengths exceeded at 50% of the locations in dB above 1 uV/m. The chart is based on an effective power radiated from a half-wave dipole antenna in free space, that produces an unattenuated field strength at 1 kilometer of about 107 dB above 1 uV/m (221.4 mV/m).

(2) To use the chart for other ERP values, convert the ordinate scale by the appropriate adjustment in dB. For example, the ordinate scale for an ERP of 50 kW (17 dBk) should be adjusted by 17 dB and, therefore, a field strength of 40 dBu would be converted to 57 dBu. When predicting the distance to field strength contours, use the maximum ERP of the main radiated lobe in the pertinent azimuthal direction. When predicting field strengths over areas not in the plane of the maximum main lobe, use the ERP in the direction of such areas, determined by considering the appropriate vertical radiation pattern.

(d) The antenna height to be used with this chart is the height of the radiation center of the antenna above the average terrain along the radial in question. In determining the average elevation of the terrain, the elevations between 3 and 16 kilometers from the antenna site are used.

(1) Profile graphs must be drawn for eight radials beginning at the antenna site and extending 16 kilometers therefrom. The radials should be drawn for each 45° of azimuth starting with True North. At least one radial must include the principal community to be served even though it may be more than 16 kilometers from the antenna site. However, in the event none of the evenly spaced radials include the principal community to be served, and one or more such radials are drawn in addition, these radials must not be used in computing the antenna height above average terrain.

(2) Where the 3 to 16 kilometers portion of a radial extends in whole or in part over a large body of water or extends over foreign territory but the 50 uV/m contour encompasses land area within the United States beyond the 16 kilometers portion of the radial, the entire 3 to 16 kilometers portion of the radial must be included in the computation of antenna height above average terrain. However, where the 50 uV/m contour does not so encompass United States land area and (i) the entire 3 to 16 kilometers portion of the radial extends over large bodies of water or foreign territory, such radial must be completely omitted from the computation of antenna height above average terrain, and (ii) where a part of the 3 to 16 kilometers portion of a radial extends over large bodies of water or foreign territory, only that part of the radial extending from the 3 kilometers sector to the outermost portion of land area within the United States covered by the radial must be used in the computation of antenna height above average terrain.

(3) The profile graph for each radial should be plotted by contour intervals of from 12 to 30 meters and, where the

data permits, at least 50 points of elevation (generally uniformly spaced) should be used for each radial. In instances of very rugged terrain where the use of contour intervals of 30 meters would result in several points in a short distance, 60 or 120 meter contour intervals may be used for such distances. On the other hand, where the terrain is uniform or gently sloping the smallest contour interval indicated on the topographic map should be used, although only relatively few points may be available. The profile graph should indicate the topography accurately for each radial, and the graphs should be plotted with the distance in kilometers as the abscissa and the elevation in meters above mean sea level as the ordinate. The profile graphs should indicate the source of the topographical data used. The graph should also show the elevation of the center of the radiating system. The graph may be plotted either on rectangular coordinate paper or on special paper that shows the curvature of the earth. It is not necessary to take the curvature of the earth into consideration in this procedure as this factor is taken care of in the charts showing signal strengths. The average elevation of the 13 kilometer distance between 3 and 16 kilometers from the antenna site should then be determined from the profile graph for each radial. This may be obtained by averaging a large number of equally spaced points, by using a planimeter, or by obtaining the median elevation (that exceeded for 50% of the distance) in sectors and averaging those values.

(4) Examples of HAAT calculations:

(i) The heights above average terrain on the eight radials are as follows:

	Meters
0°	120
45°	255
90°	185
135°	90
180°	−10
225°	−85
270°	40
315°	85

The antenna height above terrain (defined in § 73.310(a)) is computed as follows:

(120+255+185+90−10−85+40+85)/8=85 meters.

(ii) Same as paragraph (d)(4)(i) of this section, except the 0° radial is entirely over sea water. The antenna height above average terrain is computed as follows (note that the divisor is 7 not 8):

(255+185+90−10−85+40+85)/7=80 meters.

(iii) Same as paragraph (d)(4)(i) of this section, except that only the first 10 kilometers of the 90° radial are in the United States; beyond 10 kilometers the 90° radial is in a foreign country. The height above average terrain of the 3 to 10 kilometer portion of the 90° radial is 105 meters. The antenna height above average terrain is computed as follows (note that the divisor is 8 not 7.5):

(120+255+105+90−10−85+40+85)/8=75 meters.

(e) In cases where the terrain in one or more directions from the antenna site departs widely from the average elevation of the 3 to 16 kilometer sector, the prediction method may indicate contour distances that are different from what may be expected in practice. For example, a mountain ridge may indicate the practical limit of service although the prediction method may indicate otherwise. In such cases, the prediction method should be followed, but a supplemental showing may be made concerning the contour distances as determined by other means. Such supplemental showings should describe the procedure used and should include sample calculations. Maps of predicted coverage should include both the coverage as predicted by the regular method and as predicted by a supplemental method. When measurements of area are required, these should include the area obtained by the regular prediction method and the area obtained by the supplemental method. In directions where the terrain is such that antenna heights less than 30 meters for the 3 to 16 kilometer sector are obtained, an assumed height of 30 meters must be used for the prediction of coverage. However, where the actual contour distances are critical factors, a supplemental showing of expected coverage must be included together with a description of the method used in predicting such coverage. In special cases, the

FCC may require additional information as to terrain and coverage.

(f) The effect of terrain roughness on the predicted field strength of a signal at points distant from an FM transmitting antenna is assumed to depend on the magnitude of a terrain roughness factor (h) which, for a specific propagation path, is determined by the characteristics of a segment of the terrain profile for that path 40 kilometers in length located between 10 and 50 kilometers from the antenna. The terrain roughness factor has a value equal to the distance, in meters, between elevations exceeded by all points on the profile for 10% and 90% respectively, of the length of the profile segment. (See § 73.333, Figure 4.)

(g) If the lowest field strength value of interest is initially predicted to occur over a particular propagation path at a distance that is less than 50 kilometers from the antenna, the terrain profile segment used in the determination of terrain roughness factor over that path must be that included between points 10 kilometers from the transmitter and such lesser distances. No terrain roughness correction need be applied when all field strength values of interest are predicted to occur 10 kilometers or less from the transmitting antenna.

(h) Profile segments prepared for terrain roughness factor determinations are to be plotted in rectangular coordinates, with no less than 50 points evenly spaced within the segment using data obtained from topographic maps with contour intervals of approximately 15 meters (50 feet) or less if available.

(i) The field strength charts (§ 73.333, Figs. 1–1a) were developed assuming a terrain roughness factor of 50 meters, which is considered to be representative of average terrain in the United States. Where the roughness factor for a particular propagation path is found to depart appreciably from this value, a terrain roughness correction (ΔF) should be applied to field strength values along this path, as predicted with the use of these charts. The magnitude and sign of this correction, for any value of Δh, may be determined from a chart included in § 73.333 as Figure 5.

(j) Alternatively, the terrain roughness correction may be computed using the following formula:

$$\Delta F = 1.9 - 0.03(\Delta h)(1 + f/300)$$

Where:

ΔF=terrain roughness correction in dB
Δk=terrain roughness factor in meters
f=frequency of signal in MHz (MHz)

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[28 FR 13623, Dec. 14, 1963, as amended at 40 FR 27678, July 1, 1975; 48 FR 29507, June 27, 1983; 52 FR 11655, Apr. 10, 1987; 52 FR 37789, Oct. 9, 1987; 57 FR 48333, Oct. 23, 1992]

EFFECTIVE DATE NOTE: At 42 FR 25736, May 19, 1977, the effective date of § 73.313 paragraphs (i) and (j) was stayed indefinitely.

§ 73.314 Field strength measurements.

(a) Except as provided for in § 73.209, FM broadcast stations shall not be protected from any type of interference or propagation effect. Persons desiring to submit testimony, evidence or data to the Commission for the purpose of showing that the technical standards contained in this subpart do not properly reflect the levels of any given type of interference or propagation effect may do so only in appropriate rule making proceedings concerning the amendment of such technical standards. Persons making field strength measurements for formal submission to the Commission in rule making proceedings, or making such measurements upon the request of the Commission, shall follow the procedure for making and reporting such measurements outlined in paragraph (b) of this section. In instances where a showing of the measured level of a signal prevailing over a specific community is appropriate, the procedure for making and reporting field strength measurements for this purpose is set forth in paragraph (c) of this section.

(b) Collection of field strength data for propagation analysis.

(1) *Preparation for measurements.* (i) On large scale topographic maps, eight or more radials are drawn from the transmitter location to the maximum distance at which measurements are to be made, with the angles included between adjacent radials of approximately equal size. Radials should be

oriented so as to traverse representative types of terrain. The specific number of radials and their orientation should be such as to accomplish this objective.

(ii) Each radial is marked, at a point exactly 16 kilometers from the transmitter and, at greater distances, at successive 3 kilometer intervals. Where measurements are to be conducted over extremely rugged terrain, shorter intervals may be used, but all such intervals must be of equal length. Accessible roads intersecting each radial as nearly as possible at each 3 kilometer marker are selected. These intersections are the points on the radial at which measurements are to be made, and are referred to subsequently as measuring locations. The elevation of each measuring location should approach the elevation at the corresponding 3 kilometer marker as nearly as possible.

(2) *Measurement procedure.* All measurements must be made utilizing a receiving antenna designed for reception of the horizontally polarized signal component, elevated 9 meters above the roadbed. At each measuring location, the following procedure must be used:

(i) The instrument calibration is checked.

(ii) The antenna is elevated to a height of 9 meters.

(iii) The receiving antenna is rotated to determine if the strongest signal is arriving from the direction of the transmitter.

(iv) The antenna is oriented so that the sector of its response pattern over which maximum gain is realized is in the direction of the transmitter.

(v) A mobile run of at least 30 meters is made, that is centered on the intersection of the radial and the road, and the measured field strength is continuously recorded on a chart recorder over the length of the run.

(vi) The actual measuring location is marked exactly on the topographic map, and a written record, keyed to the specific location, is made of all factors which may affect the recorded field, such as topography, height and types of vegetation, buildings, obstacles, weather, and other local features.

(vii) If, during the test conducted as described in paragraph (b)(2)(iii) of this section, the strongest signal is found to come from a direction other than from the transmitter, after the mobile run prescribed in paragraph (b)(2)(v) of this section is concluded, additional measurements must be made in a ''cluster'' of at least five fixed points. At each such point, the field strengths with the antenna oriented toward the transmitter, and with the antenna oriented so as to receive the strongest field, are measured and recorded. Generally, all points should be within 60 meters of the center point of the mobile run.

(viii) If overhead obstacles preclude a mobile run of at least 30 meters, a ''cluster'' of five spot measurements may be made in lieu of this run. The first measurement in the cluster is identified. Generally, the locations for other measurements must be within 60 meters of the location of the first.

(3) *Method of reporting measurements.* A report of measurements to the Commission shall be submitted in affidavit form, in triplicate, and should contain the following information:

(i) Tables of field strength measurements, which, for each measuring location, set forth the following data:

(A) Distance from the transmitting antenna.

(B) Ground elevation at measuring location.

(C) Date, time of day, and weather.

(D) Median field in dBu for 0 dBk, for mobile run or for cluster, as well as maximum and minimum measured field strengths.

(E) Notes describing each measuring location.

(ii) U.S. Geological Survey topographic maps, on which is shown the exact location at which each measurement was made. The original plots shall be made on maps of the largest available scale. Copies may be reduced in size for convenient submission to the Commission, but not to the extent that important detail is lost. The original maps shall be made available, if requested. If a large number of maps is involved, an index map should be submitted.

(iii) All information necessary to determine the pertinent characteristics

of the transmitting installation, including frequency, geographical coordinates of antenna site, rated and actual power output of transmitter, measured transmission line loss, antenna power gain, height of antenna above ground, above mean sea level, and above average terrain. The effective radiated power should be computed, and horizontal and vertical plane patterns of the transmitting antenna should be submitted.

(iv) A list of calibrated equipment used in the field strength survey, which, for each instrument, specifies its manufacturer, type, serial number and rated accuracy, and the date of its most recent calibration by the manufacturer, or by a laboratory. Complete details of any instrument not of standard manufacture shall be submitted.

(v) A detailed description of the calibration of the measuring equipment, including field strength meters, measuring antenna, and connecting cable.

(vi) Terrain profiles in each direction in which measurements were made, drawn on curved earth paper for equivalent 4/3 earth radius, of the largest available scale.

(c) Collection of field strength data to determine FM broadcast service in specific communities.

(1) *Preparation for measurement.* (i) The population (P) of the community, and its suburbs, if any, is determined by reference to an appropriate source, e.g., the 1970 U.S. Census tables of population of cities and urbanized areas.

(ii) The number of locations at which measurements are to be made shall be at least 15, and shall be approximately equal to $0.1(P)^{1/2}$, if this product is a number greater than 15.

(iii) A rectangular grid, of such size and shape as to encompass the boundaries of the community is drawn on an accurate map of the community. The number of line intersections on the grid included within the boundaries of the community shall be at least equal to the required number of measuring locations. The position of each intersection on the community map determines the location at which a measurement shall be made.

(2) *Measurement procedure.* All measurements must be made using a receiving antenna designed for reception of the horizontally polarized signal component, elevated 9 meters above ground level.

(i) Each measuring location shall be chosen as close as feasible to a point indicated on the map, as previously prepared, and at as nearly the same elevation as that point as possible.

(ii) At each measuring location, after equipment calibration and elevation of the antenna, a check is made to determine whether the strongest signal arrives from a direction other than from the transmitter.

(iii) At 20 percent or more of the measuring locations, mobile runs, as described in paragraph (b)(2) of this section shall be made, with no less than three such mobile runs in any case. The points at which mobile measurements are made shall be well separated. Spot measurements may be made at other measuring points.

(iv) Each actual measuring location is marked exactly on the map of the community, and suitably keyed. A written record shall be maintained, describing, for each location, factors which may affect the recorded field, such as the approximate time of measurement, weather, topography, overhead wiring, heights and types of vegetation, buildings and other structures. The orientation, with respect to the measuring location shall be indicated of objects of such shape and size as to be capable of causing shadows or reflections. If the strongest signal received was found to arrive from a direction other than that of the transmitter, this fact shall be recorded.

(3) *Method of reporting measurements.* A report of measurements to the Commission shall be submitted in affidavit form, in triplicate, and should contain the following information:

(i) A map of the community showing each actual measuring location, specifically identifying the points at which mobile runs were made.

(ii) A table keyed to the above map, showing the field strength at each measuring point, reduced to dBu for the actual effective radiated power of the station. Weather, date, and time of each measurement shall be indicated.

(iii) Notes describing each measuring location.

(iv) A topographic map of the largest available scale on which are marked the community and the transmitter site of the station whose signals have been measured, which includes all areas on or near the direct path of signal propagation.

(v) Computations of the mean and standard deviation of all measured field strengths, or a graph on which the distribution of measured field strength values is plotted.

(vi) A list of calibrated equipment used for the measurements, which for each instrument, specifies its manufacturer, type, serial number and rated accuracy, and the date of its most recent calibration by the manufacturer, or by a laboratory. Complete details of any instrument not of standard manufacture shall be submitted.

(vii) A detailed description of the procedure employed in the calibration of the measuring equipment, including field strength meters, measuring antenna, and connecting cable.

[40 FR 27682, July 1, 1975; 40 FR 28802, July 9, 1975, as amended at 48 FR 29508, June 27, 1983]

§ 73.315 FM transmitter location.

(a) The transmitter location shall be chosen so that, on the basis of the effective radiated power and antenna height above average terrain employed, a minimum field strength of 70 dB above one uV/m (dBu), or 3.16 mV/m, will be provided over the entire principal community to be served.

NOTE: The requirements of paragraph (a) of this section do not apply to noncommercial educational FM broadcast stations operating on reserved channels. (Channels 200 through 220)

(b) The transmitter location should be chosen to maximize coverage to the city of license while minimizing interference. This is normally accomplished by locating in the least populated area available while maintaining the provisions of paragraph (a) of this section. In general, the transmitting antenna of a station should be located in the most sparsely populated area available at the highest elevation available. The location of the antenna should be so chosen that line-of-sight can be obtained from the antenna over the principle city or cities to be served; in no event should there be a major obstruction in this path.

(c) The transmitting location should be selected so that the 1 mV/m contour encompasses the urban population within the area to be served. It is recognized that topography, shape of the desired service area, and population distribution may make the choice of a transmitter location difficult. In such cases consideration may be given to the use of a directional antenna system, although it is generally preferable to choose a site where a nondirectional antenna may be employed.

(d) In cases of questionable antenna locations it is desirable to conduct propagation tests to indicate the field strength expected in the principal city or cities to be served and in other areas, particularly where severe shadow problems may be expected. In considering applications proposing the use of such locations, the Commission may require site tests to be made. Such tests should include measurements made in accordance with the measurement procedures described in § 73.314, and full data thereon shall be supplied to the Commission. The test transmitter should employ an antenna having a height as close as possible to the proposed antenna height, using a balloon or other support if necessary and feasible. Information concerning the authorization of site tests may be obtained from the Commission upon request.

(e) Cognizance must of course be taken regarding the possible hazard of the proposed antenna structure to aviation and the proximity of the proposed site to airports and airways. Procedures and standards with respect to the Commission's consideration of proposed antenna structures which will serve as a guide to persons intending to apply for radio station licenses are contained in Part 17 of this chapter (Construction, Marking, and Lighting of Antenna Structures).

[28 FR 13623, Dec. 14, 1963, as amended at 41 FR 22943, June 8, 1976; 49 FR 38131, Sept. 27, 1984; 49 FR 45146, Nov. 15, 1984; 51 FR 9965, Mar. 24, 1986; 52 FR 10570, Apr. 2, 1987]

§73.316 FM antenna systems.

(a) It shall be standard to employ horizontal polarization; however, circular or elliptical polarization may be employed if desired. Clockwise or counterclockwise rotation may be used. The supplemental vertically polarized effective radiated power required for circular or elliptical polarization shall in no event exceed the effective radiated power authorized.

(b) *Directional antennas.* A directional antenna is an antenna that is designed or altered for the purpose of obtaining a non-circular radiation pattern.

(1) Applications for the use of directional antennas that propose a ratio of maximum to minimum radiation in the horizontal plane of more than 15 dB will not be accepted.

(2) Directional antennas used to protect short-spaced stations pursuant to §73.213 or §73.215 of the rules, that have a radiation pattern which varies more than 2 dB per 10 degrees of azimuth will not be authorized.

(c) *Applications for directional antennas.* Applications proposing the use of directional antenna systems must be accompanied by the following:

(1) A complete description of the proposed antenna system, including the manufacturer and model number of the proposed directional antenna. It is not sufficient to label the antenna with only a generic term such as ''dipole''. A specific model number must be provided. In the case of individually designed antennas with no model number, or in the case of a composite antenna composed of two or more individual antennas, the antenna must be described as a ''custom'' or ''composite'' antenna, as appropriate. A full description of the design of the antenna must also be submitted.

(2) A relative field horizontal plane pattern of the proposed directional antenna. A single pattern encompassing both the horizontal and vertical polarization is required, rather than separate patterns for horizontal and vertical polarization. A value of 1.0 must be used to correspond to the direction of maximum radiation. The plot of the pattern must be oriented such that 0° corresponds to the direction of maximum radiation or alternatively, in the case of an asymmetrical antenna pattern, the plot must be oriented such that 0° corresponds to the actual azimuth with respect to true North. The horizontal plane pattern must be plotted to the largest scale possible on unglazed letter-size polar coordinate paper (main engraving approximately 18 cm x 25 cm (7 inches x 10 inches)) using only scale divisions and subdivisions of 1, 2, 2.5, or 5 times 10-nth. Values of field strength less than 10% of the maximum field strength plotted on that pattern must be shown on an enlarged scale. In the case of a composite antenna composed of two or more individual antennas, the pattern required is that for the composite antenna, not the patterns for each of the individual antennas.

(3) A tabulation of the relative field pattern required in paragraph (c)(2) of this section. The tabulation must use the same zero degree reference as the plotted pattern, and must contain values for at least every 10°. In addition, tabulated values of all maximas and minimas, with their corresponding azimuths, must be submitted.

(4) Sufficient vertical patterns to indicate clearly the radiation characteristics of the antenna above and below the horizontal plane. Complete information and patterns must be provided for angles of ±10° from the horizontal plane and sufficient additional information must be included on that portion of the pattern lying between +10° and the zenith and −10° and the nadir, to conclusively demonstrate the absence of undesirable lobes in these areas. The vertical plane pattern must be plotted on rectangular coordinate paper with reference to the horizontal plane. In the case of a composite antenna composed of two or more individual antennas, the pattern required is that for the composite antenna, not the patterns for each of the individual antennas.

(5) A statement that the antenna will be mounted on the top of an antenna tower recommended by the antenna manufacturer, or will be side-mounted on a particular type of antenna tower in accordance with specific instructions provided by the antenna manufacturer.

(6) A statement that the directional antennas will not be mounted on the

top of an antenna tower which includes a top-mounted platform larger than the nominal cross-sectional area of the tower in the horizontal plane.

(7) A statement that no other antennas of any type are mounted on the same tower level as a directional antenna, and that no antenna of any type is mounted within any horizontal or vertical distance specified by the antenna manufacturer as being necessary for proper directional operation.

(8) In the case of applications for license upon completion of antenna construction, a statement from an engineer (as well as a statement of the engineer's qualifications) that the antenna has been installed pursuant to the manufacturer's instructions and a statement from a licensed surveyor that the antenna is installed in the proper orientation.

(9) In the case of an application for license upon completion of antenna construction for a station authorized pursuant to § 73.215 or § 73.509, a showing that the root mean square (RMS) of the measured composite antenna pattern (encompassing both the horizontally and vertically polarized radiation components (in relative field)) is at least 85 percent of the RMS of the authorized composite directional antenna pattern (in relative field). The RMS values, for a composite antenna pattern specified in relative field values, may be determined from the following formula:

RMS = the square root of:

$$\frac{[(\text{relative field value 1})^2 + (\text{relative field value 2})^2 + \cdots + (\text{last relative field value})^2]}{\text{number of relative field values summed}}$$

where the relative field values are taken from at least 36 evenly spaced radials for the entire 360 degrees of azimuth. The application for license must also demonstrate that coverage of the community of license by the 70 dBu contour is maintained for stations authorized pursuant to § 73.215 on Channels 221 through 300, as required by § 73.315(a), while noncommercial educational stations operating on Channels 201 through 220 must show that the 60 dBu contour covers at least a portion of the community of license.

(d) Applications proposing the use of FM transmitting antennas in the immediate vicinity (*i.e.* 60 meters or less) of other FM or TV broadcast antennas must include a showing as to the expected effect, if any, of such approximate operation.

(e) Where an FM licensee or permittee proposes to mount its antenna on an AM antenna tower, or locate within 3.2 km of an AM antenna tower, the FM licensee or permittee must comply with § 73.1692.

(f) When an FM broadcast antenna is mounted on a nondirectional AM broadcast antenna, new resistance measurements must be made of the AM broadcast antenna after installation and testing of the FM broadcast antenna. During the installation and until the new resistance determination is approved, the AM broadcast station licensee should operate by the indirect method of power determination. The FM broadcast license application will not be considered until the application form concerning resistance measurements is filed for the AM broadcast station.

(g) When an FM broadcast antenna is mounted on an element of a AM broadcast directional antenna, a full engineering study concerning the effect of the FM broadcast antenna on the directional pattern must be filed with the application concerning the AM broadcast station. Depending upon the individual case, the Commission may require readjustment and certain field strength measurements of the AM broadcast station following the completion of the FM broadcast antenna system.

(h) When the proposed FM antenna is to be mounted on a tower in the vicinity of an AM station directional antenna system and it appears that the operation of the directional antenna system may be affected, an engineering study must be filed with the FM application concerning the effect of the FM antenna on the AM directional radiation pattern. Field strength measurements of the AM station may be required prior to and following construction of the FM station antenna, and readjustments made as necessary.

(i) Information regarding data required in connection with AM broadcast directional antenna systems may be found in § 73.150 of this chapter. (See

also AM Broadcast Technical Standards.)

[28 FR 13623, Dec. 14, 1963, as amended at 34 FR 14222, Sept. 10, 1969; 37 FR 25841, Dec. 5, 1972; 43 FR 53738, Nov. 17, 1978; 48 FR 29508, June 27, 1983; 51 FR 17028, May 8, 1986; 54 FR 9804, Mar. 8, 1989; 56 FR 57294, Nov. 8, 1991; 58 FR 44950, Aug. 25, 1993; 62 FR 51058, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51058, Sept. 30, 1997, §73.316 was amended by adding paragraph (c)(9); by revising paragraph (e); and by removing paragraphs (f) through (i), effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§73.316 FM antenna systems.

* * * * *

(e) In cases where it is proposed to use a tower of a AM broadcast station as a supporting structure for an FM broadcast antenna, an application for construction permit (or modification of construction permit) for such AM broadcast station must be filed for consideration with the FM application, only in the event the overall height of the AM broadcast station tower changes. Applications may be required for other classes of stations when their towers are to be used in connection with FM stations.

* * * * *

§73.317 FM transmission system requirements.

(a) FM broadcast stations employing transmitters authorized after January 1, 1960, must maintain the bandwidth occupied by their emissions in accordance with the specification detailed below. FM broadcast stations employing transmitters installed or type accepted before January 1, 1960, must achieve the highest degree of compliance with these specifications practicable with their existing equipment. In either case, should harmful interference to other authorized stations occur, the licensee shall correct the problem promptly or cease operation.

(b) Any emission appearing on a frequency removed from the carrier by between 120 kHz and 240 kHz inclusive must be attenuated at least 25 dB below the level of the unmodulated carrier. Compliance with this requirement will be deemed to show the occupied bandwidth to be 240 kHz or less.

(c) Any emission appearing on a frequency removed from the carrier by more than 240 kHz and up to and including 600 kHz must be attenuated at least 35 dB below the level of the unmodulated carrier.

(d) Any emission appearing on a frequency removed from the carrier by more than 600 kHz must be attenuated at least 43 + 10 Log_{10} (Power, in watts) dB below the level of the unmodulated carrier, or 80 dB, whichever is the lesser attenuation.

(e) Preemphasis shall not be greater than the impedance-frequency characteristics of a series inductance resistance network having a time constant of 75 microseconds. (See upper curve of Figure 2 of §73.333.)

[51 FR 17028, May 8, 1986]

§73.318 FM blanketing interference.

Areas adjacent to the transmitting antenna that receive a signal with a strength of 115 dBu (562 mV/m) or greater will be assumed to be blanketed. In determining the blanketed area, the 115 dBu contour is determined by calculating the inverse distance field using the effective radiated power of the maximum radiated lobe of the antenna without considering its vertical radiation pattern or height. For directional antennas, the effective radiated power in the pertinent bearing shall be used.

(a) The distance to the 115 dBu contour is determined using the following equation:

$$D \text{ (in kilometers)} = 0.394\sqrt{P}$$
$$D \text{ (in miles)} = 0.245\sqrt{P}$$

Where P is the maximum effective radiated power (ERP), measured in kilowatts, of the maximum radiated lobe.

(b) After January 1, 1985, permittees or licensees who either (1) commence program tests, or (2) replace their antennas, or (3) request facilities modifications and are issued a new construction permit must satisfy all complaints of blanketing interference which are received by the station during a one year period. The period begins with the commencement of program tests, or commencement of programming utilizing the new antenna. Resolution of complaints shall be at no

cost to the complainant. These requirements specifically do not include interference complaints resulting from malfunctioning or mistuned receivers, improperly installed antenna systems, or the use of high gain antennas or antenna booster amplifiers. Mobile receivers and non-RF devices such as tape recorders or hi-fi amplifiers (phonographs) are also excluded.

(c) A permittee collocating with one or more existing stations and beginning program tests on or after January 1, 1985, must assume full financial responsibility for remedying new complaints of blanketing interference for a period of one year. Two or more permittees that concurrently collocate on or after January 1, 1985, shall assume shared responsibility for remedying blanketing complaints within the blanketing area unless an offending station can be readily determined and then that station shall assume full financial responsibility.

(d) Following the one year period of full financial obligation to satisfy blanketing complaints, licensees shall provide technical information or assistance to complainants on remedies for blanketing interference.

[28 FR 13623, Dec. 14, 1963, as amended at 52 FR 25866, July 9, 1987]

§ 73.319 FM multiplex subcarrier technical standards.

(a) The technical specifications in this Section apply to all transmissions of FM multiplex subcarriers except those used for stereophonic sound broadcasts under the provisions of § 73.322.

(b) *Modulation.* Any form of modulation may be used for subcarrier operation.

(c) *Subcarrier baseband.* (1) During monophonic program transmissions, multiplex subcarriers and their significant sidebands must be within the range of 20 kHz to 99 kHz.

(2) During stereophonic sound program transmissions (see § 73.322), multiplex subcarriers and their significant sidebands must be within the range of 53 kHz to 99 kHz.

(3) During periods when broadcast programs are not being transmitted, multiplex subcarriers and their significant sidebands must be within the range of 20 kHz to 99 kHz.

(d) *Subcarrier injection.*

(1) During monophonic program transmissions, modulation of the carrier by the arithmetic sum of all subcarriers may not exceed 30% referenced to 75 kHz modulation deviation. However, the modulation of the carrier by the arithmetic sum of all subcarriers above 75 kHz may not modulate the carrier by more than 10%.

(2) During stereophonic program transmissions, modulation of the carrier by the arithmetic sum of all subcarriers may not exceed 20% referenced to 75 kHz modulation deviation. However, the modulation of the carrier by the arithmetic sum of all subcarriers above 75 kHz may not modulate the carrier by more than 10%.

(3) During periods when no broadcast program service is transmitted, modulation of the carrier by the arithmetic sum of all subcarriers may not exceed 30% referenced to 75 kHz modulation deviation. However, the modulation of the carrier by the arithmetic sum of all subcarriers above 75 kHz may not modulate the carrier by more than 10%.

(4) Total modulation of the carrier wave during transmission of multiplex subcarriers used for subsidiary communications services must comply with the provisions § 73.1570(b).

(e) Subcarrier generators may be installed and used with a type accepted FM broadcast transmitter without specific authorization from the FCC provided the generator can be connected to the transmitter without requiring any mechanical or electrical modifications in the transmitter FM exciter circuits.

(f) Stations installing multiplex subcarrier transmitting equipment must ensure the proper suppression of spurious or harmonic radiations. See §§ 73.317, 73.1590 and 73.1690. If the subcarrier operation causes the station's transmissions not to comply with the technical provisions for FM broadcast stations or causes harmful interference to other communication services, the licensee or permittee must correct the problem promptly or cease operation. The licensee may be required to verify the corrective measures with supporting data. Such data must be retained

at the station and be made available to the FCC upon request.

[48 FR 28455, June 22, 1983, as amended at 48 FR 37216, Aug. 17, 1983; 49 FR 15080, Apr. 17, 1984; 49 FR 38131, Sept. 27, 1984; 50 FR 1534, Jan. 11, 1985; 51 FR 17029, May 8, 1986; 57 FR 48333, Oct. 23, 1992]

§ 73.322 FM stereophonic sound transmission standards.

(a) An FM broadcast station shall not use 19 kHz ±20 Hz, except as the stereophonic pilot frequency in a transmission system meeting the following parameters:

(1) The modulating signal for the main channel consists of the sum of the right and left signals.

(2) The pilot subcarrier at 19 kHz ±2 Hz, must frequency modulate the main carrier between the limits of 8 and 10 percent.

(3) One stereophonic subcarrier must be the second harmonic of the pilot subcarrier (i.e. 38 kHz) and must cross the time axis with a positive slope simultaneously with each crossing of the time axis by the pilot subcarrier. Additional stereophomic subcarriers are not precluded.

(4) Double sideband, suppressed-carrier, amplitude modulation of the stereophonic subcarrier at 38 kHz must be used.

(5) The stereophonic subcarrier at 38 kHz must be suppressed to a level less than 1% modulation of the main carrier.

(6) The modulating signal for the required stereophonic subcarrier must be equal to the difference of the left and right signals.

(7) The following modulation levels apply:

(i) When a signal exists in only one channel of a two channel (biphonic) sound transmission, modulation of the carrier by audio components within the baseband range of 50 Hz to 15 kHz shall not exceed 45% and modulation of the carrier by the sum of the amplitude modulated subcarrier in the baseband range of 23 kHz to 53 kHz shall not exceed 45%.

(ii) When a signal exists in only one channel of a stereophonic sound transmission having more than one stereophonic subcarrier in the baseband, the modulation of the carrier by audio components within the audio baseband range of 23 kHz to 99 kHz shall not exceed 53% with total modulation not to exceed 90%.

(b) Stations not transmitting stereo with the method described in (a), must limit the main carrier deviation caused by any modulating signals occupying the band 19 kHz ±20 Hz to 125 Hz.

(c) All stations, regardless of the stereophonic transmission system used, must not exceed the maximum modulation limits specified in § 73.1570(b)(2). Stations not using the method described in (a), must limit the modulation of the carrier by audio components within the audio baseband range of 23 kHz to 99 kHz to not exceed 53%.

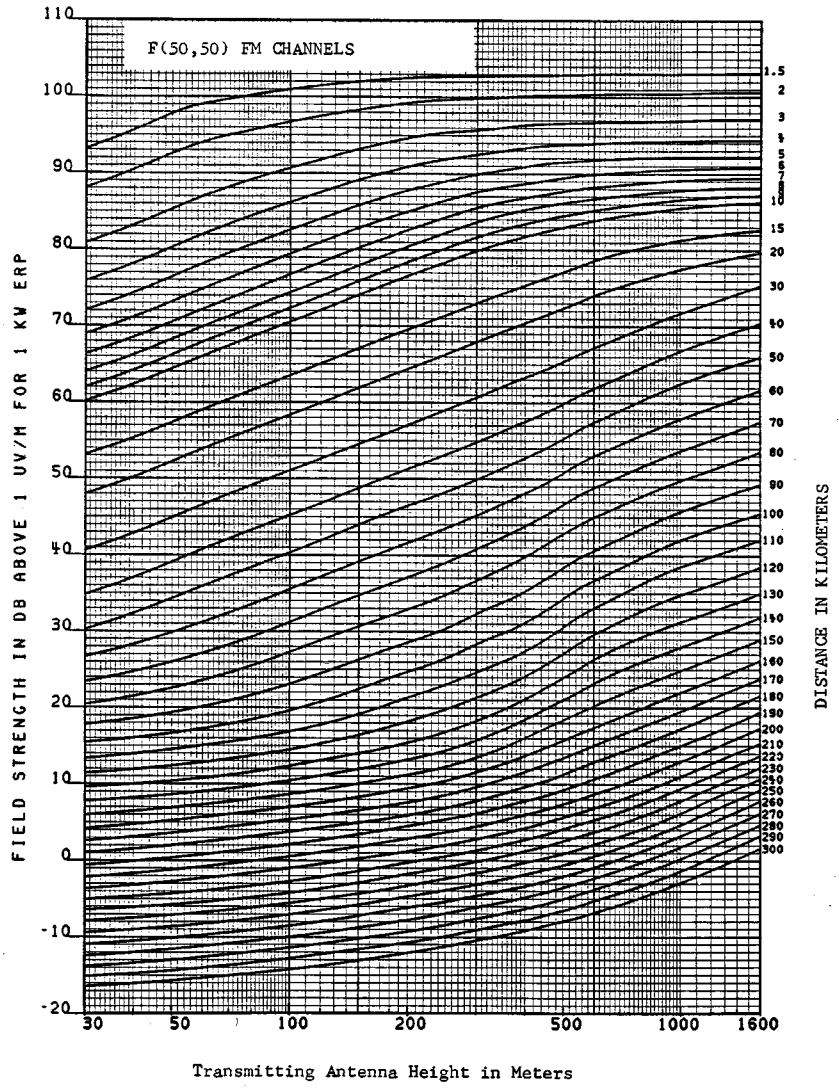
[51 FR 17029, May 8, 1986]

§ 73.333 Engineering charts.

This section consists of the following Figures 1, 1a, 2, and slider 4 and 5.

NOTE: The figures reproduced herein, due to their small scale, are not to be used in connection with material submitted to the F.C.C.

C16

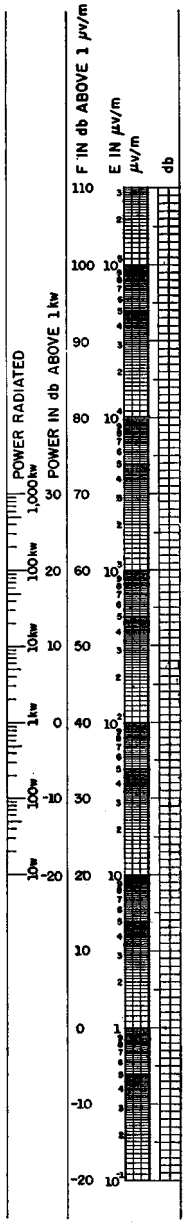


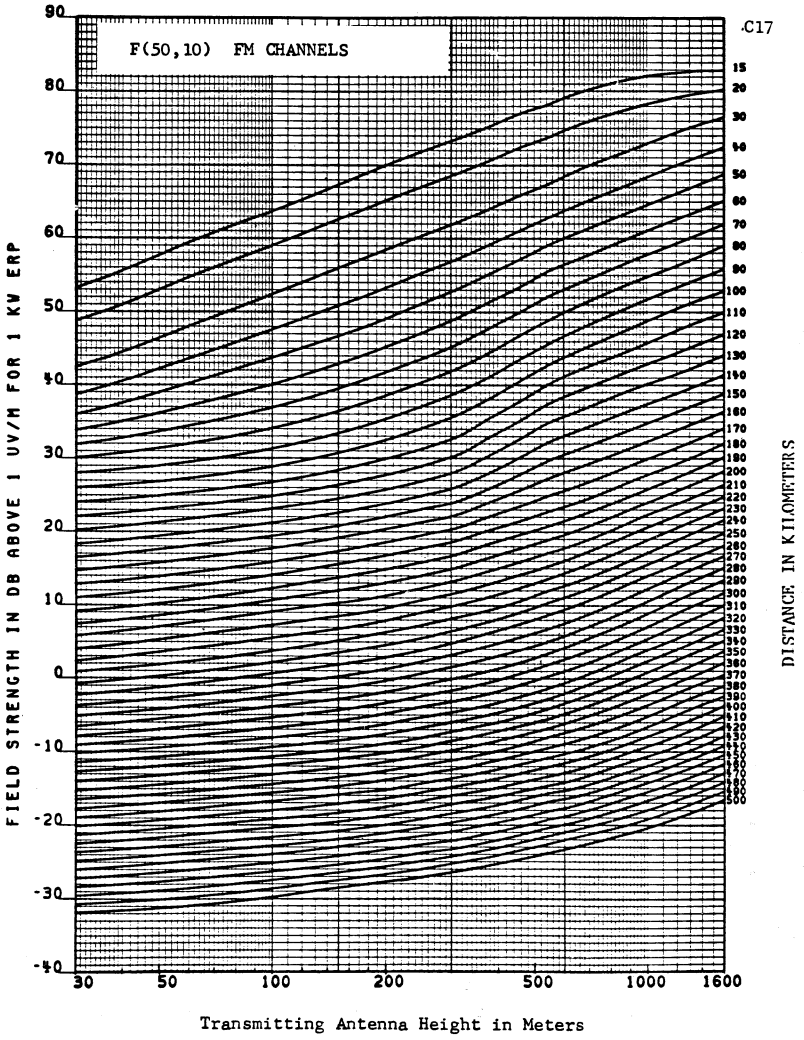
FCC §73.333 FIGURE 1

FM CHANNELS

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 50 PERCENT OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS

Sliding Scale for use with Figure 1, § 73.333





FCC §73.333 FIGURE 1a

FM CHANNELS

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 10 PERCENT OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS

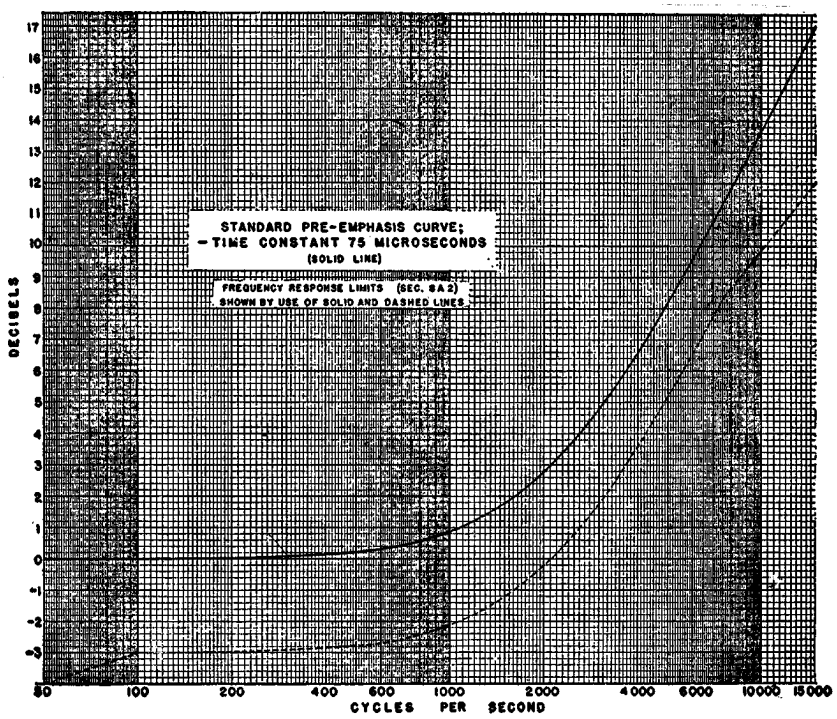
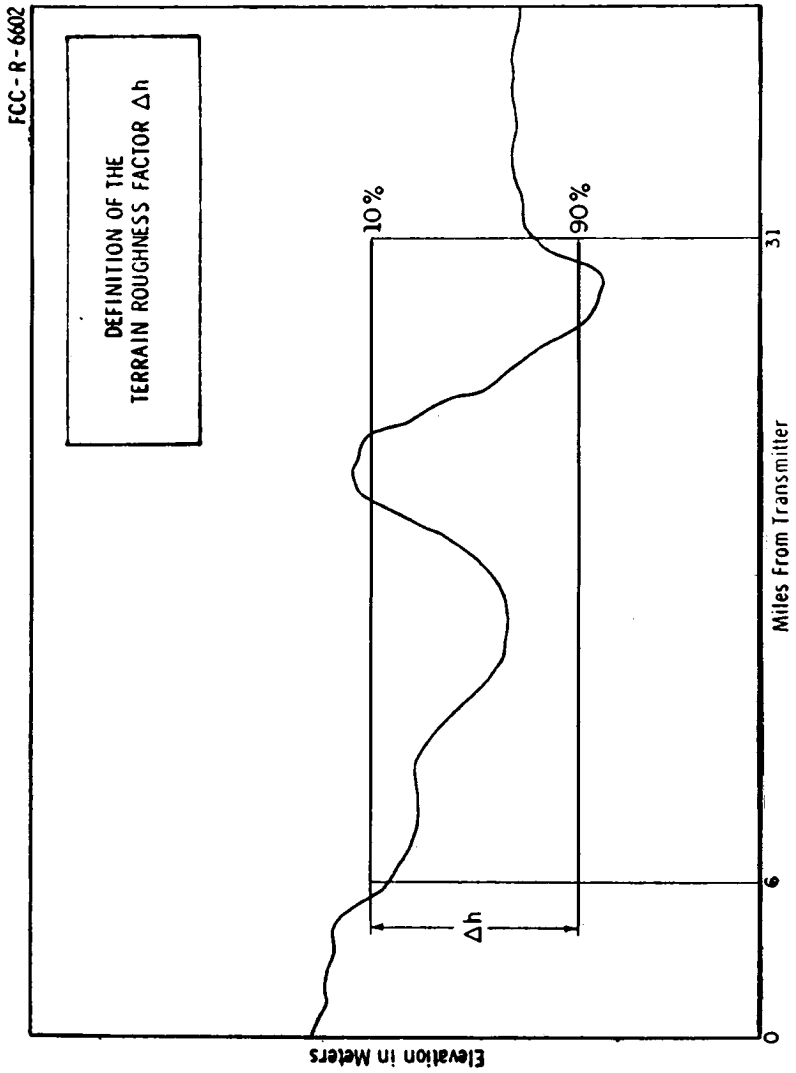
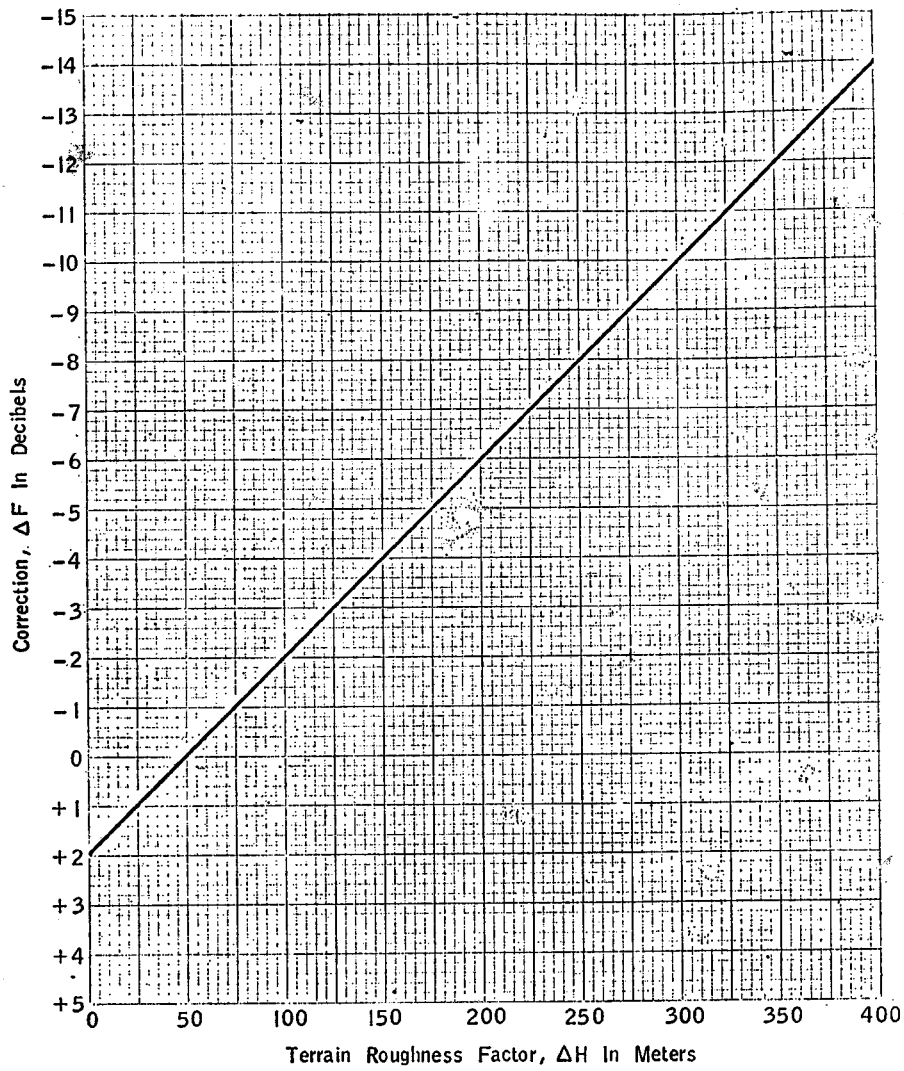

STANDARD PRE-EMPHASIS CURVE;
- TIME CONSTANT 75 MICROSECONDS
(SOLID LINE)
FREQUENCY RESPONSE LIMITS (SEC. 8A2)
SHOWN BY USE OF SOLID AND DASHED LINES.
DECIBELS
17
16
15
14
13
12
11
10
9
8
7
6
5
4
3
2
1
0
-1
-2
-3
50
100
200
400
600
1000
2000
4000
6000
10000
15000
CYCLES PER SECOND

FIGURE 2



FCC § 73.333 FIGURE 4
(new)



TERRAIN ROUGHNESS CORRECTION

for use with estimated FM F(50,50) and F(50,10) field strength curves

FCC §73.333 FIGURE 5

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))
[28 FR 13623, Dec. 14, 1963, as amended at 35 FR 2591, Feb. 5, 1970; 40 FR 27679, July 1, 1975; 45 FR 28141, Apr. 28, 1980; 48 FR 29508, June 27, 1983; 49 FR 19670, May 9, 1984]

EFFECTIVE DATE NOTE: At 42 FR 25736, May 19, 1977, the effective date of Figures 4 and 5 was stayed indefinitely.

Subpart C—Noncommercial Educational FM Broadcast Stations

§ 73.501 Channels available for assignment.

(a) The following frequencies, except as provided in paragraph (b) of this section, are available for noncommercial educational FM broadcasting:

Frequency (MHz)	Channel No.
87.9	[1] 200
88.1	201
88.3	202
88.5	203
88.7	204
88.9	205
89.1	[2] 206
89.3	207
89.5	208
89.7	209
89.9	210
90.1	211
90.3	212
90.5	213
90.7	214
90.9	215
91.1	216
91.3	217
91.5	218
91.7	219
91.9	220

[1] The frequency 87.9 MHz, Channel 200, is available only for use of existing Class D stations required to change frequency. It is available only on a noninterference basis with respect to TV Channel 6 stations and adjacent channel noncommercial educational FM stations. It is not available at all within 402 kilometers (250 miles) of Canada and 320 kilometers (199 miles) of Mexico. The specific standards governing its use are contained in § 73.512.

[2] The frequency 89.1 MHz, Channel 206, in the New York City metropolitan area, is reserved for the use of the United Nations with the equivalent of an antenna height of 150 meters (492 feet) above average terrain and effective radiated power of 20 kW and the Commission will make no assignments which would cause objectionable interference with such use.

(b) In Alaska, FM broadcast stations operating on Channels 200–220 (87.9–91.9 MHz) shall not cause harmful interference to and must accept interference from non-Government fixed operations authorized prior to January 1, 1982.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[43 FR 39715, Sept. 6, 1978, as amended at 47 FR 30068, July 12, 1982; 52 FR 43765, Nov. 16, 1987; 58 FR 44950, Aug. 25, 1993]

§ 73.502 State-wide plans.

In considering the assignment of a channel for a noncommercial educational FM broadcast station, the Commission will take into consideration the extent to which each application meets the requirements of any state-wide plan for noncommercial educational FM broadcast stations filed with the Commission, provided that such plans afford fair treatment to public and private educational institutions, urban and rural, at the primary, secondary, higher, and adult educational levels, and appear otherwise fair and equitable.

[28 FR 13651, Dec. 14, 1963]

§ 73.503 Licensing requirements and service.

The operation of, and the service furnished by noncommercial educational FM broadcast stations shall be governed by the following:

(a) A noncommercial educational FM broadcast station will be licensed only to a nonprofit educational organization and upon showing that the station will be used for the advancement of an educational program.

(1) In determining the eligibility of publicly supported educational organizations, the accreditation of their respective state departments of education shall be taken into consideration.

(2) In determining the eligibility of privately controlled educational organizations, the accreditation of state departments of education and/or recognized regional and national educational accrediting organizations shall be taken into consideration.

(b) Each station may transmit programs directed to specific schools in a system or systems for use in connection with the regular courses as well as routine and administrative material pertaining thereto and may transmit educational, cultural, and entertainment programs to the public.

(c) A noncommercial educational FM broadcast station may broadcast programs produced by, or at the expense of, or furnished by persons other than the licensee, if no other consideration than the furnishing of the program and the costs incidental to its production and broadcast are received by the licensee. The payment of line charges by another station network, or someone other than the licensee of a noncommercial educational FM broadcast station, or general contributions to the operating costs of a station, shall not

be considered as being prohibited by this paragraph.

(d) Each station shall furnish a nonprofit and noncommercial broadcast service. Noncommercial educational FM broadcast stations are subject to the provisions of § 73.1212 to the extent they are applicable to the broadcast of programs produced by, or at the expense of, or furnished by others. No *promotional* announcement *on behalf of for profit entities* shall be broadcast at any time in exchange for the receipt, in whole or in part, of consideration to the licensee, its principals, or employees. However, acknowledgements of contributions can be made. *The scheduling of any announcements and acknowledgements may not interrupt regular programming.*

NOTE: Commission interpretation of this rule, including the acceptable form of acknowledgements, may be found in the Second Report and Order in Docket No. 21136 (Commission Policy Concerning the Noncommercial Nature of Educational Broadcast Stations), 86 F.C.C. 2d 141 (1981); the Memorandum Opinion and Order in Docket No. 21136, 90 FCC 2d 895 (1982), and the Memorandum Opinion and Order in Docket 21136, 49 FR 13534, April 5, 1984.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[28 FR 13651, Dec. 14, 1963, as amended at 35 FR 7558, May 15, 1970; 47 FR 36178, Aug. 19, 1982; 49 FR 29069, July 18, 1984]

§ 73.504 Channel assignments in the Mexican border area.

(a) NCE–FM stations within 199 miles (320 km) of the United States-Mexican border shall comply with the separation requirements and other provisions of the ''Agreement between the United States of America and the United Mexican States Concerning Frequency Modulation Broadcasting in the 88 to 108 MHz Band'' as amended.

(b) Applicants for noncommercial educational FM stations within 199 miles (320 km) of the United States-Mexican border shall propose at least Class A minimum facilities (see § 73.211(a)). However, existing Class D noncommercial educational stations may apply to change frequency within the educational portion of the FM band in accordance with the requirements set forth in § 73.512.

(c) Section 73.208 of this chapter shall be complied with as to the determination of reference points and distance computations used in applications for new or changed facilities. However, if it is necessary to consider a Mexican channel assignment or authorization, the computation of distance will be determined as follows: if a transmitter site has been established, on the basis of the coordinates of the site; if a transmitter site has not been established, on the basis of the reference coordinates of the community, town, or city.

[52 FR 43765, Nov. 16, 1987]

§ 73.505 Zones.

For the purpose of assignment of noncommercial educational FM stations, the United States is divided into three zones, Zone I, Zone I–A, and Zone II, having the boundaries specified in § 73.205.

[42 FR 36828, July 18, 1977]

§ 73.506 Classes of noncommercial educational FM stations and channels.

(a) Noncommercial educational stations operating on the channels specified in § 73.501 are divided into the following classes:

(1) A Class D educational station is one operating with no more than 10 watts transmitter power output.

(2) A Class D educational (secondary) station is one operating with no more than 10 watts transmitter power output in accordance with the terms of § 73.512 or which has elected to follow these requirements before they become applicable under the terms of § 73.512.

(3) Noncommercial educational FM (NCE–FM) stations with more than 10 watts transmitter power output are classified as Class A, B1, B, C3, C2, C1, or C depending on the station's effective radiated power and antenna height above average terrain, and on the zone in which the station's transmitter is located, on the same basis as set forth in §§ 73.210 and 73.211 for commercial stations.

(b) Any noncommercial educational station except Class D may be assigned to any of the channels listed in § 73.501. Class D noncommercial educational FM stations applied for or authorized

prior to June 1, 1980, may continue to operate on their authorized channels subject to the provisions of § 73.512.

[43 FR 39715, Sept. 6, 1978, as amended at 49 FR 10264, Mar. 20, 1984; 52 FR 47569, Dec. 15, 1987; 54 FR 16367, Apr. 24, 1989; 54 FR 19374, May 5, 1989]

§ 73.507 Minimum distance separations between stations.

(a) *Minimum distance separations.* No application for a new station, or change in channel or transmitter site or increase in facilities of an existing station, will be granted unless the proposed facilities will be located so as to meet the adjacent channel distance separations specified in § 73.207(a) for the class of station involved with respect to assignment on Channels 221, 222, and 223 listed in § 73.201 (except where in the case of an existing station the proposed facilities fall within the provisions of § 73.207(b)), or where a Class D station is changing frequency to comply with the requirements of § 73.512.

(b) Stations authorized as of September 10, 1962, which do not meet the requirements of paragraph (a) of this section and § 73.511, may continue to operate as authorized; but any application to change facilities will be subject to the provisions of this section.

(c)(1) Stations separated in frequency by 10.6 or 10.8 MHz (53 or 54 channels) from allotments or assignments on non-reserved channels will not be authorized unless they conform to the separations in Table A given in § 73.207.

(2) Under the United States-Mexican FM Broadcasting Agreement, for stations and assignments differing in frequency by 10.6 to 10.8 MHz (53 or 54 channels), U.S. noncommercial educational FM allotments and assignments must meet the separations given in Table C of § 73.207 to Mexican allotments or assignments in the border area.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[42 FR 36828, July 18, 1977, as amended at 43 FR 39716, Sept. 6, 1978; 44 FR 65764, Nov. 15, 1979; 49 FR 10264, Mar. 20, 1984; 49 FR 19670, May 9, 1984]

§ 73.508 Standards of good engineering practice.

(a) All noncommercial educational stations operating with more than 10 watts transmitter output power shall be subject to all of the provisions of the FM Technical Standards contained in subpart B of this part. Class D educational stations shall be subject to the definitions contained in § 73.310 of subpart B of this part, and also to those other provisions of the FM Technical Standards which are specifically made applicable to them by the provisions of this subpart.

(b) The transmitter and associated transmitting equipment of each noncommercial educational FM station licensed for transmitter output power above 10 watts must be designed, constructed and operated in accordance with § 73.317.

(c) The transmitter and associated transmitting equipment of each noncommercial educational FM station licensed for transmitter power output of 10 watts or less, although not required to meet all requirements of § 73.317, must be constructed with the safety provisions of the current national electrical code as approved by the American Standards Association. These stations must be operated, tuned, and adjusted so that emissions are not radiated outside the authorized band causing or which are capable of causing interference to the communications of other stations. The audio distortion, audio frequency range, carrier hum, noise level, and other essential phases of the operation which control the external effects, must be at all times capable of providing satisfactory broadcast service. Studio equipment properly covered by an underwriter's certificate will be considered as satisfying safety requirements.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[28 FR 13651, Dec. 14, 1963. Redesignated at 42 FR 36828, July 18, 1977, and amended at 43 FR 53738, Nov. 17, 1978; 45 FR 28141, Apr. 28, 1980]

§ 73.509 Prohibited overlap.

(a) An application for a new or modified NCE–FM station other than a Class D (secondary) station will not be accepted if the proposed operation

would involve overlap of signal strength contours with any other station licensed by the Commission and operating in the reserved band (Channels 200–220, inclusive) as set forth below:

Frequency separation	Contour of proposed station	Contour of other station
Co-channel ...	0.1mV/m (40 dBu)	1 mV/m (60 dBu).
	1 mV/m (60 dBu)	0.1 mV/m (40 dBu).
200 kHz	0.5 mV/m (54 dBu) ..	1 mV/m (60 dBu).
	1 mV/m (60 dBu)	0.5 mV/m (54 dBu).
400 kHz	10 mV/m (80 dBu) ...	1 mV/m (60 dBu).
	1 mV/m (60 dBu)	10 mV/m (80 dBu).
600 kHz	100 mV/m (100 dBu)	1 mV/m (60 dBu).
	1 mV/m (60 dBu)	100 mV/m (100 dBu).

(b) An application by a Class D (secondary) station, other than an application to change class, will not be accepted if the proposed operation would involve overlap of signal strength contours with any other station as set forth below:

Frequency separation	Contour of proposed station	Contour of any other station
Co-channel ...	0.1 mV/m (40 dBu) ..	1 mV/m (60 dBu).
200 kHz	0.5 mV/m (54 dBu) ..	1 mV/m (60 dBu).
400 kHz	10 mV/m (80 dBu) ...	1 mV/m (60 dBu).
600 kHz	100 mV/m (100 dBu)	1 mV/m (60 dBu).

(c) The following standards must be used to compute the distances to the pertinent contours:

(1) The distance of the 60 dBu (1 mV/m) contours are to be computed using Figure 1 of §73.333 [F(50,50) curves] of this part.

(2) The distance to the other contours are to be computed using Figure 1a of §73.333 [F(50,10) curves]. In the event that the distance to the contour is below 16 kilometers (approximately 10 miles), and therefore not covered by Figure 1a, curves in Figure 1 must be used.

(3) The effective radiated power (ERP) that is the maximum ERP for any elevation plane on any bearing will be used.

(d) An application for a change (other than a change in channel) in the facilities of a NCE–FM broadcast station will be accepted even though overlap of signal strength contours, as specified in paragraphs (a) and (b) of this section, would occur with another station in an area where such overlap does not already exists, if:

(1) The total area of overlap with that station would not be increased;

(2) The area of overlap with any other station would not increase;

(3) The area of overlap does not move significantly closer to the station receiving the overlap; and,

(4) No area of overlap would be created with any station with which the overlap does not now exist.

(e) The provisions of this section concerning prohibited overlap will not apply where the area of such overlap lies entirely over water.

[50 FR 27962, July 9, 1985, as amended at 52 FR 43765, Nov. 16, 1987]

§73.510 Antenna systems.

(a) All noncommercial educational stations operating with more than 10 watts transmitter output power shall be subject to the provisions of §73.316 concerning antenna systems contained in subpart B of this part.

(b) *Directional antenna.* No application for a construction permit of a new station, or change in channel, or change in an existing facility on the same channel will be accepted for filing if a directional antenna with a maximum-to-minimum ratio of more than 15 dB is proposed.

[42 FR 36829, July 18, 1977]

§73.511 Power and antenna height requirements.

(a) No new noncommercial educational station will be authorized with less power than minimum power requirements for commercial Class A facilities. (See §73.211.)

(b) No new noncommercial educational FM station will be authorized with facilities greater than Class B in Zones I and I–A or Class C in Zone II, as defined in §73.211.

(c) Stations licensed before December 31, 1984, and operating above 50 kW in Zones I and I–A, and above 100 kW and in Zone II may continue to operate as authorized.

[50 FR 27963, July 9, 1985, as amended at 50 FR 31379, Aug. 2, 1985; 54 FR 3602, Jan. 25, 1989]

§ 73.512 Special procedures applicable to Class D noncommercial educational stations.

(a) All Class D stations seeking renewal of license for any term expiring June 1, 1980, or thereafter shall comply with the requirements set forth below and shall simultaneously file an application on FCC Form 340, containing full information regarding such compliance with the provisions set forth below.

(1) To the extent possible, each applicant shall select a commercial FM channel on which it proposes to operate in lieu of the station's present channel. The station may select any commercial channel provided no objectionable interference, as set forth in § 73.509(b), would be caused. The application shall include the same engineering information as is required to change the frequency of an existing station and any other information necessary to establish the fact that objectionable interference would not result. If no commerical channel is available where the station could operate without causing such interference, the application shall set forth the basis upon which this conclusion was reached.

(2) If a commercial channel is unavailable, to the extent possible each applicant should propose operation on Channel 200 (87.9 MHz) unless the station would be within 402 kilometers (250 miles) of the Canadian border or 320 kilometers (199 miles) of the Mexican border or would cause interference to an FM station operating on Channels 201, 202, or 203 or to TV Channel 6, as provided in § 73.509.

(3) If a channel is not available under either paragraph (a) (1) or (2) of this section, the renewal applicant shall study all 20 noncommercial educational FM channels and shall propose operation on the channel which would cause the least preclusion to the establishment of new stations or increases in power by existing stations. Full information regarding the basis for the selection should be provided.

(b) At any time before the requirements of paragraph (a) become effective, any existing Class D station may file a construction permit application on FCC Form 340 to change channel in the manner described above which shall be subject to the same requirements. In either case, any license granted shall specify that the station's license is for a Class D (secondary) station.

(c) Except in Alaska, no new Class D applications nor major change applications by existing Class D stations are acceptable for filing except by existing Class D stations seeking to change frequency. Upon the grant of such application, the station shall become a Class D (secondary) station.

(d) Class D noncommercial educational (secondary) stations (see § 73.506(a)(2)) will be permitted to continue to operate only so long as no interference (as defined in § 73.509) is caused to any TV or commercial FM broadcast stations. In the event that the Class D (secondary) station would cause interference to a TV or commercial FM broadcast station after that Class D (secondary) station is authorized, the Class D (secondary) station must cease operation when program tests for the TV or commercial FM broadcast station commence. The Class D (secondary) station may apply for a construction permit (see § 73.3533) to change to another frequency or antenna site where it would not cause interference (as defined in § 73.509). If the Class D (secondary) station must cease operation before the construction permit is granted, an application for temporary authorization (pursuant to § 73.3542) to operate with the proposed facilities may be submitted; where appropriate, such temporary authorization can be granted.

[43 FR 39716, Sept. 6, 1978, as amended at 44 FR 48226, Aug. 17, 1979; 47 FR 28388, June 30, 1982; 50 FR 8326, Mar. 1, 1985]

§ 73.513 Noncommercial educational FM stations operating on unreserved channels.

Noncommercial educational FM stations other than Class D (secondary) which operate on Channels 221 through 300 but which comply with § 73.503 as to licensing requirements and the nature of the service rendered, must comply with the provisions of the following sections of subpart B: §§ 73.201 through 73.213 (Classification of FM Broadcast Stations and Allocations of Frequencies) and such other sections of

subpart B as are made specially applicable by the provisions of this subpart C. Stations in Alaska authorized before August 11, 1982, using Channels 261–300 need not meet the minimum effective radiated power requirement specified in § 73.211(a). In all other respects, stations operating on Channels 221 through 300 are to be governed by the provisions of this subpart and not subpart B.

[47 FR 30068, July 12, 1982]

§ 73.525 TV Channel 6 protection.

The provisions of this section apply to all applications for construction permits for new or modified facilities for a NCE–FM station on Channels 200–220 unless the application is accompanied by a written agreement between the NCE–FM applicant and each affected TV Channel 6 broadcast station concurring with the proposed NCE–FM facilities.

(a) *Affected TV Channel 6 Station.*

(1) An affected TV Channel 6 station is a TV broadcast station which is authorized to operate on Channel 6 that is located within the following distances of a NCE–FM station operating on Channels 201–220:

TABLE A

NCE–FM channel	Distance (kilometers)	NCE–FM channel	Distance (kilometers)
201	265	211	196
202	257	212	195
203	246	213	193
204	235	214	187
205	225	215	180
206	211	216	177
207	196	217	174
208	196	218	166
209	196	219	159
210	196	220	154

(2) Where a NCE–FM application has been accepted for filing or granted, the subsequent acceptance of an application filed by a relevant TV Channel 6 station will not require revision of the pending NCE–FM application or the FM station's authorized facilities, unless the provisions of paragraph (e)(3) of this section for TV translator or satellite stations apply.

(b) *Existing NCE–FM Stations.* (1) A NCE–FM station license authorized to operate on channels 201–220 as of December 31, 1984, or a permittee, granted a construction permit for a NCE–FM station as of December 31, 1984, are not subject to this section unless they propose either:

(i) To make changes in operating facilities or location which will increase predicted interference as calculated under paragraph (e) of this section to TV Channel 6 reception in any direction; or,

(ii) To increase its ratio of vertically polarized to horizontally polarized transmissions.

(2) Applicants must comply with the provision of paragraphs (c) or (d) of this section unless the application for modification demonstrates that, for each person predicted to receive new interference as a result of the change, existing predicted interference to two person will be eliminated. Persons predicted to receive new interference are those located outside the area predicted to receive interference from the station's currently authorized facilities (''existing predicted interference area'') but within the area predicted to receive interference from the proposed facilities (''proposed predicted interference area''). Persons for whom predicted interference will be eliminated are those located within the existing predicted interference area and outside the proposed predicted interference area.

(i) In making this calculation, the provisions contained at paragraph (e) will be used except as modified by paragraph (b)(3) of this section.

(ii) The following adjustment to the population calculation may be made: up to 1,000 persons may be subtracted from the population predicted to receive new interference if, for each person substracted, the applicant effectively installs two filters within 90 days after commencing program tests with the proposed facilities and, no later than 45 days thereafter, provides the affected TV Channel 6 station (as defined in paragraph (a) of this section) with a certification containing sufficient information to permit verification of such installation. The required number of filters will be installed on television receivers located within the predicted interference area; provided that half of the installations are within

the area predicted to receive new interference.

(3) Where an NCE–FM applicant wishes to operate with facilities in excess of that permitted under the provisions of paragraphs (c) or (d) of this section, by proposing to use vertically polarized transmissions only, or to increase its ratio of vertically to horizontally polarized transmissions, the affected TV Channel 6 station must be given an option to pay for the required antenna and, if it takes that option, the NCE–FM vertically polarized component of power will be one half (−3 dB) that which would be allowed by the provisions of paragraph (e)(4) of this section.

(4) Applications for modification will include a certification that the applicant has given early written notice of the proposed modification to all affected TV Channel 6 stations (as defined in paragraph (a) of this section).

(5) Where the NCE–FM station demonstrates in its application that it must make an involuntary modification (*e.g.,* due to loss of its transmitter site) that would not otherwise be permitted under this section, its application will be considered on a case-by-case basis. In such cases, the provisions of paragaph (b)(3) of this section do not apply.

(c) *New NCE–FM Stations.* Except as provided for by paragraph (d) of this section, applicants for NCE–FM stations proposing to operate on Channels 201–220 must submit a showing indicating that the predicted interference area resulting from the proposed facility contains no more than 3,000 persons.

(1) In making these calculations, the provisions in paragraph (e) of this section will be used.

(2) The following adjustment to population may be made: up to 1,000 persons may be subtracted from the population within the predicted interference area if, for each person subtracted, the applicant effectively installs one filter within 90 days after commencing program tests and, no later than 45 days thereafter, provides the affected TV Channel 6 station with a certification containing sufficient information to permit verification of such installation. The required number of filters will be installed on television receivers located within the predicted interference area.

(d) *Collocated Stations.* As an alternative to the provisions contained in paragraphs (b) and (c) of this section, an application for a NCE–FM 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 under the following requirements:

(1) The effective radiated power cannot exceed the following values:

TABLE B

NCE–FM channel	Power (kilowatt)	NCE–FM channel	Power (kilowatt)
201	1.1	211	26.3
202	1.9	212	31.6
203	3.1	213	38.0
204	5.0	214	46.8
205	8.3	215	56.2
206	10.0	216	67.6
207	12.0	217	83.2
208	14.8	218	100.0
209	17.8	219	100.0
210	21.4	220	100.0

(2) The NCE–FM application will include a certification that the applicant has coordinated its antenna with the affected TV station by employing either: The same number of antenna bays with radiation centers separated by no more than 30 meters (approximately 100 feet) verticially; or, the FM vertical pattern not exceeding the TV vertical pattern by more than 2dB.

(e) *Calculation of Predicted Interference Area and Population.* Predictions of interference required under this section and calculations to determine the number of persons within a predicted interference area for NCE–FM operation on Channels 201–220 are made as follows:

(1) The predicted interference area will be calculated as follows:

(i) The distances to the TV Channel 6 field strength contours will be predicted according to the procedures specified in § 73.684, ''Prediction of coverage,'' using the F(50,50) curves in Figure 9, § 73.699.

(ii) For each TV Channel 6 field strength contour, there will be an associated F(50,10) FM interference contour, the value of which (in units of dBu) is defined as the sum of the TV Channel 6 field strength (in dBu) and the appropriate undesired-to-desired (U/D) signal ratio (in dB) obtained from

Figures 1 and 2, § 73.599, corresponding to the channel of the NCE–FM applicant and the appropriate F(50,50) field strength contour of the TV Channel 6 station.

(iii) An adjustment of 6 dB for television receiving antenna directivity will be added to each NCE–FM interference contour at all points outside the Grade A field strength contour (§ 73.683) of the TV Channel 6 station and within an arc defined by the range of angles, of which the FM transmitter site is the vertex, from 110° relative to the azimuth from the FM transmitter site to the TV Channel 6 transmitter site, counterclockwise to 250° relative to that azimuth. At all points at and within the Grade A field strength contour of the TV Channel 6 station, the 6 dB adjustment is applicable over the range of angles from 70° clockwise to 110° and from 250° clockwise to 290°.

(iv) The distances to the applicable NCE–FM interference contours will be predicted according to the procedures specified in § 73.313, ''Prediction of Coverage,'' using the proposed antenna height and horizontally polarized, or the horizontal equivalent of the vertically polarized, effective radiated power in the pertinent direction and the F(50,10) field strength curves (Figure 1a, § 73.333).

(v) The predicted interference area will be defined as the area within the TV Channel 6 station's 47 dBu field strength contour that is bounded by the locus of intersections of a series of TV Channel 6 field strength contours and the applicable NCE–FM interference contours.

(vi) In cases where the terrain in one or more directions departs widely from the surrounding terrain average (for example, an intervening mountain), a supplemental showing may be made. Such supplemental showings must describe the procedure used and should include sample calculations. The application must also include maps indicating the predicted interference area for both the regular method and the supplemental method.

(vii) In cases where the predicted interference area to Channel 6 television from a noncommercial educational FM station will be located within the 90 dBu F(50,50) contour of the television Channel 6 station, the location of the FM interfering contour must be determined using the assumption that the Channel 6 field strength remains constant at 90 dBu everywhere within the 90 dBu TV contour. The FM to Channel 6 U/D signal strength ratio specified in § 73.599 corresponding to the Channel 6 TV field strength of 90 dBu shall be used.

(2) The number of persons contained within the predicted interference area will be based on data contained in the most recently published U.S. Census of Population and will be determined by plotting the predicted interference area on a County Subdivision Map of the state published for the Census, and totalling the number of persons in each County Subdivision (such as, Minor Civil Division (MCD), Census County Division (CCD), or equivalent areas) contained within the predicted interference area. Where only a portion of County Subdivision is contained within the interference area:

(i) The population of all incorporated places or Census designated places will be subtracted from the County Subdivision population;

(ii) Uniform distribution of the remaining population over the remaining area of the County Subdivision will be assumed in determining the number of persons within the predicted interference area in proportion to the share of the remaining area of the County Subdivision that lies within the predicted interference area; and,

(iii) The population of the incorporated places or Census designated places contained within the predicted interference area will then be added to the total, again assuming uniform distribution of the population within the area of each place and adding a share of the population proportional to the share of the area if only a portion of such a place is within the predicted interference area.

(iv) At the option of either the NCE–FM applicant or an affected TV Channel 6 station which provides the appropriate analysis, more detailed population data may be used.

(3) Adjustments to the population calculated pursuant to paragraph (e)(2) of this section may be made as follows:

(i) If any part of the predicted interference area is within the Grade A field strength contour (§ 73.683) of a TV translator station carrying the affected TV Channel 6 station, the number of persons within that overlap area will be subtracted, provided the NCE–FM construction permit and license will contain the following conditions:

(A) When the TV translator station ceases to carry the affected TV Channel 6 station's service and the cessation is not the choice of the affected TV Channel 6 station, the NCE–FM station will modify its facilities, within a reasonable transition period, to meet the requirements of this section which would have applied if no adjustment to population for translator service had been made in its application.

(B) The transition period may not exceed 1 year from the date the NCE–FM station is notified by the TV Channel 6 station that the translator station will cease to carry the affected TV Channel 6 station's service or 6 months after the translator station ceases to carry the affected TV Channel 6 station's service, whichever is earlier.

(ii) If any part of the interference area is within the Grade B field strength contour (§ 73.683) of a satellite station of the affected TV Channel 6 station, the number of persons within the overlap area will be subtracted, provided the NCE–FM permit and license will contain the following conditions:

(A) If the satellite station ceases to carry the affected TV Channel 6 station's service and the cessation is not the choice of the affected TV Channel 6 station, the NCE–FM station will modify its facilities, within a reasonable transition period, to meet the requirements of this rule which would have applied if no adjustment to population for satellite station service had been made in its application.

(B) The transition period may not exceed 1 year from the date the NCE–FM station is notified by the TV Channel 6 station that the satellite station will cease to carry the affected TV Channel 6 stations's service or 6 months after the satellite station ceases to carry the affected TV Channel 6 station's service, whichever is earlier.

(iii) If any part of the predicted interference area is located outside the affected TV Channel 6 station's Area of Dominant Influence (ADI), outside the Grade A field strength contour (§ 73.683), and within the predicted city grade field strength contour (73.685(a)) of a TV broadcast station whose only network affiliation is the same as the only network affiliation of the affected TV Channel 6 station, the number of persons within that part will be subtracted. (For purposes of this provision, a network is defined as ABC, CBS, NBC, or their successors.) In addition, the ADI of an affected TV Channel 6 station and the program network affiliations of all relevant TV broadcast stations will be assumed to be as they were on the filing date of the NCE–FM application or June 1, 1985, whichever is later.

(iv) In calculating the population within the predicted interference area, an exception will be permitted upon a showing (*e.g.,* as survey of actual television reception) that the number of persons within the predicted interference area should be reduced to account for persons actually experiencing co-channel or adjacent channel interference to reception of the affected TV Channel 6 station. The area within which such a showing may be made will be limited to the area calculated as follows:

(A) The distances to the field strength contours of the affected TV Channel 6 station will be predicted according to the procedures specified in § 73.684, ''Prediction of coverage,'' using the F(50,50) curves in Figure 9, §73.699.

(B) For each field strength contour of the affected TV Channel 6 station, there will be an associated co-channel or adjacent channel TV broadcast station interference contour, the value of which (in units of dBu) is defined as the sum of the affected TV Channel 6 station's field strength (in dBu) and the appropriate undesired-to-desired signal ratio (in dB) as follows:

Co-channel, normal offset, −22 dB
Co-channel, no offset, −39 dB
Adjacent channel, +12 dB

(C) The distances to the associated co-channel or adjacent channel TV broadcast station interference contour

will be predicted according to the procedures specified in § 73.684, ''Prediction of coverage,'' using the F(50,10) curves in Figure 9a, § 73.699.

(D) The area within which the showing of actual interference may be made will be the area bounded by the locus of intersections of a series of the affected TV Channel 6 station's field strength contours and the associated interference contours of the co-channel or adjacent channel TV broadcast station.

(4) The maximum permissible effective radiated power (ERP) and antenna height may be adjusted for vertical polarity as follows:

(i) If the applicant chooses to use vertically polarized transmissions only, the maximum permissible vertically polarized ERP will be the maximum horizontally polarized ERP permissible at the same proposed antenna height, calculated without the adjustment for television receiving antenna directivity specified in paragraph (e)(1)(iii) of this section, multiplied by either: 40 if the predicted interference area lies entirely outside the limits of a city of 50,000 persons or more; or 10 if it does not.

(ii) If the applicant chooses to use mixed polarity, the permissible ERP is as follows:

[H+(V/A)] is no greater than P

Where:

H is the horizontally polarized ERP in kilowatts for mixed polarity;

V is the vertically polarized ERP in kilowatts for mixed polarity;

A is 40 if the predicted interference area lies entirely outside the limits of a city of 50,000 persons or more, or 10 if it does not; and

P is the maximum permitted horizontally polarized-only power in kilowatts.

(f) *Channel 200 Applications.* No application for use of NCE–FM Channel 200 will be accepted if the requested facility would cause objectionable interference to TV Channel 6 operations. Such objectionable interference will be considered to exist whenever the 15 dBu contour based on the F(50,10) curves in § 73.333 Figure 1a would overlap the 40 dBu contour based on the F(50,50) curves in § 73.699, Figure 9.

[50 FR 27963, July 9, 1985; 50 FR 30187, July 24, 1985; 50 FR 31379, Aug. 2, 1985, as amended at 51 FR 26250, July 22, 1986; 52 FR 25867, July 9, 1987; 62 FR 51059, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51059, Sept. 30, 1997, § 73.525 was amended by adding paragraph (e)(1)(vii), effective Dec. 1, 1997.

§ 73.558 Indicating instruments.

The requirements for indicating instruments described in § 73.258 are applicable to all educational FM broadcast stations licensed with a transmitter power greater than 0.01 kw.

[51 FR 17029, May 8, 1986]

§ 73.561 Operating schedule; time sharing.

(a) All noncommercial educational FM stations will be licensed for unlimited time operation except those stations operating under a time sharing arrangement. All noncommercial educational FM stations are required to operate at least 36 hours per week, consisting of at least 5 hours of operation per day on at least 6 days of the week; however, stations licensed to educational institutions are not required to operate on Saturday or Sunday or to observe the minimum operating requirements during those days designated on the official school calendar as vacation or recess periods.

(b) All stations, including those meeting the requirements of paragraph (a) of this section, but which do not operate 12 hours per day each day of the year, will be required to share use of the frequency upon the grant of an appropriate application proposing such share time arrangement. Such applications shall set forth the intent to share time and shall be filed in the same manner as are applications for new stations. They may be filed at any time, but in cases where the parties are unable to agree on time sharing, action on the application will be taken only in connection with the renewal of application for the existing station. In order to be considered for this purpose, such an application to share time must be filed no later than the deadline for filing petitions to deny the renewal application of the existing licensee, or, in the case of renewal applications filed by the existing licensee on or before May 1, 1995, no later than the deadline for filing applications in conflict with the such renewal applications.

(1) The licensee and the prospective licensee(s) shall endeavor to reach an

agreement for a definite schedule of periods of time to be used by each. Such agreement shall be in writing and shall set forth which licensee is to operate on each of the hours of the day throughout the year. Such agreement shall not include simultaneous operation of the stations. Each licensee shall file the same in triplicate with each application to the Commission for initial construction permit or renewal of license. Such written agreements shall become part of the terms of each station's license.

(2) The Commission desires to facilitate the reaching of agreements on time sharing. However, if the licensees of stations authorized to share time are unable to agree on a division of time, the Commission shall be so notified by statement to that effect filed with the application proposing time sharing. Thereafter the Commission will designate the application for hearing on any qualification issues arising regarding the renewal or new applicants. If no such issues pertain, the Commission will set the matter for expedited hearing limited solely to the issue of the sharing of time. In the event the stations have been operating under a time sharing agreement but cannot agree on its continuation, a hearing will be held, and pending such hearing, the operating schedule previously adhered to shall remain in full force and effect.

(c) A departure from the regular schedule set forth in a time-sharing agreement will be permitted only in cases where an agreement to that effect is reduced to writing, is signed by the licensees of the stations affected thereby and filed in triplicate by each licensee with the Commission prior to the time of the proposed change. If time is of the essence, the actual departure in operating schedule may precede the actual filing of written agreement, provided appropriate notice is sent to the Commission in Washington, DC.

(d) In the event that causes beyond the control of a permittee or licensee make it impossible to adhere to the operating schedule in paragraphs (a) and (b) of this section or to continue operating, the station may limit or discontinue operation for a period of not more than 30 days without further authority from the Commission, *Provided,* That notification is sent to the Commission in Washington, DC no later than the 10th day of limited or discontinued operation. During such period, the permittee or licensee shall continue to adhere to the requirements of the station license pertaining to the lighting of antenna structures. In the event normal operation is restored prior to the expiration of the 30-day period, the permittee or licensee will so notify the Commission in Washington, DC, of this date. If the causes beyond the control of the permittee or licensee make it impossible to comply within the allowed period, informal written request shall be made to the Commission in Washington, DC, no later than the 30th day for such additional time as may be deemed necessary. The license of a broadcasting station that fails to transmit broadcast signals for any consecutive 12-month period expires as a matter of law at the end of that period, notwithstanding any provision, term, or condition of the license to the contrary.

NOTE 1: For allocations purposes, both (all) stations sharing time will be treated as unlimited time stations.

NOTE 2: See §§ 73.1705, 73.1715, and 73.1740.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[43 FR 39717, Sept. 6, 1978, as amended at 43 FR 45845, Oct. 4, 1978; 44 FR 3416, Jan. 19, 1979; 44 FR 65764, Nov. 15, 1979; 47 FR 54448, Dec. 3, 1982; 50 FR 13974, Apr. 9, 1985; 61 FR 18291, Apr. 25, 1996; 61 FR 28767, June 6, 1996]

§ 73.567 Determining operating power.

The procedures for determining operating power described in § 73.267 are applicable to noncommercial education FM stations.

[44 FR 58732, Oct. 11, 1979]

§ 73.593 Subsidiary communications services.

The licensee of a noncommercial educational FM station is not required to use its subcarrier capacity, but if it chooses to do so, it is governed by §§ 73.293 through 73.295 of the Commission's Rules regarding the types of permissible subcarrier uses and the manner in which subcarrier operations

shall be conducted; *Provided,* however, that remunerative use of a station's subcarrier capacity shall not be detrimental to the provision of existing or potential radio reading services for the blind or otherwise inconsistent with its public broadcasting responsibilities.

[48 FR 26615, June 9, 1983]

§ 73.597 FM stereophonic sound broadcasting.

A noncommercial educational FM broadcast station may, without specific authority from the FCC, transmit stereophonic sound programs upon installation of stereophonic sound transmitting equipment under the provisions of §§ 2.977, 2.1001, 73.322, and 73.1590 of the FCC's Rules.

[51 FR 17029, May 8, 1986]

§ 73.599 NCE–FM engineering charts.

This section consists of the following Figures 1 and 2.

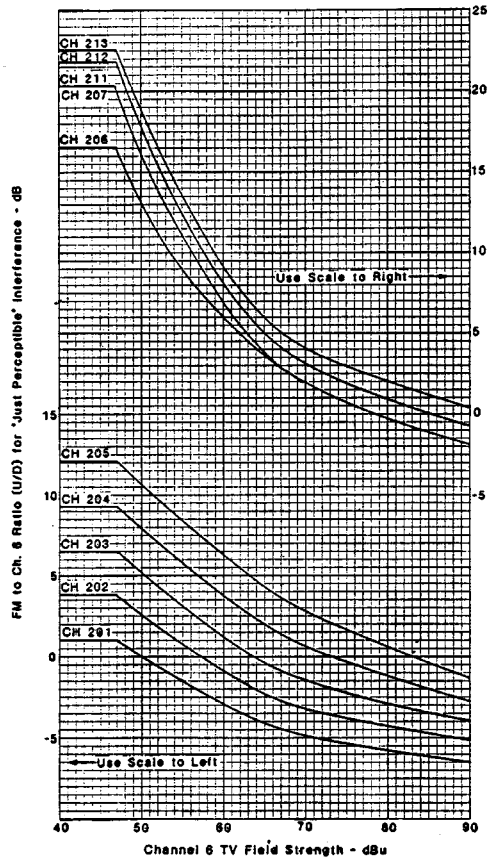


Figure 1
FM/TV 6 PROTECTION RATIOS
BASED ON MEDIAN RECEIVERS
CHANNELS 201-213

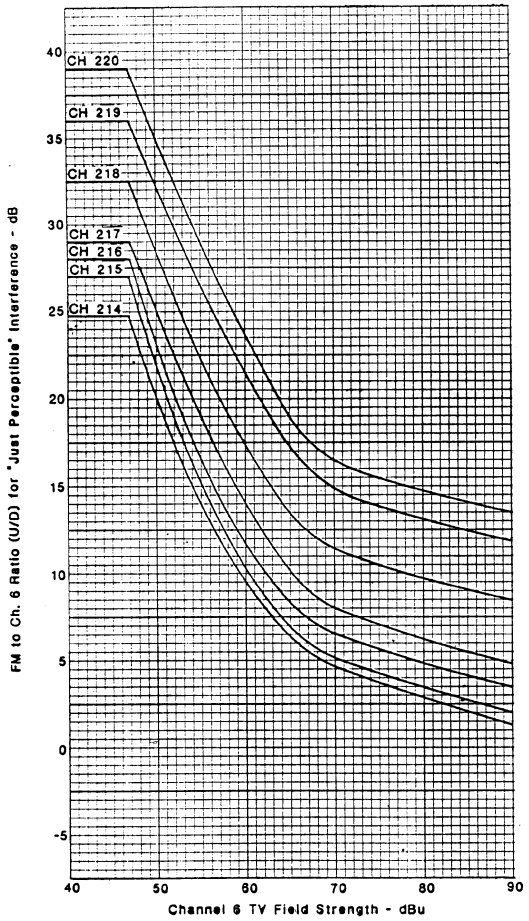


Figure 2
FM/TV 6 PROTECTION RATIOS
BASED ON MEDIAN RECEIVERS
CHANNELS 214-220

[50 FR 27965, July 9, 1985]

Subpart D [Reserved]

Subpart E—Television Broadcast Stations

§ 73.601 Scope of subpart.

This subpart contains the rules and regulations (including engineering standards) governing TV broadcast stations, including noncommercial educational TV broadcast stations and, where indicated, low power TV and TV translator stations in the United States, its Territories and possessions. TV broadcast, low power TV, and TV translator stations are assigned channels 6 MHz wide, designated as set forth in § 73.603(a).

[47 FR 21494, May 18, 1982]

§ 73.602 Cross reference to rules in other parts.

See § 73.1010.

[43 FR 32781, July 28, 1978]

§ 73.603 Numerical designation of television channels.

(a)

Channel No.	Frequency band (MHz)
2	54–60
3	60–66
4	66–72
5	76–82
6	82–88
7	174–180
8	180–186
9	186–192
10	192–198
11	198–204
12	204–210
13	210–216
14	470–476
15	476–482
16	482–488
17	488–494
18	494–500
19	500–506
20	506–512
21	512–518
22	518–524
23	524–530
24	530–536
25	536–542
26	542–548
27	548–554
28	554–560
29	560–566
30	566–572
31	572–578
32	578–584
33	584–590
34	590–596
35	596–602
36	602–608
37	608–614
38	614–620
39	620–626
40	626–632
41	632–638
42	638–644
43	644–650
44	650–656
45	656–662
46	662–668
47	668–674
48	674–680
49	680–686
50	686–692
51	692–698
52	698–704
53	704–710
54	710–716
55	716–722
56	722–728
57	728–734
58	734–740
59	740–746
60	746–752
61	752–758
62	758–764
63	764–770
64	770–776
65	776–782
66	782–788
67	788–794
68	794–800
69	800–806

(b) In Alaska, television broadcast stations operating on Channel 5 (76–82 MHz) and on Channel 6 (82–88 MHz) shall not cause harmful interference to and must accept interference from non-Government fixed operations authorized prior to January 1, 1982.

(c) Channel 37, 608–614 MHz is reserved exclusively for the radio astronomy service.

(d) In Hawaii, the frequency band 488–494 MHz is allocated for non-broadcast use. This frequency band (Channel 17) will not be assigned in Hawaii for use by television broadcast stations.

[28 FR 13660, Dec. 14, 1963, as amended at 35 FR 11179, July 11, 1970; 39 FR 10576, Mar. 21, 1974; 47 FR 16789, Apr. 20, 1982; 47 FR 30068, July 12, 1982; 47 FR 35989, Aug. 18, 1982; 51 FR 18450, May 20, 1986]

§ 73.606 Table of allotments.

(a) *General.* The following table of allotments contains the channels designated for the listed communities in the United States, its Territories, and possessions. Channels designated with

an asterisk are assigned for use by noncommercial educational broadcast stations only. A station on a channel identified by a plus or minus mark is required to operate with its carrier frequencies offset 10 kHz above or below, respectively, the nominal carrier frequencies.

(b) *Table of Allotments.*

ALABAMA

	Channel No.
Anniston	40-
Arab	56-
Bessemer	17
Birmingham	6-, *10-, 13-, 21-, 42+, *62+, 68-
Decatur.	
Demopolis	*41
Dothan	4, 18, *39+, 60-
Dozier	*2-
Florence	15, 26, *36-
Gadsden	44+, 60
Gulf Shores	55
Huntsville	19, *25+, 31+, 48-
Huntsville-Decatur	54
Louisville	*43+
Mobile	5+, 10+, 15+, 21+, *31, *42, and 61
Montgomery	12, 20, *26+, 32, 45-, *63
Mount Cheaha	*7-
Munford	*16-
Opelika	50, 66
Ozark	34
Selma	8, 29-
Troy	67
Tuscaloosa	23-, 33, *39-
Tuscumbia	52+
Tuskegee	22-

ALASKA

	Channel No.
Anchorage	2-, 4-, 5, *7-, *9, 11, 13-, and 33
Bethel	*4
Dillingham	*2, 10
Fairbanks	2+, 7+, *9+, 11+, 13+
Juneau	*3, 8, 10
Ketchikan	2, 4, *9
North Pole	4+
Seward	3-,
Sitka	13

ARIZONA

[See footnotes at end of tables]

	Channel No.
Ajo	*23-
Coolidge	*43
Douglas	3, *28
Flagstaff	2, 4+, 9, 13, and *16
Globe	*14+
Green Valley	46
Holbrook	11+, *18+
Kingman	6-, *14-
Lake Havasu City	34+
McNary	*22+
Mesa	12-
Nogales	*16+
Page	*17

ARIZONA—Continued

[See footnotes at end of tables]

	Channel No.
Parker	*17-
Phoenix	3+, 5-, *8+, 10-, 15-, 21, 33, *39, 45, 61
Prescott	7, *19
Safford	*23+
Sierra Vista	58
Tolleson	51
Tucson	4-, *6+, 9-, 13-, 18-, *27-, 40
Tucson-Nogales	[2] 11
Yuma	11-, 13+, *16-

ARKANSAS

	Channel No.
Arkadelphia	*9+
Camden	237A, 246
Cimarron	23
El Dorado	10-, *30+, 43-, and 49-
Eureka Springs	34+
Fayetteville	*13-, 36
Fort Smith	5-, 24+, 40-
Gosnell	46
Harrison	31+
Hot Springs	*20, 26
Jonesboro	8-, *19+, 48+
Little Rock	*2-, 4, 7-, 11, 16-, *36, and 42
Mountain Home	43+
Mountain View	*6-
Newark	*17
Pine Bluff	25-, 38-
Rogers	51-
Russellville	*28+
Springdale	57

CALIFORNIA

[See footnotes at end of tables]

	Channel No.
Alturas	13+
Anaheim	56-
Arcata	23
Avalon	54
Bakersfield	17, 23-, 29, *39-, 45, 65+
Barstow	*35+, 64
Big Bear Lake	59+
Bishop	*14-, 20+
Blythe	*22-
Brawley	*26
Calipatria	54
Ceres	*23+
Chico	12-, *18, 24+, *46-
Clovis	43
Coalinga	*27-
Concord	42
Corona	52
Cotati	*22-
El Centro	7+, 9+
Eureka	3-, 6-, *13-, and 29
Fort Bragg	8-
Fresno	*18+, 24, 30+, 47, 53,
Hanford	21
Huntington Beach	*50-
Indio	*19+
Los Angeles	2, 4, 5, 7, 9, 11, 13, 22, *28, 34, *58-, *68-
Merced	51
Modesto	19-

CALIFORNIA—Continued

[See footnotes at end of tables]

	Channel No.
Novato	68
Oakland	2+
Ontario	46
Oroville	28
Oxnard	63+
Palm Springs	36-, 42
Paradise	30
Porterville	61
Rancho Palos Verdes	44+
Redding	7, *9, 16
Ridgecrest	*25
Riverside	62
Sacramento	3, *6, 10, 29-, 31-, 40-, *52
Salinas-Monterey	8+, 35-, 46-, *56, 67-
San Bernardino	18-, *24-, 30
San Diego	8, 10, *15, 39, 51, 69
San Francisco	4-, 5+, 7-, *9+, 14+, 20-, 26-, *32+, 38, 44-
San Jose	11+, 36, 48-, *54, 65
San Luis Obispo	6+, *15+, and 33
San Mateo	*60
Sanger	59
Santa Anna	40,
Santa Barbara	3-, 14,1 *20,1 , 38, and *55
Santa Cruz	*16-
Santa Maria	12+, 42+
Santa Rosa	50-, *62
Stockton	13+, 58, 64
Susanville	*14
Twentynine Palms	31
Vallejo-Fairfield	66
Ventura	57
Visalia	26+, *49
Watsonville	*25+
Weaverville	32
Willits	11-
Yosemite Valley	41
Yreka City	*20+

COLORADO

	Channel No.
Alamosa	*16, 47
Boulder	14
Broomfield	*12
Castle Rock	53
Colorado Springs	11, 13, 21
Craig	*16+
Denver	2, 4-, *6-, 7, 9-, 20, 31, *41, 50, 59
Durango	6+, *20-, and 33+
Fort Collins	22-
Glenwood Springs	3-, *19+
Grand Junction	5-, 8-, *18+, 4*, 11+
Gunnison	*17-
La Junta	*22+
Lamar	12-, *14-
Leadville	*15-
Longmont	25
Montrose	10+, *22
Pueblo	5, *8, 26+, 32-
Salida	*23+
Steamboat Springs	24+
Sterling	3, *18+
Trinidad	*24

CONNECTICUT

	Channel No.
Bridgeport	43-, *49-
Hartford	3+, 18-, *24, 61+
New Britain	30+
New Haven	8, 59+, 55
New London	26+
Norwich	*53
Waterbury	20

DELAWARE

	Channel No.
Dover	*34
Seaford	38, *64
Wilmington	*12, 61

DISTRICT OF COLUMBIA

	Channel No.
Washington	4-, 5-, 7+, 9, 20+, *26-, *32+, 50

FLORIDA

	Channel No.
Boca Raton	*63
Bradenton	*19, 66
Bunnell	58
Cape Coral	36
Clearwater	22
Clermont	18-
Cocoa	*52, 68
Crystal River	39-
Daytona Beach	2-, 26
Destin	64+
Fort Lauderdale	51
Fort Myers	11+, 20+, *30
Fort Pierce	*21-, 34
Fort Walton Beach	35, 53, 58
Gainesville	*5-, 20, 61+
High Springs	53+
Hollywood	69
Inverness	64
Islamorada	*9+
Jacksonville	4+, *7, 12+, 17, 30+, 47-, *59
Kenansville	31
Key West	8, *13, and 22+
Lake City	*41
Lake Worth	67
Lakeland	32
Leesburg	*45-, 55
Live Oak	57-
Madison	*36-
Marathon	16+
Marianna	*16+, 51
Melbourne	43+, 56
Miami	*2, 4, 6, 7-, 10+, *17-, 23-, 33, 35, 39, and 45+
Naples	26-, 46
New Smyrna Beach	*15+
Ocala	*29, 51-
Orange Park	25-
Orlando	6-, 9, * 24-, 27, 35+, and 65
Palatka	*42, 63+
Palm Beach	61
Panama City	7+, 13, 28-, *56, 46
Panama City Beach	46
Pensacola	3-, *23, 33+, 44
St. Petersburg	10-, 38, 44+

FLORIDA—Continued

	Channel No.
Sarasota	40
Sebring	*48, 60
Stuart	59
Tallahassee	*11-, 24, 27+, 40+
Tampa	*3, 8-, 13-, *16, 28, and 50
Tequesta	25
Tice	49
Venice	62
West Palm Beach	5, 12, 29+, *42+,

GEORGIA

	Channel No.
Albany	10, 19-, 31-, and 52-
Ashburn	*23+
Athens	*8-, 34
Atlanta	2, 5-, 11+, 17-, *30, 36, 46-, *57+, 69
Augusta	6+, 12-, 26, 54-
Bainbridge	49
Baxley	34
Brunswick	21+
Carrollton	*49-
Carnesville	*52
Cedartown	*65-
Chatsworth	*18-
Cochran	*29+
Columbus	3, 9+, *28, 38+, *48, 54+
Cordele	55+
Dalton	23
Dawson	*25
Draketown	*27-
Elberton	*60+
Flintstone	*41-
Lafayette	*35
Macon	13+, 24+, 41+, *47+, 64-
Monroe	63
Pelham	*14-
Perry	58+
Rome	14+
Royston	*22+
Savannah	3, *9-, 11, 22,
Thomasville	6
Toccoa	32-, *68-
Valdosta	*33, 44-
Vidalia	*18+
Warm Springs.	
Warner Robbins	35-
Waycross	*8+
Wrens	*20-
Young Harris	*51-

HAWAII

	Channel No.
Hilo (Hawaii)	2, *4, 9, 11, 13, 14+, 20+, 26+, *32+, *38+
Honolulu (Oahu)	2+, 4-, 5, 9-, *11+, 13-, 14, 20, 26, 32, *38, and *44.
Kailua	50
Kailua-Kona (Hawaii)	6
Kaneohe	66+
Lihue (Kauai)	3+, *8-, 10+, 12-, 15-, *21-, *27-, *67
Wailuku (Maui)	3, 7, *10, 12, 15, 21, *27, *33, 39
Waimanalo	56

IDAHO

	Channel No.
Boise	2, *4+, 7, 14
Burley	*17+
Caldwell	9-
Coeur d'Alene	*26+
Filer	*19-
Grangeville	*15-
Idaho Falls	3, 8+, 20, *33+
Lewiston	3-
Moscow	*12-
Nampa	6, 12+
Preston	*28
Pocatello	6-, *10, 15, 25+, 31-
Sandpoint	*16+
Sun Valley	5-
Twin Falls	11, *13-, 35
Weiser	*17

ILLINOIS

[See footnotes at end of tables]

	Channel No.
Aurora	60
Bloomington	43
Carbondale	*8
Champaign	3+, 15-
Charleston	*51+
Chicago	2-, 5, 7, 9+, *11, *20, 26, 32, 38-, 44
Danville	68
Decatur	17, 23-
DeKalb	*33, *48-
East St. Louis	46
Edwardsville	*18-
Elgin	[4] 66+
Freeport	23, *65-
Galesburg	67
Harrisburg	3
Jacksonville	*14
Joliet	[1] 14-, 66+
Kankakee	*54-
LaSalle	35
Macomb	*22+
Marion	27
Moline	8, *24-
Mount Vernon	13+
Olney	*16-
Paris	46+
Peoria	19, 25+, 31+, *47-, 59+
Pontiac	53
Quincy	10-, 16+, *27+
Rockford	13, 17+, 39
Rock Island	4+
Springfield	20+, 49-, 55+, *65+
Streator	*63
Urbana	*12-, 27-
Vandalia	*21

INDIANA

	Channel No.
Anderson	67+
Angola	63
Bloomington	4, *30-, 42+ and 63+
Elkhart	28+
Evansville	7, *9+, 14-, 25-, and 44
Fort Wayne	15+, 21+, 33-, *39-, 55
Gary	50, *56+
Hammond	62+
Indianapolis	6, 8-, 13-, *20-, 40, 59-, *69

INDIANA—Continued

	Channel No.
Kokomo	29-
Lafayette	18, *24
Madison	*60+
Marion	23
Muncie	49, *61
Richmond	43+
Salem	58+
South Bend	16, 22, *34-, 46
Terre Haute	2+, 10, *26-, 38
Vincennes	*22-

IOWA

	Channel No.
Ames	5, 23-, *34+
Burlington	26-, *57-
Carroll	*18-, 30+, and 52
Cedar Rapids	2, 9-, 28+, and 48-
Centerville	*31-
Council Bluffs	*32
Davenport	6+, 18+, 30-, *36+
Decorah	*14+
Des Moines	8-, *11+, 13-, 17+, *43-, 63-, 69
Dubuque	16-, *29-, 40-
Estherville	*49+
Fort Dodge	*21
Fort Madison	*38+
Hampton	50
High Point	*14-
Iowa City	*12+, 20-
Keokuk	*44+
Keosauqua	*54+
Lansing	*41+
Mason City	3+, *24+
Mount Ayr	*25-
Newton	39+
Ottumwa	15+, *33-
Red Oak	*36
Rock Rapids	*25+
Sibley	*33
Sioux City	4-, 9, 14, *27-, 44
Spirit Lake	*38
Waterloo	7+, 22-, *32-

KANSAS

	Channel No.
Chanute	*30+
Cimarron	23
Colby	4
Columbus	*48-
Dodge City	*21-
Emporia	*25+
Ensign	6+
Fort Scott	20+
Garden City	11+, 13-, *18
Goodland	10
Great Bend	2
Hays	7-, *9
Hoisington	14
Hutchinson	*8, 12, 36+
Junction City	31
Lakin	*3
Lawrence	38
Liberal	5+
Manhattan	*21
Oakley	*15-
Parsons	*39

KANSAS—Continued

	Channel No.
Phillipsburg	*22-
Pittsburg	7+ and 14
Pratt	*32+
Randall.	
Salina	18+, 34-, 44
Sedan	*28
Topeka	*11, 13+, 27, 43, 49
Wichita	3-, 10-, *15+, 24-, 33, *42

KENTUCKY

	Channel No.
Ashland	*25, 50-, 61+
Beattyville	65
Blanco	52+
Bowling Green	13, *24-, 40+, *53-, 59+
Campbellsville	34
Covington	*54+
Danville	56
Elizabethtown	*23+
Harlan	44-
Hazard	*35+, 57-
Hopkinsville	51
Lexington	18+, 27-, 36, *46, 62
Louisville	3-, 11, *15, 21-, 32-, 41+, *68+
Madisonville	19-, *35-, and 57+
Morehead	*38+, 67-
Murray	*21+, 38
Newport	19+
Owensboro	31-, 48, 61+
Owenton	*52+
Paducah	6+, 29 and 49
Paintsville	69+
Pikeville	*22-, 51+
Somerset	16, *29+

LOUISIANA

	Channel No.
Alexandria	5, *25+, 31+, 41+
Baton Rouge	2, 9-, *27+, 33-, and 44+
Columbia	11+
De Ridder	*23-
Hammond	62+
Houma	11
Lafayette	3+, 10, 15, *24
Lake Charles	7-, *18-, 29-
Minden	21+
Monroe	8+, *13,
Morgan City	*14+
Natchitoches	*20+
New Iberia	36-
New Orleans	4+, 6, 8-, * 12, 20-, 26, * 32+, 38+, and 49
Shreveport	3-, 12, *24-, 33, and 45+
Slidell	54+
Tallulah	*19
West Monroe	14-, 39+

MAINE

	Channel No.
Augusta	*10-
Bangor	2-, 5+, 7-
Biddeford	*26-
Calais	*13-
Fort Kent	*46+

MAINE—Continued

	Channel No.
Fryeburg	*18+
Houlton	*25+
Kittery	*39
Lewiston	35-
Millinocket	*44-
Orono	*12-
Poland Spring	8-.
Portland	6-, 13+, 51
Presque Isle	8, *10+, 62+
Rumford	*43+
Waterville	23-

MARYLAND

	Channel No.
Annapolis	*22+
Baltimore	2+, 11-, 13+, 24+, 45, 54, *67-
Cumberland	52+, 65
Frederick	*62
Hagerstown	25-, *31, and 68+
Oakland	*36+
Salisbury	16+, *28-, 47-
Waldorf	*58+

MASSACHUSETTS

[See footnotes at end of tables]

	Channel No.
Adams	19
Boston	*2+, 4+, 5-, 7+, 25+, 38, *44, 68+
Cambridge	56
Greenfield	32+
Lawrence	62
Marlborough	66
New Bedford	6+, 28-, *34
North Adams	*35
Norwell	46+
Pittsfield	51+
Springfield	22, 40, *57+
Vineyard Haven	58+
Worcester	14, [1] 27, *48+,

MICHIGAN

	Channel No.
Alpena	*6, 11
Ann Arbor	31+, *58+
Bad Axe	* 15-, 41-
Battle Creek	41+, and 43-
Bay City	5-, 61+
Cadillac	9, *27, 33
Calumet	5-, *22-
Cheboygan	4+
Detroit	2+, 4, 7-, 20+, 50-, *56, 62
East Lansing	*23-, *69-
Escanaba	3+
Flint	12-, *28-, 66-
Grand Rapids	8+, 13+, 17-, *35+
Iron Mountain	8-, *17+
Ironwood	*15-, 24+
Ishpeming	10
Jackson	18+
Kalamazoo	3-, *52+, 64
Lansing	6-, 47, 53-
Manistee	*21
Manistique	*15+

MICHIGAN—Continued

	Channel No.
Marquette	6-, *13, 19
Mount Clemens	38+
Mount Pleasant	*14
Muskegon	54+
Onondaga	10-
Petoskey	*23+
Port Huron	46+
Saginaw	25-, 49-
Sault Ste. Marie	8, 10+, *32-
Traverse City	7+, 29-
University Center	*19+.
Vanderbilt	45
West Branch	*24

MINNESOTA

	Channel No.
Alexandria	7, * 24, and 42
Appleton	*10-
Austin	6-, *15-
Bemidji	*9, 26+
Brainerd	*22
Crookston	*33
Duluth	3, *8, 10+, 21+, 27-
Ely	*17-
Fairmont	*16+
Hibbing	13-, *18-
International Falls	11, *35+
Mankato	12, *26-
Marshall	*30-
Minneapolis-St. Paul	*2-, 4, 5-, 9+, 11-, *17, 23+, 29+, and 45
Redwood Falls	43
Rochester	10, 47-
St. Cloud	19, *25-, 41
St. James	32+
Thief River Falls	10, *30
Wadena	*20-
Walker	12-, 38-
Wilmar	*14-
Winona	*35+, 44-
Worthington	*20

MISSISSIPPI

	Channel No.
Biloxi	13+, *19+,
Booneville	*12-
Bude	*17+
Clarksdale	*21
Cleveland	*31-
Columbia	*45
Columbus	4-, *43
Greenville	15-, 44
Greenwood	6+, *23+
Gulfport	25-
Grenada	22+
Hattiesburg	22, *47
Holly Springs	40
Houston	45+
Jackson	3, 12+, 16, *29+, 40+, and 51
Laurel	7, 18+
Magee	34+
Meridian	11-, *14, 24-, 30-
Mississippi State	*2+
Natchez	*42+, 48
Oxford	*18
Senatobia	*34-

MISSISSIPPI—Continued

	Channel No.
Tupelo	9-, 35+
Vicksburg	35-
West Point	27
Wiggins	43-,56+
Yazoo City	*32-

MISSOURI

	Channel No.
Birchtree	*20-
Bowling Green	*35+
Cape Girardeau	12, 23, *39-
Carrollton	*18
Columbia	8+, 17-*23+
Flat River	*22
Hannibal	7-
Jefferson City	13, 25, *36-
Joplin	12+, 16, *26-
Kansas City	4, 5+, 9+, *19+, 32-, 41-, 50-, 62+, *68-
Kennett	58+
King City	*28-
Kirksville	3-
LaPlata	*21+
Lowry City	*15-
Poplar Bluff	15+, *26+, 55
Rolla	*28
St. Joseph	2-, 16-, 22
St. Louis	2, 4-, 5-, *9, 11-, 24+, 30+, *40-, *46
Sedalia	6
Sikeston	45
Springfield	3+, 10, *21-, 27-, 33--

MONTANA

	Channel No.
Anaconda	2+
Billings	2-, 6, 8, *11, 14, 20+
Bozeman	7-, *9
Butte	*2+, 4, 6+, 18, 24
Cut Bank	*14-
Dillon	*14+
Glendive	5+, 13+, *16-
Great Falls	3+, 5+, 16, 26, *32
Hardin	4+
Havre	9+, 11-, and *18-
Helena	10+, 12, *15+
Joplin	35-, 48, 54-
Kalispell	9-, *29-
Lewistown	13
Miles City	3-, *10
Missoula	8-, *11+, 13-, 17-, and 23-
Wolf Point	*17+

NEBRASKA

	Channel No.
Albion	18, *21+, 24+
Alliance	*13-
Bassett	*7-
Beatrice	23+
Falls City	*24
Grand Island	11-, 17
Hastings	5-, *29+
Hayes Center	6
Hay Springs-Scottsbluff.	4+

NEBRASKA—Continued

	Channel No.
Kearney	13
Lexington	*3+
Lincoln	8+, 10+, *12-, 45, 51
McCook	8-, 16+, 12
Merriman	*12
Norfolk	*19+
North Platte	235, 246, 278
Omaha	3, 6+, 7, 15, *26, 42+, *48-, and 54
Orchard	16
Pawnee	33+
Scottsbluff	10-, 16
Superior	4+

NEVADA

	Channel No.
Elko	10-, *14+
Ely	3-, 6+
Fallon	*25
Goldfield	7-
Henderson	5+
Las Vegas	3, 8-, *10+, 13-, 15+, 21+, and 33+
McGill	*13
Paradise	39+
Pawnee City	*33+
Reno	2, 4, *5, 8, 11, 21+, and 27+
Tonopah	9-, *17+
Winnemucca	7+, *15-
Yerington	*16+

NEW HAMPSHIRE

[See footnotes at end of tables]

	Channel No.
Berlin	*40-
Concord	21+
Derry	50-
Durham	*11
Hanover	*15+
Keene	*52+
Littleton	*49+
Manchester	9-,
Merrimack	60+
Portsmouth	[1] 17-

NEW JERSEY

	Channel No.
Atlantic City	*36, 53+, 62-
Burlington	48-
Camden	*23+
Linden-Newark	47+
Montclair	*50+
Newark	13-, 68
New Brunswick	*58
Newton	63
Paterson	41-
Secaucus	9+
Trenton	*52-
Vineland	59-, 65-
West Milford	*66-
Wildwood	40

NEW MEXICO

	Channel No.
Alamogordo	*18-
Albuquerque	4+, *5+, 7+, 13+, 14-, 23-, *32+, 41, 50
Carlsbad	6-, *15+, 25-
Clayton	*17
Clovis	12--
Deming	*16
Farmington	3, 12+, *15+
Gallup	*8-, 10
Hobbs	29+
Las Cruces	*22-, 48+
Lovington	*19
Portales	*3+
Raton	*18-
Roswell	8, 10-, 21-, 27-, *33+
Santa Fe	2+, *9+, 11-, 19-
Silver City	6, 10+, *12
Socorro	*15-
Tucumcari	*15

NEW YORK

[See footnotes at end of tables]

	Channel No.
Albany-Schenectady	6, 10-, 13, *17+, 23-, *29+, 45
Amsterdam	*39+, 55
Arcade	62-
Batavia	51-
Bath	14-
Binghamton	12-, 34, 40-, *46+
Buffalo	2, 4, 7+, 17, *23, 29-, 49-
Carthage	7-
Corning	*30, 48+
Elmira	18+, 36-
Garden City	*21-
Glens Falls	*58-
Ilion	67-
Ithaca	52, *65+
Jamestown	26+, *46
Kingston	62+
Lake Placid	*34+
New York	2, 4, 5+, 7, 11+, *25, 31-
North Pole	5
Norwood	*18
Oneonta	[1] 15, *42
Plattsburg	*57
Poughkeepsie	54+
Riverhead	55+
Rochester	8, 10+, 13-, *21, 31+, *61+
Saranac Lake	61-
Smithtown	67
Springville	67+
Syracuse	3-, 5-, 9-, *24+, 43+, 56+, 68-
Utica	2-, 4-, 20+, 33, *59
Watertown	*16, 50+
Waverly	*57-

NORTH CAROLINA

	Channel No.
Andrews	*59
Asheville	13-, 21+, *33, 62+
Belmont	46+
Bryson City	*67
Burlington	16
Canton	*27
Chapel Hill	*4+
Charlotte	3, 9+, 18, 36, *42+

NORTH CAROLINA—Continued

	Channel No.
Columbia	*2
Concord	*58
Cullowhee	50+
Durham	11+, 28+
Fayetteville	40+, 62
Forest City	66+
Franklin	*56+
Goldsboro	17-
Greensboro	2-, 48-, 61
Greenville	9-, 14, *25, and 38+
Hickory	14-
High Point	8-, *32+, 67+
Jacksonville	*19, 35
Kannapolis	64-
Laurel Hill	59+
Lexington	20
Linville	*17
Lumberton	*31
Manteo	4
Morehead City	8+
Morganton	23-
New Bern	12+
Raleigh	5, 22, *34, 50+
Roanoke Rapids	*36-
Rockingham	*53
Rocky Mount	47+
Washington	7
Waynesville	59
Wilmington	3-, 6, 26-, *39-
Wilson	30-
Winston-Salem	12, *26+, 45

NORTH DAKOTA

	Channel No.
Bismarck	*3, 5, 12-, 17-, 26+
Devils Lake	8+, *22+
Dickinson	2+, *9-, 7
Ellendale	*19-
Fargo	6, 11+, *13, 15-
Grand Forks	*2, 14+, 27+
Jamestown	7-, *23
Minot	*6+, 10-, 13-, 14-, 24
Pembina	12
Valley City	4-
Williston	*4, 8-, 11-, *15-

OHIO

[See footnotes at end of tables]

	Channel No.
Akron	23+, *49+, 55-
Alliance	*45+
Ashtabula	[1] 15
Athens	20*, 63-
Bowling Green	*27+
Cambridge	*44-
Canton	17-, 67
Chillicothe	53
Cincinnati	5-, 9, 12, *48-, 64-
Cleveland	3, 5+, 8, *25+, 61
Columbus	4-, 6+, 10+, 28-, *34, *56-
Dayton	2, 7+, *16+, 22+, 45
Defiance	65+
Hillsboro	*24+, 55+
Lima	35-, 44+, *57+, 17
Lorain	43
Mansfield	*47+, 68-

OHIO—Continued

[See footnotes at end of tables]

	Channel No.
Newark	*31-, 51
Oxford	*14+
Portsmouth	30, *42-
Sandusky	52
Shaker Heights	19.
Springfield	26+, *66
Steubenville	9+, *62+
Toledo	11-, 13, 24-, *30+, 36-, and 40-
Xenia	32
Youngstown	21-, 27, 33, *58
Zanesville	18-

OKLAHOMA

[See footnotes at end of tables]

	Channel No.
Ada	10+, *22
Altus	*27
Ardmore	*17, *28-
Bartlesville	17+
Cheyenne	12+
Claremore	*35
Duncan	40+
Elk City	*15-, and 31
Enid	20-, *26+
Eufaula	*3
Grove	45+
Guymon	9+, *16
Hugo	42+, [1] *15+, *48+
Lawton	7+, *36-, 16-, 45
McAlester	*32-
Miami	*18-
Muskogee	19
Norman	46-
Oklahoma City	4-, 5, 9-, *13, 14-, 25-, 34-, 43+, 52, and 62+
Okmulgee	44-
Sayre	8+
Shawnee	30
Tulsa	2+, 6+ 8-, *11-, 23, 41+, 47, 53, and *63
Woodward	*17-, 35+

OREGON

	Channel No.
Astoria	*21
Bend	*3+, *15, 21+
Brookings	*14-
Burns	*18
Coos Bay	11, 23+, 41
Corvallis	*7-
Eugene	9+, 13, 16+, *28-, and 34
Grants Pass	*18+, 30+
Klamath Falls	2-, *22+, and 31
LaGrande	*13+, 16
Medford	5, *8+, 10+, 12+, and 26+
North Bend	*17+
Pendleton	11-
Portland	2, 6+, 8-, *10, 12, 24+, *30, 40-
Roseburg	4+, 36, 46+
Salem	22, 32
The Dalles	*17-

PENNSYLVANIA

[See footnotes at end of tables]

	Channel No.
Allentown	*39, 69
Altoona	10-, 23-, 47, *57+
Bethlehem	60-
Clearfield	*3+
Erie	12, 24, 35+, *54+, 66+
Greensburg	40+
Harrisburg	21+, 27-, *33+
Hazleton	56
Jeanette	19+
Johnstown	6, 8-, 19+, *28+
Lancaster	8+, 15+
Lebanon	55-
Philadelphia	3, 6-, 10, 17-, 29, *35-, 57
Pittsburgh	2-, 4+, 11, *13-, *16, 22, 53+
Reading	51
Red Lion	49+
Scranton	16-, 22-, 38+, *44-, 64
State College	29+, and *59+
Wilkes Barre	28
Williamsport	[1] 20-, 53-
York	43,

RHODE ISLAND

[See footnotes at end of tables]

	Channel No.
Block Island	69-
Providence	10+, 12+, [1] 16, *36, 64+

SOUTH CAROLINA

	Channel No.
Aiken	*44
Allendale	*14
Anderson	40
Beaufort	*16-
Charleston	2+, 4, 5+, *7-, 24, and 36+
Columbia	10-, 19+, 25-, *35+, 47, 57-
Conway	*23+
Florence	13+, 15-, 21, *33+
Georgetown	*41-
Greenville	4-, 16+, *29
Greenwood	*38, 48+
Hardeeville	28-
Myrtle Beach	32, 43+
Rock Hill	30+, 55-
Spartanburg	7+, 49
Sumter	*27- and 63-

SOUTH DAKOTA

	Channel No.
Aberdeen	9-, *16-
Allen	22+
Brookings	*8
Eagle Butte	*13
Florence	3-
Huron	12+
Lead	5-, 11+
Lowry	*11-, 56, 62+, 68-
Martin	*8-
Mitchell	5+
Pierre	4, *10+
Rapid City	3+, 7+, *9, 15-, 21-
Reliance	6-

SOUTH DAKOTA—Continued

	Channel No.
Seneca	*2-
Sioux Falls	11, 13+, 17-, *23, 36+, 46
Vermillion	*2+

TENNESSEE

	Channel No.
Athens	*24
Chattanooga	3+, 9, 12+, *45, 61-
Cleveland	53
Cookeville	*22, 28+
Crossville	20+, *55+
Fayetteville	*29-
Greeneville	39-
Hendersonville	50
Jackson	7+, 16+, *32+
Jellico	54-
Johnson City	11-, *41
Kingsport	19
Knoxville	6, 8, 10+, *15-, 26-, 43+
Lebanon	66--
Lexington	*11+
Livingston	60-
McMinnville	33+
Memphis	3-, 5+, *10+, 13+, *14+, 24, 30, 50+, and *56
Murfreesboro	39+
Nashville	2-, 4+, 5, *8+, 17+, 30+, *42, and 58
Sneedville	*2+
Tazewell	48+
Tullahoma	64+
Union City	41

TEXAS

	Channel No.
Abilene	9+, 15, *26+, 32+
Alpine	12-
Alvin	67
Amarillo	*2+, 4, 7, 10, 14+
Austin	7+, *18+, 24, 36, 42-, and 54
Bay City	*43+
Baytown	57+
Beaumont	6-, 12-, 21, *34-
Belton	46-
Big Spring	4-, *14
Blanco	52+
Boquillas	8-
Brady	13
Brownsville	23
Bryan	3, 28
Childress	*21
College Station	*15, 50-
Conroe	49+ and 55+
Corpus Christi	3-, 6, 10-, *16, 28-, 38+
Crockett	40
Dallas	4+, 8, *13+, 27-, 33+, 39, and 58
Decatur	29
Del Rio	10, *24+
Denton	*2
Eagle Pass	16+
El Paso	4, 7, 9, *13, 14, 26+, *38--, and 65
Farwell	18+
Fort Stockton	5+
Fort Worth	5+, 11-, 21-, *31+, and 52-
Fredericksburg	2+
Galveston	*22, 48
Garland	23

TEXAS—Continued

	Channel No.
Greenville	47+
Harlingen	4+, *44, 60
Houston	2-, *8, 11+, 13-, *14, 20, 26, 39-, and 61
Irving	49
Jacksonville	56
Katy	51+
Kennville	35+
Killeen	62
Lake Dallas	55
Laredo	8, 13, 27-, *39
Liano	14-
Longview	16+, 51-, and 54+
Lubbock	*5-,11,13-, 16+, 28, and 34-
Lufkin	9
McAllen	48
Marfa	3
Marshall	*22-, 35+
Midland	2-, 18
Mineola	64+
Monahans-Odessa	9-
Nacogdoches	19-, *32
Odessa	7-, 24-, 30, *36+, and 42
Palestine	43
Paris, Texas	36+, 42+
Port Arthur	4-
Presidio	7+
Rio Grande City	40
Rosenberg	45
San Angelo	3-, 6, 8+, *21+
San Antonio	4, 5, *9-, 12+, *23-, 29+, 41+, and 60+
Sherman	12-, 20-, *26-
Snyder	17-
Sonora	11+
Sulphur Springs	18
Sweetwater	12
Temple	6+,
Texarkana	6, 17-, *34
Tyler	7,14+, *38, and 60
Uvalde	26-
Victoria	19+, 25, 31, and *47
Waco	10+, 25+, *34+, 44-
Weslaco	5-
Wichita Falls	3+, 6-, 18-, *24
Wolfforth	22-

UTAH

	Channel No.
Cedar City	4, *16+
Logan	12-, *22
Moab	*14+
Monticello	*16-
Ogden	*9+, *18-, 24, 30
Price	3+, *15
Provo	*11-, 16, 32
Richfield	8+, *19
Salt Lake City	2-, 4-, 5+, *7-, 13+, 14-, 20+, *26-
St. George	12, *18-
Vernal	6, *17+

VERMONT

	Channel No.
Burlington	3, 22+, *33-, 44+
Hartford	31
Rutland	*28+

VERMONT—Continued

	Channel No.
St. Johnsbury	*20-
Windsor	*41

VIRGINIA

	Channel No.
Arlington	14-
Ashland	65+
Blacksburg	*43, 65-
Bristol	5+, *28-
Bluefield	*63+
Charlottesville	29-, *41-, 64+
Courtland	*52
Danville	24-, 44+, *56
Farmville	*31-
Fairfax	*56-
Fredericksburg	69+
Front Royal	*42
Goldvein	*53
Grundy	68
Harrisonburg	3-
Lynchburg	13, 21-, *54+
Manassas	66+
Marion	*52-
Norfolk-Portsmouth-Newport News-.	3+, 10+, 13-, *15, 27, 33, 49- and
Hampton	*55+
Norton	*47-
Onancock	*25+
Petersburg	8
Richmond	6+, 12-, *23, 35+, *57-, 63
Roanoke	7-, 10, *15+, 27+, 38-, and 60
Staunton	*51-
Virginia Beach	21+, 43+
West Point	*46

WASHINGTON

	Channel No.
Anacortes	64
Bellevue	33+, 51+
Bellingham	12+, 24, *34
Centralia	*15+
East Wenatchee	249A
Everett	16-
Kennewick	42+
Morton	39
Olympia	67
Pasco	19-
Pullman	*10-, 24+
Richland	25, *31
Rochester	26+
Seattle	4, 5+, 7, *9, 22+, 45+, and *62
Spokane	2-, 4-, 6-,*7+22, 28-, and 34-
Tacoma	11+, 13-, 20, *28, and *56
Vancouver	*14, 49
Walla Walla	9+
Wenatchee	*18+, 27
Yakima	23+, 29+, 35, *47

WEST VIRGINIA

[See footnotes at end of tables]

	Channel No.
Bluefield	6-, 40-
Charleston	8+, 11+, 23, 29, *49-

WEST VIRGINIA—Continued

[See footnotes at end of tables]

	Channel No.
Clarksburg	12+, 46-
Fairmont	66-
Grandview	*9-
Huntington	3+, 13+, *33+
Keyser	*30+
Lewisburg	59
Martinsburg	*44, 60+
Morgantown	*24-
Oak Hill	4
Parkersburg	15-, 39+, *57
Weirton	*50+
Weston	5
Wheeling	7, [1] 14, *41
Williamson	*31+

WISCONSIN

	Channel No.
Antigo	46
Appleton	32+
Bloomington	*49
Chippewa Falls	48
Crandon	4
Eagle River	34
Eau Claire	13+, 18
Fond du Lac	68
Green Bay	2+, 5+, 11+, 26+, *38, 44+
Highland	*51
Janesville	57+
Kenosha	55-
Kieler	*46+
LaCrosse	8+, 19+, 25, *31
Madison	3, 15, *21-, 27+, 47+
Manitowoc	16+
Marshfield	39-
Mayville	52
Menomonie	*28-
Milwaukee	4-, 6, *10+, 12, 18-, 24+, 30, *36, and 58
Oshkosh	22+and *50+
Park Falls	*36+
Racine	49+
Rhinelander	12+
Rice Lake	16
Richland Center	45+
Sheboygan	28
Sturgeon Bay	42
Superior	6+, 40
Suring	14-
Tomah	43
Wausau	7-, 9, *20+, 33-
Wittenberg	55

WYOMING

	Channel No.
Casper	2+, *6+, 13+, 14-, 20-
Cheyenne	5+, *17, 27-, 33-
Jackson	2, 11+
Lander	*4, 5
Laramie	*8+
Rawlins	11-
Riverton	10+
Rock Springs	13
Sheridan	7, 9+, 12+

U.S. TERRITORIES AND POSSESSIONS

[See footnotes at end of tables]

	Channel No.
Guam:	
Agana	*4, 8, 10, *12
Tamuning	14, 20
Puerto Rico:	
Aguada	50
Aguadilla	*32, 44
Arecibo-Aguadilla	12+
Arecibo	54, 60
Bayamon	36
Caguas	11-, *58
Carolina	52
Cayey.	
Fajardo	13+, 34, and *40
Guayama	46
Humacoa	68
Mayaguez	3+, 5-, 16, 22
Naranjito	64
Ponce	7+, 9-, 14, 20, *26, 48
San Juan	2+, 4-, *6+, 18, 24, 30, and *62
San Sebastian	38
Utuado.	
Yauco	42
Virgin Islands:	
Charlotte Amalie	10-, 17, *23, 43
Charlotte Amalie-Christiansted.	*3, [6] *12
Christiansted	8+, 15, *21, 27
Frederiksted	66

Footnotes to tables:

[1] Following the decision in Docket No. 18261, channels so indicated will not be available for television use until further action by the Commission.

[2] Operation on this channel is subject to the conditions, terms, and requirements set out in the Report and Order in Docket No. 19075, RM–1645, adopted January 5, 1972, released January 7, 1972, FCC 72–19.

[3] [Reserved]

[4] This channel is not available for use at Elgin unless and until it is determined by the Commission that it is not needed for use at Joliet, Ill.

[5] [Reserved]

[6] Stations using these allotments shall limit radiation toward stations on the same channel in Puerto Rico, to no more than the effective radiated power which would be radiated by an omnidirectional radio station using maximum permissible effective radiated power for antenna height above average terrain, at the minimum distances from such stations specified in Sec. 73.610(b). The FCC shall consider the status of the negotiations with the appropriate British authorities concerning these allotments when the applications for construction permits come before the FCC.

(Sec. 5, 48 Stat. 1068; 47 U.S.C. 155)

[28 FR 13660, Dec. 14, 1963]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 73.606, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 73.607 Availability of channels.

Applications may be filed to construct TV broadcast stations only on the channels designated in the Table of Allotments (§ 73.606(b)) and only in the communities listed therein. Applications which fail to comply with this requirement, whether or not accompanied by a petition to amend the Table, will not be accepted for filing. However, applications specifying channels which accord with publicly announced FCC Orders changing the Table of Allotments will be accepted for filing even though such applications are tendered before the effective dates of such channel changes.

[51 FR 44070, Dec. 8, 1986]

§ 73.609 Zones.

(a) For the purpose of allotment and assignment, the United States is divided into three zones as follows:

(1) Zone I consists of that portion of the United States located within the confines of the following lines drawn on the U.S. Albers Equal Area Projection Map (based on standard parallels 29½° and 45½°; North American datum): Beginning at the most easterly point on the State boundary line between North Carolina and Virginia; thence in a straight line to a point on the Virginia-West Virginia boundary line located at north latitude 37°49′ and west longitude 80°12′30″; thence westerly along the southern boundary lines of the States of West Virginia, Ohio, Indiana, and Illinois to a point at the junction of the Illinois, Kentucky, and Missouri State boundary lines; thence northerly along the western boundary line of the State of Illinois to a point at the junction of the Illinois, Iowa, and Wisconsin State boundary lines; thence easterly along the northern State boundary line of Illinois to the 90th meridian; thence north along this meridian to the 43.5° parallel; thence east along this parallel to the United States-Canada border; thence southerly and following that border until it again intersects the 43.5° parallel; thence east along this parallel to the 71st meridian; thence in a straight line to the intersection of the 69th meridian and the 45th parallel; thence east along the 45th parallel to the Atlantic Ocean. When any of the above lines pass through a city, the city shall be considered to be located in Zone I. (See Figure 1 of § 73.699.)

(2) Zone II consists of that portion of the United States which is not located in either Zone I or Zone III, and Puerto Rico, Alaska, Hawaiian Islands and the Virgin Islands.

(3) Zone III consists of that portion of the United States located south of a line, drawn on the United States Albers Equal Area Projection Map (based on standard parallels 29.50 and 45.50 North American datum), beginning at a point on the east coast of Georgia and the 31st parallel and ending at the United States-Mexican border, consisting of arcs drawn with a 241.4 kilometer (150 mile) radius to the north from the following specified points:

	North latitude	West longitude
(a)	29°40′00″	83°24′00″
(b)	30°07′00″	84°12′00″
(c)	30°31′00″	86°30′00″
(d)	30°48′00″	87°58′30″
(e)	30°00′00″	90°38′30″
(f)	30°04′30″	93°19′00″
(g)	29°46′00″	95°05′00″
(h)	28°43′00″	96°39′30″
(i)	27°52′30″	97°32′00″

When any of the above arcs pass through a city, the city shall be considered to be located in Zone II. (See Figure 2 of § 73.699.)

[28 FR 13660, Dec. 14, 1963, as amended at 33 FR 15422, Oct. 17, 1968; 50 FR 23697, June 5, 1985; 51 FR 44070, Dec. 8, 1986]

§ 73.610 Minimum distance separations between stations.

(a) The provisions of this section relate to allotment separations and station separations. Petitions to amend the Table of Allotments (§ 73.606(b)) (other than those also expressly requesting amendment of this section or § 73.609) will be dismissed and all applications for new TV broadcast stations or for changes in the transmitter sites of existing stations will not be accepted for filing if they fail to comply with the requirements specified in paragraphs (b), (c) and (d) of this section.

NOTE: Licensees and permittees of television broadcast stations which were operating on April 14, 1952 pursuant to one or more separations below those set forth in § 73.610 may continue to so operate, but in no event may they further reduce the separations below the minimum. As the existing separations of such stations are increased, the new separations will become the required minimum separations until separations are reached which comply with the requirements of § 73.610. Thereafter, the provisions of said section shall be applicable.

(b) Minimum co-channel allotment and station separations:

(1)

Zone	Kilometers	
	Channels 2–13	Channels 14–69
I	272.7 (169.5 miles)	248.6 (154.5 miles)
II	304.9 (189.5 miles)	280.8 (174.5 miles)
III	353.2 (219.5 miles)	329.0 (204.5 miles)

(2) The minimum co-channel distance separation between a station in one zone and a station in another zone shall be that of the zone requiring the lower separation.

(c) Minimum allotment and station adjacent channel separations applicable to all zones:

(1) Channels 2–13 95.7 kilometers (59.5 miles). Channels 14–69 87.7 kilometers (54.5 miles).

(2) Due to the frequency spacing which exists between Channels 4 and 5, between Channels 6 and 7, and between Channels 13 and 14, the minimum adjacent channel separations specified above shall not be applicable to these pairs of channels (see § 73.603(a)).

(d) In addition to the requirements of paragraphs (a), (b) and (c) of this section, the minimum assignment and station separations between stations on Channels 14–69, inclusive, as set forth in Table II of § 73.698 must be met in either rule-making proceedings looking towards the amendment of the Table of Assignments (§ 73.606(b)) or in licensing proceedings. No channel listed in column (1) of Table II of § 73.698 will be assigned to any city, and no application for an authorization to operate on such a channel will be granted, unless the distance separations indicated at the top of columns (2) through (7), inclusive, are met with respect to each of the channels listed in those columns and parallel with the channel in column (1).

(e) The zone in which the transmitter of a television station is located or proposed to be located determines the applicable rules with respect to co-channel distance separations where the transmitter is located in a different zone from that in which the channel to be employed is located.

(f) The distances listed below apply only to allotments and assignments on Channel 6 (82–88 MHz). The Commission

will not accept petitions to amend the Table of Allotments, applications for new stations, or applications to change the channel or location of existing assignments where the following minimum distances (between transmitter sites, in kilometers) from any FM Channel 253 allotment or assignment are not met:

MINIMUM DISTANCE SEPARATION FROM FM CHANNEL 253 (98.5 MHz)

Fm Class	TV Zone I	TV Zones II & III
A	17	22
B1	19	23
B	22	26
C3	19	23
C2	22	26
C1	29	33
C	36	41

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[28 FR 13660, Dec. 14, 1963, as amended at 37 FR 25842, Dec. 5, 1972; 44 FR 65765, Nov. 15, 1979; 47 FR 35990, Aug. 18, 1982; 50 FR 23698, June 5, 1985; 51 FR 44070, Dec. 8, 1986; 54 FR 14964, Apr. 14, 1989; 54 FR 16368, Apr. 24, 1989; 54 FR 35340, Aug. 25, 1989]

§ 73.611 Reference points and distance computations.

(a) In considering petitions to amend the Table of Allotments (§ 73.606(b)), the following reference points shall be used by the Commission in determining assignment separations between communities:

(1) Where transmitter sites for the pertinent channels have been authorized in communities involved in a petition to amend the Table of Allotments, separations between such communities shall be determined by the distance between the coordinates of the authorized transmitter sites in the respective communities as set forth in the Commission's authorizations therefor.

(2) Where an authorized transmitter site is available for use as a reference point in one community but not in the other for the pertinent channels, separations shall be determined by the distance between the coordinates of the transmitter site as set forth in the FCC's authorization therefor and the coordinates of the other community as set forth in the publication of the United States Department of the Interior entitled, Index to *The National Atlas of the United States of America*. If this publication does not contain the coordinates for said other community, the coordinates of the main post office thereof shall be used.

(3) Where no authorized transmitter sites are available for use as reference points in both communities for the pertinent channels, the distance between the two communities listed in the above publication shall be used. If said publication does not contain such distance, the separation between the two communities shall be determined by the distance between the coordinates thereof as set forth in the publication. Where such coordinates are not contained in the publication, the coordinates of the main post offices of said communities shall be used.

(4) Where the distance between the reference point in a community to which a channel is proposed to be assigned and the reference point in another community or communities does not meet the minimum separation requirements of § 73.610, the channel may be assigned to such community upon a showing that a transmitter site is available that would meet the minimum separation requirements of § 73.610 and the minimum field strength requirements of § 73.685. In such cases, where a station is not authorized in the community or communities to which measurements from the proposed channel assignment must be made pursuant to § 73.610 a showing should also be made that the distance between suitable transmitter sites in such other community or communities and the proposed transmitter site for the new channel meet the Commission's minimum spacing and coverage requirements.

(b) Station separations in licensing proceedings shall be determined by the distance between the coordinates of the proposed transmitter site in one community and

(1) The coordinates of an authorized transmitter site for the pertinent channel in the other community; or, where such transmitter site is not available for use as a reference point,

(2) The coordinates of the other community as set forth in the Index to *The National Atlas of the United States of America;* or if not contained therein,

(3) The coordinates of the main post office of such other community.

(4) In addition, where there are pending applications in other communities which, if granted, would have to be considered in determining station separations, the coordinates of the transmitter sites proposed in such applications must be used to determine whether the requirements with respect to minimum separations between the proposed stations in the respective cities have been met.

(c) In measuring assignment and station separations involving cities listed in the Table in combination, where there is no authorized transmitter site in any of the combination cities on the channel involved, separation measurements shall be made from the reference point which will result in the lowest separation.

(d) To calculate the distance between two reference points see paragraph (c), § 73.208. However, distances shall be rounded to the nearest tenth of a kilometer.

[52 FR 11655, Apr. 10, 1987]

§ 73.612 Protection from interference.

(a) Permittees and licensees of TV broadcast stations are not protected from any interference which may be caused by the grant of a new station or of authority to modify the facilities of an existing station in accordance with the provisions of this subpart. The nature and extent of the protection from interference accorded to TV broadcast stations is limited solely to the protection which results from the minimum allotment and station separation requirements and the rules and regulations with respect to maximum powers and antenna heights set forth in this subpart.

(b) When the Commission determines that grant of an application would serve the public interest, convenience, and necessity and the instrument of authorization specifies an antenna location in a designated antenna farm area which results in distance separation less than those specified in this subpart, TV broadcast station permittees and licensees shall be afforded protection from interference equivalent to the protection afforded under the minimum distance separations specified in this subpart.

NOTE: The nature and extent of the protection from interference accorded to TV broadcast stations which were authorized prior to April 14, 1952, and which were operating on said date is limited not only as specified above but is further limited by any smaller separations existing between such stations on said date. Where, as a result of the adoption of the Table of Allotments or of changes in transmitter sites made by such stations after said date, separations smaller than the required minimum are increased but still remain lower than the required minimum, protection accorded such stations will be limited to the new separations.

[28 FR 13660, Dec. 14, 1963, as amended at 32 FR 8814, June 21, 1967; 50 FR 23698, June 5, 1985; 51 FR 44070, Dec. 8, 1986]

§ 73.614 Power and antenna height requirements.

(a) *Minimum requirements.* Applications will not be accepted for filing if they specify less than −10 dBk (100 watts) horizontally polarized visual effective radiated power in any horizontal direction. No minimum antenna height above average terrain is specified.

(b) *Maximum power.* Applications will not be accepted for filing if they specify a power which exceeds the maximum permitted boundaries specified in the following formulas:

(1) Channels 2–6 in Zone I:

$$ERP_{Max}=102.57–33.24*Log_{10}(HAAT)$$

And,

$$-10\ dBk \leq ERP_{Max} \leq 20\ dBk$$

(2) Channels 2–6 in Zones II and III:

$$ERP_{Max}=67.57–17.08*\ Log_{10}\ (HAAT)$$

And,

$$10\ dBk \leq ERP_{Max} \leq 20\ dBk$$

(3) Channels 7–13 in Zone I:

$$ERP_{Max}=107.57–33.24*\ Log_{10}\ (HAAT)$$

And,

$$-4.0\ dBk \leq ERP_{Max} \leq 25\ dBk$$

(4) Channels 7–13 in Zones II and III:

$$ERP_{Max}=72.57–17.08*\ Log_{10}\ (HAAT)$$

And,

$$15\ dBk \leq ERP_{Max} \leq 25\ dBk$$

(5) Channels 14–69 in Zones I, II, and III:

ERP_{Max}=84.57–17.08* Log_{10} (HAAT)

And,

27 dBk ≤ ERP_{Max}≤37 dBk

Where:

ERP_{Max}=Maximum Effective Radiated Power measured in decibels above 1 kW (dBk).
HAAT=Height Above Average Terrain measured in meters.

The boundaries specified are to be used to determine the maximum possible combination of antenna height and ERP_{dBk}. When specifying an ERP_{dBk} less than that permitted by the lower boundary, any antenna HAAT can be used. Also, for values of antenna HAAT greater than 2,300 meters the maximum ERP is the lower limit specified for each equation.

(6) The effective radiated power in any horizontal or vertical direction may not exceed the maximum values permitted by this section.

(7) The effective radiated power at any angle above the horizontal shall be as low as the state of the art permits, and in the same vertical plane may not exceed the effective radiated power in either the horizontal direction or below the horizontal, whichever is greater.

(c) *Determination of applicable rules.* The zone in which the transmitter of a television station is located or proposed to be located determines the applicable rules with respect to maximum antenna heights and powers for VHF stations when the transmitter is located in Zone I and the channel to be employed is located in Zone II, or the transmitter is located in Zone II and the channel to be employed is located in Zone I.

[28 FR 13660, Dec. 14, 1963, as amended at 42 FR 20823, Apr. 22, 1977; 42 FR 48881, Sept. 26, 1977; 47 FR 35990, Aug. 18, 1982; 50 FR 23698, June 5, 1985; 56 FR 49707, Oct. 1, 1991; 58 FR 51250, Oct. 1, 1993]

§ 73.615 Administrative changes in authorizations.

In the issuance of television broadcast station authorizations, the Commission will specify the transmitter output power and effective radiated power to the nearest 0.1 dBk. Power specified by kWs shall be obtained by converting dBk to kWs to 3 significant figures. Antenna heights above average terrain will be specified to the nearest meter. Midway figures will be authorized in the lower alternative.

[50 FR 23698, June 5, 1985]

§ 73.621 Noncommercial educational TV stations.

In addition to the other provisions of this subpart, the following shall be applicable to noncommercial educational television broadcast stations:

(a) Except as provided in paragraph (b) of this section, noncommercial educational broadcast stations will be licensed only to nonprofit educational organizations upon a showing that the proposed stations will be used primarily to serve the educational needs of the community; for the advancement of educational programs; and to furnish a nonprofit and noncommercial television broadcast service.

(1) In determining the eligibility of publicly supported educational organizations, the accreditation of their respective state departments of education shall be taken into consideration.

(2) In determining the eligibility of privately controlled educational organizations, the accreditation of state departments of education or recognized regional and national educational accrediting organizations shall be taken into consideration.

(b) Where a municipality or other political subdivision has no independently constituted educational organization such as, for example, a board of education having autonomy with respect to carrying out the municipality's educational program, such municipality shall be eligible for a noncommercial educational television broadcast station. In such circumstances, a full and detailed showing must be made that a grant of the application will be consistent with the intent and purpose of the Commission's rules and regulations relating to such stations.

(c) Noncommercial educational television broadcast stations may transmit educational, cultural and entertainment programs, and programs designed for use by schools and school systems in connection with regular school courses, as well as routine and administrative material pertaining thereto.

(d) A noncommercial educational television station may broadcast programs produced by or at the expense of, or furnished by persons other than the licensee, if no other consideration than the furnishing of the program and the costs incidental to its production and broadcast are received by the licensee. The payment of line charges by another station, network, or someone other than the licensee of a noncommercial educational television station, or general contributions to the operating costs of a station, shall not be considered as being prohibited by this paragraph.

(e) Each station shall furnish a nonprofit and noncommercial broadcast service. Noncommercial educational television stations shall be subject to the provisions of § 73.1212 to the extent that they are applicable to the broadcast of programs produced by, or at the expense of, or furnished by others. No *promotional* announcements *on behalf of for profit entities* shall be broadcast at any time in exchange for the receipt, in whole or in part, of consideration to the licensee, its principals, or employees. However, acknowledgements of contributions can be made. *The scheduling of any announcements and acknowledgements may not interrupt regular programming.*

NOTE: Commission interpretation of this rule, including the acceptable form of acknowledgements, may be found in the Second Report and Order in Docket No. 21136 (Commission Policy Concerning the Noncommercial Nature of Educational Broadcast Stations), 86 F.C.C. 2d 141 (1981); the Memorandum Opinion and Order in Docket No. 21136, 90 FCC 2d 895 (1982), and the Memorandum Opinion and Order in Docket 21136, 49 FR 13534, April 5, 1984.

(f) Telecommunications Service on the Vertical Blanking Interval and in the Visual Signal. The provisions governing VBI and visual signal telecommunications service in § 73.646 are applicable to noncommercial educational TV stations.

(g) Non-program related data signals transmitted on Line 21 pursuant to § 73.682(a)(22)(ii) may be used for remunerative purposes.

[28 FR 13660, Dec. 14, 1963, as amended at 35 FR 7558, May 15, 1970; 47 FR 36179, Aug. 19, 1982; 48 FR 27068, June 13, 1983; 49 FR 29069, July 18, 1984; 50 FR 4664, Feb. 1, 1985; 50 FR 4684, Feb. 1, 1985; 61 FR 36304, July 10, 1996]

§ 73.622 Digital television table of allotments.

(a) *General.* The following table of allotments contains the digital television (DTV) channel allotments designated for the listed communities in the United States, its Territories, and possessions. The initial DTV Table of Allotments was established on April 3, 1997, to provide a second channel for DTV service for all eligible analog television broadcasters. Requests for addition of new DTV allotments, or requests to change the channels allotted to a community must be made in a petition for rule making to amend the DTV Table of Allotments. A request to amend the DTV table to change the channel of an allotment in the DTV table will be evaluated for technical acceptability using engineering criteria set forth in § 73.623(c). A request to amend the DTV table to add a new allotment will be evaluated for technical acceptability using the geographic spacing criteria set forth in § 73.623(d). DTV allotments designated with an asterisk are assigned for use by non-commercial educational broadcast stations only. Stations operating on DTV allotments designated with a ''c'' are required to comply with paragraph (g) of this section.

(1) Petitions requesting the addition of a new allotment must specify a channel in the range of channels 2–51.

(2) Petitions requesting a change in the channel of an initial allotment must specify a channel in the range of channels 2–59.

(b) *DTV Table of Allotments.*

Community	Channel No.
Alabama:	
Anniston	58
Bessemer	18c
Birmingham	30, 36, 50, 52, *53
Demopolis	*19
Dothan	21, 36
Dozier	*59

Community	Channel No.
Florence	14c, 20, *22
Gadsden	26, 45c
Homewood	28
Huntsville	*24c, 32c, 41, 49c, 59
Louisville	*42c
Mobile	9c, *18, 20c, 26, 27
Montgomery	*14, 16, 46c, 51, 57
Mount Cheaha	*56
Opelika	31
Ozark	33c
Selma	55
Troy	48
Tuscaloosa	34c
Tuskegee	24
Alaska:	
Anchorage	18, 20, 22, *24, *26, 28, 30, 32
Bethel	*3
Dillingham	*9
Fairbanks	18, 22, *24, 26, 28
Juneau	*6, 11
Ketchikan	*8, 13
North Pole	20
Sitka	2
Arizona:	
Flagstaff	18, 22, 27, 28
Green Valley	47c
Kingman	19, *46
Lake Havasu City	35c
McNary	*42
Mesa	36
Nogales	25
Phoenix	14c, 17, 20c, 23, 24, 26, *29, 34c, 49
Prescott	25
Sierra Vista	44
Tolleson	52c
Tucson	19c, *28c, *30, 31, 32, 35, 41c
Yuma	16, 41
Arkansas:	
Arkadelphia.	*46
El Dorado	27
Fayetteville.	15, *45
Fort Smith	17, 18, 21
Hot Springs	14
Jonesboro	*20c, 49c, 58
Little Rock	12c, 22, 32, 33, 43c, *47
Mountain View	*35
Newark	*26
Pine Bluff	24c, 39c
Rogers	50c
Springdale.	39
California:	
Anaheim	32
Arcata	22c
Bakersfield.	10, 25, 33, 55
Barstow	*27, 44
Blythe	*4
Calipatria	50
Ceres	*15
Chico	36, 43, *51
Clovis	44c
Coalinga	*22
Concord	63c
Corona	39c
Cotati	*23c
El Centro	22, 48
Eureka	*11, 16, 17, 28c
Fort Bragg.	15
Fresno	7, 9, 14, 16, *40
Hanford	20c
Huntington Beach	*48
Los Angeles	8c, 35c, 36, *41c, 42, 43, *59c, 60, 65c, 66, 68
Merced	38
Modesto	18c
Monterey	31, 32
Novato	47
Oakland	56
Ontario	47c
Oxnard	24
Palm Springs	46, 52
Paradise	20
Porterville	48c
Rancho Palos Verdes	51c
Redding	14, *18
Riverside	69
Sacramento	21, 35, 48, *53, 55, 61
Salinas	13, 43
San Bernardino	*26, 38, 61c
San Diego	18, 19, 25, *30, 40c, 55
San Francisco	19c, 24, 27c, 28, 29, *33c, *34, 39c, 45c, 57
San Jose	12c, 41c, 49c, *50, 52
San Luis Obispo	15, 34c
San Mateo	*59c
Sanger	36
Santa Ana	53c
Santa Barbara	*26, 27
Santa Maria	19
Santa Rosa	54
Stockton	25, 46, 62
Twentynine Palms	23
Vallejo	30
Ventura	49
Visalia	28, *50c
Watsonville	*58
Colorado:	
Alamosa	*46
Boulder	15c
Broomfield	*36
Castle Rock	47
Colorado Springs	10c, 22c, 24
Craig	*48
Denver	16, 17, *18, 19c, 32c, 34, 35, *40c, 44, 51c
Durango	17
Fort Collins	21c
Glenwood Springs	23, *39
Grand Junction	2, 7c, 14, 15, *16
La Junta	*30
Lamar	*50
Leadville	*49
Longmont	26c
Montrose	13
Pueblo	27, *29
Steamboat Springs	10
Sterling	23
Trinidad	*43
Connecticut:	
Bridgeport	42c, *52
Hartford	5, 11, *32, 46
New Britain	35
New Haven	6, 10, *39
New London	34
Norwich	*45
Waterbury	12

Community	Channel No.
Delaware:	
Seaford	*44
Wilmington	31, *55
District of Columbia:	
Washington	6c, *27c, *33c, 34, 35, 39, 48, 51c
Florida:	
Boca Raton	*44c
Bradenton	*5, 42
Cape Coral	35c
Clearwater	21c
Clermont	17c
Cocoa	*30, 51c
Daytona Beach	11, 49
Fort Lauderdale	52c
Fort Myers	15, *31c, 53
Fort Pierce	*38, 50
Fort Walton Beach	25, 40, 49
Gainesville	16, *36
High Springs	28
Hollywood	47
Jacksonville	13c, 19, 32, 34, *38, 42, *44
Key West	3, 12
Lake Worth	36
Lakeland	19
Leesburg	40, *46c
Live Oak	48
Marathon	*34
Melbourne	20, 48
Miami	8c, 9c, *18c, *19, 20, 21, 22c, 24c, 30, 32c, 46c
Naples	43, 45c
New Smyrna Beach	*33
Ocala	31
Orange Park	10
Orlando	14, 22, *23c, 39, 41, 58
Palm Beach	49
Panama City	19, 29c, *38, 41
Panama City Beach	47c
Pensacola	17, *31, 34c, 45c
Sarasota	52
St. Petersburg	24, 57, 59
Tallahassee	2, 22, *32
Tampa	7c, 12c, 29c, *34, 47, *54
Tequesta	16
Tice	33
Venice	25
West Palm Beach	13c, *27, 28c, 55
Georgia:	
Albany	17, 30c
Athens	*22, 48
Atlanta	10c, 19, 20, *21, 25, 27, *38, 39, 43
Augusta	30, 31, 42, 51
Bainbridge	50c
Baxley	35c
Brunswick	24
Chatsworth	*33
Cochran	*7
Columbus	15, *23, 35, 47, 49
Cordele	51
Dalton	16
Dawson	*26c
Macon	16, 40c, 45, 50
Monroe	44
Pelham	*20
Perry	32
Rome	51
Savannah	15, 23c, 39, *46
Thomasville	52
Toccoa	24
Valdosta	43c
Waycross	*18
Wrens	*36
Hawaii:	
Hilo	8, 18, *19, 21, 22, 23, *31, *39
Honolulu	8, *18, 19, 22, 23, 27, 31, 33, 35, *39, 40, *43
Kailua Kona	25
Kaneohe	41
Lihue	*7, *12, *28, *45
Wailuku	16, 20, 24, *28, 29, *30, *34, 36
Idaho:	
Boise	*21, 25, 26
Burley	*48
Caldwell	10c
Coeur D'alene	*56
Filer	*18c
Grangeville	*44
Idaho Falls	9c, 36
Lewiston	32
Moscow	*33
Nampa	22, 27
Pocatello	*17, 23
Twin Falls	16, *24, 34c
Weiser	*34
Illinois:	
Aurora	59c
Bloomington	28
Carbondale	*40
Champaign	41, 48
Charleston	*50c
Chicago	3c, 19c, *21c, 27c, 29, 31c, 43c, 45c, *47, 52
Decatur	18c, 22c
East St. Louis	47c
Freeport	41
Harrisburg	34
Jacksonville	*15c
Joliet	53
Lasalle	10
Macomb	*21c
Marion	17
Moline	*23c, 38
Mount Vernon	21
Olney	*19
Peoria	30c, 39, 40, *46c, 57
Quincy	32, *34, 54
Rock Island	58
Rockford	16c, 42, 54
Springfield	42, 44, 53
Urbana	26c, *33
Indiana:	
Angola	12
Bloomington	*14, 27, 53, 56
Elkhart	58
Evansville	28, 45c, *54, 58, 59
Fort Wayne	4, 19, 24, 36, *40c
Gary	*17, 51c
Hammond	36
Indianapolis	9c, 16, *21c, 25, *44, 45, 46
Kokomo	54
Lafayette	11
Marion	32
Muncie	52
Richmond	30

Community	Channel No.
Salem	57c
South Bend	30, *35c, 42, 48
Terre Haute	24, 36, 39c
Vincennes	*52
Iowa:	
Ames	59
Burlington	41
Cedar Rapids	27c, 47c, 51, 52
Centerville	*44
Council Bluffs	*33c
Davenport	*34, 49, 56
Des Moines	16c, 19, 26, 31, *50
Dubuque	43
Fort Dodge	*25
Iowa City	25, *45
Mason City	*18, 42
Ottumwa	14c
Red Oak	*35c
Sioux City	*28c, 30, 39, 41, 49
Waterloo	*35, 55
Kansas:	
Colby	15
Ensign	5c
Fort Scott	40
Garden City	17, 18, *42
Goodland	14
Great Bend	22
Hays	*16, 20
Hutchinson	19, *29, 35c
Lakin	*23
Lawrence	39c
Oakley	*40
Pittsburg	30
Salina	17c
Topeka	*23, 26c, 44, 48c
Wichita	21, 25c, 34c, 45
Kentucky:	
Ashland	*26c, *45
Beattyville	7
Bowling Green	16, *18, 33, *48
Campbellsville	19
Covington	*24
Danville	4
Elizabethtown	*43
Harlan	51
Hazard	12, *16
Lexington	20, 40, *42, 59
Louisville	8, *17, 26, *38, 47, 49, 55
Madisonville	20c, *42
Morehead	*15, 21
Murray	*36
Newport	29
Owensboro	29
Owenton	*44
Paducah	32, 41, 50c
Pikeville	*24
Somerset	*14
Louisiana:	
Alexandria	*26c, 32c, 35
Baton Rouge	*22, 34c, 42, 45c, 46
Columbia	57
Lafayette	16c, *23c, 28, 56
Lake Charles	*20, 30c, 53
Monroe	*19, 55
New Orleans	*11c, 14, 15, 29, 30, *31c, 39c, 43, 50c
Shreveport	17, *23c, 28, 34c, 44c
Slidell	24
West Monroe	36, 38c
Maine:	
Augusta	*17
Bangor	14, 19, 25
Biddeford	*45
Calais	*15
Lewiston	39
Orono	*22c
Poland Spring	46
Portland	4, 38, 44
Presque Isle	16, *20
Maryland:	
Annapolis	*42
Baltimore	*29, 38, 40, 41, 46c, 52, 59
Frederick	*28
Hagerstown	16, *44, 55
Oakland	*54
Salisbury	21, 53, *56
Massachussetts:	
Adams	36
Boston	*19, 20, 30, 31, 32, 39c, 42, *43c
Cambridge	41
Lawrence	18
Marlborough	23
New Bedford	22, 49
Norwell	52
Springfield	33, 55, *58c
Vineyard Haven	40
Worcester	29, *47c
Michigan:	
Alpena	13, *57
Ann Arbor	33
Bad Axe	*15
Battle Creek	20, 44c
Bay City	22
Cadillac	40, 47, *58
Calumet	18
Cheboygan	14
Detroit	14, 21c, 41, *43, 44, 45, 58
East Lansing	*55
Escanaba	48
Flint	16, 36, *52
Grand Rapids	7c, *11, 19, 39
Iron Mountain	22
Jackson	34
Kalamazoo	2c, *5, 45
Lansing	38, 51, 59
Manistee	*17
Marquette	*33, 35
Mount Clemens	39c
Mount Pleasant	*56
Muskegon	24
Onondaga	57
Saginaw	30, 48c
Sault Ste. Marie	49, 56
Traverse City	31, 50
University Center	*18c
Vanderbilt	59
West Branch	*24
Minnesota:	
Alexandria	14, 24
Appleton	*31
Austin	*20, 33
Bemidji	*18
Brainerd	*28
Duluth	17, 33, *38, 43
Hibbing	36, *51
Mankato	38
Minneapolis	21, 22c, *26, 32, 35, *44c
Redwood Falls	27

Community	Channel No.
Rochester	36, 46c
St. Cloud	40c
St. Paul	*16c, *34, 50
Thief River Falls	57
Walker	20
Worthington	*15
Mississippi:	
Biloxi	*35, 36
Booneville	*55
Bude	*18c
Columbus	35
Greenville	17
Greenwood	*26, 54
Gulfport	48
Hattiesburg	23c
Holly Springs	41c
Jackson	*20, 21, 41c, 51, 52
Laurel	28
Meridian	25c, 31c, *47, 49
Mississippi State	*38
Natchez	49c
Oxford	*36
Tupelo	57
West Point	16
Missouri:	
Birch Tree	*7
Bowling Green	*50
Cape Girardeau	22c, 57
Columbia	22, 36
Hannibal	29
Jefferson City	12c, 20
Joplin	*25c, 43, 46
Kansas City	14, *18c, 24, 31c, 34, 42c, 47, 51c
King City	*28
Kirksville	33
Poplar Bluff	18
Sedalia	15
Springfield	19, *23, 28c, 44, 52
St. Joseph	21, 53
St. Louis	14, 26, 31c, 35, *39, 43, 56
Montana:	
Billings	11, 17, 18
Bozeman	16, *20
Butte	2, 15, 19c
Glendive	15
Great Falls	39, 44, 45
Hardin	19
Helena	14, 29
Kalispell	38
Miles City	13, *39
Missoula	*27, 35, 36, 40
Nebraska:	
Albion	23c
Alliance	*24
Bassett	*15
Grand Island	19, 32
Hastings	*14, 21
Hayes Center	18
Kearney	35
Lexington	*26
Lincoln	25, 31, *40
McCook	12
Merriman	*17
Norfolk	*16
North Platte	*16, 22
Omaha	*17, 20, 22, 38, 43c, 45
Scottsbluff	19, 29
Superior	34
Nevada:	
Elko	8, *15
Henderson	24
Las Vegas	2c, 7c, *11c, 16c, 17, 20c, 32c
Paradise	38c
Reno	*15, 22c, 23, 26c, 32, 33, 41
Winnemucca	12
New Hampshire:	
Berlin	*15
Concord	33
Derry	35
Durham	*57
Keene	*49c
Littleton	*48c
Manchester	59c
Merrimack	34
New Jersey:	
Atlantic City	46, 49
Burlington	27
Camden	*22c
Linden	36
Montclair	*51c
New Brunswick	*18
Newark	53c, 61
Newton	8c
Paterson	40c
Secaucus	38
Trenton	*43
Vineland	66c
West Milford	*29
Wildwood	36
New Mexico:	
Albuquerque	16, *17, 21, 22c, *25, 26, 42c, 51c
Carlsbad	19
Clovis	20
Farmington	15
Gallup	8
Hobbs	17
Las Cruces	*23c, 28
Portales	*32
Roswell	28c, 38, 41
Santa Fe	10c, 27, 29
Silver City	12, *33
Socorro	*31
New York:	
Albany	4, 15, 26
Amsterdam	50
Batavia	53
Binghamton	4, 7, 8, *42
Buffalo	14, *32, 33, 34, 38, 39, *43
Carthage	35
Corning	50
Elmira	2, 55
Garden City	*22c
Jamestown	27c
Kingston	21
New York	*24c, 28, 30c, 33, 44, 45, 56
North Pole	14
Norwood	*23
Plattsburgh	*38
Poughkeepsie	27
Riverhead	57
Rochester	*16, 28, 45, 58, 59
Schenectady	*34, 39, 43
Smithtown	23
Springville	46
Syracuse	17, 19, *25c, 44c, 47, 54
Utica	27, 29, 30
Watertown	21, *41

Community	Channel No.
North Carolina:	
Asheville	*25, 45, 56, 57
Belmont	47c
Burlington	14
Chapel Hill	*59
Charlotte	21, 22, 23, *24, 34
Columbia	*20
Concord	*44
Durham	27c, 52
Fayetteville	36, 38
Goldsboro	55
Greensboro	32, 33, 51
Greenville	10c, 21, *23
Hickory	40
High Point	35
Jacksonville	34c, *44
Kannapolis	50
Lexington	19c
Linville	*54
Lumberton	*25
Morehead City	24
New Bern	48
Raleigh	49c, 53, 57
Roanoke Rapids	*39
Rocky Mount	15
Washington	32
Wilmington	*29, 30, 46, 54
Wilson	42
Winston-Salem	29, 31, *43
North Dakota:	
Bismarck	16c, *22, 23, 31
Devils Lake	59
Dickinson	18, 19, *20
Ellendale	*20c
Fargo	19, 21, *39, 58
Grand Forks	*56
Jamestown	14
Minot	15c, 45, *57, 58
Pembina	15
Valley City	38
Williston	14, *51, 52
Ohio:	
Akron	30, *32c, 59
Alliance	*46c
Athens	*27
Bowling Green	*56
Cambridge	*35
Canton	39, 47
Chillicothe	46
Cincinnati	10c, 31, 33, *34, 35
Cleveland	2c, 15, *26c, 31, 34
Columbus	11c, 13, 14, 36, *38
Dayton	39, 41, 50, 51, *58
Lima	20, 57
Lorain	28
Mansfield	12
Newark	24
Oxford	*28
Portsmouth	17, *43c
Sandusky	42
Shaker Heights	10
Springfield	18
Steubenville	57
Toledo	5, 17, 19, *29c, 46, 49
Youngstown	20c, 36, 41
Zanesville	40
Oklahoma:	
Ada	26
Altus	*42
Bartlesville.	14
Cheyenne	*8
Claremore	*36c
Enid	18
Eufaula	*31
Guymon	*29
Lawton	23
Oklahoma City	15c, 16, 24c, 27, *32, 33c, 39, 40, 50, 51c
Okmulgee	28
Shawnee	29c
Tulsa	22c, *38, 42c, 48c, 49, 55, 56, 58
Oregon:	
Bend	*11, 18
Coos Bay	21, 22c
Corvallis	*39
Eugene	14, 17c, 25, 26, *29c
Klamath Falls	29, *33, 40
La Grande.	*5
Medford	15, 27c, 35, 38, *42
Pendleton	4
Portland	*27, 30, 40, 43, 45, 46
Roseburg	18, 19, 45c
Salem	20, 33c
Pennsylvania:	
Allentown	46, *62c
Altoona	24c, 32, 46c
Bethlehem.	59c
Clearfield	*15
Erie	16, 22, *50, 52, 58
Greensburg	50
Harrisburg	4, *36, 57
Hazleton	9
Johnstown.	29, 30, 34
Lancaster	23, 58
Philadelphia	26, 32, *34c, 42, 54, 64c, 67
Pittsburgh	25, *26, *38, 42, 43, 48, 51
Reading	25
Red Lion	30
Scranton	13, 31, 32, *41, 49
Wilkes-Barre	11
Williamsport	29
York	47
Rhode Island:	
Block Island	17
Providence.	13c, *21, 51, 54c
South Carolina:	
Allendale	*33
Anderson	14
Beaufort	*44
Charleston	35c, 40, *49, 52, 53, 59
Columbia	8, 17, *32, 41, 48
Conway	*58
Florence	16c, 20c, *45, 56
Greenville	*9, 52, 59
Greenwood	*18
Hardeeville	27c
Myrtle Beach	18
Rock Hill	15, 39
Spartanburg	43, 53
Sumter	*28c, 38
South Dakota:	
Aberdeen	*17c, 28
Brookings	*18
Eagle Butte	*24
Florence	25
Huron	22
Lead	26, 27

Community	Channel No.
Lowry	*15
Martin	*20
Mitchell	26
Pierre	19, *21
Rapid City	16c, 18, 22c, *23
Reliance	14
Sioux Falls	7, *24c, 29, 32, 47c, 48
Vermillion	*34
Tennessee:	
Chattanooga	*29, 35, 40, 47, 55
Cleveland	42
Cookeville	36, *52
Crossville	50
Greeneville	38c
Hendersonville	51c
Jackson	39, 43
Jellico	23
Johnson City	58
Kingsport	27
Knoxville	*17, 26, 30, 31, 34
Lebanon	44
Lexington	*47
Memphis	25c, 28, *29c, 31c, 51c, 52, 53
Murfreesboro	38c
Nashville	10, 15, 21, 23, 27, *46, 56
Sneedville	*41
Texas:	
Abilene	24, 29
Alvin	36
Amarillo	9c, 15c, 19, *21, 24
Arlington	42
Austin	21, *22, 33, 43c, 49, 56
Baytown	41
Beaumont	21, *33c, 50
Belton	47c
Big Spring	33
Brownsville	24c
Bryan	29c, 59
College Station	*12
Conroe	5, 42
Corpus Christi	18, *22, 27c, 47, 50
Dallas	9c, *14, 32c, 35, 36, 40c, 45
Decatur	30c
Del Rio	28
Denton	*31
Eagle Pass	18
El Paso	15c, 16, 17, 18, 25c, *29, *39c, 51
Fort Worth	18, 19, 41, 51c
Galveston	*23c, 47c
Garland	24c
Greenville	46c
Harlingen	31, *34, *38
Houston	19c, *24, 27c, 31, 32, 35, 38c, 44c, *53
Irving	48c
Jacksonville	22
Katy	52c
Kerrville	17
Killeen	23
Lake Dallas	43
Laredo	14, 15, 19
Llano	27
Longview	52c
Lubbock	25, 27c, 35c, *39, 40, 44
Lufkin	43
McAllen	30
Midland	26
Nacogdoches	18c
Odessa	15, *22, 23c, 31c, 43c
Port Arthur	40
Rio Grande City	20
Rosenberg	46c
San Angelo	11, 16, 19
San Antonio	*16, *20, 30c, 39, 40c, 48, 55, 58
Sherman	20
Snyder	10
Sweetwater	20
Temple	50
Texarkana	15, *50
Tyler	38
Victoria	15, 34
Waco	*20, 26c, 53, 57
Weslaco	13
Wichita Falls	17c, 22, 28
Utah:	
Cedar City	14, *44
Monticello	*41
Ogden	29c, *35
Provo	17c, *39
Salt Lake City	27c, 28, 34, 36, 38, *40
St. George	9
VERMONT:	
Burlington	16, *32c, 43c, 53
Hartford	25
Rutland	*56
St. Johnsbury	*18
Windsor	*24
Virginia:	
Arlington	15c
Ashland	47
Bristol	28
Charlottesville	*14, 32
Danville	41
Fairfax	*57c
Front Royal	*21
Goldvein	*30
Grundy	49
Hampton	41
Hampton-Norfolk	*16c
Harrisonburg	49
Lynchburg	20c, *34, 56
Manassas	36
Marion	*42
Norfolk	14c, 38, 58
Norton	*32
Petersburg	22c
Portsmouth	19, 31
Richmond	*24c, 25, 26, *44, 54
Roanoke	*3, 17, 18, 30, 36
Staunton	*19
Virginia Beach	29
West Point	*46
Washington:	
Bellevue	32c, 50c
Bellingham	19, 35
Centralia	*19
Everett	31
Kennewick	14
Pasco	20c
Pullman	*17
Richland	26c, *30c
Seattle	25, 38, 39, *41, 44c, 48
Spokane	29c, 38, *39, 54, 55, 57

Community	Channel No.
Tacoma	14, 18, *26, 36, *42
Vancouver	48c
Wenatchee	56
Yakima	16, *21, 34c, 52
West Virginia:	
Bluefield	14, 46
Charleston	*16, 19, 39, 55
Clarksburg	28, 52
Grandview	*53
Huntington	23, *34c, 54
Lewisburg	48
Martinsburg	12
Morgantown	*33
Oak Hill	50
Parkersburg	49
Weston	58
Wheeling	56
Wisconsin:	
Appleton	59
Chippewa Falls	49c
Eagle River	17
Eau Claire	15, 39
Fond du Lac	44
Green Bay	23, 41, *42, 51, 56
Janesville	32
Kenosha	40
La Crosse	14, 17, *30c, 53
Madison	11, 19, *20c, 26c, 50
Manitowoc	19
Mayville	43
Menomonie	*27c
Milwaukee	*8, 22, 25c, 28, 33, 34, *35c, 46, 61
Park Falls	*47
Racine	48c
Rhinelander	16
Superior	19
Suring	21
Wausau	*24, 29, 40
Wyoming:	
Casper	15c, 17, 18
Cheyenne	11, 28c, 30
Jackson	14
Lander	7, *8
Rawlins	9
Riverton	16
Rock Springs	19
Sheridan	21
Puerto Rico:	
Aguada	62
Aguadilla	17c, *34, 69
Arecibo	53c, 61c
Bayamon	59c
Caguas	56, *57c
Carolina	51c
Fajardo	33c, *38
Guayama	45c
Humacao	49
Mayaguez	23c, 29, 35, 63
Naranjito	65c
Ponce	19c, *25c, 43c, 47c, 66, 67c
San Juan	21, 27c, 28, 31c, 32, *55c
San Sebastian	39c
Yauco	41c
Virgin Islands:	
Charlotte Amalie	*44c, 48, 50
Christiansted	5, 20

(c) *Availability of channels.* Applications may be filed to construct DTV broadcast stations only on the channels designated in the DTV Table of Allotments set forth in paragraph (b) of this section, and only in the communities listed therein. Applications that fail to comply with this requirement, whether or not accompanied by a petition to amend the DTV Table, will not be accepted for filing. However, applications specifying channels that accord with publicly announced FCC Orders changing the DTV Table of Allotments will be accepted for filing even if such applications are tendered before the effective dates of such channel change. An application for authority to construct a DTV station on an allotment in the initial DTV table may only be filed by the licensee or permittee of the analog TV station with which that initial allotment is paired, as set forth in Appendix B of the *Sixth Report and Order* in MM Docket 87–268, FCC 97–115, adopted April 3, 1997. Copies of the *Sixth Report and Order* may be inspected during normal business hours at the: Federal Communications Commission, 1919 M St., NW., Dockets Branch (Room 239), Washington, DC 20554. This document is also available through the Internet on the *FCC Home Page* at http://www.fcc.gov. Applications may also be filed to implement an exchange of channel allotments between two or more licensees or permittees of analog TV stations in the same community, provided, however, that the other requirements of this section and of § 73.623 are met with respect to each such application.

(d) *Reference points and distance computations.* (1) The reference coordinates of a DTV allotment included in the initial DTV Table of Allotments are the coordinates of the authorized transmitting antenna site of the analog TV station with which that initial allotment is paired, as set forth in Appendix B of the *Sixth Report and Order* in MM Docket 87–268 (referenced in paragraph (c) of this section). An application for authority to construct or modify DTV facilities may specify an alternate location for the DTV transmitting antenna that is within 5 kilometers of the DTV allotment reference coordinates without consideration of electromagnetic interference to other DTV or analog TV broadcast stations, allotments or

applications, provided the application complies with paragraph (f)(2) of this section. Location of a DTV broadcast station's transmitting antenna at a site more than 5 kilometers from the DTV allotment reference coordinates must comply with the provisions of § 73.623(c). In the case where a DTV station has been granted authority to construct more than 5 kilometers from its reference coordinates pursuant to § 73.623(c), and its authorized coverage area extends in any azimuthal direction beyond the DTV coverage area determined for the DTV allotment reference facilities, then the coordinates of such authorized site are to be used in addition to the coordinates of the DTV allotment to determine protection from new DTV allotments pursuant to § 73.623(d) and from subsequent DTV applications filed pursuant to § 73.623(c).

(2) The reference coordinates of a DTV allotment not included in the initial DTV Table of Allotments will be designated in the FCC Order changing the DTV Table of Allotments and must meet the geographic spacing requirements of § 73.623(d). An application for authority to construct or modify such DTV facilities must comply with the provisions of § 73.623(c). In the case where such a DTV station has been granted authority to construct pursuant to § 73.623(c) and its authorized coverage area extends in any azimuthal direction beyond the DTV coverage area determined for the DTV allotment reference facilities, then the coordinates of such authorized site are to be used in addition to the coordinates of the DTV allotment to determine protection from new DTV allotments pursuant to § 73.623(d) and from subsequent DTV applications filed pursuant to § 73.623(c).

(3) The reference coordinates defined in paragraphs (d)(1) and (d)(2) of this section shall be used in considering petitions to amend the DTV Table of Allotments and in determining whether interference occurs between DTV stations and between DTV and analog TV stations.

(4) In cases where there are pending applications for DTV stations in other communities which, if granted, would have to be considered in determining whether proposed or modified stations would meet the required technical criteria or separations, as defined in § 73.623, the coordinates of the transmitter sites proposed in such applications must be used to determine whether those requirements have been met.

(5) To calculate the distance between two reference points, see § 73.208(c). However, distances shall be rounded to the nearest tenth of a kilometer.

(e) *DTV Service Areas.* The service area of a DTV station is the geographic area within which the predicted F(50,90) field strength of the station's signal, in dB above 1 microvolt per meter (dBu), exceeds the following levels:

	dBu
Channels 2–6	28
Channels 7–13	36
Channels 14–69	41

These are the levels at which reception of DTV service is limited by noise. Evaluation of field strength in determining service areas shall be made using the terrain dependent Longley-Rice point-to-point propagation model. Guidance for evaluating coverage areas 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, 1919 M St., NW., Dockets Branch (Room 239), Washington, DC 20554. This document is also available through the Internet on the *FCC Home Page* at http://www.fcc.gov.

(f) *DTV maximum power and antenna heights.* (1) The maximum effective radiated power (ERP) and antenna height above average terrain (HAAT) for an allotment included in the initial DTV Table of Allotments are set forth in Appendix B of the *Sixth Report and Order* in MM Docket 87–268 (referenced in paragraph (c) of this section). These limits also appear on the construction permit and license issued for each DTV station. In each azimuthal direction, the reference ERP value is based on the HAAT of the corresponding analog TV station and achieving predicted coverage equal to that analog TV station's predicted Grade B contour, as defined in § 73.683.

(2) An application for authority to construct or modify DTV facilities will not be subject to further consideration of electromagnetic interference to other DTV or analog TV broadcast stations, allotments or applications, provided that:

(i) The proposed ERP in each azimuthal direction is equal to or less than the reference ERP in that direction; and

(ii) The proposed HAAT is equal to or less than the reference HAAT; and

(iii) The application complies with the location provisions in paragraph (d)(1) of this section.

(3) DTV licensees and permittees may request an increase in either ERP in some azimuthal direction or HAAT, or both, that exceed the initial technical facilities specified for the allotment in Appendix B the *Sixth Report and Order*, up to the maximum permissible limits on DTV power and antenna height set forth in this section or up to that needed to provide the same geographic coverage area as the largest station within their market. Such requests must be accompanied by a technical showing that the increase complies with the technical criteria in § 73.623(c), and thereby will not result in new interference, or statements agreeing to the change from any co-channel or adjacent channel stations that might be affected by potential new interference. In the case where a DTV station has been granted authority to construct pursuant to § 73.623(c), and its authorized coverage area extends in any azimuthal direction beyond the DTV coverage area determined for the DTV allotment reference facilities, then the authorized DTV facilities are to be used in addition to the assumed facilities of the initial DTV allotment to determine protection from new DTV allotments pursuant to § 73.623(d) and from subsequent DTV applications filed pursuant to § 73.623(c).

(4) A DTV station that operates on a channel 2–6 allotment created subsequent to the initial DTV Table will be allowed a maximum ERP of 10 kW if its antenna HAAT is at or below 305 meters and it is located in Zone I or a maximum ERP of 45 kW if its antenna HAAT is at or below 305 meters and it is located in Zone II or Zone III.

(i) At higher HAAT levels, such DTV stations will be allowed to operate with lower maximum ERP levels in accordance with the following table and formulas:

MAXIMUM ALLOWABLE ERP AND ANTENNA HEIGHT FOR DTV STATIONS IN ZONES II OR III ON CHANNELS 2–6

Antenna HAAT (meters)	ERP (kW)
610	10
580	11
550	12
520	14
490	16
460	19
425	22
395	26
365	31
335	37
305	45

(ii) The allowable maximum ERP for intermediate values of HAAT is determined using linear interpolation based on the units employed in the table. For DTV stations located in Zone I that operate on channels 2–6 with an HAAT that exceeds 305 meters, the allowable maximum ERP expressed in decibels above 1 kW (dBk) is determined using the following formula, with HAAT expressed in meters:

$$ERP_{max}=92.57–33.24*\log_{10}(HAAT)$$

(iii) For DTV stations located in Zone II or III that operate on channels 2–6 with an HAAT that exceeds 610 meters, the allowable maximum ERP expressed in decibels above 1 kW (dBk) is determined using the following formula, with HAAT expressed in meters:

$$ERP_{max}=57.57–17.08*\log_{10}(HAAT)$$

(5) A DTV station that operates on a channel 7–13 allotment created subsequent to the initial DTV Table will be allowed a maximum ERP of 30 kW if its antenna HAAT is at or below 305 meters and it is located in Zone I or a maximum ERP of 160 kW if its antenna HAAT is at or below 305 meters and it is located in Zone II or Zone III.

(i) At higher HAAT levels, such DTV stations will be allowed to operate with lower maximum ERP levels in accordance with the following table and formulas:

MAXIMUM ALLOWABLE ERP AND ANTENNA HEIGHT FOR DTV STATIONS IN ZONES II OR III ON CHANNELS 7–13

Antenna HAAT (meters)	ERP (kW)
610	30
580	34
550	40
520	47
490	54
460	64
425	76
395	92
365	110
335	132
305	160

(ii) The allowable maximum ERP for intermediate values of HAAT is determined using linear interpolation based on the units employed in the table. For DTV stations located in Zone I that operate on channels 7–13 with an HAAT that exceeds 305 meters, the allowable maximum ERP expressed in decibels above 1 kW (dBk) is determined using the following formula, with HAAT expressed in meters:

$$ERP_{max}=97.35–33.24*\log_{10}(HAAT)$$

(iii) For DTV stations located in Zone II or III that operate on channels 7–13 with an HAAT that exceeds 610 meters, the allowable maximum ERP expressed in decibels above 1 kW (dBk) is determined using the following formula, with HAAT expressed in meters:

$$ERP_{max}=62.34–17.08*\log_{10}(HAAT)$$

(6) A DTV station that operates on a channel 14–59 allotment created subsequent to the initial DTV Table will be allowed a maximum ERP of 1000 kW if their antenna HAAT is at or below 365 meters.

(i) At higher HAAT levels, such DTV stations will be allowed to operate with lower maximum ERP levels in accordance with the following table and formulas:

MAXIMUM ALLOWABLE ERP AND ANTENNA HEIGHT FOR DTV STATIONS ON CHANNELS 14–59, ALL ZONES

Antenna HAAT (meters)	ERP (kW)
610	316
580	350
550	400
520	460
490	540
460	630
425	750
395	900
365	1000

(ii) The allowable maximum ERP for intermediate values of HAAT is determined using linear interpolation based on the units employed in the table. For DTV stations located in Zone I, II or III that operate on channels 14–59 with an HAAT that exceeds 610 meters, the allowable maximum ERP expressed in decibels above 1 kW (dBk) is determined using the following formula, with HAAT expressed in meters:

$$ERP_{max}=72.57–17.08*\log_{10}(HAAT)$$

(g) For DTV stations using a channel allotment designated with a ''c'' in paragraph (b) of this section, the pilot carrier frequency of the DTV signal must be maintained 5.082138 MHz above the visual carrier frequency of the analog TV broadcast station operating on the lower adjacent channel, located within 88 kilometers of the DTV broadcast station. This frequency difference must be maintained within a tolerance of #3 Hz.

(h)(1) The field strength or voltage of emissions on frequencies outside the authorized channel of operation must be attenuated no less than the following amounts below the average transmitted power within the authorized channel. At the channel edge, emissions must be attenuated no less than 46 dB. More than 6 MHz from the channel edge, emissions must be attenuated no less than 71 dB. At any frequency between 0 and 6 MHz from the channel edge, emissions must be attenuated no less than the value determined by the following formula:

$$\text{Attenuation in dB}=46+[(\Delta f)^2/1.44];$$

Where:

Δf=frequency difference in MHz from the edge of the channel.

(2) This attenuation is based on a measurement bandwidth of 500 kHz. Other measurement bandwidths may be used as long as appropriate correction

factors are applied. Emissions include sidebands, spurious emissions and radio frequency harmonics. Attenuation is to be measured at the output terminals of the transmitter (including any filters that may be employed). In the event of interference caused to any service, greater attenuation may be required.

NOTE TO PARAGRAPH (H): Greater attenuation may be required for situations where the DTV station and an adjacent channel analog TV station serve the same area and there are expected to be locations within that shared area where the analog TV station's field strength is less than 12 dB above the DTV station's field strength.

[62 FR 26712, May 14, 1997]

§ 73.623 DTV applications and changes to DTV allotments.

(a) *General.* This section contains the technical criteria for evaluating applications requesting DTV facilities that do not conform to the provisions of § 73.622 and petitions for rule making to amend the DTV Table of Allotments (§ 73.622(b)). Petitions to amend the DTV Table (other than those also expressly requesting amendment of this section) and applications for new DTV broadcast stations or for changes in authorized DTV stations filed pursuant to this section will not be accepted for filing if they fail to comply with the requirements of this section.

(b) In considering petitions to amend the DTV Table and applications filed pursuant to this section, the Commission will use geographic coordinates defined in § 73.622(d) as reference points in determining allotment separations and evaluating interference potential.

(c) *Minimum technical criteria for modification of DTV allotments included in the initial DTV Table of Allotments and for applications filed pursuant to this section.* No petition to modify a channel allotment included in the initial DTV Table or application for authority to construct or modify a DTV station, filed pursuant to this section, will be accepted unless it shows compliance with the requirements of this paragraph.

(1) Requests filed pursuant to this paragraph must demonstrate compliance with the principal community coverage requirements of § 73.625(a).

(2) Requests filed pursuant to this paragraph must demonstrate that there is no increase in the amount of interference caused to any other DTV broadcast station, DTV allotment, or analog TV broadcast station. For evaluating compliance with this requirement, interference is to be predicted based on the procedure set forth in Appendix B of the *Sixth Report and Order* in MM Docket 87–268, FCC 97–115, adopted April 3, 1997, including service areas determined in accordance with § 73.622(e), consideration of whether F(50,10) undesired signals will exceed the following desired-to-undesired (D/U) signal ratios, assumed use of a directional receiving antenna, and use of the terrain dependent Longley-Rice point-to-point propagation model. Guidance for evaluating interference using the Longley-Rice methodology is provided in *OET Bulletin No. 69.* Copies of the *Sixth Report and Order* and *OET Bulletin No. 69* may be inspected during normal business hours at the: Federal Communications Commission, 1919 M St., NW., Dockets Branch (Room 239), Washington, DC 20554. These documents are also available through the Internet on the *FCC Home Page* at http://www.fcc.gov. The threshold levels at which interference is considered to occur are:

	D/U ratio
Co-channel:	
DTV-into-analog TV	+34
analog TV-into-DTV	*+2
DTV-into-DTV	*+15
First Adjacent Channel:	
Lower DTV-into-analog TV	−17
Upper DTV-into-analog TV	−12
Lower analog TV-into-DTV	−48
Upper analog TV-into-DTV	−49
Lower DTV-into-DTV	−42
Upper DTV-into-DTV	−43
Other Adjacent Channel (Channels 14–69 only) DTV-into-analog TV, where N = analog TV channel and DTV Channel:	
N–2	−24
N+2	−28
N–3	−30
N+3	−34
N–4	−34
N+4	−25
N–7	−35
N+7	−34
N–8	−32
N+8	−43
N+14	−33
N+15	−31

NOTE TO PARAGRAPH (C)(2): The values for co-channel interference to DTV service are only valid at locations where the signal-to-noise ratio is 28 dB or greater. At the edge of the noise-limited service area, where the signal-to-noise ratio is 16 dB, these values are 21 dB and 23 dB for interference from analog TV and DTV, respectively. Due to the frequency spacing that exists between Channels 4 and 5, between Channels 6 and 7, and between Channels 13 and 14, the minimum adjacent channel technical criteria specified in the table shall not be applicable to these pairs of channels (see § 73.603(a)).

(d)(1) *Minimum geographic spacing requirements for DTV allotments not included in the initial DTV Table of Allotments.* No petition to add a new channel to the DTV Table of Allotments will be accepted unless it demonstrates compliance with the principle community coverage requirements of § 73.625(a) and meets the following requirements for geographic spacing with regard to all other DTV stations, DTV allotments and analog TV stations:

Channel relationship	Separation requirement
VHF Channels 2–13:	
Co-channel, DTV to DTV	Zone I—244.6 km. Zones II & III—273.6 km.
Co-channel, DTV to analog TV	Zone I—244.6 km. Zone II & III—273.6 km.
Adjacent Channel	
DTV to DTV	No allotments permitted between: Zone I—40.2 km and 96.6 km. Zones II & III—48.3 km and 96.6 km.
DTV to analog TV	No allotments permitted between: Zone I—11.3 km and 114.3 km. Zone II & III—17.7 km and 146.4 km.
UHF Channels:	
Co-channel, DTV to DTV	Zone I—196.3 km Zone II & III—223.7 km.
Co-channel, DTV to analog TV	Zone I—217.3 km. Zone II & III—244.6 km.
Adjacent Channel	
DTV to DTV	No allotments permitted between: All Zones—32.2 km and 88.5 km.
DTV to analog TV	No allotments permitted between: All Zones—9.7 km and 88.5 km.
Taboo Channels, DTV to analog TV only (DTV channels #2,. #3, #4, #7, #8, and 14 or 15 channels above the analog TV channel).	No allotments permitted between: Zone I—24.1 km and 80.5 km Zone II & III 24.1 km and 96.6 km

NOTE TO PARAGRAPH (D)(1): Due to the frequency spacing that exists between Channels 4 and 5, between Channels 6 and 7, and between Channels 13 and 14, the minimum geographic spacing requirements specified in the table shall not be applicable to these pairs of channels (see § 73.603(a)).

(2) Zones are defined in § 73.609. The minimum distance separation between a DTV station in one zone and an analog TV or DTV station in another zone shall be that of the zone requiring the lower separation.

(e) *Protection of land mobile operations on channels 14–20.* The Commission will not accept petitions to amend the DTV Table of Allotments, applications for new DTV stations, or applications to change the channel or location of authorized DTV stations that would use channels 14–20 where the distance between the DTV reference point as defined in § 73.622(d), would be located less than 250 km from the city center of a co-channel land mobile operation or 176 km from the city center of an adjacent channel land mobile operation. Land mobile operations on these channels in the following markets:

City	Channels	Latitude	Longitude
Boston, MA	14, 16	42°21′24″	71°03′25″
Chicago, IL	14, 15	41°52′28″	87°38′22″
Dallas, TX	16	32°47′09″	96°47′37″
Houston, TX	17	29°45′26″	95°21′37″
Los Angeles, CA	14, 16, 20	34°03′15″	118°14′28″

City	Channels	Latitude	Longitude
Miami, FL	14	25°46′37″	80°11′32″
New York, NY 1	4, 15	40°45′06″	73°59′39″
Philadelphia, PA	19, 20	39°56′58″	75°09′21″
Pittsburgh, PA	14, 18	40°26′19″	80°00′00″
San Francisco, CA	16, 17	37°46′39″	122°24′40″
Washington, DC	17, 18	38°53′51″	77°00′33″

(f) *Negotiated agreements on interference.* Notwithstanding the minimum technical criteria for DTV allotments specified in paragraph (b) of this section, DTV stations operating on allotments that are included in the initial DTV Table may operate with increased ERP and/or antenna HAAT that would result in additional interference to an analog TV station if that station agrees, in writing, to accept the additional interference. Such agreements must be submitted with the application for authority to construct or modify the DTV station's facilities. The larger service area resulting from such a change of ERP and/or antenna HAAT will be protected in accordance with the provisions of paragraph (c) of this section. Applications submitted pursuant to the provisions of this paragraph will be granted only if the Commission finds that such action is consistent with the public interest.

[62 FR 26719, May 14, 1997]

§ 73.624 Digital Television Broadcast Stations.

(a) Digital television (''DTV'') broadcast stations are assigned channels 6 MHz wide. Initial eligibility for licenses for DTV broadcast stations is limited to persons that, as of April 3, 1997, are licensed to operate a full power television broadcast station or hold a permit to construct such a station (or both).

(b) At any time that a DTV broadcast station permittee or licensee transmits a video program signal on its analog television channel, it must also transmit at least one over-the-air video program signal at no direct charge to viewers on the DTV channel that is licensed with the analog channel. The DTV program service provided pursuant to this paragraph must be at least comparable in resolution to the analog television station programming transmitted to viewers on the analog channel but, subject to paragraph (f) of this section, DTV broadcast stations are not required to simulcast the analog programming.

(c) Provided that DTV broadcast stations comply with paragraph (b) of this section, DTV broadcast stations are permitted to offer telecommunications services of any nature, consistent with the public interest, convenience, and necessity, on an ancillary or supplementary basis. The kinds of services that may be provided include, but are not limited to computer software distribution, data transmissions, teletext, interactive materials, aural messages, paging services, audio signals, subscription video, and any other services that do not derogate DTV broadcast stations' obligations under paragraph (b) of this section. Such services may be provided on a broadcast, point-to-point or point-to-multipoint basis, provided, however, that no video broadcast signal provided at no direct charge to viewers shall be considered ancillary or supplementary.

(1) DTV licensees that provide ancillary or supplementary services that are analogous to other telecommunications services subject to regulation by the Commission must comply with the Commission regulations that apply to those services, provided, however, that no ancillary or supplementary service shall have any rights to carriage under sections 614 or 615 of the Communications Act of 1934, as amended, or be deemed a multichannel video programming distributor for purposes of section 628 of the Communications Act of 1934, as amended.

(2) In all arrangements entered into with outside parties affecting telecommunications service operation, the DTV licensee or permittee must retain control over all material transmitted in a broadcast mode via the station's facilities, with the right to reject any material that it deems inappropriate or

undesirable. The license or permittee is also responsible for all aspects of technical operation involving such telecommunications services.

(3) In any application for renewal of a broadcast license for a television station that provides ancillary or supplementary services, a licensee shall establish that all of its program services on the analog and the DTV spectrum are in the public interest. Any violation of the Commission's rules applicable to ancillary or supplementary services will reflect on the licensee's qualifications for renewal of its license.

(d) Digital television broadcast facilities that comply with the FCC DTV Standard (section 73.682(d)), shall be constructed in the following markets by the following dates:

(1)(i) May 1, 1999: all network-affiliated television stations in the top ten television markets;

(ii) November 1, 1999: all network-affiliated television stations not included in category (1)(i) and in the top 30 television markets;

(iii) May 1, 2002: all remaining commercial television stations;

(iv) May 1, 2003: all noncommercial television stations.

(2) For the purposes of paragraph (d)(1):

(i) The term, ''network,'' is defined to include the ABC, CBS, NBC, and Fox television networks;

(ii) The term, ''television market,'' is defined as the Designated Market Area or DMA as defined by Nielsen Media Research as of April 3, 1997; and

(iii) The terms, ''network-affiliated'' or ''network-affiliate,'' are defined to include those television stations affiliated with at least one of the four networks designated in paragraph (d)(2)(i) as of April 3, 1997. In those DMAs in which a network has more than one network affiliate, paragraphs (d)(1) (i) and (ii) of this section shall apply to its network affiliate with the largest audience share for the 9 a.m. to midnight time period as measured by Nielsen Media Research in its Nielsen Station Index, Viewers in Profile, as of February, 1997.

(3) *Authority delegated.* (i) Authority is delegated to the Chief, Mass Media Bureau to grant an extension of time of up to six months beyond the relevant construction deadline specified in paragraph (d)(1) of this section upon demonstration by the DTV licensee or permittee that failure to meet that construction deadline is due to circumstances that are either unforeseeable or beyond the licensee's control where the licensee has taken all reasonable steps to resolve the problem expeditiously.

(ii) Such circumstances shall include, but shall not be limited to: (a) inability to construct and place in operation a facility necessary for transmitting digital television, such as a tower, because of delays in obtaining zoning or FAA approvals, or similar constraints; or (b) the lack of equipment necessary to obtain a digital television signal.

(iii) The Bureau may grant no more than two extension requests upon delegated authority. Subsequent extension requests shall be referred to the Commission. The Bureau may not on delegated authority deny an extension request but must refer recommended denials to the Commission.

(iv) Applications for extension of time shall be filed at least 30 days prior to the relevant construction deadline, absent a showing of sufficient reasons for filing within less than 30 days of the relevant construction deadline.

(e) The application for construction permit must be filed on Form 301 (except for noncommercial stations, which must file on Form 340) on or before the date on which half of the construction period has elapsed. Thus, for example, for applicants in category (d)(1)(i), the application for construction period must be filed by May 1, 1998.

(f)(i) Commencing on April 1, 2003, DTV television licensees and permittees must simulcast 50 percent of the video programming of the analog channel on the DTV channel.

(ii) Commencing on April 1, 2004, DTV licensees and permittees must simulcast 75% of the video programming of the analog channel on the DTV channel.

(iii) Commencing on April 1, 2005, DTV licensees and permittees must simulcast 100% of the video programming of the analog channel on the DTV channel.

(iv) The simulcasting requirements imposed in paragraphs (f) (i)–(iii) of

this section will terminate when the analog channel terminates operation and a 6 MHz channel is returned by the DTV licensee or permittee to the Commission.

[62 FR 26989, May 16, 1997]

§ 73.625 DTV coverage of principal community and antenna system.

(a) *Transmitter location.*

(1) The DTV transmitter location shall be chosen so that, on the basis of the effective radiated power and antenna height above average terrain employed, the following minimum F (50,90) field strength in dB above one uV/m will be provided over the entire principal community to be served:

Channels 2–6	L28 dBu
Channels 7–13	36 dBu
Channels 14–69	41 dBu

(2) The location of the antenna must be so chosen that there is not a major obstruction in the path over the principal community to be served.

(3) For the purposes of this section, coverage is to be determined in accordance with paragraph (b) of this section. Under actual conditions, the true coverage may vary from these estimates because the terrain over any specific path is expected to be different from the average terrain on which the field strength charts were based. Further, the actual extent of service will usually be less than indicated by these estimates due to interference from other stations. Because of these factors, the predicted field strength contours give no assurance of service to any specific percentage of receiver locations within the distances indicated.

(b) *Determining coverage.* (1) In predicting the distance to the field strength contours, the F (50,50) field strength charts (Figures 9, 10 and 10b of § 73.699 of this part) and the F (50,10) field strength charts (Figures 9a, 10a and 10c of § 73.699 of this part) shall be used. To use the charts to predict the distance to a given F (50,90) contour, the following procedure is used: Convert the effective radiated power in kilowatts for the appropriate azimuth into decibel value referenced to 1 kW (dBk). Subtract the power value in dBk from the contour value in dBu. Note that for power less than 1 kW, the difference value will be greater than the contour value because the power in dBk is negative. Locate the difference value obtained on the vertical scale at the left edge of the appropriate F (50,50) chart for the DTV station's channel. Follow the horizontal line for that value into the chart to the point of intersection with the vertical line above the height of the antenna above average terrain for the appropriate azimuth located on the scale at the bottom of the chart. If the point of intersection does not fall exactly on a distance curve, interpolate between the distance curves below and above the intersection point. The distance values for the curves are located along the right edge of the chart. Using the appropriate F (50,10) chart for the DTV station's channel, locate the point where the distance coincides with the vertical line above the height of the antenna above average terrain for the appropriate azimuth located on the scale at the bottom of the chart. Follow a horizontal line from that point to the left edge of the chart to determine the F (50,10) difference value. Add the power value in dBk to this difference value to determine the F (50,10) contour value in dBu. Subtract the F (50,50) contour value in dBu from this F (50,10) contour value in dBu. Subtract this difference from the F (50,50) contour value in dBu to determine the F (50,90) contour value in dBu at the pertinent distance along the pertinent radial.

(2) The effective radiated power to be used is that radiated at the vertical angle corresponding to the depression angle between the transmitting antenna center of radiation and the radio horizon as determined individually for each azimuthal direction concerned. In cases where the relative field strength at this depression angle is 90% or more of the maximum field strength developed in the vertical plane containing the pertaining radial, the maximum radiation shall be used. The depression angle is based on the difference in elevation of the antenna center of radiation above the average terrain and the radio horizon, assuming a smooth

spherical earth with a radius of 8,495.5 kilometers (5,280 miles) and shall be determined by the following equation:

A = 0.0277 square root of H

Where:

A is the depression angle in degrees.

H is the height in meters of the transmitting antenna radiation center above average terrain of the 3.2–16.1 kilometers (2–10 miles) sector of the pertinent radial.

This formula is empirically derived for the limited purpose specified here. Its use for any other purpose may be inappropriate.

(3) Applicants for new DTV stations or changes in the facilities of existing DTV stations must submit to the FCC a showing as to the location of their stations' or proposed stations' contour. This showing is to include a map showing this contour, except where applicants have previously submitted material to the FCC containing such information and it is found upon careful examination that the contour locations indicated therein would not change, on any radial, when the locations are determined under this section. In the latter cases, a statement by a qualified engineer to this effect will satisfy this requirement and no contour maps need be submitted.

(4) The antenna height to be used with these charts is the height of the radiation center of the antenna above the average terrain along the radial in question. In determining the average elevation of the terrain, the elevations between 3.2–16.1 kilometers (2–10 miles) from the antenna site are employed. Profile graphs shall be drawn for 8 radials beginning at the antenna site and extending 16.1 kilometers (10 miles) therefrom. The radials should be drawn for each 45 degrees of azimuth starting with True North. At least one radial must include the principal community to be served even though such community may be more than 16.1 kilometers (10 miles) from the antenna site. However, in the event none of the evenly spaced radials include the principal community to be served and one or more such radials are drawn in addition to the 8 evenly spaced radials, such additional radials shall not be employed in computing the antenna height above average terrain. Where the 3.2–16.1 kilometers (2–10 mile) portion of a radial extends in whole or in part over large bodies of water (such as ocean areas, gulfs, sounds, bays, large lakes, etc., but not rivers) or extends over foreign territory but the contour encompasses land area within the United States beyond the 16.1 kilometers (10 mile) portion of the radial, the entire 3.2–16.1 kilometers (2–10 mile) portion of the radial shall be included in the computation of antenna height above average terrain. However, where the contour does not so encompass United States land area and (1) the entire 3.2–16.1 kilometers (2–10 mile) portion of the radial extends over large bodies of water or foreign territory, such radial shall be completely omitted from the computation of antenna height above average terrain, and (2) where a part of the 3.2–16.1 kilometers (2–10 mile) portion of a radial extends over large bodies of water or over foreign territory, only that part of the radial extending from the 3.2 kilometer (2 mile) sector to the outermost portion of land area within the United States covered by the radial shall be employed in the computation of antenna height above average terrain. The profile graph for each radial should be plotted by contour intervals of from 12.2–30.5 meters (40–100 feet) and, where the data permits, at least 50 points of elevation (generally uniformly spaced) should be used for each radial. In instances of very rugged terrain where the use of contour intervals of 30.5 meters (100 feet) would result in several points in a short distance, 61.0–122.0 meter (200–400 foot) contour intervals may be used for such distances. On the other hand, where the terrain is uniform or gently sloping the smallest contour interval indicated on the topographic map (see paragraph (b)(5) of this section) should be used, although only relatively few points may be available. The profile graphs should indicate the topography accurately for each radial, and the graphs should be plotted with the distance in kilometers as the abscissa and the elevation in meters above mean sea level as the ordinate. The profile graphs should indicate the source of the topographical data employed. The graph should also show the elevation of the center of the radiating system. The graph may be plotted either on rectangular coordinate paper or on special paper which shows the curvature of the earth. It is not necessary to take the curvature of the earth into consideration in this procedure, as this factor is taken care of in the charts showing signal strengths. The average elevation of the 12.9 kilometer (8 miles) distance between 3.2–16.1 kilometers (2–10 miles) from the antenna site should then be determined from the profile graph for each radial. This may be obtained by averaging a large number of equally spaced points, by using a planimeter, or by obtaining the median elevation (that exceeded for 50% of the distance) in sectors and averaging those values. In directions where the terrain is such that negative antenna heights or heights below 30.5 meters (100 feet) for the 3.2 to 16.1 kilometers (2 to 10 mile) sector are obtained, an assumed height of 30.5 meters (100 feet) shall be used for the prediction of coverage. However, where the actual contour distances are critical factors, a supplemental showing of expected coverage must be included together with a description of the method employed in predicting such coverage. In special cases, the Commission may

require additional information as to terrain and coverage.

(5) In the preparation of the profile graph previously described, and in determining the location and height above sea level of the antenna site, the elevation or contour intervals shall be taken from the United States Geological Survey Topographic Quadrangle Maps, United States Army Corps of Engineers' maps or Tennessee Valley Authority maps, whichever is the latest, for all areas for which such maps are available. If such maps are not published for the area in question, the next best topographic information should be used. Topographic data may sometimes be obtained from State and Municipal agencies. Data from Sectional Aeronautical Charts (including bench marks) or railroad depot elevations and highway elevations from road maps may be used where no better information is available. In cases where limited topographic data is available, use may be made of an altimeter in a car driven along roads extending generally radially from the transmitter site. United States Geological Survey Topographic Quadrangle Maps may be obtained from the United States Geological Survey, Department of the Interior, Washington, D.C. 20240. Sectional Aeronautical Charts are available from the United States Coast and Geodetic Survey, Department of Commerce, Washington, D.C. 20235. In lieu of maps, the average terrain elevation may be computer generated, except in the cases of dispute, using elevations from a 30 second point or better topographic data file. The file must be identified and the data processed for intermediate points along each radial using linear interpolation techniques. The height above mean sea level of the antenna site must be obtained manually using appropriate topographic maps.

(c) *Antenna system.* (1) The antenna system shall be designed so that the effective radiated power at any angle above the horizontal shall be as low as the state of the art permits, and in the same vertical plane may not exceed the effective radiated power in either the horizontal direction or below the horizontal, whichever is greater.

(2) An antenna designed or altered to produce a noncircular radiation pattern in the horizontal plane is considered to be a directional antenna. Antennas purposely installed in such a manner as to result in the mechanical beam tilting of the major vertical radiation lobe are included in this category.

(3) Applications proposing the use of directional antenna systems must be accompanied by the following:

(i) Complete description of the proposed antenna system, including the manufacturer and model number of the proposed directional antenna.

(ii) Relative field horizontal plane pattern (horizontal polarization only) of the proposed directional antenna. A value of 1.0 should be used for the maximum radiation. The plot of the pattern should be oriented so that 0 degrees corresponds to true North. Where mechanical beam tilt is intended, the amount of tilt in degrees of the antenna vertical axis and the orientation of the downward tilt with respect to true North must be specified, and the horizontal plane pattern must reflect the use of mechanical beam tilt.

(iii) A tabulation of the relative field pattern required in paragraph (c)(3)(ii) of this section. The tabulation should use the same zero degree reference as the plotted pattern, and be tabulated at least every 10 degrees. In addition, tabulated values of all maxima and minima, with their corresponding azimuths, should be submitted.

(iv) Horizontal and vertical plane radiation patterns showing the effective radiated power, in dBk, for each direction. Sufficient vertical plane patterns must be included to indicate clearly the radiation characteristics of the antenna above and below the horizontal plane. In cases where the angles at which the maximum vertical radiation varies with azimuth, a separate vertical radiation pattern must be provided for each pertinent radial direction.

(v) All horizontal plane patterns must be plotted to the largest scale possible on unglazed letter-size polar coordinate paper (main engraving approximately 18 cm×25 cm (7 inches×10 inches)) using only scale divisions and subdivisions of 1, 2, 2.5. or 5 times 10-nth. All vertical plane patterns must be plotted on unglazed letter-size rectangular coordinate paper. Values of field strength on any pattern less than 10 percent of the maximum field strength plotted on that pattern must be shown on an enlarged scale.

(vi) The horizontal and vertical plane patterns that are required are the patterns for the complete directional antenna system. In the case of a composite antenna composed of two or more individual antennas, this means that the patterns for the composite antenna, not the patterns for each of the individual antennas, must be submitted.

(4) Where simultaneous use of antennas or antenna structures is proposed, the following provisions shall apply:

(i) In cases where it is proposed to use a tower of an AM broadcast station as a supporting structure for a DTV broadcast antenna, an appropriate application for changes in the radiating system of the AM broadcast station must be filed by the licensee thereof. A formal application (FCC Form 301, or FCC Form 340 for a noncommercial educational station) will be required if the proposal involves substantial change in the physical height or radiation characteristics of the AM broadcast antennas; otherwise an informal application will be acceptable. (In case of doubt, an informal application (letter) together with complete engineering

data should be submitted.) An application may be required for other classes of stations when the tower is to be used in connection with a DTV station.

(ii) When the proposed DTV antenna is to be mounted on a tower in the vicinity of an AM station directional antenna system and it appears that the operation of the directional antenna system may be affected, an engineering study must be filed with the DTV application concerning the effect of the DTV antenna on the AM directional radiation pattern. Field measurements of the AM stations may be required prior to and following construction of the DTV station antenna, and readjustments made as necessary.

[62 FR 26990, May 16, 1997]

§ 73.635 Use of common antenna site.

No television license or renewal of a television license will be granted to any person who owns, leases, or controls a particular site which is peculiarly suitable for television broadcasting in a particular area and (a) which is not available for use by other television licensees; and (b) no other comparable site is available in the area; and (c) where the exclusive use of such site by the applicant or licensee would unduly limit the number of television stations that can be authorized in a particular area or would unduly restrict competition among television stations.

[28 FR 13660, Dec. 14, 1963]

§ 73.641 Subscription TV definitions.

(a) *Subscription television*. A system whereby subscription television programs are transmitted and received.

(b) *Subscription television program*. A television boadcast program intended to be received in intelligible form for a fee or charge.

[52 FR 6154, Mar. 2, 1987]

§ 73.642 Subscription TV service.

(a) Subscription TV service may be provided by:

(1) Licensees and permittees of commercial TV stations, and

(2) Licensees and permittees of low power TV stations.

(b) A licensee or permittee of a commercial TV station or a low power TV station may begin subscription TV service upon installation of encoding equipment having advance FCC approval. However, the licensee or permittee of a TV broadcast station (not applicable to low power TV stations) must send a letter to the FCC in Washington, DC, that subscription TV service will commence at least 30 days prior to commencement of such service. In that letter, to be entitled ''Notice of Commencement of STV Operations,'' the licensee or permittee is to state that it will comply with the provisions of paragraphs (e)(1) through (e)(3) and § 73.644(c) of this chapter and identify the make and type of encoding system to be used. A similar notice must be submitted if the licensee or permittee commences using another type of encoding system. (See section 644(h).) A notice must also be submitted to the FCC in Washington, DC, if encoded subscription TV service is to be discontinued, at least 30 days prior to such discontinuance.

(c) The station proof of system compliance measurement data (see § 73.644(c)) need not be submitted to the FCC, however, the measurement data must be available to the FCC upon request.

(d) The use of the visual vertical blanking interval or an aural subcarrier for transmitting subscriber decoder control code signals during periods of normal non-encoded programming may be used only upon specific FCC authorization. Letter requests to use either the video blanking intervals or aural subcarriers during periods of non-subscription programming are to be sent to the FCC in Washington, D.C.

(e) A licensee or permittee of a commercial TV broadcast or low power TV station may not transmit a subscription service if it has a contract, arrangement, or understanding, expressed or implied, that:

(1) Prevents or hinders it from rejecting or refusing any subscription TV broadcast program that it reasonably believes to be unsatisfactory or unsuitable or contrary to the public interests; or substituting a subscription or conventional program that, in its opinion, is of greater local or national importance; or

(2) Delegates to any other person the right to schedule the hours of transmission of subscription programs. However, this rule does not prevent a licensee or permittee from entering into an agreement or arrangement whereby it agrees to schedule a specific subscription TV broadcast program at a specific time or to schedule a specific number of hours of subscription programs during the broadcast day (or segments thereof) or weeks; or

(3) Deprives it of the right of ultimate decision concerning the maximum amount of any subscription program charge or fee.

(4) Has provisions that do not comply with the following policies of the FCC:

(i) Unless a satifactory signal is unavailable at the location where service is desired, subscription TV service must be provided to all persons desiring it within the Grade A contour of the station broadcasting subscription programs. Geographic or other reasonable patterns of installation for new subscription services is permitted and, for good cause, service may be terminated.

(ii) Charges, terms and conditions of service to subscribers must be applied uniformly. However, subscribers may be divided into reasonable classifications approved by the FCC, and the impositions of different sets of terms and conditions may be applied to subscribers in different classifications. Further, for good cause, within such classification, deposits may be required from some subscribers and not of others; and, also for good cause, if a subscription system generally uses a credit-type decoder, cash operated decoders may be installed for some subscribers.

[48 FR 56392, Dec. 21, 1983, as amended at 52 FR 6154, Mar. 2, 1987]

§73.643 Subscription TV operating requirements.

The non-technical rules and policies applicable to regular TV broadcast stations are applicable to subscription TV operations, except where specifically exempted in the provisions of those rules and policies.

[48 FR 56392, Dec. 21, 1983]

§73.644 Subscription TV transmission systems.

(a) Licensees and permittees of commercial TV broadcast and low power TV stations may conduct subscription operations only by using an encoding system that has been approved in advance by the FCC. Such advance approval may be applied for and granted in accordance with the procedures given in Subpart M Part 2 of the Rules.

(b) The criteria for advance approval of subscription TV transmitting systems by the FCC are as follows:

(1) Spectral energy in the transmitted signal must not exceed the limitations given in §73.687(e).

(2) No increase in width of the television broadcast channel (6 MHz.) is permitted.

(3) The technical system must enable stations to transmit encoded subscription TV programs without increasing the RMS output power from either the video or audio transmitters over that required to transmit the same program material using normal transmission standards.

(4) Modification of a type accepted TV broadcast or low power TV transmitter for encoded transmissions must not render transmitter incapable of operating in accordance with the operating specifications upon which type acceptance was granted. (See §2.1001 (b), (k))

(5) Interference to reception of conventional television either of co-channel or adjacent channel stations must not increase over that resulting from the transmission of programming with normal transmission standards.

(6) Subscriber decoder devices must meet the provisions, where required, of Subpart H of Part 15 of the FCC Rules for TV Interface Devices.

(c) Prior to commencing the transmission of encoded subscription programming, the licensee or permittee of a TV broadcast or low power TV station must perform such tests and measurements to determine that the transmitted encoded signal conforms to the radiated radio frequency and demodulated baseband and waveforms, transmitter operating power determination, and the occupied bandwidth limitations specified in the application for advance FCC approval of the system

being used. A copy of the measurement data is to be maintained in the station files and made available to the FCC upon request.

(d) The licensee of a station transmitting an encoded subscription service must have at the transmitter control point the technical specifications for the system being used of both the aural and visual baseband signals and the transmitted radiofrequency signals, and have the necessary measuring and monitoring equipment, including transmitter output power measuring equipment, to determine that the transmissions conform to the advance approval specifications on file with the FCC. Full operating specifications for the system must be available to representatives of the FCC upon request.

(e) The operating power of the transmitters during encoded operations must be determined and maintained according to the procedures given in the application for advance approval.

(f) A station using an encoding system in accordance with the specifications filed with the application for advance approval is deemed to be exempted from those technical regulations of this Subpart and Subpart H to the extent they are specifically detailed in the application.

(g) No protection from interference of any kind will be afforded to reception of encoded subscription programming over that afforded reception of non-encoded signals.

(h) A licensee or permittee may make no modifications on a subscription encoding system that would alter the characteristics of the transmitted aural or visual signal from those specified in the application for advance approval. A licensee or permittee of a station replacing its encoding system must perform the measurements required by paragraph (c) of this section. A TV broadcast station licensee or permittee must also send a letter advising the FCC of the new system being used as required by § 73.642(b) of this chapter.

(i) The station licensee is fully responsible for all technical operations of the station during transmissions of encoded subscription programming, regardless of the supplier of the encoding equipment or subscription program service.

NOTE: Stations transmitting encoded subscription programming prior to October 1, 1983, must comply with all technical and operating requirements of this Section no later than April 1, 1984. Stations not having the information to comply with this Section must obtain such information from the manufacturer of the encoding system being used, and if necessary, by measurements of the station's transmission system.

(j) Upon request by an authorized representative of the FCC, the licensee of a TV station transmitting encoded programming must make available a receiving decoder to the Commission to carry out its regulatory responsibilities.

[48 FR 56392, Dec. 21, 1983, as amended at 57 FR 48333, Oct. 23, 1992]

§ 73.646 Telecommunications Service on the Vertical Blanking Interval and in the Visual Signal.

(a) Telecommunications services permitted on the vertical blanking interval (VBI) and in the visual signal include the transmission of data, processed information, or any other communication in either a digital or analog mode.

(b) Telecommunications service on the VBI and in the visual signal is of an ancillary nature and as such is an elective, subsidiary activity. No service guidelines, limitations, or performance standards are applied to it. The kinds of service that may be provided include, but are not limited to, teletext, paging, computer software and bulk data distribution, and aural messages. Such services may be provided on a broadcast, point-to-point, or point to multipoint basis.

(c) Telecommunications services that are common carrier in nature are subject to common carrier regulation. Licensees operating such services are required to apply to the Commission for the appropriate authorization and to comply with all policies and rules applicable to the particular service.

(d) Television licensees are authorized to lease their VBI and visual signal telecommunications facilities to outside parties. In all arrangements entered into with outside parties affecting telecommunications service operation, the licensee or permittee must

retain control over all material transmitted in a broadcast mode via the station's facilities, with the right to reject any material that it deems inappropriate or undesirable. The licensee or permittee is also responsible for all aspects of technical operation involving such telecommunications services.

(e) The grant or renewal of a TV station license or permit will not be furthered or promoted by proposed or past VBI or visual signal telecommunications service operation; the licensee must establish that its broadcast operation serves the public interest wholly apart from such telecommunications service activities. (Violation of rules applicable to VBI and visual signal telecommunications services could, of course, reflect on a licensee's qualifications to hold its license or permit.)

(f) TV broadcast stations are authorized to transmit VBI and visual telecommunications service signals during any time period, including portions of the day when normal programming is not broadcast. Such transmissions must be in accordance with the technical provisions of § 73.682.

[50 FR 4663, Feb. 1, 1985, as amended at 50 FR 9035, Mar. 6, 1985; 61 FR 36304, July 10, 1996]

§ 73.653 Operation of TV aural and visual transmitters.

The aural and visual transmitters may be operated independently of each other or, if operated simultaneously, may be used with different and unrelated program material.

[54 FR 9806, Mar. 8, 1989]

§ 73.658 Affiliation agreements and network program practices; territorial exclusivity in non-network program arrangements.

(a) *Exclusive affiliation of station.* No license shall be granted to a television broadcast station having any contract, arrangement, or understanding, express or implied, with a network organization under which the station is prevented or hindered from, or penalized for, broadcasting the programs of any other network organization. (The term ''network organization'' as used in this section includes national and regional network organizations. See ch. VII, J, of Report on Chain Broadcasting.)

(b) *Territorial exclusively.* No license shall be granted to a television broadcast station having any contract, arrangement, or understanding, express or implied, with a network organization which prevents or hinders another broadcast station located in the same community from broadcasting the network's programs not taken by the former station, or which prevents or hinders another broadcast station located in a different community from broadcasting any program of the network organization. This section shall not be construed to prohibit any contract, arrangement, or understanding between a station and a network organization pursuant to which the station is granted the first call in its community upon the programs of the network organization. As employed in this paragraph, the term ''community'' is defined as the community specified in the instrument of authorization as the location of the station.

(c) [Reserved]

(d) *Station commitment of broadcast time.* No license shall be granted to a television broadcast station having any contract, arrangement, or understanding, express or implied, with any network organization, which provides for optioning of the station's time to the network organization, or which has the same restraining effect as time optioning. As used in this section, time optioning is any contract, arrangement, or understanding, express or implied, between a station and a network organization which prevents or hinders the station from scheduling programs before the network agrees to utilize the time during which such programs are scheduled, or which requires the station to clear time already scheduled when the network organization seeks to utilize the time.

(e) *Right to reject programs.* No license shall be granted to a television broadcast station having any contract, arrangement, or understanding, express or implied, with a network organization which, with respect to programs offered or already contracted for pursuant to an affiliation contract, prevents or hinders the station from:

(1) Rejecting or refusing network programs which the station reasonably believes to be unsatisfactory or unsuitable or contrary to the public interest, or

(2) Substituting a program which, in the station's opinion, is of greater local or national importance.

(f) [Reserved]

(g) *Dual network operation.* A television broadcast station may affiliate with a person or entity that maintains two or more networks of television broadcast stations *unless* such dual or multiple networks are composed of:

(1) Two or more persons or entities that, on February 8, 1996, were ''networks.'' For the purposes of this paragraph, the term network means any person, entity, or corporation which offers an interconnected program service on a regular basis for 15 or more hours per week to at least 25 affiliated television licensees in 10 or more states; and/or any person, entity, or corporation controlling, controlled by, or under common control with such person, entity, or corporation; or

(2) Any network described in paragraph (g)(1) of this section and an English-language program distribution service that, on February 8, 1996, provided four or more hours of programming per week on a national basis pursuant to network affiliation arrangements with local television broadcast stations in markets reaching more than 75 percent of television homes (as measured by a national ratings service).

(h) *Control by networks of station rates.* No license shall be granted to a television broadcast station having any contract, arrangement, or understanding, express or implied, with a network organization under which the station is prevented or hindered from, or penalized for, fixing or altering its rates for the sale of broadcast time for other than the network's programs.

(i) No license shall be granted to a television broadcast station which is represented for the sale of non-network time by a network organization or by an organization directly or indirectly controlled by or under common control with a network organization, if the station has any contract, arrangement or understanding, express or implied, which provides for the affiliation of the station with such network organization: *Provided, however,* That this rule shall not be applicable to stations licensed to a network organization or to a subsidiary of a network organization.

(j)—(l) [Reserved]

(m) *Territorial exclusivity in non-network arrangements.* (1) No television station shall enter into any contract, arrangement, or understanding, expressed or implied; with a non-network program producer, distributor, or supplier, or other person; which prevents or hinders another television station located in a community over 56.3 kilometers (35 miles) away, as determined by the reference points contained in § 76.53 of this chapter, (if reference points for a community are not listed in § 76.53, the location of the main post office will be used) from broadcasting any program purchased by the former station from such non-network program producer, distributor, supplier, or other person, except that a television station may secure exclusivity against a television station licensed to another designated community in a hyphenated market specified in the market listing as contained in § 76.51 of this chapter for those 100 markets listed, and for markets not listed in § 76.51 of this chapter, the listing as contained in the ARB Television Market Analysis for the most recent year at the time that the exclusivity contract, arrangement or understanding is complete under practices of the industry. As used in this paragraph, the term ''community'' is defined as the community specified in the instrument of authorization as the location of the station.

(2) Notwithstanding paragraph (m)(1) of this section, a television station may enter into a contract, arrangement, or understanding with a producer, supplier, or distributor of a non-network program if that contract, arrangement, or understanding provides that the broadcast station has exclusive national rights such that no other television station in the United States may broadcast the program.

NOTE 1: Contracts, arrangements, or understandings that are complete under the practices of the industry prior to August 7, 1973, will not be disturbed. Extensions or renewals

of such agreements are not permitted because they would in effect be new agreements without competitive bidding. However, such agreements that were based on the broadcaster's advancing ''seed money'' for the production of a specific program or series that specify two time periods—a tryout period and period thereafter for general exhibition—may be extended or renewed as contemplated in the basic agreement.

NOTE 2: It is intended that the top 100 major television markets listed in §76.51 of this chapter shall be used for the purposes of this rule and that the listing of the top 100 television markets appearing in the ARB Television Market Analysis shall not be used. The reference in this rule to the listing of markets in the ARB Television Market Analysis refers to hyphenated markets below the top-100 markets contained in the ARB Television Market Analysis. If a community is listed in a hyphenated market in §76.51 and is also listed in one of the markets in the ARB listing, the listing in §76.51 shall govern.

NOTE 3: The provisions of this paragraph apply only to U.S. commercial television broadcast stations in the 50 states, and not to stations in Puerto Rico or the Virgin Islands, foreign stations or noncommercial educational television or ''public'' television stations (either by way of restrictions on their exclusivity or on exclusivity against them).

NOTE 4: New stations authorized in any community of a hyphenated market listed in §76.51 of this chapter or in any community of a hyphenated market listed in the ARB Television Market Analysis (for markets below the top-100 markets) are subject to the same rules as previously existing stations therein. New stations authorized in other communities are considered stations in separate markets unless and until §76.51 is amended by Commission action, or the ARB listing is changed.

(Sec. 5, 48 Stat. 1068 (47 U.S.C. 155))

[28 FR 13660, Dec. 14, 1963]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §73.658, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§§73.659—73.663 [Reserved]

§73.664 Determining operating power.

(a) The operating power of each TV visual transmitter shall normally be determined by the direct method.

(b) *Direct method, visual transmitter.* The direct method of power determination for a TV visual transmitter uses the indications of a calibrated transmission line meter (responsive to peak power) located at the RF output terminals of the transmitter. The indications of the calibrated meter are used to observe and maintain the authorized operating power of the visual transmitter. This meter must be calibrated whenever any component in the metering circuit is repaired or replaced and as often as necessary to ensure operation in accordance with the provisions of §73.1560 of this part. The following calibration procedures are to be used:

(1) The transmission line meter is calibrated by measuring the average power at the output terminals of the transmitter, including any vestigial sideband and harmonic filters which may be used in normal operation. For this determination the average power output is measured while operating into a dummy load of substantially zero reactance and a resistance equal to the transmission line characteristic impedance. During this measurement the transmitter is to be modulated only by a standard synchronizing signal with blanking level set at 75% of peak amplitude as observed in an output waveform monitor, and with this blanketing level amplitude maintained throughout the time interval between synchronizing pulses.

(2) If electrical devices are used to determine the output power, such devices must permit determination of this power to within an accuracy of ±5% of the power indicated by the full scale reading of the electrical indicating instrument of the device. If temperature and coolant flow indicating devices are used to determine the power output, such devices must permit determination of this power to within an accuracy of ±4% of measured average power output. The peak power output is the power so measured in the dummy load multiplied by the factor 1.68. During this measurement the input voltage and current to the final radio frequency amplifier stage and the transmission line meter are to be read and compared with similar readings taken with the dummy load replaced by the antenna. These readings must be in substantial agreement.

(3) The meter must be calibrated with the transmitter operating at 80%, 100%, and 110% of the authorized power

as often as may be necessary to maintain its accuracy and ensure correct transmitter operating power. In cases where the transmitter is incapable of operating at 110% of the authorized power output, the calibration may be made at a power output between 100% and 110% of the authorized power output. However, where this is done, the output meter must be marked at the point of calibration of maximum power output, and the station will be deemed to be in violation of this rule if that power is exceeded. The upper and lower limits of permissible power deviation as determined by the prescribed calibration, must be shown upon the meter either by means of adjustable red markers incorporated in the meter or by red marks placed upon the meter scale or glass face. These markings must be checked and changed, if necessary, each time the meter is calibrated.

(c) *Indirect method, visual transmitter.* The operating power is determined by the indirect method by applying an appropriate factor to the input power to the final radio-frequency amplifier stage of the transmitter using the following formula:

Transmitter output power=Ep x Ip x *F*

Where:

Ep=DC input voltage of the final radio-frequency amplifier stage.
Ip=DC input current of the final radio-frequency amplifier stage.
F=Efficiency factor.

(1) If the above formula is not appropriate for the design of the transmitter final amplifier, use a formula specified by the transmitter manufacturer with other appropriate operating parameters.

(2) The value of the efficiency factor, *F* established for the authorized transmitter output power is to be used for maintaining the operating power, even though there may be some variation in *F* over the power operating range of the transmitter.

(3) The value of *F* is to be determined and a record kept thereof by one of the following procedures listed in order of preference:

(i) Using the most recent measurement data for calibration of the transmission line meter according to the procedures described in paragraph (b) of this section or the most recent measurements made by the licensee establishing the value of F. In the case of composite transmitters or those in which the final amplifier stages have been modified pursuant to FCC approval, the licensee must furnish the FCC and also retain with the station records the measurement data used as a basis for determining the value of F.

(ii) Using measurement data shown on the transmitter manufacturer's test data supplied to the licensee, provided that measurements were made at the authorized carrier frequency and transmitter output power.

(iii) Using the transmitter manufacturer's measurement data submitted to the FCC for type acceptance as shown in the instruction book supplied to the licensee.

NOTE: Refer to § 73.1560 for aural transmitter output power levels.

[44 FR 58732, Oct. 11, 1979, as amended at 48 FR 44805, Sept. 30, 1983; 49 FR 4210, Feb. 3, 1984; 49 FR 22092, May 25, 1984; 49 FR 49851, Dec. 24, 1984; 50 FR 26568, June 27, 1985; 54 FR 9806, Mar. 8, 1989. Redesignated at 58 FR 62555, Nov. 29, 1993]

§ 73.665 Use of TV aural baseband subcarriers.

Licensees of TV broadcast stations may transmit, without further authorization from the FCC, subcarriers and signals within the composite baseband for the following purposes:

(a) Stereophonic (biphonic, quadraphonic, etc.) sound programs under the provisions of §§ 73.667 and 73.669.

(b) Transmission of signals relating to the operation of TV stations, such as relaying broadcast materials to other stations, remote cueing and order messages, and control and telemetry signals for the transmitting system.

(c) Transmission of pilot or control signals to enhance the station's program service such as (but not restricted to) activation of noise reduction decoders in receivers, for any other receiver control purpose, or for program alerting and program identification.

(d) Subsidiary communications services.

[49 FR 18105, Apr. 27, 1984]

§ 73.667 TV subsidiary communications services.

(a) Subsidiary communications services are those transmitted within the TV aural baseband signal, but do not include services which enhance the main program broadcast service or exclusively relate to station operations (see § 73.665(a), (b), and (c)). Subsidiary communications include, but are not limited to, services such as functional music, specialized foreign language programs, radio reading services, utility load management, market and financial data and news, paging and calling, traffic control signal switching, and point-to-point or multipoint messages.

(b) TV subsidiary communications services that are common carrier or private radio in nature are subject to common carrier or private radio regulation. Licensees operating such services are required to apply to the FCC for the appropriate authorization and to comply with all policies and rules applicable to the service. Responsibility for making the initial determinations of whether a particular activity requires separate authority rests with the TV station licensee or permittee. Initial determinations by licensees or permittees are subject to FCC examination and may be reviewed at the FCC's discretion.

(c) Subsidiary communications services are of a secondary nature under the authority of the TV station authorization, and the authority to provide such communications services may not be retained or transferred in any manner separate from the station's authorization. The grant or renewal of a TV station permit or license is not furthered or promoted by proposed or past subsidiary communications services. The permittee or licensee must establish that the broadcast operation is in the public interest wholly apart from the subsidiary communications services provided.

(d) The station identification, delayed recording, and sponsor identification announcement required by §§ 73.1201, 73.1208, and 73.1212 are not applicable to leased communications services transmitted via services that are not of a general broadcast nature.

(e) The licensee or permittee must retain control over all material transmitted in a broadcast mode via the station's facilities, with the right to reject any material that it deems inappropriate or undesirable.

[49 FR 18105, Apr. 27, 1984, as amended at 49 FR 27147, July 2, 1984; 56 FR 49707, Oct. 1, 1991]

§ 73.669 TV stereophonic aural and multiplex subcarrier operation.

(a) A TV broadcast station may without specific authority from the FCC, transmit multichannel aural programs upon installation of multichannel sound equipment. Prior to commencement of multichannel broadcasting, the equipment shall be measured in accordance with § 73.1690(e).

(b) Multiplex subcarriers may be used by a TV station pursuant to the provisions of § 73.665 and may be transmitted on a secondary, non-interference basis to broadcast programming without specific authority from the FCC. Transmissions must be conducted in accordance with the technical standards given in § 73.682(c).

(c) In all arrangements entered into with outside parties affecting non-common carrier subcarrier operation, the licensee or permittee must retain control over all material transmitted over the station's facilities, with the right to reject any material which is deemed inappropriate or undesirable. Subchannel leasing arrangements must be kept in writing at the station and made available to the FCC upon request.

[49 FR 18106, Apr. 27, 1984]

§ 73.670 Commercial limits in children's programs.

No commercial television broadcast station licensee shall air more than 10.5 minutes of commercial matter per hour during children's programming on weekends, or more than 12 minutes of commercial matter per hour on weekdays.

NOTE 1: *Commerical matter* means air time sold for purposes of selling a product or service.

NOTE 2: For purposes of this section, *children's programming* refers to programs originally produced and broadcast primarily for an audience of children 12 years old and younger.

[56 FR 19616, Apr. 29, 1991; 56 FR 28825, June 25, 1991]

§ 73.671 Educational and informational programming for children.

(a) Each commercial and noncommercial educational television broadcast station licensee has an obligation to serve, over the term of its license, the educational and informational needs of children through both the licensee's overall programming and programming specifically designed to serve such needs.

(b) Any special nonbroadcast efforts which enhance the value of children's educational and informational television programming, and any special effort to produce or support educational and informational television programming by another station in the licensee's marketplace, may also contribute to meeting the licensee's obligation to serve, over the term of its license, the educational and informational needs of children.

(c) For purposes of this section, educational and informational television programming is any television programming that furthers the educational and informational needs of children 16 years of age and under in any respect, including the child's intellectual/cognitive or social/emotional needs. Programming specifically designed to serve the educational and informational needs of children (''Core Programming'') is educational and informational programming that satisfies the following additional criteria:

(1) It has serving the educational and informational needs of children ages 16 and under as a significant purpose;

(2) It is aired between the hours of 7:00 a.m. and 10:00 p.m.;

(3) It is a regularly scheduled weekly program;

(4) It is at least 30 minutes in length;

(5) The educational and informational objective and the target child audience are specified in writing in the licensee's Children's Television Programming Report, as described in § 73.3526(a)(8)(iii); and

(6) Instructions for listing the program as educational/informational, including an indication of the age group for which the program is intended, are provided by the licensee to publishers of program guides, as described in § 73.673(b).

NOTE 1 TO § 73.671: For purposes of determining under this section whether programming has a significant purpose of serving the educational and informational needs of children, the Commission will ordinarily rely on the good faith judgments of the licensee. Commission review of compliance with that element of the definition will be done only as a last resort.

NOTE 2 TO § 73.671: The Commission will use the following processing guideline in assessing whether a television broadcast licensee has complied with the Children's Television Act of 1990 (''CTA''). A licensee that has aired at least three hours per week of Core Programming (as defined in paragraph (c) of this section and as averaged over a six month period) will be deemed to have satisfied its obligation to air such programming and shall have the CTA portion of its license renewal application approved by the Commission staff. A licensee will also be deemed to have satisfied this obligation and be eligible for such staff approval if the licensee demonstrates that it has aired a package of different types of educational and informational programming that, while containing somewhat less than three hours per week of Core Programming, demonstrates a level of commitment to educating and informing children that is at least equivalent to airing three hours per week of Core Programming. In this regard, specials, PSAs, short-form programs, and regularly scheduled non-weekly programs with a significant purpose of educating and informing children can count toward the three hour per week processing guideline. Licensees that do not meet these processing guidelines will be referred to the Commission, where they will have full opportunity to demonstrate compliance with the CTA (*e.g.*, by relying in part on sponsorship of core educational/informational programs on other stations in the market that increases the amount of core educational and informational programming on the station airing the sponsored program and/or on special nonbroadcast efforts which enhance the value of children's educational and informational television programming).

[56 FR 19616, Apr. 29, 1991. Redesignated at 56 FR 28825, June 25, 1991, as amended at 61 FR 43997, Aug. 27, 1996]

§ 73.672 [Reserved]

§ 73.673 Public information initiatives regarding educational and informational programming for children.

(a) Each commercial television broadcast licensee shall identify programs specifically designed to educate and inform children at the beginning of the program, in a form that is in the discretion of the licensee.

(b) Each commercial television broadcast station licensee shall provide information identifying programming specifically designed to educate and inform children to publishers of program guides. Such information shall include an indication of the age group for which the program is intended.

[61 FR 43998, Aug. 27, 1996]

EFFECTIVE DATE NOTE: At 61 FR 43998, Aug. 27, 1996, § 73.673 was added, effective either Jan. 2, 1997 or after approval has been given by the Office of Management and Budget, whichever comes later.

§ 73.681 Definitions.

Amplitude modulation (*AM*). A system of modulation in which the envelope of the transmitted wave contains a component similar to the wave form of the signal to be transmitted.

Antenna electrical beam tilt. The shaping of the radiation pattern in the vertical plane of a transmitting antenna by electrical means so that maximum radiation occurs at an angle below the horizontal plane.

Antenna height above average terrain. The average of the antenna heights above the terrain from approximately 3.2 (2 miles) to 16.1 kilometers (10 miles) from the antenna for the eight directions spaced evenly for each 45 degrees of azimuth starting with True North. (In general, a different antenna height will be determined in each direction from the antenna. The average of these various heights is considered the antenna height above the average terrain. In some cases less than 8 directions may be used. See § 73.684(d)). Where circular or elliptical polarization is employed, the antenna height above average terrain shall be based upon the height of the radiation center of the antenna which transmits the horizontal component of radiation.

Antenna mechanical beam tilt. The intentional installation of a transmitting antenna so that its axis is not vertical, in order to change the normal angle of maximum radiation in the vertical plane.

Antenna power gain. The square of the ratio of the root-mean-square free space field strength produced at 1 kilometer in the horizontal plane, in millivolts per meter for one kW antenna input power to 221.4 mV/m. This ratio should be expressed in decibels (dB). (If specified for a particular direction, antenna power gain is based on the field strength in that direction only.)

Aspect ratio. The ratio of picture width to picture height as transmitted.

Aural center frequency. (1) The average frequency of the emitted wave when modulated by a sinusoidal signal; (2) the frequency of the emitted wave without modulation.

Aural transmitter. The radio equipment for the transmission of the aural signal only.

Auxiliary facility. An auxiliary facility is an antenna separate a from the main facility's antenna, permanently installed on the same tower or at a different location, from which a station may broadcast for short periods without prior Commission authorization or notice to the Commission while the main facility is not in operation (*e.g.*, where tower work necessitates turning off the main antenna or where lightning has caused damage to the main antenna or transmission system) (*See* § 73.1675).

BTSC. Broadcast Television systems committee recommendation for multichannel television sound transmission and audio processing as defined in FCC Bulletin OET 60.

Baseband. Aural transmitter input signals between 0 and 120 kHz.

Blanking level. The level of the signal during the blanking interval, except the interval during the scanning synchronizing pulse and the chrominance subcarrier synchronizing burst.

Chrominance. The colorimetric difference between any color and a reference color of equal luminance, the reference color having a specific chromaticity.

Chrominance subcarrier. The carrier which is modulated by the chrominance information.

Color transmission. The transmission of color television signals which can be reproduced with different values of hue, saturation, and luminance.

Effective radiated power. The product of the antenna input power and the antenna power gain. This product should be expressed in kW and in dB above 1 kW (dBk). (If specified for a particular direction, effective radiated power is based on the antenna power gain in that direction only. The licensed effective radiated power is based on the maximum antenna power gain. When a station is authorized to use a directional antenna or an antenna beam tilt, the direction of the maximum effective radiated power will be specified.) Where circular or elliptical polarization is employed, the term effective radiated power is applied separately to the horizontally and vertically polarized components of radiation. For assignment purposes, only the effective radiated power authorized for the horizontally polarized component will be considered.

Equivalent isotropically radiated power (EIRP). The term ''equivalent isotropically radiated power'' (also known as ''effective radiated power above isotropic'') means the product of the antenna input power and the antenna gain in a given direction relative to an isotropic antenna.

Field. Scanning through the picture area once in the chosen scanning pattern. In the line interlaced scanning pattern of two to one, the scanning of the alternate lines of the picture area once.

Frame. Scanning all of the picture area once. In the line interlaced scanning pattern of two to one, a frame consists of two fields.

Free space field strength. The field strength that would exist at a point in the absence of waves reflected from the earth or other reflecting objects.

Frequency departure. The amount of variation of a carrier frequency or center frequency from its assigned value.

Frequency deviation. The peak difference between the instantaneous frequency of the modulated wave and the carrier frequency.

Frequency modulation (*FM*). A system of modulation where the instantaneous radio frequency varies in proportion to the instantaneous amplitude of the modulating signal (amplitude of modulating signal to be measured after pre-emphasis, if used) and the instantaneous radio frequency is independent of the frequency of the modulating signal.

Frequency swing. The peak difference between the maximum and the minimum values of the instantaneous frequency of the carrier wave during modulation.

Interlaced scanning. A scanning process in which successively scanned lines are spaced an integral number of line widths, and in which the adjacent lines are scanned during successive cycles of the field frequency.

IRE standard scale. A linear scale for measuring, in IRE units, the relative amplitudes of the components of a television signal from a zero reference at blanking level, with picture information falling in the positive, and synchronizing information in the negative domain.

NOTE: When a carrier is amplitude modulated by a television signal in accordance with § 73.682, the relationship of the IRE standard scale to the conventional measure of modulation is as follows:

Level	IRE standard scale (units)	Modulation percentage
Zero carrier	120	0
Reference white	100	12.5
Blanking	0	75
Synchronizing peaks (maximum carrier level)	−40	100

Luminance. Luminous flux emitted, reflected, or transmitted per unit solid angle per unit projected area of the source.

Main channel. The band of frequencies from 50 to 15,000 Hertz which frequency modulate the main aural carrier.

Monochrome transmission. The transmission of television signals which can be reproduced in gradations of a single color only.

Multichannel Television Sound (MTS). Any system of aural transmission that

utilizes aural baseband operation between 15 kHz and 120 kHz to convey information or that encodes digital information in the video portion of the television signal that is intended to be decoded as audio information.

Multiplex Transmission (*Aural*). A subchannel added to the regular aural carrier of a television broadcast station by means of frequency modulated subcarriers.

Negative transmission. Where a decrease in initial light intensity causes an increase in the transmitted power.

Peak power. The power over a radio frequency cycle corresponding in amplitude to synchronizing peaks.

Percentage modulation. As applied to frequency modulation, the ratio of the actual frequency deviation to the frequency deviation defined as 100% modulation expressed in percentage. For the aural transmitter of TV broadcast stations, a frequency deviation of ±25 kHz is defined as 100% modulation.

Pilot subcarrier. A subcarrier used in the reception of TV stereophonic aural or other subchannel broadcasts.

Polarization. The direction of the electric field as radiated from the transmitting antenna.

Program related data signal. A signal, consisting of a series of pulses representing data, which is transmitted simultaneously with and directly related to the accompanying television program.

Reference black level. The level corresponding to the specified maximum excursion of the luminance signal in the black direction.

Reference white level of the luminance signal. The level corresponding to the specified maximum excursion of the luminance signal in the white direction.

Scanning. The process of analyzing successively, according to a predetermined method, the light values of picture elements constituting the total picture area.

Scanning line. A single continuous narrow strip of the picture area containing highlights, shadows, and halftones, determined by the process of scanning.

Standard television signal. A signal which conforms to the television transmission standards.

Synchronization. The maintenance of one operation in step with another.

Television broadcast band. The frequencies in the band extending from 54 to 806 megahertz which are assignable to television broadcast stations. These frequencies are 54 to 72 megahertz (channels 2 through 4), 76 to 88 megahertz (channels 5 and 6), 174 to 216 megahertz (channels 7 through 13), and 470 to 806 megahertz (channels 14 through 69).

Television broadcast station. A station in the television broadcast band transmitting simultaneous visual and aural signals intended to be received by the general public.

Television channel. A band of frequencies 6 MHz wide in the television broadcast band and designated either by number or by the extreme lower and upper frequencies.

Television transmission standards. The standards which determine the characteristics of a television signal as radiated by a television broadcast station.

Television transmitter. The radio transmitter or transmitters for the transmission of both visual and aural signals.

Vestigial sideband transmission. A system of transmission wherein one of the generated sidebands is partially attenuated at the transmitter and radiated only in part.

Visual carrier frequency. The frequency of the carrier which is modulated by the picture information.

Visual transmitter. The radio equipment for the transmission of the visual signal only.

Visual transmitter power. The peak power output when transmitting a standard television signal.

[28 FR 13660, Dec. 14, 1963, as amended at 35 FR 5692, Apr. 8, 1970; 36 FR 5505, Mar. 24, 1971; 36 FR 17429, Aug. 31, 1971; 41 FR 56325, Dec. 28, 1976; 42 FR 20823, Apr. 22, 1977; 44 FR 36039, June 20, 1979; 47 FR 35990, Aug. 18, 1982; 49 FR 18106, Apr. 27, 1984; 49 FR 38131, Sept. 27, 1984; 49 FR 50048, Dec. 26, 1984; 50 FR 23699, June 5, 1985; 51 FR 12616, Apr. 14, 1986; 56 FR 49707, Oct. 1, 1991; 58 FR 44951, Aug. 25, 1993; 62 FR 51059, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51059, Sept. 30, 1997, § 73.681 was amended by adding the definition *Auxiliary facility*, effective Dec. 1, 1997.

§ 73.682 TV transmission standards.

(a) *Transmission standards.* (1) The width of the television broadcast channel shall be 6 MHz.

(2) The visual carrier frequency shall be nominally 1.25 MHz above the lower boundary of the channel.

(3) The aural center frequency shall be 4.5 MHz higher than the visual carrier frequency.

(4) The visual transmission amplitude characteristic shall be in accordance with the chart designated as Figure 5 of § 73.699: *Provided, however,* That for stations operating on Channel 15 through 69 and employing a transmitter with maximum peak visual power output of 1 kW or less the visual transmission amplitude characteristic may be in accordance with the chart designated as Figure 5a of § 73.699.

(5) The chrominance subcarrier frequency is 63/88 times precisely 5 MHz (3.57954545 . . . MHz). The tolerance is ± 10 Hz and the rate of frequency drift must not exceed 0.1 Hz per second (cycles per second squared).

(6) For monochrome and color transmissions the number of scanning lines per frame shall be 525, interlaced two to one in successive fields. The horizontal scanning frequency shall be 2/455 times the chrominance subcarrier frequency; this corresponds nominally to 15,750 Hz with an actual value of 15,734.264 ±0.044 Hz). The vertical scanning frequency is 2/525 times the horizontal scanning frequency; this corresponds nominally to 60 Hz (the actual value is 59.94 Hz). For monochrome transmissions only, the nominal values of line and field frequencies may be used.

(7) The aspect ratio of the transmitted television picture shall be 4 units horizontally to 3 units vertically.

(8) During active scanning intervals, the scene shall be scanned from left to right horizontally and from top to bottom vertically, at uniform velocities.

(9) A carrier shall be modulated within a single television channel for both picture and synchronizing signals. The two signals comprise different modulation ranges in amplitude in accordance with the following:

(i) Monochrome transmissions shall comply with synchronizing waveform specifications in Figure 7 of § 73.699.

(ii) Color transmissions shall comply with the synchronizing waveform specifications in Figure 6 of § 73.699.

(iii) All stations operating on Channels 2 through 14 and those stations operating on Channels 15 through 69 licensed for a peak visual transmitter output power greater than one kW shall comply with the picture transmission amplitude characteristics shown in Figure 5 of § 73.699.

(iv) Stations operating on Channels 15 through 69 licensed for a peak visual transmitter output power of one kW or less shall comply with the picture transmission amplitude characteristic shown in Figure 5 or 5a of § 73.699.

(10) A decrease in initial light intensity shall cause an increase in radiated power (negative transmission).

(11) The reference black level shall be represented by a definite carrier level, independent of light and shade in the picture.

(12) The blanking level shall be transmitted at 75±2.5 percent of the peak carrier level.

(13) The reference white level of the luminance signal shall be 12.5±2.5 percent of the peak carrier level.

(14) It shall be standard to employ horizontal polarization. However, circular or elliptical polarization may be employed if desired, in which case clockwise (right hand) rotation, as defined in the IEEE Standard Definition 42A65–3E2, and transmission of the horizontal and vertical components in time and space quadrature shall be used. For either omnidirectional or directional antennas the licensed effective radiated power of the vertically polarized component may not exceed the licensed effective radiated power of the horizontally polarized component. For directional antennas, the maximum effective radiated power of the vertically polarized component shall not exceed the maximum effective radiated power of the horizontally polarized component in any specified horizontal or vertical direction.

(15) The effective radiated power of the aural transmitter must not exceed 22% of the peak radiated power of the visual transmitter.

(16) The peak-to-peak variation of transmitter output within one frame of

video signal due to all causes, including hum, noise, and low-frequency response, measured at both scanning synchronizing peak and blanking level, shall not exceed 5 percent of the average scanning synchronizing peak signal amplitude. This provision is subject to change but is considered the best practice under the present state of the art. It will not be enforced pending a further determination thereof.

(17) The reference black level shall be separated from the blanking level by the setup interval, which shall be 7.5±2.5 percent of the video range from blanking level to the reference white level.

(18) For monochrome transmission, the transmitter output shall vary in substantially inverse logarithmic relation to the brightness of the subject. No tolerances are set at this time. This provision is subject to change but is considered the best practice under the present state of the art. It will not be enforced pending a further determination thereof.

(19) The color picture signal shall correspond to a luminance component transmitted as amplitude modulation of the picture carrier and a simultaneous pair of chrominance components transmitted as the amplitude modulation sidebands of a pair of suppressed subcarriers in quadrature.

(20) Equation of complete color signal.

(i) The color picture signal has the following composition:

$$E_M = E_Y' + [E_Q' \sin(\omega t + 33°) + E_I' \cos(\omega t + 33°)]$$

Where:

$E_Q' = 0.41(E_B' - E_Y') + 0.48(E_R' - E_Y')$.

$E_I' = -0.27(E_B' - E_Y') + 0.74(E_R' - E_Y')$.

$E_Y' = 0.30E_R' + 0.59E_G' + 0.—1E_B'$.

For color-difference frequencies below 500 kHz (see (iii) below), the signal can be represented by:

$$E_M = E_Y' + [(1/1.14)[(1/1.78)(E_B' - E_Y') \sin \omega t + (E_R' - E_Y') \cos \omega t]]$$

(ii) The symbols in paragraph (a)(20)(i) of this section have the following significance:

E_M is the total video voltage, corresponding to the scanning of a particular picture element, applied to the modulator of the picture transmitter.

E_Y' is the gamma-corrected voltage of the monochrome (black-and-white) portion of the color picture signal, corresponding to the given picture element.

NOTE: Forming of the high frequency portion of the monochrome signal in a different manner is permissible and may in fact be desirable in order to improve the sharpness on saturated colors.

E_Q' and E_I' are the amplitudes of two orthogonal components of the chrominance signal corresponding respectively to narrow-band and wide-band axes.

E_R', E_G', and E_B' are the gamma-corrected voltages corresponding to red, green, and blue signals during the scanning of the given picture element.

ω is the angular frequency and is 2 times the frequency of the chrominance subcarrier.

The portion of each expression between brackets in (i) represents the chrominance subcarrier signal which carries the chrominance information.

The phase reference in the E_M equation in (i) is the phase of the burst+180°, as shown in Figure 8 of § 73.699. The burst corresponds to amplitude modulation of a continuous sine wave.

(iii) The equivalent bandwidth assigned prior to modulation to the color difference signals E_Q' and E_I' are as follows:

Q–channel bandwidth:
At 400 kHz less than 2 dB down.
At 500 kHz less than 6 dB down.
At 600 kHz at least 6 dB down.

I–channel bandwidth:
At 1.3 MHz less than 2 dB down.
At 3.6 MHz at least 20 dB down.

(iv) The gamma corrected voltages E_R', E_G', and E_B' are suitable for a color picture tube having primary colors with the following chromaticities in the CIE system of specification:

	x	*y*
Red (R)	0.67	0.33
Green (G)	0.21	0.71
Blue (B)	0.14	0.08

and having a transfer gradient (gamma exponent) of 2.2 associated with each primary color. The voltages E_R', E_G', and E_B' may be respectively of the form $E_R^{1/\gamma}$, $E_G^{1/\gamma}$, and $E_B^{1/\gamma}$ although other forms may be used with advances in the state of the art.

NOTE: At the present state of the art it is considered inadvisable to set a tolerance on the value of gamma and correspondingly this portion of the specification will not be enforced.

(v) The radiated chrominance subcarrier shall vanish on the reference white of the scene.

NOTE: The numerical values of the signal specification assume that this condition will be reproduced as CIE Illuminant C (x=0.310, y=0.316).

(vi) E_Y', E_Q', E_I', and the components of these signals shall match each other in time to 0.05 μ secs.

(vii) The angles of the subcarrier measured with respect to the burst phase, when reproducing saturated primaries and their complements at 75 percent of full amplitude, shall be within ±10° and their amplitudes shall be within ±20 percent of the values specified above. The ratios of the measured amplitudes of the subcarrier to the luminance signal for the same saturated primaries and their complements shall fall between the limits of 0.8 and 1.2 of the values specified for their ratios. Closer tolerances may prove to be practicable and desirable with advance in the art.

(21) The interval beginning with line 17 and continuing through line 20 of the vertical blanking interval of each field may be used for the transmission of test signals, cue and control signals, and identification signals, subject to the conditions and restrictions set forth below. Test signals may include signals designed to check the performance of the overall transmission system or its individual components. Cue and control signals shall be related to the operation of the TV broadcast station. Identification signals may be transmitted to identify the broadcast material or its source, and the date and time of its origination. Figures 6 and 7 of § 73.699 identify the numbered lines referred to in this paragraph.

(i) Modulation of the television transmitter by such signals shall be confined to the area between the reference white level and the blanking level, except where test signals include chrominance subcarrier frequencies, in which case positive excursions of chrominance components may exceed reference white, and negative excursions may extend into the synchronizing area. In no case may the modulation excursions produced by test signals extend beyond peak-of-sync, or to zero carrier level.

(ii) The use of such signals shall not result in significant degradation of the program transmission of the television broadcast station, nor produce emission outside of the frequency band occupied for normal program transmissions.

(iii) Such signals may not be transmitted during that portion of each line devoted to horizontal blanking.

(iv) Regardless of other provisions of this paragraph, after June 30, 1994, Line 19, in each field, may be used only for the transmission of the ghost-canceling reference signal described in OET Bulletin No. 68, which is available from the Commission's Office of Engineering and Technology, Technical Standards Branch, 2025 M Street NW. Washington, DC 20554. Notwithstanding the modulation limits contained in paragraph (a)(23)(i) of this section, the vertical interval reference signal formerly permitted on Line 19 and described in Figure 16 of § 73.699, may be transmitted on any of lines 10 through 16 without specific Commission authorization, subject to the conditions contained in paragraphs (a)(21)(ii) and (a)(22)(ii) of this section.

(22)(i) Line 21, in each field, may be used for the transmission of a program-related data signal which, when decoded, provides a visual depiction of information simultaneously being presented on the aural channel (captions). Such data signal shall conform to the format described in Figure 16 of § 73.699 and may be transmitted during all periods of regular operation. On a space available basis, line 21 field 2 may also be used for text-mode data and extended data service information.

NOTE: The signals on Fields 1 and 2 shall be distinct data streams, for example, to supply captions in different languages or at different reading levels.

(A) A decoder test signal consisting of data representing a repeated series of alphanumeric characters may be transmitted at times when no program-related data is being transmitted.

(B) The data signal shall be coded using a non-return-to-zero (NRZ) format and shall employ standard ASCII 7 bit plus parity character codes.

NOTE: For more information on data formats and specific data packets, see EIA–608,

''Line 21 Data Services for NTSC,'' available from the Electronics Industries Association.

(ii) At times when Line 21 is not being used to transmit a program related data signal, data signals which are not program related may be transmitted, *Provided:* the same data format is used and the information to be displayed is of a broadcast nature.

(iii) The use of Line 21 for transmission of other data signals conforming to other formats may be used subject to prior authorization by the Commission.

(iv) The data signal shall cause no significant degradation to any portion of the visual signal nor produce emissions outside the authorized television channel.

(v) Transmission of visual emergency messages pursuant to § 73.1250 shall take precedence and shall be cause for interrupting transmission of data signals permitted under this paragraph.

(23) Specific scanning lines in the vertical blanking interval may be used for the purpose of transmitting telecommunications signals in accordance with § 73.646, subject to certain conditions:

(i) Telecommunications may be transmitted on Lines 10–18 and 20, all of Field 2 and Field 1. Modulation level shall not exceed 70 IRE on lines 10, 11, and 12; and, 80 IRE on lines 13–18 and 20.

(ii) No observable degradation may be caused to any portion of the visual or aural signals.

(iii) Telecommunications signals must not produce emissions outside the authorized television channel bandwidth. Digital data pulses must be shaped to limit spectral energy to the nominal video baseband.

(iv) Transmission of emergency visual messages pursuant to § 73.1250 must take precedence over, and shall be cause for interrupting, a service such as teletext that provides a visual depiction of information simultaneously transmitted on the aural channel.

(v) A reference pulse for a decoder associated adaptive equalizer filter designed to improve the decoding of telecommunications signals may be inserted on any portion of the vertical blanking interval authorized for data service, in accordance with the signal levels set forth in paragraph (a)(23)(i) of this section.

(vi) All lines authorized for telecommunications transmissions may be used for other purposes upon prior approval by the Commission.

(24) Licensees and permittees of TV broadcast and low power TV stations may insert non-video data into the active video portion of their TV transmission, subject to certain conditions:

(i) The active video portion of the visual signal begins with line 22 and continues through the end of each field, except it does not include that portion of each line devoted to horizontal blanking. Figures 6 and 7 of § 73.699 identify the numbered line referred to in this paragraph;

(ii) Inserted non-video data may be used for the purpose of transmitting a telecommunications service in accordance with § 73.646. In addition to a telecommunications service, non-video data can be used to enhance the station's broadcast program service or for purposes related to station operations. Signals relating to the operation of TV stations include, but are not limited to program or source identification, relay of broadcast materials to other stations, remote cueing and order messages, and control and telemetry signals for the transmitting system; and

(iii) A station may only use systems for inserting non-video information that have been approved in advance by the Commission. The criteria for advance approval of systems are as follows:

(A) The use of such signals shall not result in significant degradation to any portion of the visual, aural, or program-related data (closed captioning) signals of the television broadcast station;

(B) No increase in width of the television broadcast channel (6 MHz) is permitted. Emissions outside the authorized television channel must not exceed the limitations given in § 73.687(e). Interference to reception of television service either of co-channel or adjacent channel stations must not increase over that resulting from the transmission of programming without inserted data; and

(C) Where required, system receiving or decoding devices must meet the TV

interface device provisions of Part 15, Subpart H of this chapter.

(iv) No protection from interference of any kind will be afforded to reception of inserted non-video data.

(v) Upon request by an authorized representative of the Commission, the licensee of a TV station transmitting encoded programming must make available a receiving decoder to the Commission to carry out its regulatory responsibilities.

(b) *Subscription TV technical systems.* The FCC may specify, as part of the advance approval of the technical system for transmitting encoded subscription programming, deviations from the power determination procedures, operating power levels, aural or video baseband signals, modulation levels or other characteristics of the transmitted signal as otherwise specified in this Subpart. Any decision to approve such operating deviations shall be solely at the discretion of the FCC.

(c) TV multiplex subcarrier/stereophonic aural transmission standards.

(1) The modulating signal for the main channel shall consist of the sum of the stereophonic (biphonic, quadraphonic, etc.) input signals.

(2) The instantaneous frequency of the baseband stereophonic subcarrier must at all times be within the range 15 kHz to 120 kHz. Either amplitude or frequency modulation of the stereophonic subcarrier may be used.

(3) One or more pilot subcarriers between 16 kHz and 120 kHz may be used to switch a TV receiver between the stereophonic and monophonic reception modes or to activate a stereophonic audio indicator light, and one or more subcarriers between 15 kHz and 120 kHz may be used for any other authorized purpose; except that stations employing the BTSC system of stereophonic sound transmission and audio processing may transmit a pilot subcarrier at 15,734 Hz, ± 2 Hz. Other methods of multiplex subcarrier or stereophonic aural transmission systems must limit energy at 15,734 Hz, ± 20 Hz, to no more than ± 0.125 kHz aural carrier deviation.

(4) Aural baseband information above 120 kHz must be attenuated 40 dB referenced to 25 kHz main channel deviation of the aural carrier.

(5) For required transmitter performance, all of the requirements of § 73.687(b) shall apply to the main channel, with the transmitter in the multiplex subcarrier or stereophonic aural mode.

(6) For electrical performance standards of the transmitter, the requirements of § 73.687(b) apply to the main channel.

(7) Multiplex subcarrier or stereophonic aural transmission systems must be capable of producing and must not exceed ± 25 kHz main channel deviation of the aural carrier.

(8) The arithmetic sum of non-multiphonic baseband signals between 15 kHz and 120 kHz must not exceed ±50 kHz deviation of the aural carrier.

(9) Total modulation of the aural carrier must not exced ± 75 kHz.standard; and adopting a standard for allocation and assignment purposes only. In addition, the Commission sought comment on requiring use of some layers of the ATSC DTV Standard but making others optional.)(1). The SBA defines affiliation in 13 C.F.R. 121.103. In this context, the SBA's definition of affiliate is analogous to our attribution rules. Generally, under the SBA's definition, concerns are affiliates of each other when one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both. 13 C.F.R. 121.103(a)(1). The SBA considers factors such as ownership, management, previous relationships with or ties to another concern, and contractual relationships, in determining whether affiliation exists. 13 C.F.R. 121.103(a)(2). Instead of making an independent determination of whether television stations were affiliated based on SBA's definitions, we relied on the data bases available to us to provide us with that information.

(d) *Digital broadcast television transmission standard.* Transmission of digital broadcast television (DTV) signals shall comply with the standards for such transmissions set forth in Advanced Television Systems Committee (ATSC) Doc. A/52 (''ATSC Standard Digital Audio Compression (AC–3), 20 Dec 95'') and ATSC Doc A/53 (''ATSC Digital Television Standard, 16 Sep

95''), except for Section 5.1.2 (''Compression format constraints'') of Annex A (''Video Systems Characteristics'') and the phrase ''see Table 3'' in Section 5.1.1 Table 2 and Section 5.1.2 Table 4. Although not incorporated herein by reference, licensees may also consult ATSC Doc. A/54 (''Guide to the Use of the ATSC Digital Television Standard, 4 Oct 95'') for guidance. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be inspected at the Federal Communications Commission, 1919 M Street, NW., Washington, DC 20554 or at the Office of the Federal Register, 800 N. Capitol Street, NW., Washington, DC. Copies of ATSC A/52, A/53, and A/54 can be obtained from the Commission's contract copier or from the Advanced Television Systems Committee, 1750 K Street, NW., suite 800, Washington, DC 20006. They are also available in their entirety on the Internet at http://www.atsc.org.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[28 FR 13660, Dec. 14, 1963]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting §73.682, see the List of CFR Sections Affected appearing in the Finding Aids section of this volume.

§ 73.683 Field strength contours.

(a) In the authorization of TV stations, two field strength contours are considered. These are specified as Grade A and Grade B and indicate the approximate extent of coverage over average terrain in the absence of interference from other television stations. Under actual conditions, the true coverage may vary greatly from these estimates because the terrain over any specific path is expected to be different from the average terrain on which the field strength charts were based. The required field strength, *F* (50,50), in dB above one micro-volt per meter (dBu) for the Grade A and Grade B contours are as follows:

	Grade A (dBu)	Grade B (dBu)
Channels 2–6	68	47
Channels 7–13	71	56
Channels 14–69	74	64

(b) It should be realized that the F (50,50) curves when used for Channels 14–69 are not based on measured data at distances beyond about 48.3 kilometers (30 miles). Theory would indicate that the field strengths for Channels 14–69 should decrease more rapidly with distance beyond the horizon than for Channels 2–6, and modification of the curves for Channels 14–69 may be expected as a result of measurements to be made at a later date. For these reasons, the curves should be used with appreciation of their limitations in estimating levels of field strength. Further, the actual extent of service will usually be less than indicated by these estimates due to interference from other stations. Because of these factors, the predicted field strength contours give no assurance of service to any specific percentage of receiver locations within the distances indicated. In licensing proceedings these variations will not be considered.

(c) The field strength contours will be considered for the following purposes only:

(1) In the estimation of coverage resulting from the selection of a particular transmitter site by an applicant for a TV station.

(2) In connection with problems of coverage arising out of application of §73.3555.

(3) In determining compliance with §73.685(a) concerning the minimum field strength to be provided over the principal community to be served.

[44 FR 36039, June 20, 1979, as amended at 47 FR 35990, Aug. 18, 1982; 50 FR 23699, June 5, 1985; 50 FR 32416, Aug. 12, 1985]

§ 73.684 Prediction of coverage.

(a) All predictions of coverage made pursuant to this section shall be made without regard to interference and shall be made only on the basis of estimated field strengths. The peak power of the visual signal is used in making predictions of coverage.

(b) Predictions of coverage shall be made only for the same purposes as relate to the use of field strength contours as specified in §73.683(c).

(c) In predicting the distance to the field strength contours, the F (50,50) field strength charts (Figures 9 and 10 of §73.699) shall be used. If the 50% field

strength is defined as that value exceeded for 50% of the time, these F (50,50) charts give the estimated 50% field strengths exceeded at 50% of the locations in dB above 1 uV/m. The charts are based on an effective power of 1 kW radiated form a half-wave dipole in free space, which produces an unattenuated field strength at 1.61 kilometers (1 mile) of about 103 dB above 1 uV/m. To use the charts to predict the distance to a given contour, the following procedure is used: Convert the effective radiated power in kilowatts for the appropriate azimuth into decibel value referenced to 1 kW (dBu). If necessary, convert the selected contour to the decibel value (dBu) above 1 microvolt per meter (1 uV/m). Subtract the power value in dBk from the contour value in dBu. Note that for power less than 1 kW, the difference value will be greater than the contour value because the power in dBk is negative. Locate the difference value obtained on the vertical scale at the left edge of the chart. Follow the horizontal line for that value into the chart to the point of intersection with the vertical line above the height of the antenna above average terrain for the appropriate azimuth located on the scale at the bottom of the chart. If the point of intersection does not fall exactly on a distance curve, interpolate between the distance curves below and above the intersection point. The distance values for the curves are located along the right edge of the chart.

(1) In predicting the distance to the Grade A and Grade B field strength contours, the effective radiated power to be used is that radiated at the vertical angle corresponding to the depression angle between the transmitting antenna center of radiation and the radio horizon as determined individually for each azimuthal direction concerned. The depression angle is based on the difference in elevation of the antenna center of radiation above the average terrain and the radio horizon, assuming a smooth sperical earth with a radius of 8,495.5 kilometers (5,280 miles) and shall be determined by the following equation:

$$A = 0.0277\sqrt{H}$$

Where:

A is the depression angle in degrees.

H is the height in meters of the transmitting antenna radiation center above average terrain of the 3.2—16.1 kilometers (2–10 miles) sector of the pertinent radial.

This formula is empirically derived for the limited purpose specified here. Its use for any other purpose may be inappropriate.

(2) In case where the relative field strength at the depression angle determined by the above formula is 90% or more of the maximum field strength developed in the vertical plane containing the pertaining radial, the maximum radiation shall be used.

(3) In predicting field strengths for other than the Grade A and Grade B contours, the effective radiated power to be used is to be based on the appropriate antenna vertical plane radiation pattern for the azimuthal direction concerned.

(4) Applicants for new TV stations or changes in the facilities of existing TV stations must submit to the FCC a showing as to the location of their stations' or proposed stations' predicted Grade A and Grade B contours, determined in accordance with § 73.684. This showing is to include maps showing these contours, except where applicants have previously submitted material to the FCC containing such information and it is found upon careful examination that the contour locations indicated therein would not change, on any radial, when the locations are determined under this Section. In the latter cases, a statement by a qualified engineer to this effect will satisfy this requirement and no contour maps need be submitted.

(d) The antenna height to be used with these charts is the height of the radiation center of the antenna above the average terrain along the radial in question. In determining the average elevation of the terrain, the elevations between 3.2–16.1 kilometers (2–10 miles) from the antenna site are employed. Profile graphs shall be drawn for 8 radials beginning at the antenna site and extending 16.1 kilometers (10 miles) therefrom. The radials should be drawn for each 45 degrees of azimuth starting with the True North. At least one radial must include the principal community to be served even though such community may be more than 16.1 kilometers (10 miles) from the antenna

site. However, in the event none of the evenly spaced radials include the principal community to be served and one or more such radials are drawn in addition to the 8 evenly spaced radials, such additional radials shall not be employed in computing the antenna height above average terrain. Where the 3.2–16.1 kilometers (2–10 mile) portion of a radial extends in whole or in part over large bodies of water as specified in paragraph (e) of this section or extends over foreign territory but the Grade B strength contour encompasses land area within the United States beyond the 16.1 kilometers (10 mile) portion of the radial, the entire 3.2–16.1 kilometers (2–10 mile) portion of the radial shall be included in the computation of antenna height above average terrian. However, where the Grade B contour does not so encompass United States land area and (1) the entire 3.2–16.1 kilometers (2–10 mile) portion of the radial extends over large bodies of water of foreign territory, such radial shall be completely omitted from the computation of antenna height above average terrain, and (2) where a part of the 3.2–16.1 kilometers (2–10 mile) portion of a radial extends over large bodies of water or over foreign territory, only that part of the radial extending from the 3.2 kilometer (2 mile) sector to the outermost portion of land area within the United States covered by the radial shall be employed in the computation of antenna height above average terrian. The profile graph for each radial should be plotted by contour intervals of from 12.2–30.5 meters (40–100 feet) and, where the data permits, at least 50 points of elevation (generally uniformly spaced) should be used for each radial. In instances of very rugged terrain where the use of contour intervals of 30.5 meters (100 feet) would result in several points in a short distance, 61.0–122.0 meter (200–400 foot) contour intervals may be used for such distances. On the other hand, where the terrain is uniform or gently sloping the smallest contour interval indicated on the topograhic may (see paragraph (g) of this section) should be used, although only relatively few points may be available. The profile graphs should indicate the topography accurately for each radial, and the graphs should be plotted with the distance in kilometers as the abscissa and the elevation in meters above mean sea level as the ordinate. The profile graphs should indicate the source of the topographical data employed. The graph should also show the elevation of the center of the radiating system. The graph may be plotted either on rectangular coordinate paper or on special paper which shows the curvature of the earth. It is not necessary to take the curvature of the earth into consideration in this procedure, as this factor is taken care of in the charts showing signal strengths. The average elevation of the 12.9 kilometer (8 miles) distance between 3.2–16.1 kilometers (2–10 miles) from the antenna site should then be determined from the profile graph for each radial. This may be obtained by averaging a large number of equally spaced points, by using a planimeter, or by obtaining the median elevation (that exceeded for 50% of the distance) in sectors and averaging those values.

NOTE: The Commission will, upon a proper showing by an existing station that the application of this rule will result in an unreasonable power reduction in relation to other stations in close proximity, consider requests for adjustment in power on the basis of a common average terrain figure for the stations in question as determined by the FCC.

(e) In instance where it is desired to determine the area in square kilometers within the Grade A and Grade B field strength contours, the area may be determined from the coverage map by planimeter or other approximate means; in computing such areas, exclued (1) areas beyond the borders of the United States, and (2) large bodies of water, such as ocean areas, gulfs sounds, bays, large lakes, etc., but not rivers.

(f) In cases where terrain in one or more directions from the antenna site departs widely from the average elevation of the 3.2 to 16.1 kilometers (2 to 10 mile) sector, the prediction method may indicate contour distances that are different from what may be expected in practice. For example, a

mountain ridge may indicate the practical limit of service although the prediction method may indicate otherwise. In such case the prediction method should be followed, but a supplemental showing may be made concerning the contour distances as determined by other means. Such supplemental showing should describe the procedure employed and should include sample calculations. Maps of predicted coverage should include both the coverage as predicted by the regular method and as predicted by a supplemental method. When measurements of area are required, these should include the area obtained by the regular predicted method and the area obtained by the supplemental method. In directions where the terrain is such that negative antenna heights or heights below 30.5 meters (100 feet) for the 3.2 to 16.1 kilometers (2 to 10 mile) sector are obtained, an assumed height of 30.5 meters (100 feet) shall be used for the prediction of coverage. However, where the actual contour distances are critical factors, a supplemental showing of expected coverage must be included together with a description of the method employed in predicting such coverage. In special cases, the Commission may require additional information as to terrain and coverage.

(g) In the preparation of the profile graph previously described, and in determining the location and height above sea level of the antenna site, the elevation or contour intervals shall be taken from the United States Geological Survey Topographic Quadrangle Maps, United States Army Corps of Engineers' maps or Tennessee Valley Authority maps, whichever is the latest, for all areas for which such maps are available. If such maps are not published for the area in question, the next best topographic information should be used. Topographic data may sometimes be obtained from State and Municipal agencies. Data from Sectional Aeronautical Charts (including bench marks) or railroad depot elevations and highway elevations from road maps may be used where no better information is available. In cases where limited topographic data is available, use may be made of an altimeter in a car driven along roads extending generally radially from the transmitter site. Ordinarily the Commission will not require the submission of topographical maps for areas beyond 24.1 kilometers (15 miles) from the antenna site, but the maps must include the principal community to be served. If it appears necessary, additional data may be requested. United States Geological Survey Topographic Quadrangle Maps may be obtained from the United States Geological Survey, Department of the Interior, Washington, DC 20240. Sectional Aeronautical Charts are available from the United States Coast and Geodetic Survey, Department of Commerce, Washington, DC 20235. In lieu of maps, the average terrain elevation may be computer generated, except in the cases of dispute, using elevations from a 30 second point or better topographic data file. The file must be identified and the data processed for intermediate points along each radial using linear interpolation techniques. The height above mean sea level of the antenna site must be obtained manually using appropriate topographic maps.

(h) The effect of terrain roughness on the predicted field strength of a signal at points distant from a television broadcast station is assumed to depend on the magnitude of a terrain roughness factor (Δ h) which, for a specific propagation path, is determined by the characteristics of a segment of the terrain profile for that path 40.2 kilometers (25 miles) in length, located between 9.7 and 49.9 kilometers (6 and 31 miles) from the transmitter. The terrain roughness factor has a value equal to the difference, in meters, between elevations exceeded by all points on the profile for 10 percent and 90 percent, respectively, of the length of the profile segment (see § 73.699, Fig. 10d).

(i) If the lowest field strength value of interest is initially predicted to occur over a particular propagation path at a distance which is less than 49.9 kilometers (31 miles) from the transmitter, the terrain profile segment used in the determination of the terrain roughness factor over that path shall be that included between points 9.7 kilometers (6 miles) from the transmitter and such lesser distance. No terrain roughness correction need be applied when all field strength values of

interest are predicted to occur 9.7 kilometers (6 miles) or less from the transmitter.

(j) Profile segments prepared for terrain roughness factor determinations should be plotted in rectangular coordinates, with no less than 50 points evenly spaced within the segment, using data obtained from topographic maps, if available, with contour intervals of 15.2 meters (50 feet), or less.

(k) The field strength charts (§ 73.699, Figs. 9–10c) were developed assuming a terrain roughness factor of 50 meters, which is considered to be representative of average terrain in the United States. Where the roughness factor for a particular propagation path is found to depart appreciably from this value, a terrain roughness correction (ΔF) should be applied to field strength values along this path as predicted with the use of these charts. The magnitude and sign of this correction, for any value of Δh, may be determined from a chart included in § 73.699 as Figure 10e, with linear interpolation as necessary, for the frequency of the UHF signal under consideration.

(l) Alternatively, the terrain roughness correction may be computed using the following formula:

$$\Delta F = C - 0.03(\Delta h)(1 + f/300)$$

Where:

ΔF=terrain roughness correction in dB
C=a constant having a specific value for use with each set of field strength charts:
1.9 for TV Channels 2–6
2.5 for TV Channels 7–13
4.8 for TV Channels 14–69
Δh=terrain roughness factor in meters
f=frequency of signal in megahertz (MHz)

[28 FR 13660, Dec. 13, 1963, as amended at 40 FR 27683, July 1, 1975; 44 FR 36039, June 20, 1979; 48 FR 44807, Sept. 30, 1983; 50 FR 23699, June 5, 1985; 51 FR 26251, July 22, 1986; 52 FR 36879, Oct. 1, 1987]

EFFECTIVE DATE NOTE: At 42 FR 25736, May 19, 1977, in § 73.684, (k) and (l) are stayed indefinitely.

§ 73.685 Transmitter location and antenna system.

(a) The transmitter location shall be chosen so that, on the basis of the effective radiated power and antenna height above average terrain employed, the following minimum field strength in dB above one uV/m will be provided over the entire principal community to be served:

Channels 2–6	Channels 7–13	Channels 14–69
74 dBu	77 dBu	80 dBu

(b) Location of the antenna at a point of high elevation is necessary to reduce to a minimum the shadow effect on propagation due to hills and buildings which may reduce materially the strength of the station's signals. In general, the transmitting antenna of a station should be located at the most central point at the highest elevation available. To provide the best degree of service to an area, it is usually preferable to use a high antenna rather than a low antenna with increased transmitter power. The location should be so chosen that line-of-sight can be obtained from the antenna over the principal community to be served; in no event should there be a major obstruction in this path. The antenna must be constructed so that it is as clear as possible of surrounding buildings or objects that would cause shadow problems. It is recognized that topography, shape of the desired service area, and population distribution may make the choice of a transmitter location difficult. In such cases, consideration may be given to the use of a directional antenna system, although it is generally preferable to choose a site where a nondirectional antenna may be employed.

(c) In cases of questionable antenna locations it is desirable to conduct propagation tests to indicate the field strength expected in the principal community to be served and in other areas, particularly where severe shadow problems may be expected. In considering applications proposing the use of such locations, the Commission may require site tests to be made. Such tests should be made in accordance with the measurement procedure in § 73.686, and full data thereon must be supplied to the Commission. Test transmitters should employ an antenna having a height as close as possible to the proposed antenna height, using a balloon or other support if necessary and feasible. Information concerning the authorization of site tests may be obtained from the Commission upon request.

(d) Present information is not sufficiently complete to establish ''blanket areas'' of television broadcast stations. A ''blanket area'' is that area adjacent to a transmitter in which the reception of other stations is subject to interference due to the strong signal from this station. The authorization of station construction in areas where blanketing is found to be excessive will be on the basis that the applicant will assume full responsibility for the adjustment of reasonable complaints arising from excessively strong signals of the applicant's station or take other corrective action.

(e) An antenna designed or altered to produce a noncircular radiation pattern in the horizontal plane is considered to be a directional antenna. Antennas purposely installed in such a manner as to result in the mechanical beam tilting of the major vertical radiation lobe are included in this category. Directional antennas may be employed for the purpose of improving service upon an appropriate showing of need. Stations operating on Channels 2–13 will not be permitted to employ a directional antenna having a ratio of maximum to minimum radiation in the horizontal plane in excess of 10 dB. Stations operating on Channels 14–69 with transmitters delivering a peak visual power output of more than 1 kW may employ directive transmitting antennas with a maximum to minimum radiation in the horizontal plane of not more than 15 dB. Stations operating on Channels 14–69 and employing transmitters delivering a peak visual power output of 1 kW or less are not limited as to the ratio of maximum to minimum radiation.

(f) Applications proposing the use of directional antenna systems must be accompanied by the following:

(1) Complete description of the proposed antenna system, including the manufacturer and model number of the proposed directional antenna.

(2) Relative field horizontal plane pattern (horizontal polarization only) of the proposed directional antenna. A value of 1.0 should be used for the maximum radiation. The plot of the pattern should be oriented so that 0° corresponds to true North. Where mechanical beam tilt is intended, the amount of tilt in degrees of the antenna vertical axis and the orientation of the downward tilt with respect to true North must be specified, and the horizontal plane pattern must reflect the use of mechanical beam tilt.

(3) A tabulation of the relative field pattern required in paragraph (b)(2), of this section. The tabulation should use the same zero degree reference as the plotted pattern, and be tabulated at least every 10°. In addition, tabulated values of all maxima and minima, with their corresponding azimuths, should be submitted.

(4) Horizontal and vertical plane radiation patterns showing the effective radiated power, in dBk, for each direction. Sufficient vertical plane patterns must be included to indicate clearly the radiation characteristics of the antenna above and below the horizontal plane. In cases where the angles at which the maximum vertical radiation varies with azimuth, a separate vertical radiation pattern must be provided for each pertinent radial direction.

(5) All horizontal plane patterns must be plotted to the largest scale possible on unglazed letter-size polar coordinate paper (main engraving approximately 18 cm x 25 cm (7 inches x 10 inches)) using only scale divisions and subdivisions of 1, 2, 2.5 or 5 times 10-nth. All vertical plane patterns must be plotted on unglazed letter-size rectangular coordinate paper. Values of field strength on any pattern less than 10% of the maximum field strength plotted on that pattern must be shown on an enlarged scale.

(6) The horizontal and vertical plane patterns that are required are the patterns for the complete directional antenna system. In the case of a composite antenna composed of two or more individual antennas, this means that the patterns for the composite antenna, not the patterns for each of the individual antennas, must be submitted.

(g) Applications proposing the use of television broadcast antennas within 61.0 meters (200 feet) of other television broadcast antennas operating on a channel within 20 percent in frequency of the proposed channel, or proposing

the use of television broadcast antennas on Channels 5 or 6 within 61.0 meters (200 feet) of FM broadcast antennas, must include a showing as to the expected effect, if any, of such proximate operation.

(h) Where a TV licensee or permittee proposes to mount an antenna on an AM antenna tower, or locate within 3.2 km of an AM antenna tower, the TV licensee or permittee must comply with §73.1692.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[28 FR 13660, Dec. 14, 1963, as amended at 35 FR 5693, Apr. 8, 1970; 40 FR 25461, June 16, 1975; 43 FR 53740, Nov. 17, 1978; 44 FR 22740, Apr. 17, 1979; 45 FR 26065, Apr. 17, 1980; 47 FR 35990, Aug. 18, 1982; 48 FR 21486, May 12, 1983; 50 FR 23701, June 5, 1985; 58 FR 44951, Aug. 25, 1993; 62 FR 51059, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51059, Sept. 30, 1997, §73.685 was amended by revising paragraph (h), effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§73.685 Transmitter location and antenna system.

* * * * *

(h) Where simultaneous use of antennas or antenna structures is proposed, the following provisions shall apply:

(1) In cases where it is proposed to use a tower of an AM broadcast station as a supporting structure for a television broadcast antenna, an appropriate application for changes in the radiating system of the AM broadcast station must be filed by the licensee thereof. A formal application (FCC Form 301, or FCC Form 340 for a noncommercial educational station) will be required if the proposal involves substantial change in the physical height or radiation characteristics of the AM broadcast antennas; otherwise an informal application will be acceptable. (In case of doubt, an informal application (letter) together with complete engineering data should be submitted.) An application may be required for other classes of stations when the tower is to be used in connection with a television station.

(2) When the proposed TV antenna is to be mounted on a tower in the vicinity of an AM station directional antenna system and it appears that the operation of the directional antenna system may be affected, an engineering study must be filed with the TV application concerning the effect of the TV antenna on the AM directional radiation pattern. Field measurements of the AM stations may be required prior to and following construction of the TV station antenna, and readjustments made as necessary.

§73.686 Field strength measurements.

(a) Except as provided for in §73.612, television broadcast stations shall not be protected from any type of interference or propagation effect. Persons desiring to submit testimony, evidence or data to the Commission for the purpose of showing that the technical standards contained in this subpart do not properly reflect the levels of any given type of interference or propagation effect may do so only in appropriate rulemaking proceedings concerning the amendment of such technical standards. Persons making field strength measurements for formal submission to the Commission in rulemaking proceedings, or making such measurements upon the request of the Commission, shall follow the procedure for making and reporting such measurements outlined in paragraph (b) of this section. In instances where a showing of the measured level of a signal prevailing over a specific community is appropriate, the procedure for making and reporting field strength measurements for this purpose is set forth in paragraph (c) of this section.

(b) Collection of field strength data for propagation analysis.

(1) *Preparation for measurements.* (i) On large scale topographic maps, eight or more radials are drawn from the transmitter location to the maximum distance at which measurements are to be made, with the angles included between adjacent radials of approximately equal size. Radials should be oriented so as to traverse representative types of terrain. The specific number of radials and their orientation should be such as to accomplish this objective.

(ii) At a point exactly 16.1 kilometers (10 miles) from the transmitter, each radial is marked, and at greater distances at successive 3.2 kilometer (2 mile) intervals. Where measurements are to be conducted at UHF, or over extremely rugged terrain, shorter intervals may be employed, but all such intervals shall be of equal length. Accessible roads intersecting each radial as nearly as possible at each 3.2 kilometer (2 mile) marker are selected. These

intersections are the points on the radial at which measurements are to be made, and are referred to subsequently as measuring locations. The elevation of each measuring location should approach the elevation at the corresponding 3.2 kilometer (2 mile) marker as nearly as possible.

(2) *Measurement procedure.* The field strength of the visual carrier shall be measured with a voltmeter capable of indicating accurately the peak amplitude of the synchronizing signal. All measurements shall be made utilizing a receiving antenna designed for reception of the horizontally polarized signal component, elevated 9.1 meters (30 feet) above the roadbed. At each measuring location, the following procedure shall be employed.

(i) The instrument calibration is checked.

(ii) The antenna is elevated to a height of 30 feet.

(iii) The receiving antenna is rotated to determine if the strongest signal is arriving from the direction of the transmitter.

(iv) The antenna is oriented so that the sector of its response pattern over which maximum gain is realized is in the direction of the transmitter.

(v) A mobile run of at least 30.5 meters (100 feet) is made, which is centered on the intersection of the radial and the road, and the measured field strength is continuously recorded on a chart recorder over the length of the run.

(vi) The actual measuring location is marked exactly on the topographic map, and a written record, keyed to the specific location, is made of all factors which may affect the recorded field, such as topography, height and types of vegetation, buildings, obstacles, weather, and other local features.

(vii) If, during the test conducted as described in paragraph (b)(2)(iii) of this section, the strongest signal is found to come from a direction other than from the transmitter, after the mobile run prescribed in paragraph (b)(2)(v) of this section is concluded, additional measurements shall be made in a ''cluster'' of at least five fixed points. At each such point, the field strengths with the antenna oriented toward the transmitter, and with the antenna oriented so as to receive the strongest field, are measured and recorded. Generally, all points should be within 61.0 meters (200 feet) of the center point of the mobile run.

(viii) If overhead obstacles preclude a mobile run of at leat 30.5 meters (100 feet), a ''cluster'' of five spot measurements may be made in lieu of this run. The first measurement in the cluster is identified. Generally, the locations for other measurements shall be within 61.0 meters (200 feet) of the location of the first.

(3) *Method of reporting measurements.* A report of measurements to the Commission shall be submitted in affidavit form, in triplicate, and should contain the following information:

(i) Tables of field strength measurements, which, for each measuring location, set forth the following data:

(A) Distance from the transmitting antenna.

(B) Ground elevation at measuring location.

(C) Date, time of day, and weather.

(D) Median field in dBu for 0 dBk, for mobile run or for cluster, as well as maximum and minimum measured field strengths.

(E) Notes describing each measuring location.

(ii) U.S. Geological Survey topographic maps, on which is shown the exact location at which each measurement was made. The original plots shall be made on maps of the largest available scale. Copies may be reduced in size for convenient submission to the Commission, but not to the extent that important detail is lost. The original maps shall be made available, if requested. If a large number of maps is involved, an index map should be submitted.

(iii) All information necessary to determine the pertinent characteristics of the transmitting installation, including frequency, geographical coordinates of antenna site, rated and actual power output of transmitter, measured transmission line loss, antenna power gain, height of antenna above ground, above mean sea level, and above average terrain. The effective radiated power should be computed, and horizontal and vertical plane patterns of

the transmitting antenna should be submitted.

(iv) A list of calibrated equipment used in the field strength survey, which, for each instrument, specifies its manufacturer, type, serial number and rated accuracy, and the date of its most recent calibration by the manufacturer, or by a laboratory. Complete details of any instrument not of standard manufacture shall be submitted.

(v) A detailed description of the calibration of the measuring equipment, including field strength meters, measuring antenna, and connecting cable.

(vi) Terrain profiles in each direction in which measurements were made, drawn on curved earth paper for equivalent 4/3 earth radius, of the largest available scale.

(c) Collection of field strength data to determine television service in specific communities.

(1) *Preparation for measurement.* (i) The population (P) of the community, and its suburbs, if any, is determined by reference to an appropriate source, e.g., the 1970 U.S. Census tables of population of cities and urbanized areas.

(ii) The number of locations at which measurements are to be made shall be at least 15, and shall be approximately equal to 0.1 (P) ½, if this product is a number greater than 15.

(iii) A rectangular grid, of such size and shape as to encompass the boundaries of the community is drawn on an accurate map of the community. The number of line intersections on the grid included within the boundaries of the community shall be at least equal to the required number of measuring locations. The position of each intersection on the community map determines the location at which a measurement shall be made.

(2) *Measurement procedure.* The field strength of the visual carrier shall be measured, with a voltmeter capable of indicating accurately the peak amplitude of the synchronizing signal. All measurements shall be made utilizing a receiving antenna designed for reception of the horizontally polarized signal component, elevated 9.1 meter (30 feet) above street level.

(i) Each measuring location shall be chosen as close as feasible to a point indicated on the map, as previously prepared, and at as nearly the same elevation as that point as possible.

(ii) At each measuring location, after equipment calibration and elevation of the antenna, a check is made to determine whether the strongest signal arrives from a direction other than from the transmitter.

(iii) At 20 percent or more of the measuring locations, mobile runs, as described in paragraph (b)(2) of this section shall be made, with no less than three such mobile runs in any case. The points at which mobile measurements are made shall be well separated. Spot measurements may be made at other measuring points.

(iv) Each actual measuring location is marked exactly on the map of the community, and suitably keyed. A written record shall be maintained, describing, for each location, factors which may affect the recorded field, such as the approximate time of measurement, weather, topography, overhead wiring, heights and types of vegetation, buildings and other structures. The orientation, with respect to the measuring location shall be indicated of objects of such shape and size as to be capable of causing shadows or reflections. If the strongest signal received was found to arrive from a direction other than that of the transmitter, this fact shall be recorded.

(3) *Method of reporting measurements.* A report of measurements to the Commission shall be submitted in affidavit form, in triplicate, and should contain the following information:

(i) A map of the community showing each actual measuring location, specifically identifying the points at which mobile runs were made.

(ii) A table keyed to the above map, showing the field strength at each measuring point, reduced to dBu for the actual effective radiated power of the station. Weather, date, and time of each measurement shall be indicated.

(iii) Notes describing each measuring location.

(iv) A topographic map of the largest available scale on which are marked the community and the transmitter site of the station whose signals have been measured, which includes all areas on or near the direct path of signal propagation.

(v) Computations of the mean and standard deviation of all measured field strengths, or a graph on which the distribution of measured field strength values is plotted.

(vi) A list of calibrated equipment used for the measurements, which for each instrument, specifies its manufacturer, type, serial number and rated accuracy, and the date of its most recent calibration by the manufacturer, or by a laboratory. Complete details of any instrument not of standard manufacture shall be submitted.

(vii) A detailed description of the procedure employed in the calibration of the measuring equipment, including field strength meters measuring antenna, and connecting cable.

[40 FR 27683, July 1, 1975, as amended at 50 FR 23701, June 5, 1985]

§ 73.687 Transmission system requirements.

(a) *Visual transmitter.* (1) The field strength or voltage of the lower sideband, as radiated or dissipated and measured as described in paragraph (a)(2) of this section, shall not be greater than −20 dB for a modulating frequency of 1.25 MHz or greater and in addition, for color, shall not be greater than −42 dB for a modulating frequency of 3.579545 MHz (the color subcarrier frequency). For both monochrome and color, the field strength or voltage of the upper sideband as radiated or dissipated and measured as described in paragraph (a)(2) of this section shall not be greater than −20 dB for a modulating frequency of 4.75 MHz or greater. For stations operating on Channels 15–69 and employing a transmitter delivering maximum peak visual power output of 1 kW or less, the field strength or voltage of the upper and lower sidebands, as radiated or dissipated and measured as described in paragraph (a)(2) of this section, shall depart from the visual amplitude characteristic (Figure 5a of § 73.699) by no more than the following amounts:

−2 dB at 0.5 MHz below visual carrier frequency;
−2 dB at 0.5 MHz above visual carrier frequency;
−2 dB at 1.25 MHz above visual carrier frequency;
−3 dB at 2.0 MHz above visual carrier frequency;
−6 dB at 3.0 MHz above visual carrier frequency;
−12 dB at 3.5 MHz above visual carrier frequency;
−8 dB at 3.58 MHz above visual carrier frequency (for color transmission only).

The field strength or voltage of the upper and lower sidebands, as radiated or dissipated and measured as described in paragraph (a)(2) of this section, shall not exceed a level of −20 dB for a modulating frequency of 4.75 MHz or greater. If interference to the reception of other stations is caused by out-of-channel lower sideband emission, the technical requirements applicable to stations operating on Channels 2–13 shall be met.

(2) The attenuation characteristics of a visual transmitter shall be measured by application of a modulating signal to the transmitter input terminals in place of the normal composite television video signal. The signal applied shall be a composite signal composed of a synchronizing signal to establish peak output voltage plus a variable frequency sine wave voltage occupying the interval between synchronizing pulses. (The ''synchronizing signal'' referred to in this section means either a standard synchronizing wave form or any pulse that will properly set the peak.) The axis of the sine wave in the composite signal observed in the output monitor shall be maintained at an amplitude 0.5 of the voltage at synchronizing peaks. The amplitude of the sine wave input shall be held at a constant value. This constant value should be such that at no modulating frequency does the maximum excursion of the sine wave, observed in the composite output signal monitor, exceed the value 0.75 of peak output voltage. The amplitude of the 200 kHz sideband shall be measured and designated zero dB as a basis for comparison. The modulation signal frequency shall then be varied over the desired range and the field strength or signal voltage of the corresponding sidebands measured. As an alternate method of measuring, in those cases in which the automatic d-c insertion can be replaced by manual control, the above characteristic may be taken by the use of a video sweep

generator and without the use of pedestal synchronizing pulses. The d-c level shall be set for midcharacteristic operation.

(3) A sine wave, introduced at those terminals of the transmitter which are normally fed the composite color picture signal, shall produce a radiated signal having an envelope delay, relative to the average envelope delay between 0.05 and 0.20 MHz, of zero microseconds up to a frequency of 3.0 MHz; and then linearly decreasing to 4.18 MHz so as to be equal to −0.17 μ secs at 3.58 MHz. The tolerance on the envelope delay shall be ±0.05 μ secs at 3.58 MHz. The tolerance shall increase linearly to ±0.1 μ sec down to 2.1 MHz, and remain at ±0.1 μ sec down to 0.2 MHz. (Tolerances for the interval of 0.0 to 0.2 MHz are not specified at the present time.) The tolerance shall also increase linearly to ±0.1 μ sec at 4.18 MHz.

(4) The radio frequency signal, as radiated, shall have an envelope as would be produced by a modulating signal in conformity with § 73.682 and Figure 6 or 7 of § 73.699, as modified by vestigial sideband operation specified in Figure 5 of § 73.699. For stations operating on Channels 15–69 the radio frequency signal as radiated, shall have an envelope as would be produced by a modulating signal in conformity with § 73.682 and Figure 6 or 7 of § 73.699.

(5) The time interval between the leading edges of successive horizontal pulses shall vary less than one half of one percent of the average interval. However, for color transmissions, § 73.682(a) (5) and (6) shall be controlling.

(6) The rate of change of the frequency of recurrence of the leading edges of the horizontal synchronizing signals shall be not greater than 0.15 percent per second, the frequency to be determined by an averaging process carried out over a period of not less than 20, nor more than 100 lines, such lines not to include any portion of the blanking interval. However, for color transmissions, § 73.682(a) (5) and (6) shall be controlling.

(b) *Aural transmitter.* (1) Pre-emphasis shall be employed as closely as practicable in accordance with the impedance-frequency characteristic of a series inductance-resistance network having a time constant of 75 microseconds. (See upper curve of Figure 12 § 73.699.)

(2) If a limiting or compression amplifier is employed, precaution should be maintained in its connection in the circuit due to the use of pre-emphasis in the transmitting system.

(3) Aural modulation levels are specified in § 73.1570.

(c) *Requirements applicable to both visual and aural transmitters.* (1) Automatic means shall be provided in the visual transmitter to maintain the carrier frequency within ±1 kHz of the authorized frequency; automatic means shall be provided in the aural transmitter to maintain the carrier frequency 4.5 MHz above the actual visual carrier frequency within ±1 kHz.

(2) The transmitters shall be equipped with suitable indicating instruments for the determination of operating power and with other instruments necessary for proper adjustment, operation, and maintenance of the equipment.

(3) Adequate provision shall be made for varying the output power of the transmitters to compensate for excessive variations in line voltage or for other factors affecting the output power.

(4) Adequate provisions shall be provided in all component parts to avoid overheating at the rated maximum output powers.

(d) The construction, installation, and operation of broadcast equipment is expected to conform with all applicable local, state, and federally imposed safety regulations and standards, enforcement of which is the responsibility of the issuing regulatory agency.

(e) *Operation.* (1) Spurious emissions, including radio frequency harmonics, shall be maintained at as low a level as the state of the art permits. As measured at the output terminals of the transmitter (including harmonic filters, if required) all emissions removed in frequency in excess of 3 MHz above or below the respective channel edge shall be attenuated no less than 60 dB. below the visual transmitted power. (The 60 dB. value for television transmitters specified in this rule should be considered as a temporary requirement which may be increased at a later date,

especially when more higher-powered equipment is utilized. Stations should, therefore, give consideration to the installation of equipment with greater attenuation than 60 dB.) In the event of interference caused to any service greater attenuation will be required.

(2) If a limiting or compression amplifier is used in conjunction with the aural transmitter, due operating precautions should be maintained because of pre-emphasis in the transmitting system.

(3) TV broadcast stations operating on Channel 14 and Channel 69 must take special precautions to avoid interference to adjacent spectrum land mobile radio service facilities. Where a TV station is authorized and operating prior to the authorization and operation of the land mobile facility, a Channel 14 station must attenuate its emissions within the frequency range 467 to 470 MHz and a Channel 69 station must attentuate its emissions within the frequency range 806 to 809 MHz if necessary to permit reasonable use of the adjacent frequencies by land mobile licensees.

(4) The requirements listed below apply to permittees authorized to construct a new station on TV Channel 14 or TV Channel 69, and to licensees authorized to change the channel of an existing station to Channel 14 or to Channel 69, to increase effective radiated power (ERP) (including any change in directional antenna characteristics that results in an increase in ERP in any direction), or to change the transmitting location of an existing station.

(i) For the purposes of this paragraph, a protected land mobile facility is a receiver that is intended to receive transmissions from licensed land mobile stations within the frequency band below 470 MHz (as relates to Channel 14) or above 806 MHz (as relates to Channel 69), and is associated with one or more land mobile stations for which a license has been issued by the Commission, or a proper application has been received by the Commission prior to the date of the filing of the TV construction permit application. However, a land mobile facility will not be protected if it is proposed in an application that is denied or dismissed and that action is no longer subject to Commission review. Further, if the land mobile station is not operating when the TV facility commences operation and it does not commence operation within the time permitted by its authorization in accordance with part 90 of this chapter, it will not be protected.

(ii) A TV permittee must take steps before construction to identify potential interference to normal land mobile operation that could be caused by TV emissions outside the authorized channel, land mobile receiver desensitization or intermodulation. It must install filters and take other precautions as necessary, and submit evidence that no interference is being caused before it will be permitted to transmit programming on the new facilities pursuant to the provisions of § 73.1615 or § 73.1620 of this part. A TV permittee must reduce its emissions within the land mobile channel of a protected land mobile facility that is receiving interference caused by the TV emission producing a vertically polarized signal and a field strength in excess of 17 dBu at the land mobile receiver site on the land mobile frequency. The TV emission should be measured with equipment set to a 30 kHz measurement bandwidth including the entire applicable land mobile channel. A TV permittee must correct a desensitization problem if its occurrence can be directly linked to the start of the TV operation and the land mobile station is using facilities with typical desensitization rejection characteristics. A TV permittee must identify the source of an intermodulation product that is generated when the TV operation commences. If the intermodulation source is under its control, the TV permittee must correct the problem. If the intermodulation source is beyond the TV permittee's control, it must cooperate in the resolution of the problem and should provide whatever technical assistance it can.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[28 FR 13660, Dec. 14, 1963]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 73.687, see the List of CFR Sections Affected in the Finding Aids section of this volume.

§ 73.688 Indicating instruments.

(a) Each TV broadcast station shall be equipped with indicating instruments which conform with the specifications described in § 73.1215 for measuring the operating parameters of the last radio stage of the visual transmitter, and with such other instruments as are necessary for the proper adjustment, operation, and maintenance of the visual transmitting system.

(b) The function of each instrument shall be clearly and permanently shown on the instrument itself or on the panel immediately adjacent thereto.

(c) In the event that any one of these indicating instruments becomes defective, when no substitute which conforms with the required specifications is available, the station may be operated without the defective instrument pending its repair or replacement for a period not in excess of 60 days without further authority of the FCC, provided that:

(1) If the defective instrument is the transmission line meter used for determining the output power by the direct method, the operating power shall be determined or maintained by the indirect method whenever possible or by using the operating parameters of the last radio stage of the transmitter during the time the station is operated without the transmission line meter.

(2) If conditions beyond the control of the licensee prevent the restoration of the meter to service within the above allowed period, informal request in accordance with § 73.3549 may be filed with the Engineer in Charge of the radio district in which the station is located for such additional time as may be required to complete repairs of the defective instrument.

[41 FR 36818, Sept. 1, 1976, as amended at 48 FR 38480, Aug. 24, 1983; 49 FR 50048, Dec. 26, 1984; 50 FR 26568, June 27, 1985]

§ 73.691 Visual modulation monitoring.

(a) Each TV station must have measuring equipment for determining that the transmitted visual signal conforms to the provisions of this subpart. The licensee shall decide the monitoring and measurement methods or procedures for indicating and controlling the visual signal.

(b) In the event technical problems make it impossible to operate in accordance with the timing and carrier level tolerance requirements of § 73.682 (a)(9)(i), (a)(9)(ii), (a)(12), (a)(13), and (a)(17), a TV broadcast station may operate at variance for a period of not more than 30 days without specific authority from the FCC: *provided that,* the date and time of the initial out-of-tolerance condition has been entered in the station log. If the operation at variance will exceed 10 consecutive days, a notification must be sent to the FCC in Washington, D.C., not later than the 10th day of such operation. In the event normal operation is resumed prior to the end of the 30 day period, the licensee must notify the FCC upon restoration of normal operation. If causes beyond the control of the licensee prevent restoration of normal operation within 30 days, a written request must be made to the FCC in Washington, D.C., no later than the 30th day for such additional time as may be necessary.

[60 FR 55480, Nov. 1, 1995]

§ 73.698 Tables.

TABLE I—[RESERVED]

TABLE II

(1)—Channel	(2)—31.4 kilometers (19.5 miles) If beat	(3)—31.4 kilometers (19.5 miles) intermodulation	(4)—87.7 kilometers (54.5 miles) adjacent channel	(5)—95.7 kilometers (59.5 miles) oscillator	(6)—95.7 kilometers (59.5 miles) sound image	(7)—119.9 kilometers (74.5 miles) picture image
14	22	16–19	15	21	28	29
15	23	17–20	14, 16	22	29	30
16	24	14, 18–21	15, 17	23	30	31
17	25	14–15, 19–22	16, 18	24	31	32
18	26	14–16, 20–23	17, 19	25	32	33

TABLE II—Continued

(1)—Channel	(2)—31.4 kilometers (19.5 miles) If beat	(3)—31.4 kilometers (19.5 miles) intermodulation	(4)—87.7 kilometers (54.5 miles) adjacent channel	(5)—95.7 kilometers (59.5 miles) oscillator	(6)—95.7 kilometers (59.5 miles) sound image	(7)—119.9 kilometers (74.5 miles) picture image
19	27	14–17, 21–24	18, 20	26	33	34
20	28	15–18, 22–25	19, 21	27	34	35
21	29	16–19, 23–26	20, 22	28, 14	35	36
22	30, 14	17–20, 24–27	21, 23	29, 15	36	37
23	31, 15	18–21, 25–28	22, 24	30, 16	37	38
24	32, 16	19–22, 26–29	23, 25	31, 17	38	39
25	33, 17	20–23, 27–30	24, 26	32, 18	39	40
26	34, 18	21–24, 28–31	25, 27	33, 19	40	41
27	35, 19	22–25, 29–32	26, 28	34, 20	41	42
28	36, 20	23–26, 30–33	27, 29	35, 21	42, 14	43
29	37, 21	24–27, 31–34	28, 30	36, 22	43, 15	44, 14
30	38, 22	25–28, 32–35	29, 31	37, 23	44, 16	45, 15
31	39, 23	26–29, 33–36	30, 32	38, 24	45, 17	46, 16
32	40, 24	27–30, 34–37	31, 33	39, 25	46, 18	47, 17
33	41, 25	28–31, 35–38	32, 34	40, 26	47, 19	48, 18
34	42, 26	29–32, 36–39	33, 35	41, 27	48, 20	49, 19
35	43, 27	30–33, 37–40	34, 36	42, 28	49, 21	50, 20
36	44, 28	31–34, 38–41	35, 37	43, 29	50, 22	51, 21
37	45, 29	32–35, 39–42	36, 38	44, 30	51, 23	52, 22
38	46, 30	33–36, 40–43	37, 39	45, 31	52, 24	53, 23
39	47, 31	34–37, 41–44	38, 40	46, 32	53, 25	54, 24
40	48, 32	35–38, 42–45	39, 41	47, 33	54, 26	55, 25
41	49, 33	36–39, 43–46	40, 42	48, 34	55, 27	56, 26
42	50, 34	37–40, 44–47	41, 43	49, 35	56, 28	57, 27
43	51, 35	38–41, 45–48	42, 44	50, 36	57, 29	58, 28
44	52, 36	39–42, 46–49	43, 45	51, 37	58, 30	59, 29
45	53, 37	40–43, 47–50	44, 46	52, 38	59, 31	60, 30
46	54, 38	41–44, 48–51	45, 47	53, 39	60, 32	61, 31
47	55, 39	42–45, 49–52	46, 48	54, 40	61, 33	62, 32
48	56, 40	43–46, 50–53	47, 49	55, 41	62, 34	63, 33
49	57, 41	44–47, 51–54	48, 50	56, 42	63, 35	64, 34
50	58, 42	45–48, 52–55	49, 51	57, 43	64, 36	65, 35
51	59, 43	46–49, 53–56	50, 52	58, 44	65, 37	66, 36
52	60, 44	47–50, 54–57	51, 53	59, 45	66, 38	67, 37
53	61, 45	48–51, 55–58	52, 54	60, 46	67, 39	68, 38
54	62, 46	49–52, 56–59	53, 55	61, 47	68, 40	69, 39
55	63, 47	50–53, 57–60	54, 56	62, 48	69, 41	70, 40
56	64, 48	51–54, 58–61	55, 57	63, 49	70, 42	71, 41
57	65, 49	52–55, 59–62	56, 58	64, 50	71, 43	72, 42
58	66, 50	53–56, 60–63	57, 59	65, 51	72, 44	73, 43
59	67, 51	54–57, 61–64	58, 60	66, 52	73, 45	74, 44
60	68, 52	55–58, 62–65	59, 61	67, 53	74, 46	75, 45
61	69, 53	56–59, 63–66	60, 62	68, 54	75, 47	76, 46
62	70, 54	57–60, 64–67	61, 63	69, 55	76, 48	77, 47
63	71, 55	58–61, 65–68	62, 64	70, 56	77, 49	78, 48
64	72, 56	59–62, 66–69	63, 65	71, 57	78, 50	79, 49
65	73, 57	60–63, 67–70	64, 66	72, 58	79, 51	80, 50
66	74, 58	61–64, 68–71	65, 67	73, 59	80, 52	81, 51
67	75, 59	62–65, 69–72	66, 68	74, 60	81, 53	82, 52
68	76, 60	63–66, 70–73	67, 69	75, 61	82, 54	83, 53
69	77, 61	64–67, 71–74	68, 70	76, 62	83, 55	54

NOTE: The parenthetical reference beneath the mileage figures in columns 2 through 7, inclusive, indicate, in abbreviated form, the bases for the required mileage separations. For a discussion of these bases, see the ''Sixth Report and Order'' of the Commission (FCC 52–294; 17 FR 3905, May 2, 1952). The hyphenated numbers listed in column (3) are both inclusive.

[28 FR 13660, Dec. 14, 1963, as amended at 39 FR 20377, June 10, 1974; 47 FR 35990, Aug. 18, 1982; 50 FR 23701, June 5, 1985; 54 FR 9807, Mar. 8, 1989]

§ 73.699 TV engineering charts.

This section consists of the following Figures 1–5, 5a, 6–10, 10a–10e, 11–12, 13–16.

NOTE: The charts as reproduced herein, due to their small scale, are not to be used in connection with material submitted to the F.C.C.

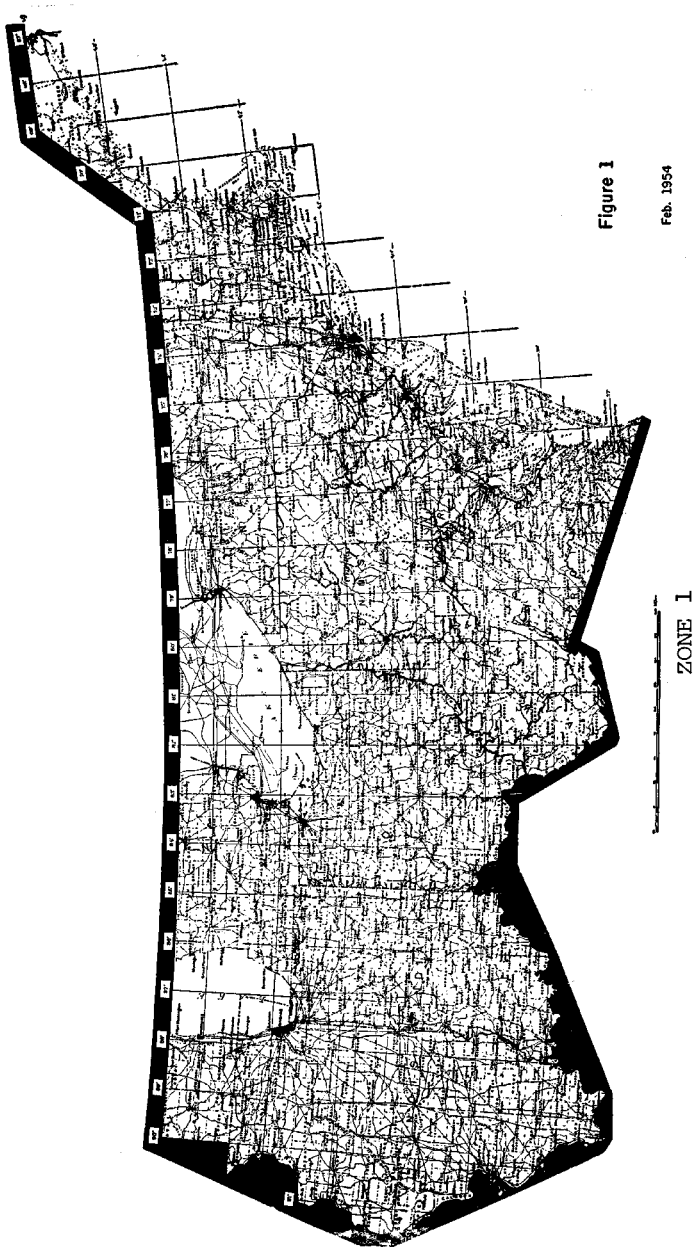
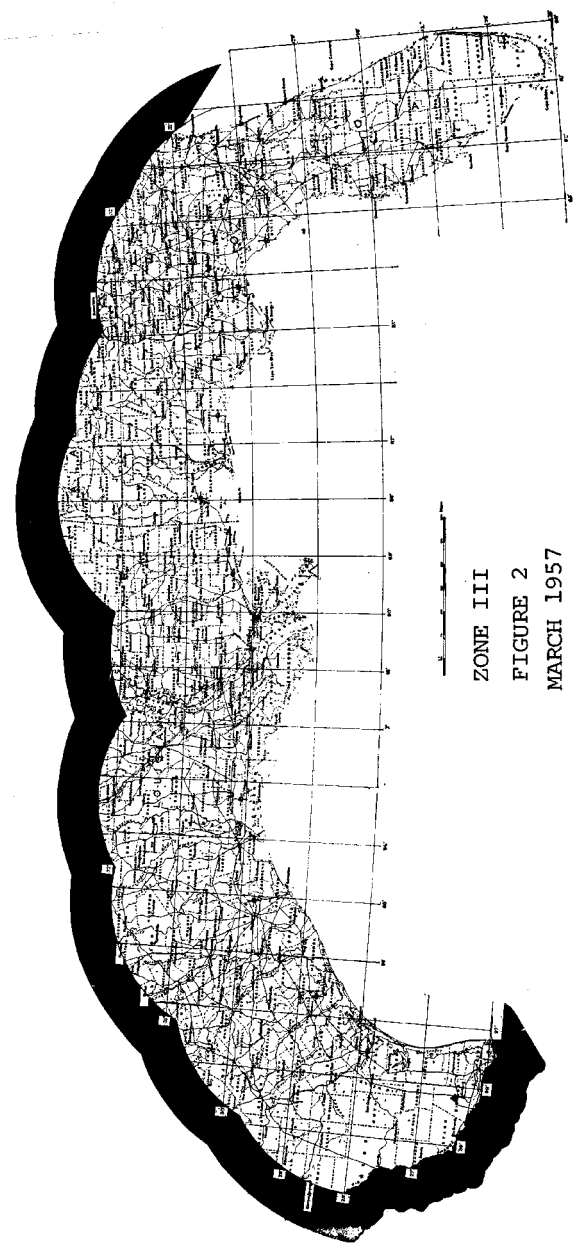
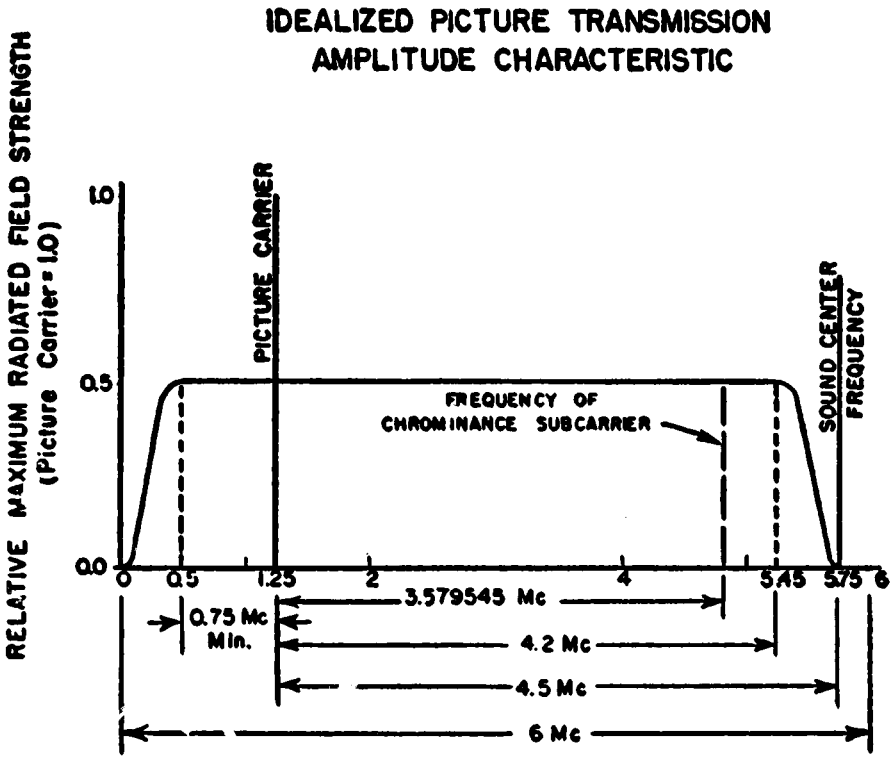


Figure 1

Feb. 1954


ZONE III
FIGURE 2
MARCH 1957



Note: Not drawn to scale

FIGURE 5

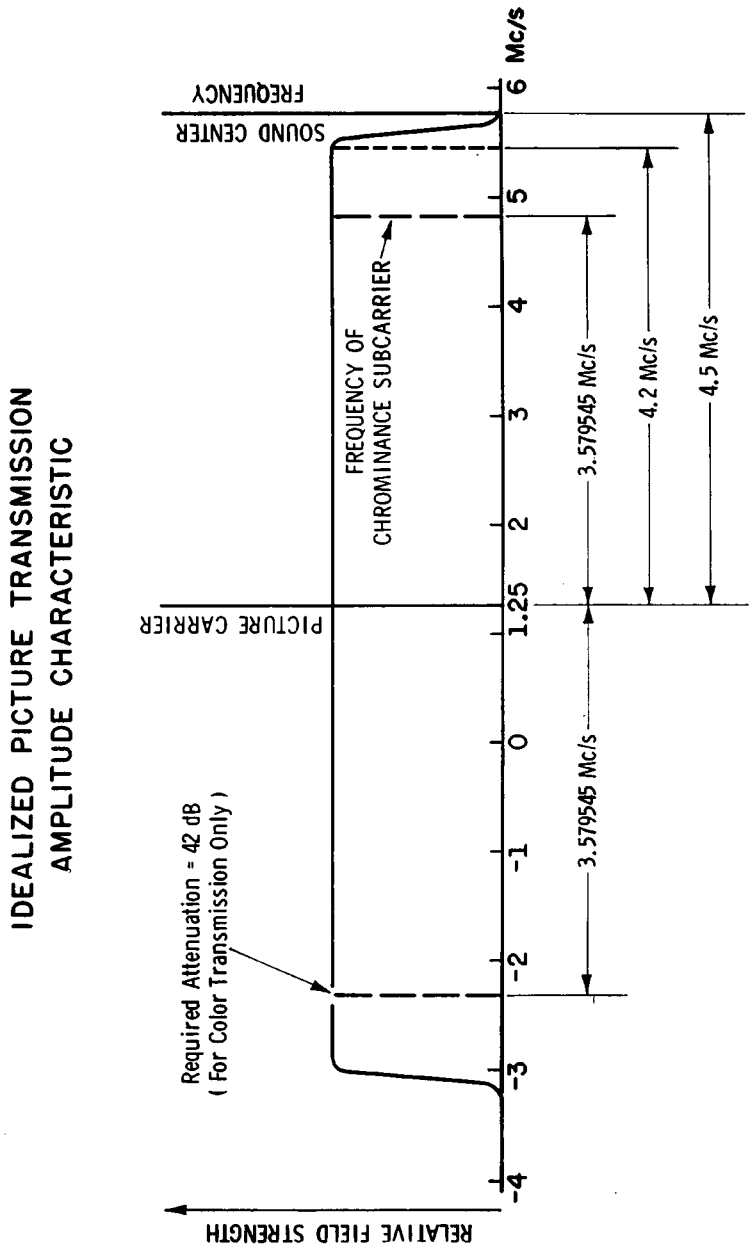
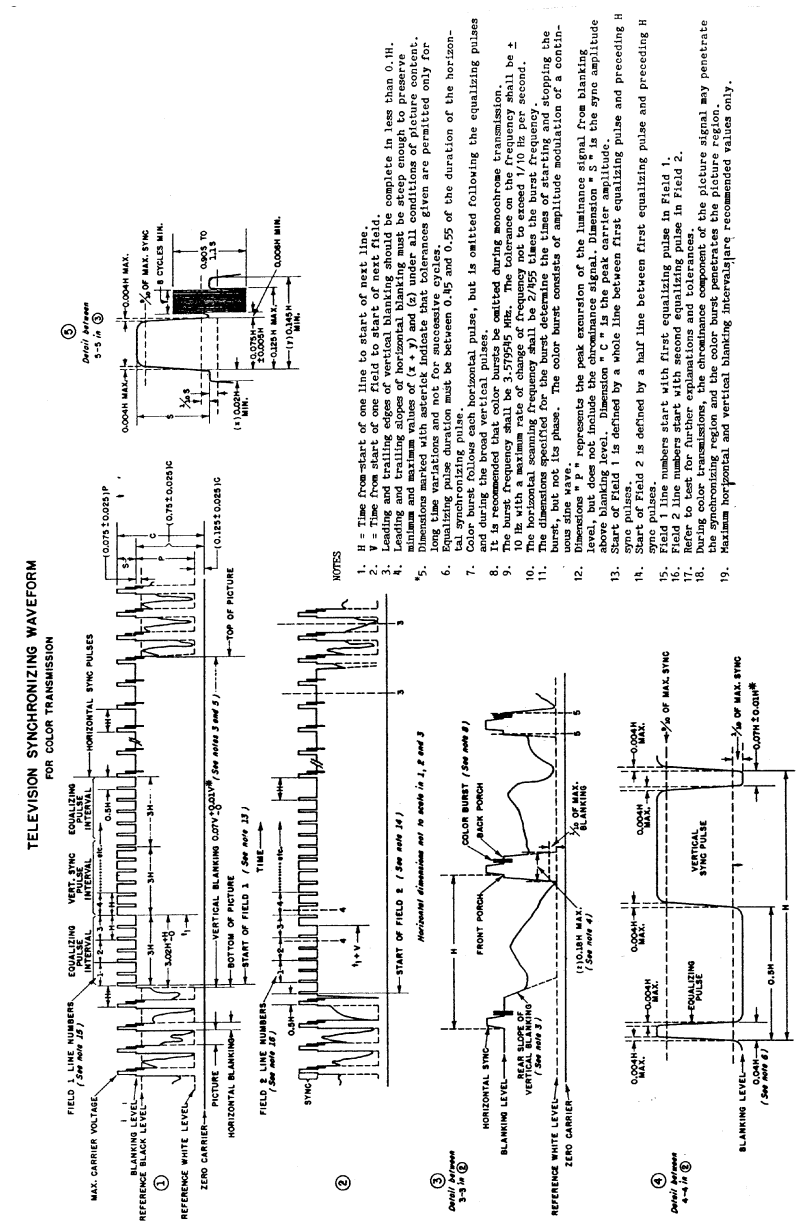

IDEALIZED PICTURE TRANSMISSION
AMPLITUDE CHARACTERISTIC
Required Attenuation = 42 dB
(For Color Transmission Only)
PICTURE CARRIER
FREQUENCY OF
CHROMINANCE SUBCARRIER
SOUND CENTER
FREQUENCY
3.579545 Mc/s
3.579545 Mc/s
4.2 Mc/s
4.5 Mc/s
-4
-3
-2
-1
0
1.25
2
3
4
5
6 Mc/s
RELATIVE FIELD STRENGTH

FIGURE 5(a)



FCC § 73.699, FIGURE 6

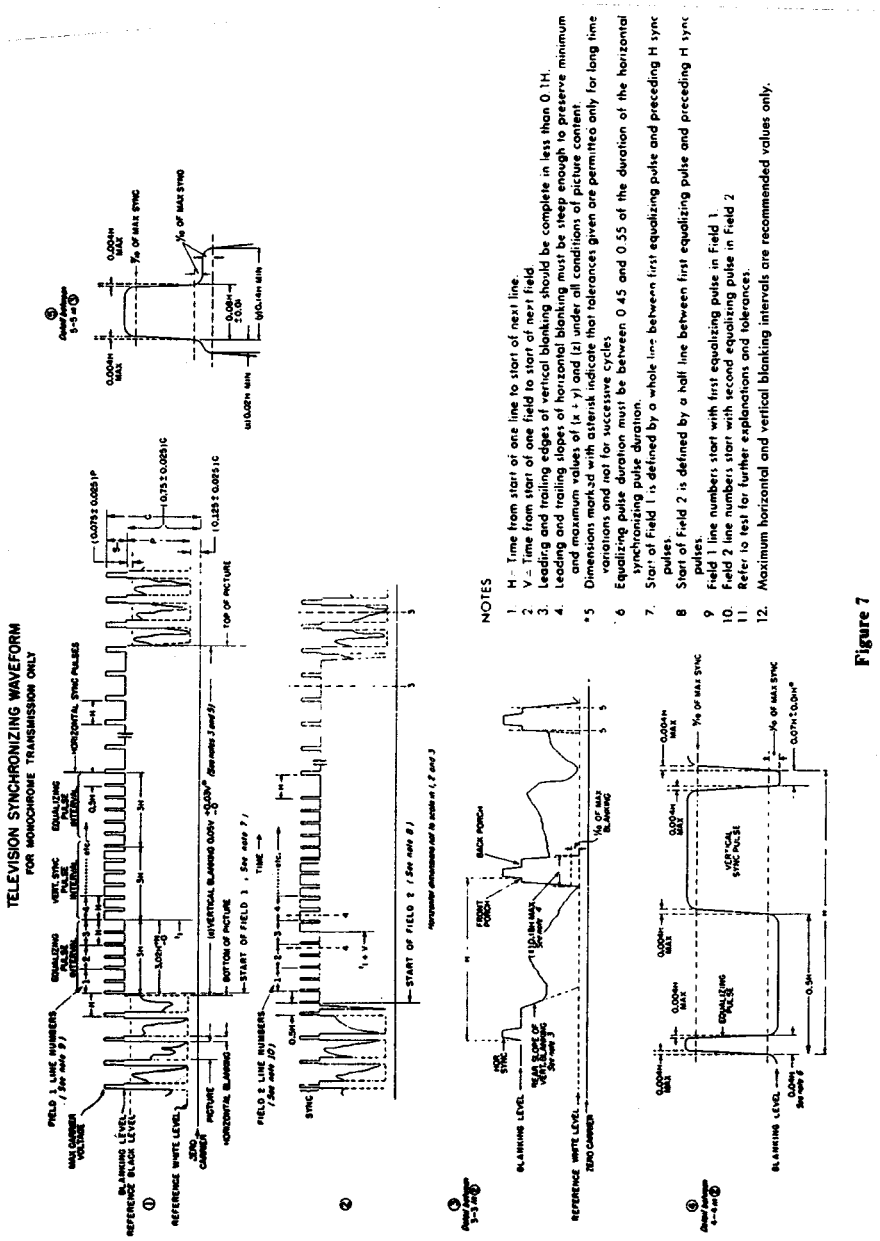

TELEVISION SYNCHRONIZING WAVEFORM
FOR MONOCHROME TRANSMISSION ONLY
NOTES
1. H = Time from start of one line to start of next line.
2. V = Time from start of one field to start of next field
3. Leading and trailing edges of vertical blanking should be complete in less than 0.1H.
4. Leading and trailing slopes of horizontal blanking must be steep enough to preserve minimum and maximum values of (x + y) and (z) under all conditions of picture content.
*5. Dimensions marked with asterisk indicate that tolerances given are permitted only for long time variations and not for successive cycles
6. Equalizing pulse duration must be between 0.45 and 0.55 of the duration of the horizontal synchronizing pulse duration.
7. Start of Field 1 is defined by a whole line between first equalizing pulse and preceding H sync pulses.
8. Start of Field 2 is defined by a half line between first equalizing pulse and preceding H sync pulses.
9. Field 1 line numbers start with first equalizing pulse in Field 1.
10. Field 2 line numbers start with second equalizing pulse in Field 2
11. Refer to test for further explanations and tolerances.
12. Maximum horizontal and vertical blanking intervals are recommended values only.

Figure 7

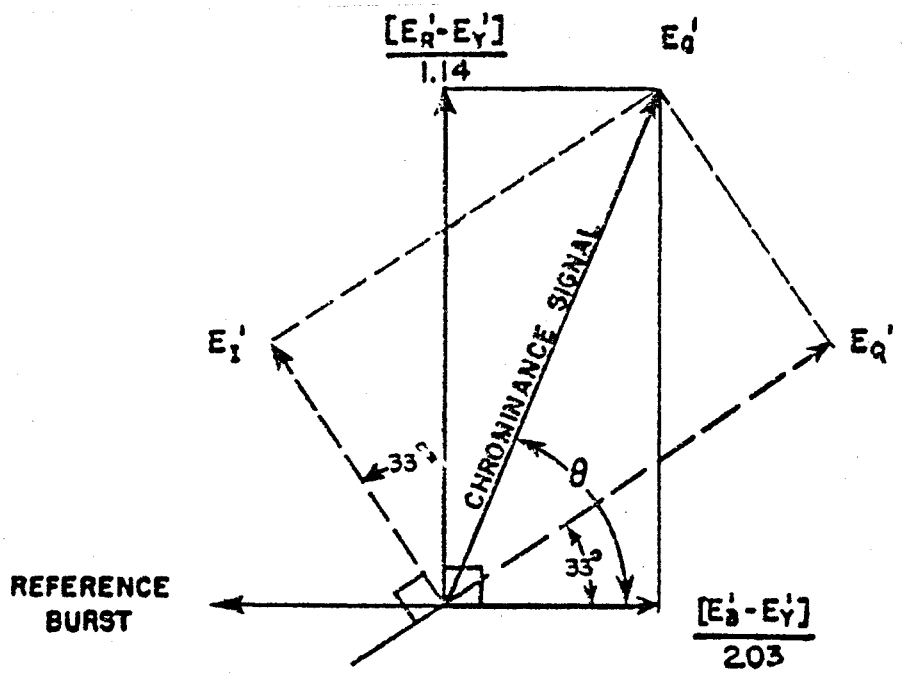
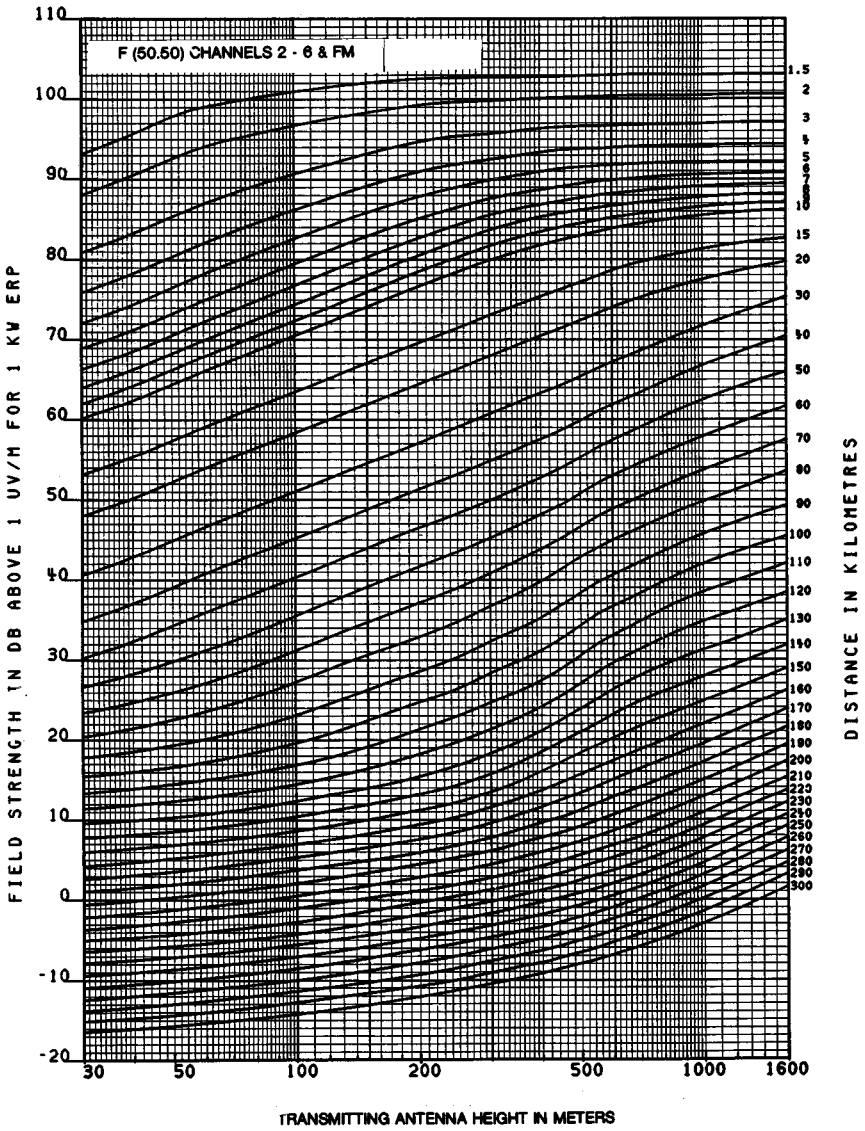
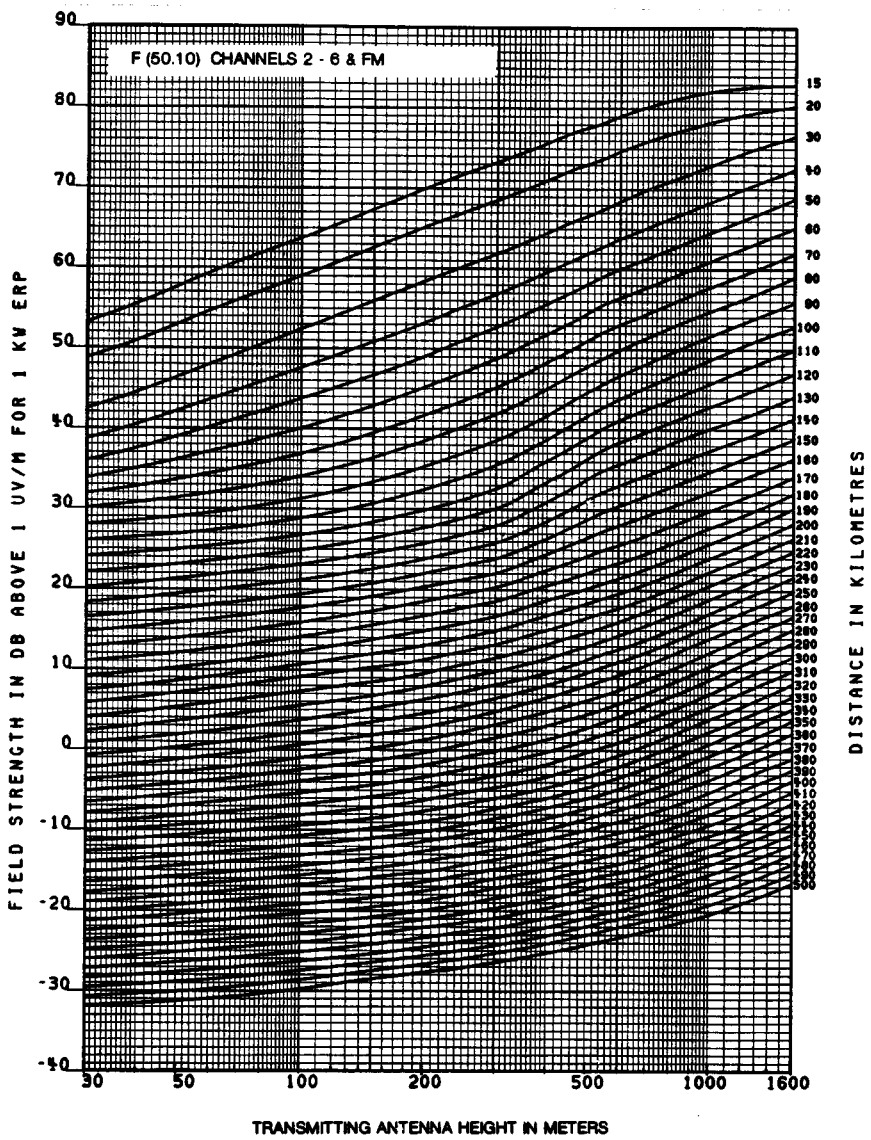

[E'R-E'Y]
1.14
E'Q
E'I
E'Q
CHROMINANCE SIGNAL
33°
θ
33°
REFERENCE
BURST
[E'B-E'Y]
2.03

FIGURE 8



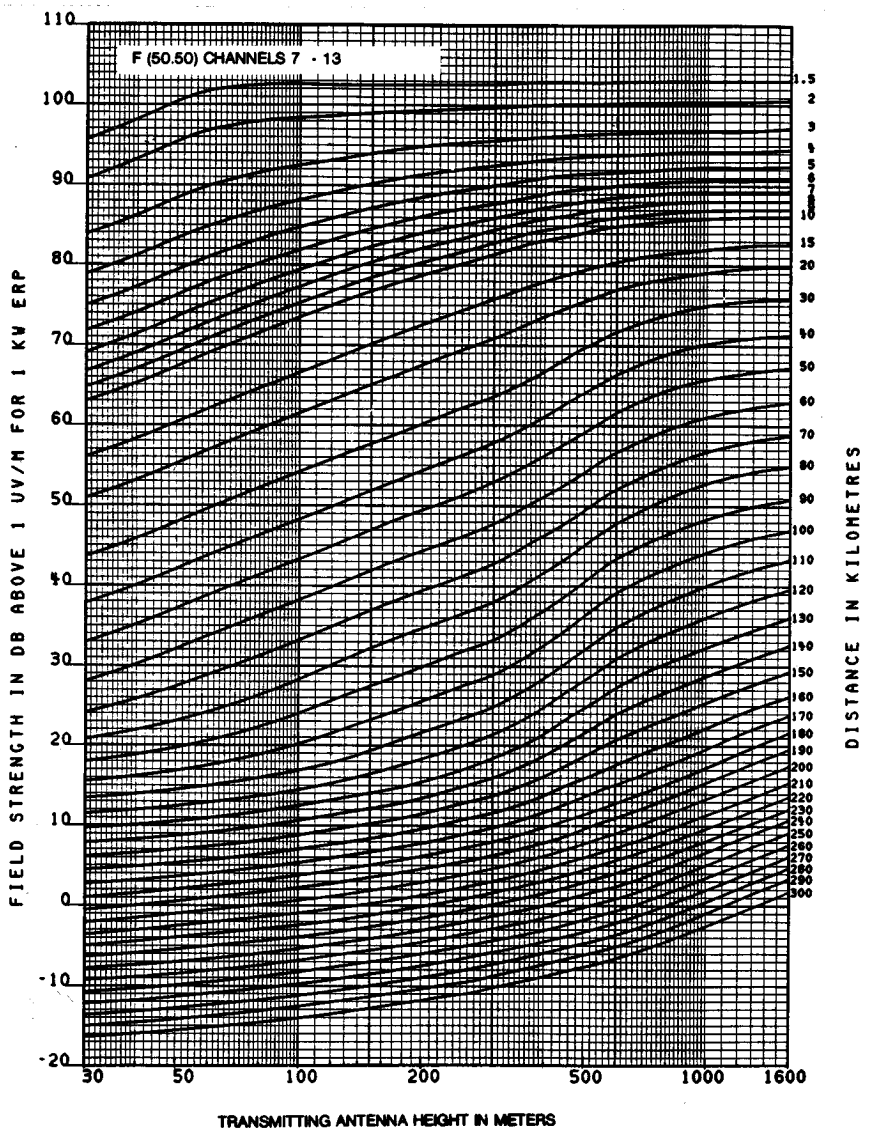
FCC 73.699 Figure 9

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 50 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS



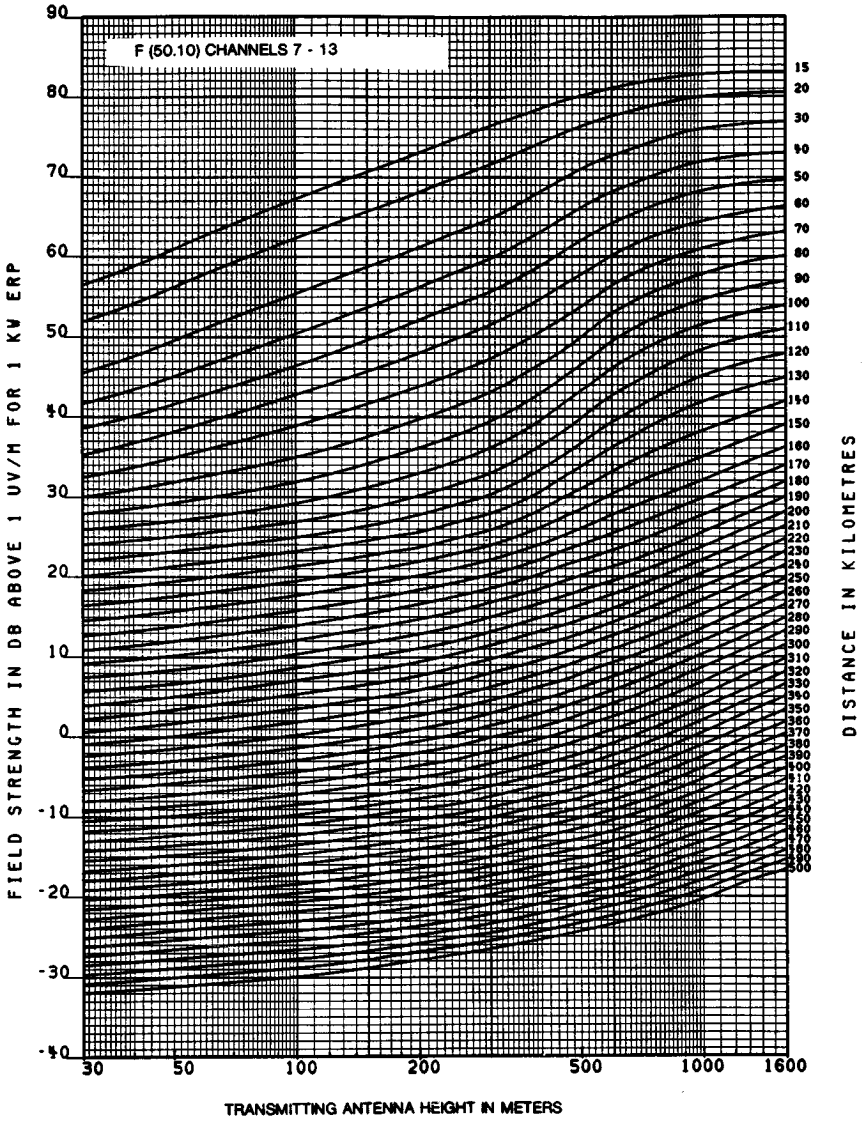
FCC 73.699 Figure 9a

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 10 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS



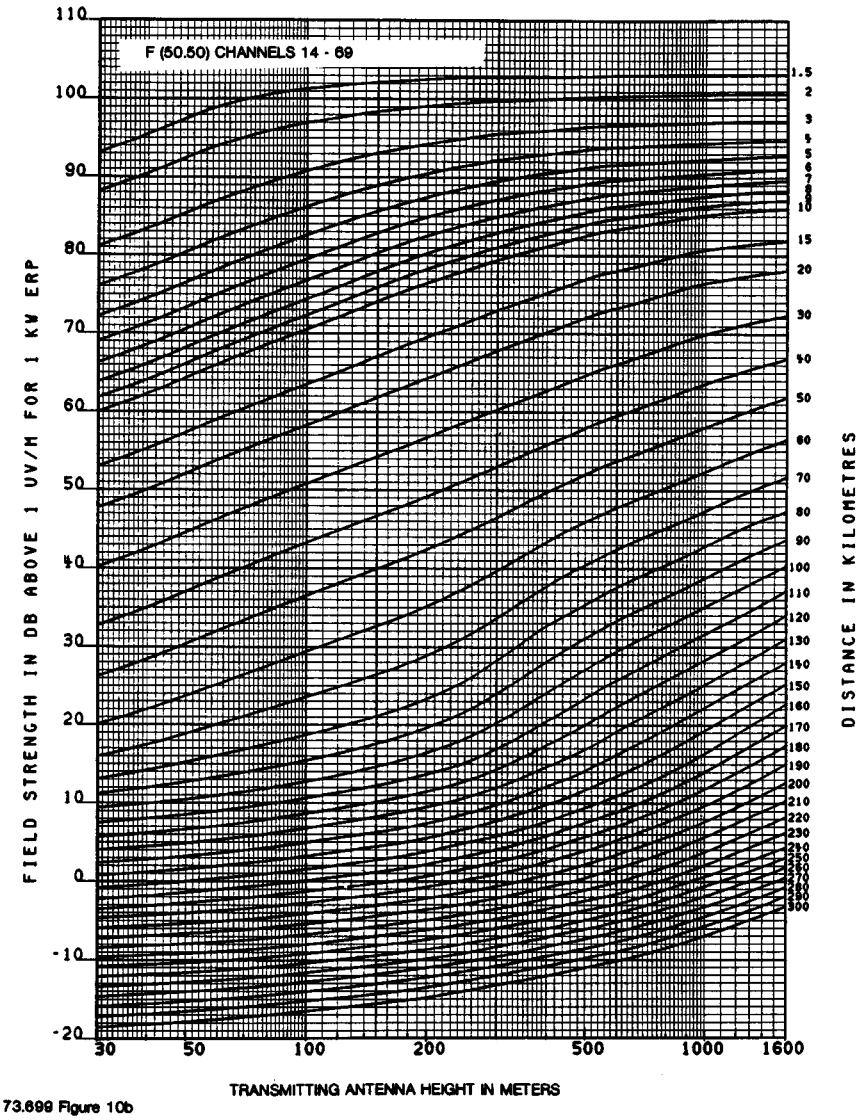
FCC 73.699 Figure 10

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 50 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS



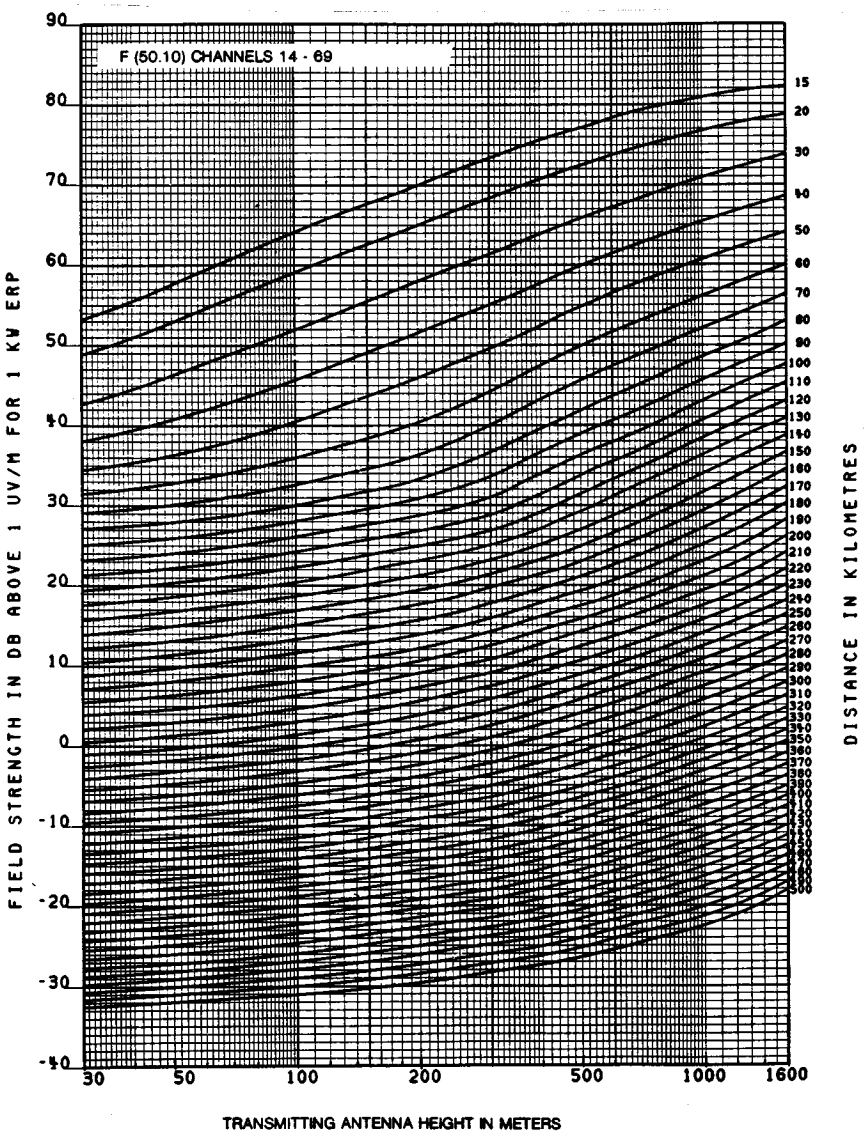
FCC 73.699 Figure 10a

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 10 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS



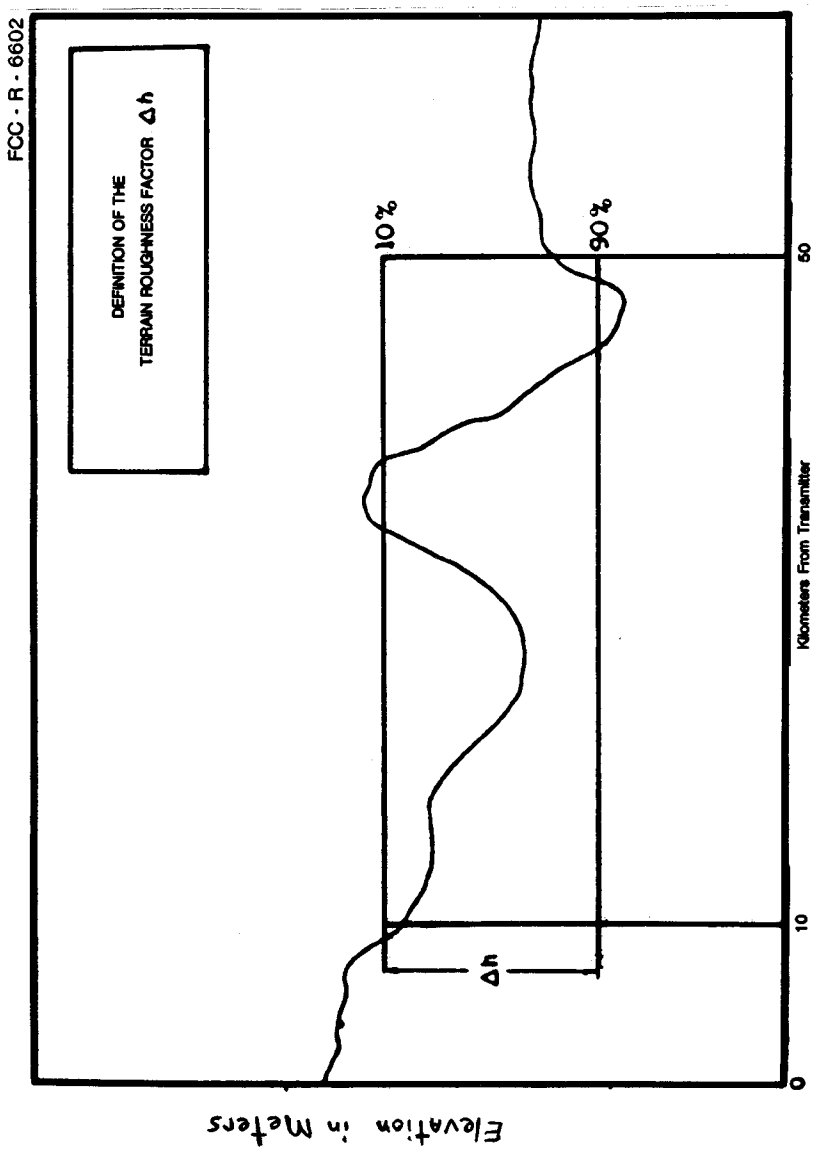
FCC 73.699 Figure 10b

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 50 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS

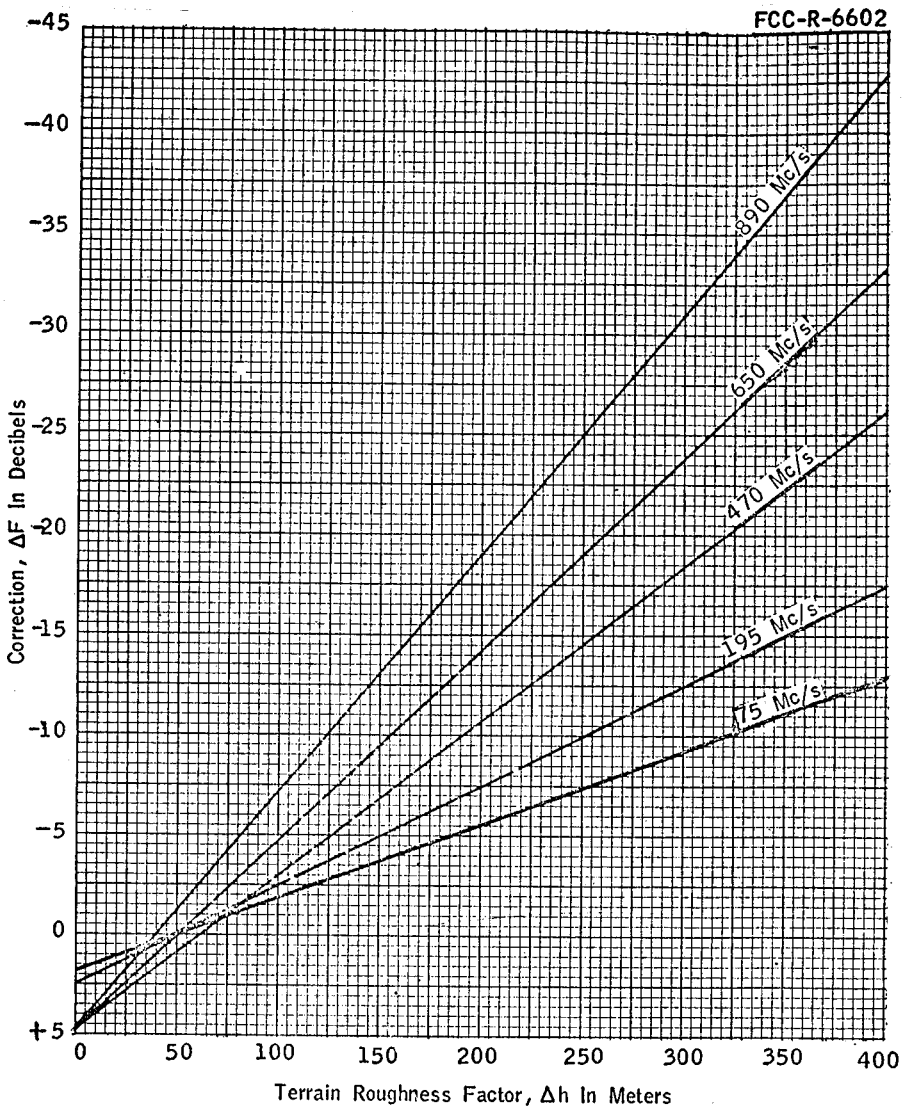


FCC 73.699 Figure 10c

ESTIMATED FIELD STRENGTH EXCEEDED AT 50 PERCENT
OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 10 PERCENT
OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 9 METERS



FCC §73.699 FIGURE 10d



TERRAIN ROUGHNESS CORRECTION
for use with estimated F(50,50) and F(50,10) field strength curves

FCC §73.699 FIGURE 10e

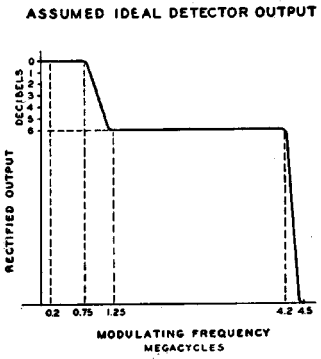


FIGURE 11

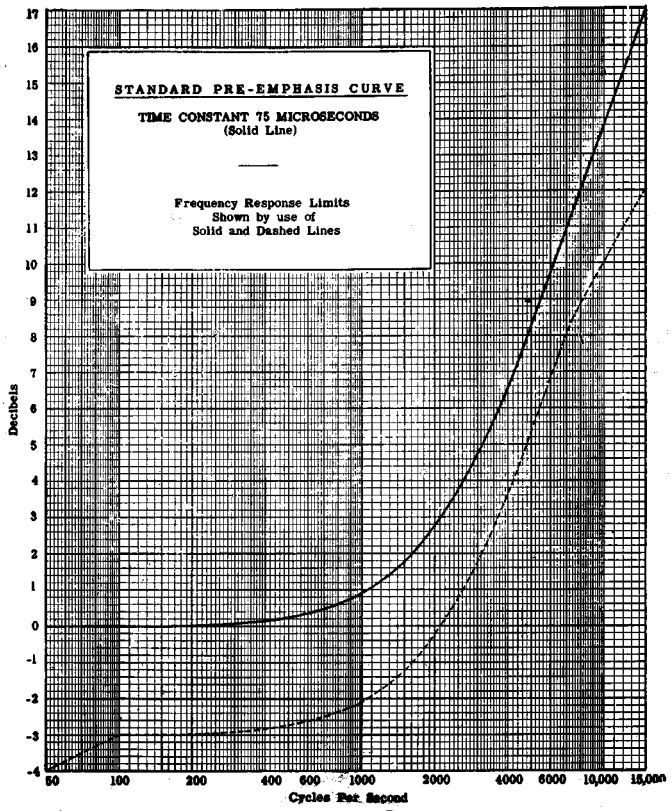
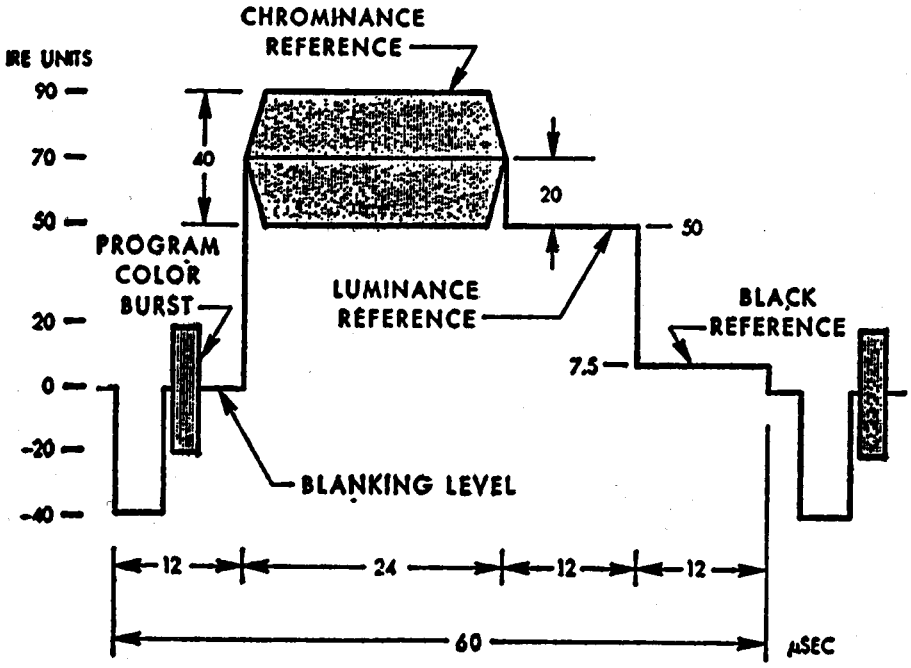


FIGURE 12



NOTE: THE CHROMINANCE REFERENCE AND THE PROGRAM COLOR BURST HAVE THE SAME PHASE.

FIGURE 16

Figures 13 through 15 [Reserved]

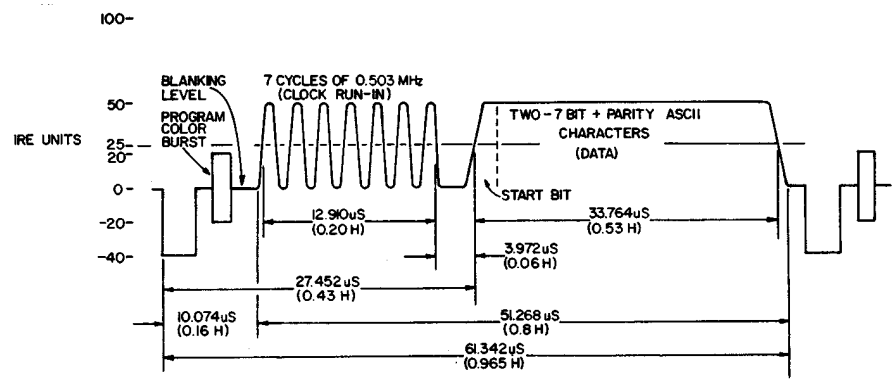


FIGURE 17 LINE 21 FIELD DATA SIGNAL FORMAT

1. DATA "1" = 50 IRE UNITS, DATA "0" = 0.
2. DATA PULSE RISE TIME = 2T BAR RISE TIME.
3. DATA TIME BASE = 32 f_H (0.50349650 MHz.)
4. DATA BIT INTERVAL = H/32 (1.986uS.)
5. NEGATIVE GOING ZERO CROSSINGS OF CLOCK ARE COHERENT WITH DATA TRANSITIONS.
6. DATA AND CLOCK RUN-IN COHERENT WITH H.

HORIZONTAL DIMENSIONS NOT TO SCALE

FCC § 73.699, Figure 17

[28 FR 13660, Dec. 14, 1963, as amended at 36 FR 17429, Aug. 31, 1971; 39 FR 40957, Nov. 22, 1974; 40 FR 27684, July 1, 1975; 41 FR 56326, Dec. 28, 1976; 44 FR 36040, June 20, 1979; 47 FR 3790, Jan. 27, 1982; 47 FR 35990, Aug. 18, 1982; 50 FR 13972, Apr. 9, 1985; 50 FR 23701, June 5, 1985; 50 FR 32205, Aug. 9, 1985; 52 FR 11656, Apr. 10, 1987; 54 FR 9807, Mar. 8, 1989; 58 FR 29983, May 25, 1993]

EFFECTIVE DATE NOTE: At 42 FR 25736, May 19, 1977, the effective date of § 73.699 Figure 10e was stayed indefinitely.

Subpart F—International Broadcast Stations

§ 73.701 Definitions.

The following definitions apply to terminology employed in this subpart:

(a) *International broadcasting stations.* A broadcasting station employing frequencies allocated to the broadcasting service between 5,950 and 26,100 kHz, the transmissions of which are intended to be received directly by the general public in foreign countries. (A station may be authorized more than one transmitter.) There are both government and non-government international broadcasting stations; only the latter are licensed by the Commission and are subject to the rules of this subpart.

(b) *Transmitter-hour.* One frequency used on one transmitter for one hour.

(c) *Frequency-hour.* One frequency used for one hour regardless of the number of transmitters over which it is simultaneously broadcast by a station during that hour.

(d) *Multiple operation.* Broadcasting by a station on one frequency over two or more transmitters simultaneously. If a station uses the same frequency simultaneously on each of two (three, etc.) transmitters for an hour, it uses one frequency-hour and two (three, etc.) transmitter-hours.

(e) *Day.* Any twenty-four hour period beginning 0100 g.m.t. and ending 0100 g.m.t.

(f) *Sunspot number.* The 12–month running average of the number of sunspots for any month as indicated in the

U.S. Department of Commerce Telecommunications Research and Engineering Report No. 13—available from the Superintendent of Documents, Washington, DC 20402. The sunspot number varies in an approximate 11–year cycle.

(g) *March season.* That portion of any year commencing 0100 g.m.t. on the first Sunday in March and ending at 0100 g.m.t. on the first Sunday in May.

(h) *May season.* That portion of any year commencing at 0100 G.M.T. on the first Sunday in May and ending at 0100 g.m.t. on the first Sunday in September.

(i) *September season.* That portion of any year commencing at 0100 g.m.t. on the first Sunday in September and ending at 0100 g.m.t. on the first Sunday in November.

(j) *November season.* That portion of any year commencing at 0100 g.m.t. on the first Sunday in November and ending at 0100 g.m.t. on the first Sunday in March.

(k) *Seasonal schedule.* An assignment, for a season, of a frequency or frequencies, and other technical parameters, to be used by a station for transmission to particular zones or areas of reception during specified hours.

(l) *Reference month.* That month of a season which is used for determining predicted propagation characteristics for the season. The reference month is January, April, July, or October, as related to the season in which it occurs.

(m) *Maximum usable frequency* (*MUF*). The highest frequency which is returned by ionospheric radio propagation to the surface of the earth for a particular path and time of day for 50 percent of the days of the reference month.

(n) *Optimum working frequency* (*FOT*). The highest frequency which is returned by ionospheric radio propagation to the surface of the earth for a particular path and time of day for 90 percent of the days of the reference month.

NOTE: The international abbreviation for optimum working frequency, FOT, is formed with the initial letters of the French words for ''optimum working frequency'' which are ''frequence optimum de travail.''

(o) *Zone of reception.* Any geographic zone indicated in § 73.703 in which the reception of particular programs is specifically intended and in which broadcast coverage is contemplated.

(p) *Area of reception.* Any geographic area smaller than a zone of reception in which the reception of particular programs is specifically intended and in which broadcast coverage is contemplated, such areas being indicated by countries or parts of countries.

(q) *Delivered median field strength, or field strength.* The field strength incident upon the zone or area of reception expressed in microvolts per meter, or decibels above one microvolt per meter, which is exceeded by the hourly median value for 50 percent of the days of the reference month.

(r) *Carrier power.* The average power supplied to the antenna transmission line by a transmitter during one radio frequency cycle under conditions of no modulation.

[38 FR 18892, July 16, 1973]

§ 73.702 Assignment and use of frequencies.

(a) Frequencies will be assigned by the Commission prior to the start of each season to authorized international broadcasting stations for use during the season at specified hours and for transmission to specified zones or areas of reception, with specified power and antenna bearing. Six months prior to the start of each season, licensees and permittees shall by informal written request, submitted to the Commission in triplicate, indicate for the season the frequency or frequencies desired for transmission to each zone or area of reception specified in the license or permit, the specific hours during which it desires to transmit to such zones or areas on each frequency, and the power, antenna gain, and antenna bearing it desires to use. Requests will be honored to the extent that interference and propagation conditions permit and that they are otherwise in accordance with the provisions of this section.

(b) After necessary processing of the requests required by paragraph (a) of this section, the Commission will notify each licensee and permittee of the frequencies, hours of use thereof to specified zones or areas of reception, power, and antenna bearing which it

intends to authorize for the season in question. After receipt of such notification, the licensee or permittee shall, in writing, not later than two months before the start of the season in question, inform the Commission either that it plans to operate in accordance with the authorization which the Commission intends to issue, or that it plans to operate in another manner. If the licensee or permittee indicates that it plans to operate in another manner, it shall furnish explanatory details.

(c) If after submitting the request required under the provisions of paragraph (a) of this section, but before receipt of the Commission's notification referred to in paragraph (b) of this section, the licensee or permittee submits a request for changes of its original request, such requests will be accepted for consideration only if accompanied by statements showing good cause therefor and will be honored only if conditions permit. If the information required to be submitted by the licensee or permittee under the provisions of paragraph (b) of this section indicates that operation in another manner is contemplated, and the explanatory details contain a request for change in the originally proposed manner of operation, such requests will be accepted for consideration only if accompanied by statements showing good cause therefor and will be honored only if conditions permit. If after the licensee or permittee submits the information required under the provisions of paragraph (b) of this section, but before the start of the season in question, the licensee or permittee submits a request for changes in its manner of operation for the season in question, the request will be accepted for consideration only if accompanied by statements showing good cause therefor and will be honored only if conditions permit. If after the start of a season the licensee or permittee submits a request for changes in the manner of operation as authorized, the request will be considered only if accompanied by statements showing good cause therefor, and will be honored only if conditions permit.

(d) The provisions of paragraphs (a), (b), and (c) of the section shall apply to licensees, to permittees operating under program test authority, and to permittees who anticipate applying for and receiving program test authority for operation during the specified season.

NOTE: Permittees who during the process of construction wish to engage in equipment tests shall by informal written request, submitted to the Commission in triplicate not less than 30 days before they desire to begin such testing, indicate the frequencies they desire to use for testing and the hours they desire to use those frequencies. No equipment testing shall occur until the Commission has authorized frequencies and hours for such testing. Such authorizations shall be only for one season, and if it is desired to continue equipment testing in a following season, new requests for frequencies and hours must be submitted at least 30 days before it is desired to begin testing in the following season.

(e) Within 14 days after the end of each season, a report shall be filed with the Commission by each licensee or permittee operating under program test authority who has been issued a seasonal schedule for that season. The report shall state whether the licensee or permittee has operated the number of frequency-hours authorized by the seasonal schedule to each of the zones or areas of reception specified in the schedule. If such operation has not occurred, a detailed explanation of that fact shall also be submitted which includes specific dates, frequency-hours not used, and reasons for the failure to operate as authorized. The report shall also contain information that has been received by the licensee or permittee as to reception or interference, and conclusions with regard to propagation characteristics of frequencies that were assigned for the season in question.

(f) Frequencies assigned by the FCC shall be within the following bands which are allocated exclusively to the international broadcast service;

(1) 5,950–6,200 kHz; 9,500–9,775 kHz; 11,700–11,975 kHz; 15,100–15,450 kHz; 17,700–17,900 kHz; 21,450–21,750 kHz; 25,600–26,100 kHz.

(2) In addition, the following band is allocated exclusively to the international broadcast service in Region 3:

7,100–7,300 kHz. Assignments in this frequency band will be limited to international broadcast stations located in the area designated as Region 3 by No.

395 of the International Radio Regulations and authorized only to transmit to zones and areas of reception situated outside Region 2 as defined in No. 394 of the International Radio Regulations. In addition, during the hours of 0800–1600 UTC (Coordinated Universal Time) antenna gain with reference to an isotropic radiator in any easterly direction that would intersect any area in Region 2 shall not exceed 2.15 dBi, except in the case where a transmitter power of less than 100 kW is used. In this case, antenna gain on restricted azimuths shall not exceed that which is determined in accordance with equation below. Stations desiring to operate in this band must submit sufficient antenna performance information to ensure compliance with these restrictions. Permitted Gain for Transmitter powers less than 100 kW:

$$\mathrm{Gi} = 2.15 + 10 \log \left(\frac{100}{\mathrm{Pa}} \right) \mathrm{dBi}$$

Where:

Gi=maximum gain permitted with reference to an isotropic radiator.

Pa=Transmitter power employed in kW.

(3) The carrier frequencies assignable shall begin 5 kHz above the frequency specified above for the beginning of each band and shall be in sucessive steps of 5 kHz to and including 5 kHz below the frequency specified as the end of each band.

(g) Frequencies requested for assignment must be as near as practicable to the optimum working frequency (unless otherwise justified) for the zone or area of reception for the period and path of transmission, and should be chosen so that a given frequency will provide the largest period of reliable transmission to the selected zone or area of reception. Moreover, at the zone or area of reception frequencies shall provide protection to the transmissions of other broadcasting stations which, in the opinion of the Commission, have priority of assignment.

NOTE 1: Requests for frequency-hours shall be accompanied by all pertinent technical data with reference to the frequencies and hours of operation, including calculated field strengths delivered to the zones or areas of reception.

NOTE 2: It is preferable that calculated field strengths delivered to zones or areas of reception be equal to or greater than those required by I.F.R.B. Technical Standards, Series A (and supplements thereto), in order for the I.F.R.B. to afford the notified assignment protection from interference. Nevertheless, calculated field strengths less than those required by the I.F.R.B. standards for protection will be acceptable to the Commission. However, licensees should note that if such lesser field strengths are submitted no protection from interference will be provided by the I.F.R.B. if their technical examination of such notifications show incompatibilities with other notified assignments fully complying with I.F.R.B. technical standards.

NOTE 3: Licensees are permitted to engage in multiple operation as defined in § 73.701(d).

NOTE 4: Seasonal requests for frequency-hours will be only for transmissions to zones or areas of reception specified in the basic instrument of authorization. Changes in such zones or areas will be made only on separate application for modification of such instruments.

(h) Not more than one frequency will be assigned for use at any one time for any one program transmission except in instances where a program is intended for reception in more than one zone or area of reception and the intended zones or areas cannot be served by a single frequency: *Provided, however,* That on a showing of good cause a licensee may be authorized to operate on more than one frequency at any one time to transmit any one program to a single zone or area of reception.

(i) Any frequency assigned to a licensee or permittee shall also be available for assignment to other licensees or permittees.

(j) All assignments of frequencies and the hours during which they will be used will be made with the express understanding that they are subject to immediate cancellation or change without hearing whenever the Commission determines that interference or propagation conditions so require and that each frequency-hour assignment for a given seasonal schedule is unique unto itself and not necessarily available for use during a subsequent season.

(k) The total maximum number of frequency-hours which will be authorized to all licensees of international broadcasting stations during any one day for any season is 100. The number

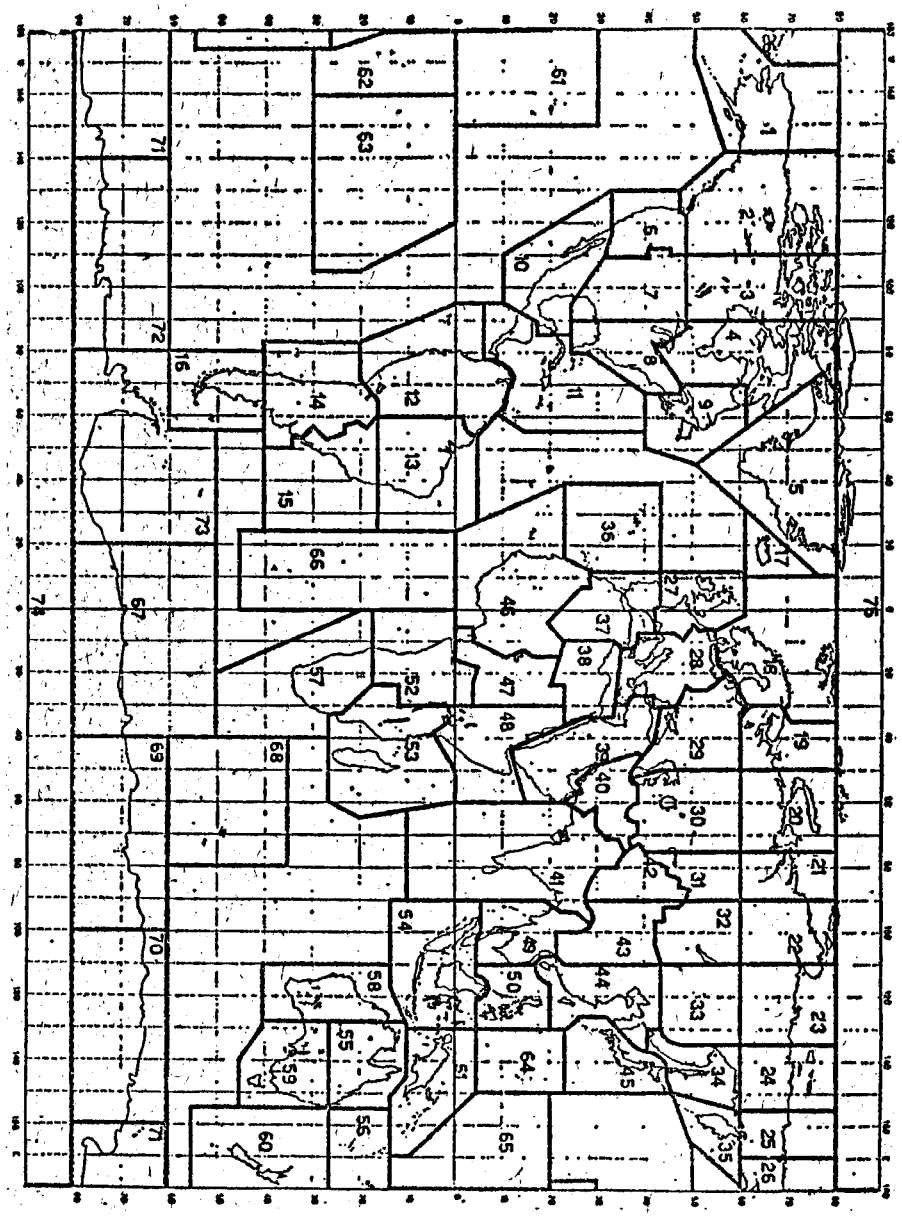
of frequency-hours allocated to any licensee will depend on past usage, availability, and need. If for a forthcoming season the total of the requests for daily frequency-hours of all licensees exceeds 100, all licensees will be notified and each licensee that makes an adequate showing that good cause exists for not having its requested number of frequency-hours reduced and that operation of its station without such reduction would be consistent with the public interest may be authorized the frequency-hours requested.

NOTE: The provisions of this paragraph are not to be construed to mean that a total of 100 (or more) frequency-hours per day is assured licensees. Frequency-hours will only be assigned to the extent that they are available. It is the responsibility of each licensee to make all technical studies to show that frequency-hours requested by it are available and suitable for use as proposed.

[38 FR 18892, July 16, 1973, as amended at 51 FR 9965, Mar. 24, 1986]

§ 73.703 Geographical zones and areas of reception.

The zones or areas of reception to be served by international broadcasting stations shall be based on the following map, and directive antennas shall be employed to direct transmissions thereto:



[38 FR 18893, July 16, 1973]

§ 73.712 Equipment tests.

(a) During the process of construction of an international broadcasting station, the permittee, having obtained authorization for frequencies and hours as set forth in the Note to § 73.702(d) may, without further authority of the FCC, conduct equipment tests for the purpose of such adjustments and measurements as may be necessary to assure compliance with the terms of the construction permit, the technical provisions of the application therefor and the rules and regulations. Such tests shall use voice identification and test tones only. No programming shall be conducted during equipment tests.

(b) The Commission may notify the permittee to conduct no tests or may cancel, suspend, or change the date for the beginning of equipment tests when and if such action may appear to be in the public interest, convenience, and necessity.

(c) Equipment tests may be continued so long as the construction permit shall remain valid: *Provided, however,* That the procedure set forth in paragraph (a) of this section must be repeated prior to the conducting of such tests in each season after the season in which the testing began.

(d) The authorization for tests embodied in this section shall not be construed as constituting a license to operate but as a necessary part of construction.

[28 FR 13696, Dec. 14, 1963, as amended at 37 FR 25842, Dec. 5, 1972. Redesignated and amended at 38 FR 18894, July 16, 1973; 47 FR 40174, Sept. 13, 1982]

§ 73.713 Program tests.

(a) Upon completion of construction of an international broadcasting station in accordance with the terms of the construction permit, the technical provisions of the application therefor, and the rules and regulations and the applicable engineering standards, and when an application for station license has been filed showing the station to be in satisfactory operating condition, the permittee may request authority to conduct program tests. Such request shall be filed with the FCC at least 10 days prior to the date on which it is desired to begin such operation. All data necessary to show compliance with the terms and conditions of the construction permit must be filed with the license application.

(b) Program tests shall not commence until specific Commission authority is received. The Commission reserves the right to change the date of the beginning of such tests or to suspend or revoke the authority for program tests as and when such action may appear to be in the public interest, convenience, and necessity.

(c) Unless sooner suspended or revoked, program test authority continues valid during Commission consideration of the application for license and during this period further extension of the construction permit is not required. Program test authority shall be automatically terminated by final determination upon the application for station license.

(d) All operation under program test authority shall be in strict compliance with the rules governing international broadcasting stations and in strict accordance with representations made in the application for license pursuant to which the tests were authorized.

(e) The granting of program test authority shall not be construed as approval by the Commission of the application for station license.

[38 FR 18894, July 16, 1973, as amended at 47 FR 40174, Sept. 13, 1982]

§ 73.731 Licensing requirements.

(a) A license for an international broadcasting station will be issued only after a satisfactory showing has been made in regard to the following, among others:

(1) That there is a need for the international broadcasting service proposed to be rendered.

(2) That the necessary program sources are available to the applicant to render the international service proposed.

(3) That the production of the program service and the technical operation of the proposed station will be conducted by qualified persons.

(4) That the applicant is legally, technically and financially qualified and possesses adequate technical facilities to carry forward the service proposed.

(5) That the public interest, convenience and necessity will be served through the operation of the proposed station.

[38 FR 18895, July 16, 1973]

§ 73.732 Authorizations.

Authorizations issued to international broadcasting stations by the Commission will be authorizations to permit the construction or use of a particular transmitting equipment combination and related antenna systems for international broadcasting, and to permit broadcasting to zones or areas of reception specified on the instrument of authorization. The authorizations will not specify the frequencies to be used or the hours of use. Requests for frequencies and hours of use will be made as provided in § 73.702. Seasonal schedules, when issued pursuant to the provisions of § 73.702, will become attachments to and part of the instrument of authorization, replacing any such prior attachments.

[38 FR 18895, July 16, 1973]

§ 73.733 Normal license period.

All international broadcast station licenses will be issued so as to expire at the hour of 3 a.m. local time and will be issued for a normal period of 8 years expiring November 1.

[62 FR 5347, Feb. 5, 1997]

§ 73.751 Operating power .

No international broadcasting station will be authorized to install, or be licensed for operation of, transmitter equipment with a rated carrier power of less than 50 kilowatts.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[38 FR 18895, July 16, 1973, as amended at 44 FR 65765, Nov. 15, 1979]

§ 73.753 Antenna systems.

All international broadcasting stations shall operate with directional antennas. Such antennas shall be designed and operated so that the radiated power in the maximum lobe toward the specific zone or area of reception intended to be served shall be at least 10 times the average power from the antenna in the horizontal plane. Radiation in all other directions shall be suppressed to the maximum extent technically feasible. In order to eliminate or mitigate harmful interference, the direction of the maximum lobe may be adjusted upon approval of the Commission.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[38 FR 18895, July 16, 1973, as amended at 44 FR 65765, Nov. 15, 1979]

§ 73.754 Frequency monitors.

(a) The licensee of each international broadcast station shall operate a frequency monitor at the transmitter independent of the frequency control of the transmitter.

(b) The frequency monitor shall be designed and constructed in accordance with good engineering practice. It shall have an accuracy sufficient to determine that the operating frequency is within one-half of the allowed tolerance.

[37 FR 25842, Dec. 5, 1972]

§ 73.755 Modulation monitors.

The licensee of each international broadcast station shall have a modulation monitor in operation at the transmitter.

[37 FR 25842, Dec. 5, 1972]

§ 73.756 Transmission system requirements.

(a) *Design*. The construction, installation, operation, and performance of the international broadcasting transmitter system shall be in accordance with good engineering practice.

(b) *Spurious emission*. (1) Any emission appearing on a frequency removed from the carrier frequency by between 6.4 kHz and 10 kHz, inclusive, shall be attenuated at least 25 dB below the level of the unmodulated carrier. Compliance with the specification will be deemed to show the occupied bandwidth to be 10 kHz or less.

(2) Any emission appearing on a frequency removed from the carrier frequency by more than 10 kHz and up to and including 25 kHz shall be attenuated at least 35 dB below the level of the unmodulated carrier.

(3) Any emission appearing on a frequency removed from the carrier frequency by more than 25 kHz shall be attenuated at least 80 dB below the level of the unmodulated carrier.

(4) In the event spurious emissions cause harmful interference to other stations or services, such additional steps as may be necessary to eliminate the interference must be taken immediately by the licensee.

(c) *Frequency control.* The transmitter shall be equipped with automatic frequency control apparatus so designed and constructed that it is capable of maintaining the operating frequency within 0.0015 percent of the assigned frequency.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[38 FR 18895, July 16, 1973, as amended at 44 FR 65765, Nov. 15, 1979]

§ 73.757 Auxiliary transmitters.

Upon showing that a need exists for the use of auxiliary transmitters, a license may be issued provided that:

(a) Auxiliary transmitters may be installed either at the same location as the main transmitters or at another location.

(b) [Reserved]

(c) The auxiliary transmitters shall be maintained so that they may be put into immediate operation at any time for the following purposes:

(1) The transmission of the regular programs upon the failure of the main transmitters.

(2) The transmission of regular programs during maintenance or modification work on the main transmitter, necessitating discontinuance of its operation for a period not to exceed 5 days. (This includes the equipment changes which may be made without authority as set forth elsewhere in the rules and regulations or as authorized by the Commission by letter or by construction permit. Where such operation is required for periods in excess of 5 days, request therefor shall be in accordance with § 73.3542 of this chapter.)

(3) Upon request by a duly authorized representative of the Commission.

(d) The auxiliary transmitters shall be tested at least once each week to determine that they are in proper operating condition and that they are adjusted to the proper frequency except that in the case of operation in accordance with paragraph (c) of this section during any week, the test in that week may be omitted provided the operation under paragraph (c) of this section is satisfactory. A record shall be kept of the time and result of each test. Such records shall be retained for a period of two years.

(e) The auxiliary transmitters shall be equipped with satisfactory control equipment which will enable the maintenance of the frequency emitted by the station within the limits prescribed by the regulations in this part.

(f) The operating power of an auxiliary transmitter may be less but not greater than the authorized power of the main transmitters.

[28 FR 13696, Dec. 14, 1963, as amended at 37 FR 25843, Dec. 5, 1972; 60 FR 55480, Nov. 1, 1995]

§ 73.758 Alternate main transmitters.

The licensee of an international broadcast station may be licensed for alternate main transmitters provided that a technical need for such alternate transmitters is shown and that the following conditions are met: Both transmitters:

(a) Are located at the same place;

(b) Shall have the same power rating; and

(c) Shall meet the construction, installation, operation, and performance requirements of good engineering practice.

[37 FR 25843, Dec. 5, 1972]

§ 73.759 Modification of transmission systems.

Specific authority, upon filing formal application (FCC Form 309) therefor, is required for any of the following changes:

(a) Change involving an increase or decrease in the power rating of the transmitters.

(b) A replacement of the transmitters as a whole.

(c) Change in the location of the transmitting antenna.

(d) Change in location of main studio, if it is proposed to move the main studio to a different city from that specified in the license.

(e) Change in the power delivered to the antenna.

(f) Change in frequency control and/or modulation system.

(g) Change in direction or gain of antenna system.

Other changes, not specified above in this section, may be made at any time without the authority of the Commission: *Provided*, That the Commission shall be immediately notified thereof and such changes shall be shown in the next application for renewal of license.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[38 FR 18895, July 16, 1973, as amended at 44 FR 65765, Nov. 15, 1979]

§ 73.761 Time of operation.

(a) All international broadcasting stations shall operate in accordance with the times indicated on their seasonal schedules.

(b) In the event that causes beyond a licensee's control make it impossible to adhere to the seasonal schedule or to continue operating, the station may limit or discontinue operation for a period of not more than 10 days, without further authority from the FCC. However, in such cases, the FCC shall be immediately notified in writing of such limitation or discontinuance of operation and shall subsequently be notified when the station resumes regular operation.

(c) In the event that causes beyond a licensee's control make it impossible to adhere to the seasonal schedule or to continue operating for a temporary period of more than 10 days, the station may not limit or discontinue operation until it requests and receives specific authority to do so from the FCC. When the station subsequently resumes regular operation after such limited operation or discontinuance of operation, it shall notify the FCC in Washington, DC. The license of a broadcasting station that fails to transmit broadcast signals for any consecutive 12-month period expires as a matter of law at the end of that period, notwithstanding any provision, term, or condition of the license to the contrary.

[38 FR 18895, July 16, 1973, as amended at 47 FR 40174, Sept. 13, 1982; 61 FR 28767, June 6, 1996]

§ 73.765 Determining operating power.

The operating power specified in § 73.751 shall be determined by use of a calibrated dummy load or by any other method specified by the licensee and accepted by the Commission. Such method may subsequently be used by the licensee to maintain the authorized operating power.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[38 FR 18895, July 16, 1973, as amended at 44 FR 65765, Nov. 15, 1979]

§ 73.766 Modulation and bandwidth.

The percentage of modulation shall be maintained as high as possible consistent with good quality of transmission and good broadcast practice. In no case shall it exceed 100 percent on positive or negative peaks of frequent recurrence. It should not be less than 85 percent on peaks of frequent recurrence. The range of modulation frequencies shall be so controlled that the authorized bandwidth of the emission shall not be exceeded under all conditions of modulation. The highest modulating frequency shall not exceed 5 kHz.

[38 FR 18896, July 16, 1973]

§ 73.781 Logs.

The licensee or permittee of each international broadcast station must maintain the station log in the following manner:

(a) In the program log:

(1) An entry of the time each station identification announcement (call letters and location) is made.

(2) An entry briefly describing each program broadcast, such as ''music'', ''drama'', ''speech'', etc., together with the name or title thereof, language, and the sponsor's name, with the time of the beginning and ending of the complete program.

(3) For each program of network origin, an entry showing the name of the network originating the program.

[28 FR 13696, Dec. 14, 1963, as amended at 37 FR 25843, Dec. 5, 1972; 48 FR 38480, Aug. 24, 1983]

§ 73.782 Retention of logs.

Logs of international broadcast stations shall be retained by the licensee or permittee for a period of two years: *Provided, however,* That logs involving communications incident to a disaster or which include communications incident to or involved in an investigation by the Commission and concerning which the licensee or permittee has been notified, shall be retained by the licensee or permittee until he is specifically authorized in writing by the Commission to destroy them: *Provided, further,* That logs incident to or involved in any claim or complaint of which the licensee or permittee has notice shall be retained by the licensee or permittee until such claim or complaint has been fully satisfied or until the same has been barred by statute limiting the time for the filing of suits upon such claims.

[28 FR 13696, Dec. 14, 1963]

§ 73.787 Station identification.

(a) A licensee of an international broadcast station shall make station identification announcement (call letters and location), at the beginning and ending of each time of operation and during the operation on the hour.

(b) Station identification, program announcements, and oral continuity shall be made with international significance (language particularly) which is designed for the foreign country or countries for which the service is primarily intended.

[28 FR 13696, Dec. 14, 1963, as amended at 34 FR 19762, Dec. 17, 1969; 38 FR 18896, July 16, 1973]

§ 73.788 Service; commercial or sponsored programs.

(a) A licensee of an international broadcast station shall render only an international broadcast service which will reflect the culture of this country and which will promote international goodwill, understanding, and cooperation. Any program solely intended for and directed to an audience in the continental United States does not meet the requirements for this service.

(b) Such international broadcast service may include commercial or sponsored programs: *Provided,* That:

(1) Commercial program continuities give no more than the name of the sponsor of the program and the name and general character of the commodity, utility or service, or attraction advertised.

(2) In case of advertising a commodity, the commodity is regularly sold or is being promoted for sale on the open market in the foreign country or countries to which the program is directed in accordance with paragraph (c) of this section.

(3) In case of advertising an American utility or service to prospective tourists or visitors to the United States, the advertisement continuity is particularly directed to such persons in the foreign country or countries where they reside and to which the program is directed in accordance with paragraph (c) of this section.

(4) In case of advertising an international attraction (such as a world fair, resort, spa, etc.) to prospective tourists or visitors to the United States, the oral continuity concerning such attraction is consistent with the purpose and intent of this section.

(5) In case of any other type of advertising, such advertising is directed to the foreign country or countries to which the program is directed and is consistent with the purpose and intent of this section.

(c) The geographic areas to be served by international broadcasting stations are the zones and areas of reception shown in § 73.703.

(d) An international broadcast station may transmit the program of a AM broadcast station or network system: *Provided,* That the conditions in paragraph (b) of this section as to any commercial continuities are observed and when station identifications are made, only the call letter designation of the international station is given and its assigned frequency: *And provided further,* That in the case of chain broadcasting the program is not carried simultaneously by another international station (except another station owned by the same licensee operated on a frequency in a different group to obtain continuity of signal service), the signals from which are directed to the same area. (See section 3(p) of the

Communications Act of 1934 for the definition of ''chain broadcasting.'')

[28 FR 13696, Dec. 14, 1963, as amended at 37 FR 25843, Dec. 5, 1972; 38 FR 18896, July 16, 1973]

Subpart G—Emergency Broadcast System

AUTHORITY: Secs. 1, 4 (i) and (o), and 303 (r), Communications Act of 1934, as amended.

§ 73.900 Cross references.

The Emergency Broadcast System (EBS) rules have been renamed the Emergency Alert System (EAS) and revised. The new EAS rules are contained in a new Part 11. Equipment type accepted for EBS use under the old Subpart G rules may continue to be used at broadcast stations until January 1, 1998, provided that it meets all applicable requirements of Part 11 of this chapter.

Old section	New section
73.901	11.1
73.902	11.1
73.903	11.11
73.904	Removed
73.905	11.13
73.906	11.12
73.907	11.13
73.908	11.15
73.909	11.16
73.910	11.17
73.912	11.43
73.913	11.18
73.914	11.19
73.915	11.19
73.916	11.19
73.917	11.19
73.918	11.19
73.919	11.20
73.920	11.21(b)
73.921	11.21
73.922	11.44
73.926	11.41
73.927	11.42
73.931	11.14, 11.53
73.932	11.35, 11.51, 11.52
73.933	11.54
73.935	11.55
73.936	11.55
73.937	11.55
73.940	11.32
73.941	11.33
73.942	11.34
73.943	11.34
73.961	11.61
73.962	11.62

[59 FR 67102, Dec. 28, 1994, as amended at 60 FR 56000, Nov. 6, 1995]

Subpart H—Rules Applicable to All Broadcast Stations

§ 73.1001 Scope.

(a) The rules in this subpart are common to all AM, FM, and TV broadcast services, commercial and noncommercial.

(b) Rules in part 73 applying exclusively to a particular broadcast service are contained in the following: AM, subpart A; FM, subpart B; Noncommercial Educational FM, subpart C; and TV, subpart E.

(c) Certain provisions of this subpart apply to International Broadcast Stations (subpart F, part 73), Low Power TV, TV Translator and TV Booster Stations (subpart G, part 74) where the rules for those services so provide.

(d) The provisions of this part applying to licensees also apply to holders of construction permits (permittees).

[43 FR 32781, July 28, 1978, as amended at 52 FR 31399, Aug. 20, 1987]

§ 73.1010 Cross reference to rules in other parts.

Certain rules applicable to broadcast services, some of which are also applicable to other services, are set forth in the following Parts of the FCC Rules and Regulations.

(a) Part 1, ''Practice and Procedure.''

(1) Subpart A, ''General Rules of Practice and Procedure''. (§§ 1.1 to 1.120).

(2) Subpart B, ''Hearing Proceedings''. (§§ 1.201 to 1.364)

(3) Subpart C, ''Rulemaking Proceedings''. (§§ 1.399 to 1.430).

(4) Subpart G, ''Schedule of Statutory Charges and Procedures for Payment''. (§§ 1.1101 to 1.1117.)

(5) Subpart H, ''Ex Parte Communications''. (§§1.1200 to 1.1216).

(6) Subpart I, ''Procedures Implementing the National Environmental Policy Act of 1969''. (§§ 1.1301 to 1.1319).

(7) Subpart P, ''Implementation of the Anti-Drug Abuse Act of 1988''. (§§ 1.2001–1.2003.)

(b) Part 2, ''Frequency Allocations and Radio Treaty Matters, General Rules and Regulations'', including Subparts A, ''Terminology''; B, ''Allocation, Assignments and Use of Radio Frequencies''; C, ''Emissions''; D, ''Call Signs and Other Forms of Identifying

Radio Transmissions''; and J, ''Equipment Authorization Procedures''.

(c) [Reserved]

(d) Part 17, ''Construction, Marking and Lighting of Antenna Structures''.

(e) Part 74, ''Experimental, Auxiliary and Special Broadcast and Other Program Distributional Services'' including:

(1) Subpart A, ''Experimental Broadcast Stations'';

(2) Subpart D, ''Remote Pickup Broadcast Stations'';

(3) Subpart E, ''Aural Broadcast Auxiliary Stations'';

(4) Subpart F, ''Television Broadcast Auxiliary Stations'';

(5) Subpart G, ''Low Power TV, TV Translator and TV Booster Stations'';

(6) Subpart H, ''Low Power Auxiliary Stations'';

(7) Subpart I, ''Instructional TV Fixed Service''; and

(8) Subpart L, ''FM Broadcast Translator Stations and FM Broadcast Booster Stations''.

[53 FR 2498, Jan. 28, 1988, as amended at 57 FR 48333, Oct. 23, 1992; 60 FR 55480, Nov. 1, 1995]

§ 73.1015 Truthful written statements and responses to Commission inquiries and correspondence.

The Commission or its representatives may, in writing, require from any applicant, permittee, or licensee written statements of fact relevant to a determination whether an application should be granted or denied, or to a determination whether a license should be revoked, or to any other matter within the jurisdiction of the Commission, or, in the case of a proceeding to amend the FM or Television Table of Allotments, require from any person filing an expression of interest, written statements of fact relevant to that allotment proceeding. No applicant, permittee, licensee, or person who files an expression of interest shall in any response to Commission correspondence or inquiry or in any application, pleading, report or any other written statement submitted to the Commission, make any misrepresentation or willful material omission bearing on any matter within the jurisdiction of the Commission.

NOTE: Section 73.1015 is limited in application to written matter. It implies no change in the Commissions existing policies respecting the obligation of applicants, permittees and licensees in all instances to respond truthfully to requests for information deemed necessary to the proper execution of the Commission's functions.

[51 FR 3069, Jan. 23, 1986, as amended at 55 FR 28914, July 16, 1990]

§ 73.1020 Station license period.

(a) Initial licenses for broadcast stations will ordinarily be issued for a period running until the date specified in this section for the State or Territory in which the station is located. If issued after such date, it will run to the next renewal date determined in accordance with this section. Both radio and TV broadcasting stations will ordinarily be renewed for 8 years. However, if the FCC finds that the public interest, convenience and necessity will be served thereby, it may issue either an initial license or a renewal thereof for a lesser term. The time of expiration of normally issued initial and renewal licenses will be 3 a.m., local time, on the following dates and thereafter at 8-year intervals for radio and TV broadcast stations located in:

(1) Maryland, District of Columbia, Virginia and West Virginia:

(i) Radio stations, October 1, 1995.

(ii) Television stations, October 1, 1996.

(2) North Carolina and South Carolina:

(i) Radio stations, December 1, 1995.

(ii) Television stations, December 1, 1996.

(3) Florida, Puerto Rico and the Virgin Islands:

(i) Radio stations, February 1, 1996.

(ii) Television stations, February 1, 1997.

(4) Alabama and Georgia:

(i) Radio stations, April 1, 1996.

(ii) Television stations, April 1, 1997.

(5) Arkansas, Louisiana and Mississippi:

(i) Radio stations, June 1, 1996.

(ii) Television stations, June 1, 1997.

(6) Tennessee, Kentucky and Indiana:

(i) Radio stations, August 1, 1996.

(ii) Television stations, August 1, 1997.

(7) Ohio and Michigan:

(i) Radio stations, October 1, 1996.

(ii) Television stations, October 1, 1997.

(8) Illinois and Wisconsin:

(i) Radio stations, December 1, 1996.

(ii) Television stations, December 1, 1997.

(9) Iowa and Missouri:

(i) Radio stations, February 1, 1997.

(ii) Television stations, February 1, 1998.

(10) Minnesota, North Dakota, South Dakota, Montana and Colorado:

(i) Radio stations, April 1, 1997.

(ii) Television stations, April 1, 1998.

(11) Kansas, Oklahoma and Nebraska:

(i) Radio stations, June 1, 1997.

(ii) Television stations, June 1, 1998.

(12) Texas:

(i) Radio stations, August 1, 1997.

(ii) Television stations, August 1, 1998.

(13) Wyoming, Nevada, Arizona, Utah, New Mexico and Idaho:

(i) Radio stations, October 1, 1997.

(ii) Television stations, October 1, 1998.

(14) California:

(i) Radio stations, December 1, 1997.

(ii) Television stations, December 1, 1998.

(15) Alaska, American Samoa, Guam, Hawaii, Mariana Islands, Oregon and Washington:

(i) Radio stations, February 1, 1998.

(ii) Television stations, February 1, 1999.

(16) Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont:

(i) Radio stations, April 1, 1998.

(ii) Television stations, April 1, 1999.

(17) New Jersey and New York:

(i) Radio stations, June 1, 1998.

(ii) Television stations, June 1, 1999.

(18) Delaware and Pennsylvania:

(i) Radio stations, August 1, 1998.

(ii) Television stations, August 1, 1999.

(b) For the cutoff date for the filing of applications mutually exclusive with renewal applications that are filed on or before May 1, 1995 and for the deadline for filing petitions to deny renewal applications, see § 73.3516(e).

(c) The license of a broadcasting station that fails to transmit broadcast signals for any consecutive 12-month period expires as a matter of law at the end of that period, notwithstanding any provision, term, or condition of the license to the contrary.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[49 FR 4382, Feb. 6, 1984, as amended at 52 FR 25604, July 8, 1987; 59 FR 63051, Dec. 7, 1994; 61 FR 18291, Apr. 25, 1996; 61 FR 28767, June 6, 1996; 62 FR 5347, Feb. 5, 1997]

§ 73.1030 Notifications concerning interference to radio astronomy, research and receiving installations.

(a) *Radio astronomy and radio research installations.* In order to minimize harmful interference at the National Radio Astronomy Observatory site located at Green, Pocahontas County, West Virginia, and at the Naval Radio Research Observatory at Sugar Grove, Pendleton County, West Virginia, a licensee proposing to operate a short-term broadcast auxiliary station pursuant to § 74.24, or an applicant for authority to construct a new broadcast station or for authority to make changes in the frequency, power, antenna height, or antenna directivity of an existing station within the area bounded by 39°15′ N on the north, 78°30′ W on the east, 37°30′ N on the south, and 80°30′ W on the west shall, at the time of filing such application with the FCC, simultaneously notify the following:

Interference Office, National Radio Astronomy Observatory, P.O. Box 2, Green Bank, West Virginia 24944, Telephone: 304–456–2011.

The notification shall be in writing and set forth the particulars of the proposed station, including the geographical coordinates of the antenna, antenna height, antenna directivity if any, proposed frequency, type of emission and power. In addition, the applicant shall indicate in his application to the FCC the date notification was made to the observatory. After receipt of such applications, the FCC will allow a period of 20 days for comments or objections in response to the notifications indicated. If an objection to the proposed operation is received during the 20-day period from the National Radio Astronomy Observatory for itself or on behalf of the Naval Radio Research Observatory, the FCC will consider all aspects of the problem and

take whatever action is deemed appropriate.

(b) *Radio receiving installations.* Protection for Table Mountain Radio Receiving Zone, Boulder County, Colorado: Applicants for a station authorization to operate in the vicinity of Boulder County, Colorado under this Part are advised to give due consideration, prior to filing applications, to the need to protect the Table Mountain Radio Receiving Zone from harmful interference. These are the research laboratories of the Department of Commerce, Boulder County, Colorado. To prevent degradation of the present ambient radio signal level at the site, the Department of Commerce seeks to ensure that the field strengths of any radiated signals (excluding reflected signals) received on this 1800 acre site (within the area bounded by 40°09′10″ N Latitude on the north, 105°13′31″ W Longitude on the east, 40°07′05″ N Latitude on the south, and 105°15′13″ W Longitude on the west) resulting from new assignments (other than mobile stations) or from the modification of relocation of existing facilities do not exceed the following values:

Frequency range	Field strength in authorized bandwidth of service (mV/m)	Power flux density in authorized bandwidth of service (dBW/m²) [1]
Below 540 kHz	10	−65.8
540 to 1700 kHz	20	−59.8
1.7 to 470 MHz	10	[2] −65.8
470 to 890 MHz	30	[2] −56.2
Above 890 MHz	1	[2] −85.8

[1] Equivalent values of power flux density are calculated assuming free space characteristic impedance of 376.7=120 ohms.

[2] Space stations shall conform to the power flux density limits at the earth's surface specified in appropriate parts of the FCC rules, but in no case should exceed the above levels in any 4 kHz band for all angles of arrival.

(1) Advance consultation is recommended particularly for those applicants who have no reliable data which indicates whether the field strength or power flux density figures in the above table would be exceeded by their proposed radio facilities (except mobile stations). In such instances, the following is a suggested guide for determining whether coordination is recommended:

(i) All stations within 2.4 km (1.5 statute miles);

(ii) Stations within 4.8 km (3 statute miles) with 50 watts or more effective radiated power (ERP) in the primary plane polarization in the azimuthal direction of the Table Mountain Radio Receiving Zone;

(iii) Stations within 16 km (10 statute miles) with 1 kW or more ERP in the primary plane of polarization in the azimuthal direction of Table Mountain Receiving Zone;

(iv) Stations within 80 km (50 statute miles) with 25 kW or more ERP in the primary plane polarization in the azimuthal direction of Table Mountain Receiving Zone.

(2) Applicants concerned are urged to communicate with the Radio Frequency Management Coordinator, Department of Commerce, Research Support Services, NOAA R/E5X2, Boulder Laboratories, Boulder, CO 80303; telephone (303) 497–6548, in advance of filing their applications with the Commission.

(3) The Commission will not screen applications to determine whether advance consultation has taken place. However, applicants are advised that such consultation can avoid objectimns from the Department of Commerce or proceedings to modify any authorization which may be granted which, in fact, delivers a signal at the site in excess of the field strength specified herein.

(c) *Protection for Federal Communications Commission monitoring stations.* (1) Applicants in the vicinity of a FCC monitoring station for a radio station authorization to operate new transmitting facilities or changed transmitting facilities which would increase the field strength produced over the monitoring station in excess of that previously authorized are advised to give consideration, prior to filing applications, to the possible need to protect the FCC stations from harmful interference. Geographical coordinates of the facilities which require protection are listed in §0.121(c) of the FCC rules. Applications for stations (except mobile stations) which will produce on any frequency a direct wave fundamental field strength of *greater than 10 mV/m* in the authorized bandwidth of service (−65.8 dBW/m² power flux density assuming a free space characteristic

impedance of 120 π ohms) at the referenced coordinates, may be examined to determine extent of possible interference. Depending on the theoretical field strength value and existing root-sum-square or other ambient radio field signal levels at the indicated coordinates, a clause protecting the monitoring station may be added to the station authorization.

(2) In the event that calculated value of expected field exceeds 10 mV/m (-65.8 dBW/m^2) at the reference coordinates, or if there is any question whether field strength levels might exceed the threshold value, advance consultation with the FCC to discuss any protection necessary should be considered. Prospective applicants may communicate with: Chief, Compliance and Information Bureau, Federal Communications Commission, Washington, DC 20554, Telephone (202) 632–6980.

(3) Advance consultation is suggested particularly for those applicants who have no reliable data which indicates whether the field strength or power flux density figure indicated would be exceeded by their proposed radio facilities (except mobile stations). In such instances, the following is a suggested guide for determining whether an applicant should coordinate:

(i) All stations within 2.4 kilometers (1.5 statute miles);

(ii) Stations within 4.8 kilometers (3 statute miles) with 50 watts or more average effective radiated power (ERP) in the primary plane of polarization in the azimuthal direction of the Monitoring Stations.

(iii) Stations within 16 kilometers (10 statute miles) with 1 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station;

(iv) Stations within 80 kilometers (50 statute miles) with 25 kW or more average ERP in the primary plane of polarization in the azimuthal direction of the Monitoring Station;

(4) Advance coordination for stations operating above 1000 MHz is recommended only where the proposed station is in the vicinity of a monitoring station designated as a satellite monitoring facility in §0.121(c) of the Commission's Rules and also meets the criteria outlined in paragraphs (b) (2) and (3) of this section.

(5) The Commission will not screen applications to determine whether advance consultation has taken place. However, applicants are advised that such consultation can avoid objections from the Federal Communications Commission or modification of any authorization which will cause harmful interference.

[43 FR 32782, July 28, 1978, as amended at 44 FR 77167, Dec. 31, 1979; 47 FR 9221, Mar. 4, 1982; 50 FR 39003, Sept. 26, 1985; 52 FR 25867, July 9, 1987; 52 FR 36879, Oct. 1, 1987; 52 FR 37789, Oct. 9, 1987; 56 FR 64872, Dec. 12, 1991; 61 FR 8477, Mar. 5, 1996]

§ 73.1120 Station location.

(a) Each AM, FM and TV broadcast station will be licensed to the principal community or other political subdivision which it primarily serves. This principal community (city, town or other political subdivision) will be considered to be the geographical station location.

[44 FR 69934, Dec. 5, 1979, as amended at 52 FR 21685, June 9, 1987]

§ 73.1125 Station main studio location.

(a) Each AM, FM and TV broadcast station shall maintain a main studio within the station's principal community contour as defined in §73.24(i) (5 mV/m daytime contour), §73.315(a) and §73.685(a), respectively, of this chapter, except

(1) AM stations licensed as synchronous amplifier transmitters (''AM boosters'') or,

(2) An FM station whose main studio is located at the collocated main studio-transmitter site of a commonly-owned AM station licensed to the same principal community or,

(3) Any AM, FM or TV broadcast station whose main studio is located in the community to which the station is licensed to serve at a point situated outside the principal community contour or,

(4) AM, FM or TV stations, when good cause exists for locating the main studio outside the station's principal community contour and that to do so would be consistent with the operation of the station in the public interest.

(b) Relocation of the main studio may be made:

(1) From one point to another within the principal community contour or from a point outside the principal community contour to one within it, without specific FCC authority, but notification to the FCC in Washington shall be made promptly; however,

(2) Written authority to locate a main studio outside a station's principal community contour for the first time must be obtained from the Audio Services Division, Mass Media Bureau for AM and FM stations, or the Television Branch, Video Services Division, Mass Media Bureau for television stations before the studio may be moved to that location. Where the main studio is already authorized at a location outside the station's principal community contour, and the licensee or permittee desires to specify a new location also located outside the station's principal community contour, written authority must also be received from the Commission prior to the relocation of the main studio. Authority for these changes may be requested by filing a letter with an explanation of the proposed changes with the appropriate division. Licensees or permittees should be aware that the filing of a letter request for written authority to locate the main studio outside the principal community contour does not imply approval of the relocation request, because each request is addressed on a case-by-case basis. A filing fee is required for commercial AM, FM, or TV licensees or permittees filing a letter request under this section (*see* § 1.1104).

(3) Exceptions to paragraph (b)(2) of this section are:

(i) Relocation of the main studio of an FM station to the collocated main studio-transmitter site of a commonly-owned AM station licensed to the same principal community; and,

(ii) Relocation of the main studio from one point to another within the principal community of license or from a point outside the principal community to one within it.

(iii) Notification to the FCC in Washington shall be made promptly of such relocations described in paragraphs (b)(3) (i) and (ii) of this section.

(c) Each AM, FM and TV broadcast station shall maintain a local telephone number in its community of license or a toll-free number.

(d) Where the principal community to be served does not have specifically defined political boundaries, applications will be considered on a case-by-case basis by the FCC to determine if the main studio is located within the principal community to be served.

NOTE: AM stations that simulcast on a frequency in the 535–1605 kHz band and on a frequency in the 1605–1705 kHz band need only have the studio be located within the 5 mV/m contour of the lower band operation during the term of the simultaneous operating authority. Upon termination of the 535–1605 kHz band portion of the dual frequency operation, the above rule shall then become applicable to the remaining operation in the 1605–1705 kHz band.

[52 FR 21685, June 9, 1987, as amended at 56 FR 64872, Dec. 12, 1991; 57 FR 48333, Oct. 23, 1992; 62 FR 51059, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51059, Sept. 30, 1997, § 73.1125 was amended by revising paragraph (b)(2), effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§ 73.1125 Station main studio location.

* * * * *

(b) * * *

(2) From a point within the principal community contour to one outside it or from one such point outside the community contour to another, only by first securing modification of construction permit or license (FCC Forms 301 for commercial stations and 340 for noncommercial educational stations.)

* * * * *

§ 73.1150 Transferring a station.

(a) In transferring a broadcast station, the licensee may retain no right of reversion of the license, no right to reassignment of the license in the future, and may not reserve the right to use the facilities of the station for any period whatsoever.

(b) No license, renewal of license, assignment of license or transfer of control of a corporate licensee will be granted or authorized if there is a contract, arrangement or understanding, express or implied, pursuant to which,

as consideration or partial consideration for the assignment or transfer, such rights, as stated in paragraph (a) of this section, are retained.

(c) Licensees and/or permittees authorized to operate in the 535–1605 kHz and in the 1605–1705 kHz band pursuant to the Report and Order in MM Docket No. 87–267 will not be permitted to assign or transfer control of the license or permit for a single frequency during the period that joint operation is authorized.

[44 FR 58720, Oct. 11, 1979, as amended at 56 FR 64872, Dec. 12, 1991]

§ 73.1201 Station identification.

(a) *When regularly required.* Broadcast station identification announcements shall be made: (1) At the beginning and ending of each time of operation, and (2) hourly, as close to the hour as feasible, at a natural break in program offerings. Television broadcast stations may make these announcements visually or aurally.

(b) *Content.* (1) Official station identification shall consist of the station's call letters immediately followed by the community or communities specified in its license as the station's location: *Provided,* That the name of the licensee or the station's frequency or channel number, or both, as stated on the station's license may be inserted between the call letters and station location. No other insertion is permissible.

(2) A station may include in its official station identification the name of any additional community or communities, but the community to which the station is licensed must be named first.

(c) *Channel*—(1) *General.* Except as otherwise provided in this paragraph, in making the identification announcement the call letters shall be given only on the channel identified thereby.

(2) *Simultaneous AM (535–1605 kHz) and AM (1605–1705 kHz broadcasts.* If the same licensee operates an AM broadcast station in the 535–1605 kHz band and an AM broadcast station in the 1605–1705 kHz band with both stations licensed to the same community and simultaneously broadcasts the same programs over the facilities of both such stations, station identification announcements may be made jointly for both stations for periods of such simultaneous operations.

(3) *Satellite operation.* When programming of a broadcast station is rebroadcast simultaneously over the facilities of a satellite station, the originating station may make identification announcements for the satellite station for periods of such simultaneous operation.

(i) In the case of a television broadcast station, such announcements, in addition to the information required by paragraph (b)(1) of this section, shall include the number of the channel on which each station is operating.

(ii) In the case of aural broadcast stations, such announcements, in addition to the information required by paragraph (b)(1) of this section, shall include the frequency on which each station is operating.

(d) *Subscription television stations (STV).* The requirements for official station identification applicable to TV stations will apply to Subscription TV stations except, during STV-encoded programming such station identification is not required. However, a station identification announcement will be made immediately prior to and following the encoded Subscription TV program period.

[34 FR 19762, Dec. 17, 1969, as amended at 37 FR 23726, Nov. 8, 1972; 39 FR 6707, Feb. 22, 1974; 39 FR 9442, Mar. 11, 1974; 41 FR 29394, July 16, 1976; 47 FR 3791, Jan. 27, 1982; 48 FR 51308, Nov. 8, 1983; 56 FR 64872, Dec. 12, 1991]

§ 73.1202 Retention of letters received from the public.

(a) All written comments and suggestions received from the public by licensees of commercial AM, FM, and TV broadcast stations regarding operation of their station shall be maintained in the local public inspection file, unless the letter writer has requested that the letter not be made public or when the licensee feels that it should be excluded from public inspection because of the nature of its content, such as a defamatory or obscene letter.

(1) Letters shall be retained in the local public inspection file for three years from the date on which they are received by the licensee.

(2) Letters received by TV licensees only shall be placed in one of the following separated subject categories: programming or non-programming. If comments in a letter relate to both categories, the licensee shall file it under the category to which the writer has given the greater attention.

[44 FR 38846, July 3, 1979, as amended at 46 FR 26247, May 11, 1981; 52 FR 25867, July 9, 1987]

§ 73.1206 Broadcast of telephone conversations.

Before recording a telephone conversation for broadcast, or broadcasting such a conversation simultaneously with its occurrence, a licensee shall inform any party to the call of the licensee's intention to broadcast the conversation, except where such party is aware, or may be presumed to be aware from the circumstances of the conversation, that it is being or likely will be broadcast. Such awareness is presumed to exist only when the other party to the call is associated with the station (such as as employee or part-time reporter), or where the other party originates the call and it is obvious that it is in connection with a program in which the station customarily broadcasts telephone conversations.

[35 FR 7733, May 20, 1970]

§ 73.1207 Rebroadcasts.

(a) The term *rebroadcast* means reception by radio of the programs or other transmissions of a broadcast or any other type of radio station, and the simultaneous or subsequent retransmission of such programs or transmissions by a broadcast station.

(1) As used in this section, ''program'' includes any complete programs or part thereof.

(2) The transmission of a program from its point of origin to a broadcast station entirely by common carrier facilities, whether by wire line or radio, is not considered a rebroadcast.

(3) The broadcasting of a program relayed by a remote pickup broadcast station is not considered a rebroadcast.

(b) No broadcast station may retransmit the program, or any part thereof, of another U.S. broadcast station without the express authority of the originating station. A copy of the written consent of the licensee originating the program must be kept by the licensee of the station retransmitting such program and made available to the FCC upon request.

(1) Stations originating emergency communications under a State EAS plan are considered to have conferred rebroadcast authority to other participating stations.

(2) Permission must be obtained from the originating station to rebroadcast any subsidiary communications transmitted by means of a multiplex subcarrier or telecommunications service on the vertical blanking interval or in the visual signal of a television signal.

(3) Programs originated by the Voice of America (VOA) and the Armed Forces Radio and Television Services (AFRTS) cannot, in general, be cleared for domestic rebroadcast, and may therefore be retransmitted only by special arrangements among the parties concerned.

(4) Except as otherwise provided by international agreement, programs originated by foreign broadcast stations may be retransmitted without the consent of the originating station.

(c) The transmissions of non-broadcast stations may be rebroadcast under the following conditions:

(1) Messages originated by privately-owned non-broadcast stations other than those in the Amateur and Citizens Band (CB) Radio Services may be broadcast only upon receipt of prior permission from the non-broadcast licensee. Additionally, messages transmitted by common carrier stations may be rebroadcast only upon prior permission of the originator of the message as well as the station licensee.

(2) Except as provided in paragraph (d) of this section, messages originated entirely by non-broadcast stations owned and operated by the Federal Government may be rebroadcast only upon receipt of prior permission from the government agency originating the messages.

(3) Messages originated by stations in the amateur and Citizens Band (CB) radio services may be rebroadcast at the discretion of broadcast station licensees.

(4) Emergency communications originated under a State EAS plan.

(d) The rebroadcasting of time signals originated by the Naval Observatory and the National Bureau of Standards and messages from the National Weather Service stations is permitted without specific authorization under the following procedures:

(1) *Naval Observatory Time Signals.* (i) The time signals rebroadcast must be obtained by direct radio reception from a naval radio station, or by land line circuits.

(ii) Announcement of the time signal must be made without reference to any commercial activity.

(iii) Identification of the Naval Observatory as the source of the time signal must be made by an announcement, substantially as follows: ''With the signal, the time will be . . . courtesy of the U.S. Naval Observatory.''

(iv) Schedules of time signal broadcasts may be obtained upon request from the Superintendent, U.S. Naval Observatory, Washington, DC 20390.

(2) *National Bureau of Standards Time Signals.* (i) Time signals for rebroadcast must be obtained by direct radio reception from a National Bureau of Standards (NBS) station.

(ii) Use of receiving and rebroadcasting equipment must not delay the signals by more than 0.05 second.

(iii) Signals must be rebroadcast live, not from tape or other recording.

(iv) Voice or code announcements of the call signs of NBS stations are not to be rebroadcast.

(v) Identification of the origin of the service and the source of the signals must be made by an announcement substantially as follows: ''At the tone, 11 hours 25 minutes *Coordinated Universal Time.* This is a rebroadcast of a continous service furnished by the National Bureau of Standards, Ft. Collins, Colo.'' No commercial sponsorship of this announcement is permitted and none may be implied.

(vi) Schedules of time signal broadcasts may be obtained from, and notice of use of NBS time signals for rebroadcast must be forwarded semiannually to:

National Bureau of Standards, Radio Stations WWV/WWVB, 2000 East County Road 58, Ft. Collins, Colorado 80524.

(vii) In the rebroadcasting of NBS time signals, announcements will not state that they are standard frequency transmissions. Voice announcements of *Coordinated Universal Time* are given in voice every minute. Each minute, except the first of the hour, begins with an 0.8 second long tone of 1000 hertz at WWV and 1200 hertz tone at WWVH. The first minute of every hour begins with an 0.8 second long tone of 1500 hertz at both stations. This tone is followed by a 3-second pause, than the announcement, ''National Bureau of Standards Time.'' This is followed by another 3-second pause before station identification. This arrangement allows broadcast stations sufficient time to retransmit the hour time tone and the words ''National Bureau of Standards Time'' either by manual or automatic switching.

(viii) Time signals or scales made up from integration of standard frequency signals broadcast from NBS stations may not be designated as national standard scales of time or attributed to the NBS as originator. For example, if a broadcasting station transmits time signals obtained from a studio clock which is periodically calibrated against the NBS time signals from WWV or WWVH, such signals may not be announced as NBS standard time or as having been originated by the NBS.

(3) *National Weather Service Messages.* (i) Messages of the National Weather Service must be rebroadcast within 1 hour of receipt.

(ii) If advertisements are given in connection with weather rebroadcast, these advertisements must not directly or indirectly convey an endorsement by the U.S. Government of the products or services so advertised.

(iii) Credit must be given to indicate that the rebroadcast message originates with the National Weather Service.

[44 FR 36040, June 20, 1979, as amended at 45 FR 26065, Apr. 17, 1980; 48 FR 28456, June 22, 1983; 50 FR 25246, June 18, 1985; 59 FR 67102, Dec. 28, 1994; 61 FR 36305, July 10, 1996]

§ 73.1208 Broadcast of taped, filmed, or recorded material.

(a) Any taped, filmed or recorded program material in which time is of special significance, or by which an affirmative attempt is made to create the impression that it is occurring simultaneously with the broadcast, shall be announced at the beginning as taped, filmed or recorded. The language of the announcement shall be clear and in terms commonly understood by the public. For television stations, the announcement may be made visually or aurally.

(b) Taped, filmed, or recorded announcements which are of a commercial, promotional or public service nature need not be identified as taped, filmed or recorded.

[37 FR 23726, Nov. 8, 1972]

§ 73.1209 References to time.

Unless specifically designated as ''standard (non-advanced)'' or ''advanced,'' all references to time contained in this part, and in license documents and other authorizations issued thereunder shall be understood to mean local time; i.e., the time legally observed in the community.

[39 FR 26736, July 23, 1974]

§ 73.1210 TV/FM dual-language broadcasting in Puerto Rico.

(a) For the purpose of this section, dual-language broadcasting shall be understood to mean the telecasting of a program in one language with the simultaneous transmission, on the main channel of a participating FM broadcast station, of companion sound track information in a different language.

(b) Television broadcast licensees in Puerto Rico may enter into dual-language time purchase agreements with FM broadcast licensees, subject to the following conditions:

(1) All such agreements shall be reduced to writing and retained by the licensee for possible Commission inspection, in accordance with § 73.3613 of this chapter.

(2) All such agreements shall specify that the FM licensee will monitor sound track material with a view to rejecting any material deemed to be inappropriate or objectionable for broadcast exposure.

(3) No television or FM broadcast station may devote more than 15 hours per week to dual-language broadcasting, nor may more than three (3) hours of such programming be presented on any given day.

(4) Noncommercial educational television broadcast stations shall take all necessary precautions to assure that the entire operation is conducted on a noncommercial basis and otherwise in accordance with § 73.621 of this part.

[40 FR 17259, Apr. 18, 1975, as amended at 49 FR 33663, Aug. 24, 1984; 50 FR 40016, Oct. 1, 1985]

§ 73.1211 Broadcast of lottery information.

(a) No licensee of an AM, FM, or television broadcast station, except as in paragraph (c) of this section, shall broadcast any advertisement of or information concerning any lottery, gift enterprise, or similar scheme, offering prizes dependent in whole or in part upon lot or chance, or any list of the prizes drawn or awarded by means of any such lottery, gift enterprise or scheme, whether said list contains any part or all of such prizes. (18 U.S.C. 1304, 62 Stat. 763).

(b) The determination whether a particular program comes within the provisions of paragraph (a) of this section depends on the facts of each case. However, the Commission will in any event consider that a program comes within the provisions of paragraph (a) of this section if in connection with such program a prize consisting of money or other thing of value is awarded to any person whose selection is dependent in whole or in part upon lot or chance, if as a condition of winning or competing for such prize, such winner or winners are required to furnish any money or other thing of value or are required to have in their possession any product sold, manufactured, furnished or distributed by a sponsor of a program broadcast on the station in question. (See 21 FCC 2d 846).

(c) The provisions of paragraphs (a) and (b) of this section shall not apply to an advertisement, list of prizes or other information concerning:

(1) A lottery conducted by a State acting under the authority of State law which is broadcast by a radio or television station licensed to a location in that State or any other State which conducts such a lottery. (18 U.S.C. 1307(a); 102 Stat. 3205).

(2) Fishing contests exempted under 18 U.S. Code 1305 (not conducted for profit, *i.e.*, all receipts fully consumed in defraying the actual costs of operation).

(3) Any gaming conducted by an Indian Tribe pursuant to the Indian Gaming Regulatory Act (25 U.S.C. 2701 *et seq.*)

(4) A lottery, gift enterprise or similar scheme, other than one described in paragraph (c)(1) of this section, that is authorized or not otherwise prohibited by the State in which it is conducted and which is:

(i) Conducted by a not-for-profit organization or a governmental organization (18 U.S.C. 1307(a); 102 Stat. 3205); or

(ii) Conducted as a promotional activity by a commercial organization and is clearly occasional and ancillary to the primary business of that organization. (18 U.S.C. 1307(a); 102 Stat. 3205).

(d)(1) For purposes of paragraph (c) of this section, ''lottery'' means the pooling of proceeds derived from the sale of tickets or chances and allotting those proceeds or parts thereof by chance to one or more chance takers or ticket purchasers. It does not include the placing or accepting of bets or wagers on sporting events or contests.

(2) For purposes of paragraph (c)(4)(i) of this section, the term ''not-for-profit organization'' means any organization that would qualify as tax exempt under section 501 of the Internal Revenue Code of 1986.

[40 FR 6210, Feb. 10, 1975, as amended at 45 FR 6401, Jan. 28, 1980; 54 FR 20856, May 15, 1989; 55 FR 18888, May 7, 1990]

§ 73.1212 Sponsorship identification; list retention; related requirements.

(a) When a broadcast station transmits any matter for which money, service, or other valuable consideration is either directly or indirectly paid or promised to, or charged or accepted by such station, the station, at the time of the broadcast, shall announce:

(1) That such matter is sponsored, paid for, or furnished, either in whole or in part, and

(2) By whom or on whose behalf such consideration was supplied: *Provided, however,* That ''service or other valuable consideration'' shall not include any service or property furnished either without or at a nominal charge for use on, or in connection with, a broadcast unless it is so furnished in consideration for an identification of any person, product, service, trademark, or brand name beyond an identification reasonably related to the use of such service or property on the broadcast.

(i) For the purposes of this section, the term ''sponsored'' shall be deemed to have the same meaning as ''paid for.''

(ii) In the case of any television political advertisement concerning candidates for public office, the sponsor shall be identified with letters equal to or greater than four percent of the vertical picture height that air for not less than four seconds.

(b) The licensee of each broadcast station shall exercise reasonable diligence to obtain from its employees, and from other persons with whom it deals directly in connection with any matter for broadcast, information to enable such licensee to make the announcement required by this section.

(c) In any case where a report has been made to a broadcast station as required by section 507 of the Communications Act of 1934, as amended, of circumstances which would have required an announcement under this section had the consideration been received by such broadcast station, an appropriate announcement shall be made by such station.

(d) In the case of any political broadcast matter or any broadcast matter involving the discussion of a controversial issue of public importance for which any film, record, transcription, talent, script, or other material or service of any kind is furnished, either directly or indirectly, to a station as an inducement for broadcasting such matter, an announcement shall be made both at the beginning and conclusion of such broadcast on which such material or service is used that such film, record, transcription, talent,

script, or other material or service has been furnished to such station in connection with the transmission of such broadcast matter: *Provided, however,* That in the case of any broadcast of 5 minutes' duration or less, only one such announcement need be made either at the beginning or conclusion of the broadcast.

(e) The announcement required by this section shall, in addition to stating the fact that the broadcast matter was sponsored, paid for or furnished, fully and fairly disclose the true identity of the person or persons, or corporation, committee, association or other unincorporated group, or other entity by whom or on whose behalf such payment is made or promised, or from whom or on whose behalf such services or other valuable consideration is received, or by whom the material or services referred to in paragraph (d) of this section are furnished. Where an agent or other person or entity contracts or otherwise makes arrangements with a station on behalf of another, and such fact is known or by the exercise of reasonable diligence, as specified in paragraph (b) of this section, could be known to the station, the announcement shall disclose the identity of the person or persons or entity on whose behalf such agent is acting instead of the name of such agent. Where the material broadcast is political matter or matter involving the discussion of a controversial issue of public importance and a corporation, committee, association or other unincorporated group, or other entity is paying for or furnishing the broadcast matter, the station shall, in addition to making the announcement required by this section, require that a list of the chief executive officers or members of the executive committee or of the board of directors of the corporation, committee, association or other unincorporated group, or other entity shall be made available for public inspection at the location specified by the licensee under § 73.3526 of this chapter. If the broadcast is originated by a network, the list may, instead, be retained at the headquarters office of the network or at the location where the originating station maintains its public inspection file under § 73.3526 of this chapter. Such lists shall be kept and made available for a period of two years.

(f) In the case of broadcast matter advertising commercial products or services, an announcement stating the sponsor's corporate or trade name, or the name of the sponsor's product, when it is clear that the mention of the name of the product constitutes a sponsorship identification, shall be deemed sufficient for the purpose of this section and only one such announcement need be made at any time during the course of the broadcast.

(g) The announcement otherwise required by section 317 of the Communications Act of 1934, as amended, is waived with respect to the broadcast of ''want ad'' or classified advertisements sponsored by an individual. The waiver granted in this paragraph shall not extend to a classified advertisement or want ad sponsorship by any form of business enterprise, corporate or otherwise. Whenever sponsorship announcements are omitted pursuant to this paragraph, the licensee shall observe the following conditions:

(1) Maintain a list showing the name, address, and (where available) the telephone number of each advertiser;

(2) Make this list available to members of the public who have a legitimate interest in obtaining the information contained in the list. Such list must be retained for a period of two years after broadcast.

(h) Any announcement required by section 317(b) of the Communications Act of 1934, as amended, is waived with respect to feature motion picture film produced initially and primarily for theatre exhibition.

NOTE: The waiver heretofore granted by the Commission in its Report and Order adopted November 16, 1960 (FCC 60–1369; 40 F.C.C. 95), continues to apply to programs filmed or recorded on or before June 20, 1963, when § 73.654, the predecessor television rule, went into effect.

(i) Commission interpretations in connection with the provisions of the sponsorship identification rules are contained in the Commission's Public Notice, entitled ''Applicability of Sponsorship Identification Rules,'' dated May 6, 1963 (40 F.C.C. 141), as modified by Public Notice, dated April

21, 1975 (FCC 75–418). Further interpretations are printed in full in various volumes of the Federal Communications Commission Reports.

[40 FR 18400, Apr. 28, 1975, as amended at 46 FR 13907, Feb. 24, 1981; 49 FR 4211, Feb. 3, 1984; 49 FR 33663, Aug. 24, 1984; 50 FR 32417, Aug. 12, 1985; 57 FR 8279, Mar. 9, 1992]

§ 73.1213 Antenna structure, marking and lighting.

(a) The provisions of part 17 of this chapter (Construction, Marking, and Lighting of Antenna Structures), requires certain antenna structures to be painted and/or lighted in accordance with part 17.

(b) The owner of each antenna structure is responsible for ensuring that the structure, if required, is painted and/or illuminated in accordance with part 17 of this chapter. In the event of default by the owner, each licensee or permittee shall be responsible for ensuring that the structure complies with applicable painting and lighting requirements.

[61 FR 4367, Feb. 6, 1996]

§ 73.1215 Specifications for indicating instruments.

The following requirements and specifications shall apply to indicating instruments used by broadcast stations:

(a) Linear scale instruments:

(1) Length of scale shall not be less than 2.3 inches (5.8 cm).

(2) Accuracy shall be at least 2 percent of the full scale reading.

(3) The maximum rating of the meter shall be such that it does not read off scale during modulation or normal operation.

(4) Scale shall have at least 40 divisions.

(5) Full scale reading shall not be greater than five times the minimum normal indication.

(b) Instruments having square-law scales:

(1) Meet the requirements of paragraphs (a) (1), (2), and (3) of this section for linear scale instruments.

(2) Full scale reading shall not be greater than three times the minimum normal indication.

(3) No scale division above one-third full scale reading shall be greater than one-thirtieth of the full scale reading. (Example: An ammeter meeting requirement (1) having full scale reading of 6 amperes is acceptable for reading currents from 2 to 6 amperes, provided no scale division between 2 and 6 amperes is greater than one-thirtieth of 6 amperes, 0.2 ampere.)

(c) Instruments having logarithmic scales:

(1) Meet the requirements of paragraphs (a) (1), (2), and (3) of this section for linear scale instruments.

(2) Full scale reading shall not be greater than five times the minimum normal indication.

(3) No scale division above one-fifth full scale reading (in watts) shall be greater than one-thirtieth of the full scale reading. (Example: A wattmeter meeting requirement (3) having full scale reading of 1,500 watts is acceptable for reading power from 300 to 1,500 watts, provided no scale division between 300 and 1,500 watts is greater than one-thirtieth of 1,500 watts or 50 watts.)

(d) Instruments having expanded scales:

(1) Shall meet the requirements of paragraphs (a) (1), (2), and (3) of this section for linear scale instruments.

(2) Full scale reading shall not be greater than five times the minimum normal indication.

(3) No scale division above one-fifth full scale reading shall be greater than one-fiftieth of the full scale reading. (Example: An ammeter meeting the requirement (1) is acceptable for indicating current from 1 to 5 amperes, provided no division between 1 and 5 amperes is greater than one-fiftieth of 5 amperes, 0.1 ampere.)

(e) Digital meters, printers, or other numerical readout devices may be used in addition to or in lieu of indicating instruments meeting the specifications of paragraphs (a), (b), (c), and (d) of this section. The readout of the device must include at least three digits and must indicate the value of the parameter being read to an accuracy of 2%. The multiplier, if any, to be applied to the reading of each parameter must be indicated at the operating position.

(f) No instrument which has been broken or appears to be damaged or defective, or the accuracy of which is questionable shall be used, until it has

been checked, and if necessary repaired and recalibrated by the manufacturer or qualified instrument repair service. Repaired instruments shall not be used unless a certificate of calibration has been provided showing that the instrument conforms to the manufacturer's specifications for accuracy.

[41 FR 36818, Sept. 1, 1976; 41 FR 43152, Sept. 30, 1976, as amended at 51 FR 2707, Jan. 21, 1986]

§ 73.1216 Licensee-conducted contests.

A licensee that broadcasts or advertises information about a contest it conducts shall fully and accurately disclose the material terms of the contest, and shall conduct the contest substantially as announced or advertised. No contest description shall be false, misleading or deceptive with respect to any material term.

NOTE 1: For the purposes of this rule:

(a) A contest is a scheme in which a prize is offered or awarded, based upon chance, diligence, knowledge or skill, to members of the public.

(b) Material terms include those factors which define the operation of the contest and which affect participation therein. Although the material terms may vary widely depending upon the exact nature of the contest, they will generally include: how to enter or participate; eligibility restrictions; entry deadline dates; whether prizes can be won; when prizes can be won; the extent, nature and value of prizes; basis for valuation of prizes; time and means of selection of winners; and/or tie-breaking procedures.

NOTE 2: In general, the time and manner of disclosure of the material terms of a contest are within the licensee's discretion. However, the obligation to disclose the material terms arises at the time the audience is first told how to enter or participate and continues thereafter. The material terms should be disclosed periodically by announcements broadcast on the station conducting the contest, but need not be enumerated each time an announcement promoting the contest is broadcast. Disclosure of material terms in a reasonable number of announcements is sufficient. In addition to the required broadcast announcements, disclosure of the material terms may be made in a non-broadcast manner.

NOTE 3: This rule is not applicable to licensee-conducted contests not broadcast or advertised to the general public or to a substantial segment thereof, to contests in which the general public is not requested or permitted to participate, to the commercial advertisement of non-licensee-conducted contests, or to a contest conducted by a non-broadcast division of the licensee or by a non-broadcast company related to the licensee.

[41 FR 43152, Sept. 30, 1976]

§ 73.1217 Broadcast hoaxes.

No licensee or permittee of any broadcast station shall broadcast false information concerning a crime or a catastrophe if:

(a) The licensee knows this information is false;

(b) It is forseeable that broadcast of the information will cause substantial public harm, and

(c) Broadcast of the information does in fact directly cause substantial public harm.

Any programming accompanied by a disclaimer will be presumed not to pose foreseeable harm if the disclaimer clearly characterizes the program as a fiction and is presented in a way that is reasonable under the circumstances.

NOTE: For purposes of this rule, ''public harm'' must begin immediately, and cause direct and actual damage to property or to the health or safety of the general public, or diversion of law enforcement or other public health and safety authorities from their duties. The public harm will be deemed foreseeable if the licensee could expect with a significant degree of certainty that public harm would occur. A ''crime'' is any act or omission that makes the offender subject to criminal punishment by law. A ''catastrophe'' is a disaster or imminent disaster involving violent or sudden event affecting the public.

[57 FR 28640, June 26, 1992]

§ 73.1225 Station inspections by FCC.

(a) The licensee of a broadcast station shall make the station available for inspection by representatives of the FCC during the station's business hours, or at any time it is in operation.

(b) In the course of an inspection or investigation, an FCC representative may require special equipment tests, program tests or operation with nighttime or presunrise facilities during daytime hours pursuant to §0.314, part 0, of the FCC rules.

(c) The following records shall be made available by all broadcast stations upon request by representatives of the FCC.

(1) Equipment performance measurements required by §§ 73.1590 and 73.1690.

(2) The written designations for chief operators and, when applicable, the contracts for chief operators engaged on a contract basis.

(3) Application for modification of the transmission system made pursuant to § 73.1690(c).

(4) Informal statements or drawings depicting any transmitter modification made pursuant to § 73.1690(e).

(5) Station logs and special technical records.

(d) Commercial and noncommercial AM stations must make the following information also available upon request by representatives of the FCC.

(1) Copy of the most recent antenna or common-point impedance measurements.

(2) Copy of the most recent field strength measurements made to establish performance of directional antennas required by § 73.151.

(3) Copy of the partial directional antenna proofs of performance made in accordance with § 73.154 and made pursuant to the following requirements:

(i) Section 73.68, Sampling systems for antenna monitors.

(ii) Section 73.69, Antenna monitors.

(iii) Section 73.61, AM direction antenna field strength measurements.

[43 FR 45846, Oct. 4, 1978; 43 FR 50683, Oct. 31, 1978, as amended at 51 FR 41629, Nov. 18, 1986; 51 FR 44478, Dec. 10, 1986; 57 FR 48333, Oct. 23, 1992]

§ 73.1226 Availability to FCC of station logs and records.

The following shall be made available to any authorized representative of the FCC upon request:

(a) Station records and logs shall be made available for inspection or duplication at the request of the FCC or its representative. Such logs or records may be removed from the licensee's possession by an FCC representative or, upon request, shall be mailed by the licensee to the FCC by either registered mail, return receipt requested, or certified mail, return receipt requested. The return receipt shall be retained by the licensee as part of the station records until such records or logs are returned to the licensee. A receipt shall be furnished when the logs or records are removed from the licensee's possession by an FCC representative and this receipt shall be retained by the licensee as part of the station records until such records or logs are returned to the licensee. When the FCC has no further need for such records or logs, they shall be returned to the licensee. The provisions of this rule shall apply solely to those station logs and records which are required to be maintained by the provisions of this chapter.

(1) Logs and records stored on microfilm, microfiche or other data-storage systems are subject to the requirements pertaining thereto found in § 73.1840(b).

(b) Where records or logs are maintained as the official records of a recognized law enforcement agency and the removal of the records from the possession of the law enforcement agency will hinder its law enforcement activities, such records will not be removed pursuant to this section if the chief of the law enforcement agency promptly certifies in writing to the FCC that removal of the logs or records will hinder law enforcement activities of the agency, stating insofar as feasible the basis for his decision and the date when it can reasonably be expected that such records will be released to the FCC.

(c) The following contracts, agreements, or understandings, which need not be filed with the FCC (per § 73.3613, Filing of contracts), must be kept at the station and made available for inspection by any authorized representative of the FCC upon request:

(1) Contracts relating to the sale of broadcast time to ''time brokers'' for resale.

(2) FM subchannel leasing agreements for subsidiary communications.

(3) Time sales contracts with the same sponsor for 4 or more hours per day, except where the length of the events (such as athletic contests, musical programs, and special events) broadcast pursuant to the contract is not under control of the station.

(4) Contracts with chief operators or other engineering personnel.

[43 FR 45847, Oct. 4, 1978; 43 FR 50683, Oct. 31, 1978, as amended at 45 FR 41151, June 18, 1980; 48 FR 28457, June 22, 1983]

§ 73.1230 Posting of station license.

(a) The station license and any other instrument of station authorization shall be posted in a conspicuous place and in such a manner that all terms are visible at the place the licensee considers to be the principal control point of the transmitter.

(b) Posting of the station license and any other instruments of authorization shall be done by affixing them to the wall at thee posting location, or by enclosing them in a binder or folder which is retained at the posting location so that the documents will be readily available and easily accessible.

[60 FR 55480, Nov. 1, 1995]

§ 73.1250 Broadcasting emergency information.

(a) Emergency situations in which the broadcasting of information is considered as furthering the safety of life and property include, but are not limited to the following: Tornadoes, hurricanes, floods, tidal waves, earthquakes, icing conditions, heavy snows, widespread fires, discharge of toxic gasses, widspread power failures, industrial explosions, civil disorders and school closing and changes in school bus schedules resulting from such conditions. See also § 73.3542, Application for Emergency Authorization, for requirements involving emergency situations not covered by this section for which prior operating authority must be requested.

(b) If requested by responsible public officials, a station may, at its discretion, and without further FCC authority, transmit emergency point-to-point messages for the purpose of requesting or dispatching aid and assisting in rescue operations.

(c) If the Emergency Alert System (EAS) is activated for a national emergency while a Local Area or State emergency operation is in progress, the national level EAS operation must take precedence. If, during the broadcasting of Local Area or State emergency information, the EAS codes or Attention Signal described in § 11.12 of this chapter are used, the broadcasts are considered as being carried out under a Local Area or State EAS plan.

(d) Any emergency operation undertaken in accordance with this section may be terminated by the FCC if required in the public interest.

(e) Immediately upon cessation of an emergency during which broadcast facilities were used for the transmission of point-to-point messages under paragraph (b) of this section, or when daytime facilities were used during nighttime hours by an AM station in accordance with paragraph (f) of this section, a report in letter form shall be forwarded to the FCC in Washington, DC, setting forth the nature of the emergency, the dates and hours of the broadcasting of emergency information, and a brief description of the material carried during the emergency. A certification of compliance with the noncommercialization provision of paragraph (f) of this section must accompany the report where daytime facilities are used during nighttime hours by an AM station, together with a detailed showing, under the provisisons of that paragraph, that no other broadcast service existed or was adequate.

(f) AM stations may, without further FCC authority, use their full daytime facilities during nighttime hours to broadcast emergency information (examples listed in paragraph (a) of this section), when necessary to the safety of life and property, in dangerous conditions of a general nature and when adequate advance warning cannot be given with the facilities authorized. Because of skywave interference impact on other stations assigned to the same channel, such operation may be undertaken only if regular, unlimited-time service, is non-existent, inadequate from the standpoint of coverage, or not serving the public need. All operation under this paragraph must be conducted on a noncommercial basis. Recorded music may be used to the extent necessary to provide program continuity.

(g) Broadcasting of emergency information shall be confined to the hours, frequencies, powers and modes of operation specified in the station license, except as otherwise provided for AM stations in paragraph (f) of this section.

(h) Any emergency information transmitted by a TV station in accordance with this section shall be transmitted both aurally and visually or only visually. TV stations may use any method of visual presentation which results in a legible message conveying the essential emergency information. Methods which may be used include, but are not necessarily limited to, slides, electronic captioning, manual methods (e.g., hand printing) or mechanical printing processes. However, when an emergency operation is being conducted under a national, State or Local Area Emergency Alert System (EAS) plan, emergency information shall be transmitted both aurally and visually unless only the EAS codes are transmitted as specified in § 11.51(b) of this chapter.

[43 FR 45847, Oct. 4, 1978, as amended at 50 FR 30947, July 31, 1985; 59 FR 67102, Dec. 28, 1994; 60 FR 56000, Nov. 6, 1995]

§ 73.1300 Unattended station operation.

Broadcast stations may be operated as either attended (where a designated person is responsible for the proper operation of the transmitting apparatus either at the transmitter site, a remote control point or an ATS control point) or unattended (where highly stable equipment or automated monitoring of station operating parameters is employed). No prior FCC approval is required to operate a station in the unattended mode. Regardless of which method of station operation is employed, licensees must employ procedures which will ensure compliance with Part 11 of this chapter, the rules governing the Emergency Alert System (EAS).

[60 FR 55481, Nov. 1, 1995]

§ 73.1350 Transmission system operation.

(a) Each licensee is responsible for maintaining and operating its broadcast station in a manner which complies with the technical rules set forth elsewhere in this part and in accordance with the terms of the station authorization.

(b) The licensee must designate a chief operator in accordance with § 73.1870. The licensee may designate one or more technically competent persons to adjust the transmitter operating parameters for compliance with the technical rules and the station authorization.

(1) Persons so authorized by the licensee may make such adjustments directly at the transmitter site or by using control equipment at an off-site location.

(2) The transmitter control personnel must have the capability to turn the transmitter off at all times. If the personnel are at a remote location, the control system must provide this capability continuously or must include an alternate method of acquiring control that can satisfy the requirement of paragraph (d) of this section that operation be terminated within 3 minutes.

(c) The licensee must establish monitoring procedures and schedules for the station and the indicating instruments employed must comply with § 73.1215.

(1) Monitoring procedures and schedules must enable the licensee to determine compliance with § 73.1560 regarding operating power and AM station mode of operation, § 73.1570 regarding modulation levels, and, where applicable, § 73.1213 regarding antenna tower lighting, and § 73.69 regarding the parameters of an AM directional antenna system.

(2) Monitoring equipment must be periodically calibrated so as to provide reliable indications of transmitter operating parameters with a known degree of accuracy. Errors inherent in monitoring equipment and the calibration procedure must be taken into account when adjusting operating parameters to ensure that the limits imposed by the technical rules and the station authorization are not exceeded.

(d) In the event that a broadcast station is operating in a manner that is not in compliance with the technical rules set forth elsewhere in this part or the terms of the station authorization, and the condition is not listed in paragraph (e) of this section, broadcast operation must be terminated within three hours.

(1) Examples of conditions that require termination of operation include excessive power or excessive modulation.

(2) Additional examples for AM stations are any mode of operation not specified by the station license for the pertinent time of day or hours of operation and any condition of antenna parameters or monitoring points out of the tolerances specified elsewhere in this part or by the station's instrument of authorization. For these conditions, operation must be terminated within three minutes unless antenna input power is reduced sufficiently to eliminate any excess radiation.

(3) For AM stations using directional arrays, additional procedures apply when array operating parameters are at variance, monitoring points exceed specified limits, or authorized directional mode capability is lost. See § 73.62, Directional antenna system tolerances; § 73.158, Directional antenna monitoring points; and § 73.1680(b), Emergency antennas.

(e) If a broadcast station is operating in a manner that is not in compliance with one of the following technical rules, operation may continue if the station complies with relevant alternative provisions in the specified rule section.

(1) AM directional antenna system tolerances, *see* § 73.62;

(2) AM directional antenna monitoring points, *see* § 73.158;

(3) TV visual waveform, *see* § 73.691(b);

(4) Reduced power operation, *see* § 73.1560(d);

(5) Reduced modulation level, *see* § 73.1570(a);

(6) Emergency antennas, *see* § 73.1680.

(f) The transmission system must be maintained and inspected in accordance with § 73.1580.

(g) Whenever a transmission system control point is established at a location other than at the main studio or transmitter, notification of that location must be sent to the FCC in Washington, D.C. within 3 days of the initial use of that point. This notification is not required if responsible station personnel can be contacted at the transmitter or studio site during hours of operation.

(h) The licensee must ensure that the station is operated in compliance with Part 11 of this chapter, the rules governing the Emergency Alert System (EAS).

[60 FR 55481, Nov. 1, 1995]

§ 73.1400 Transmission system monitoring and control.

The licensee of an AM, FM or TV station is responsible for assuring that at all times the station operates within tolerances specified by applicable technical rules contained in this part and in accordance with the terms of the station authorization. Any method of complying with applicable tolerances is permissible. The following are typical methods of transmission system operation:

(a) *Attended operation.* (1) Attended operation consists of ongoing supervision of the transmission facilities by a station employee or other person designated by the licensee. Such supervision may be accomplished by either:

(i) Direct supervision and control of transmission system parameters by a person at the transmitter site; or

(ii) Remote control of the transmission system by a person at the main studio or other location. The remote control system must provide sufficient transmission system monitoring and control capability so as to ensure compliance with § 73.1350.

(2) A station may also be monitored and controlled by an automatic transmission system (ATS) that is configured to contact a person designated by the licensee in the event of a technical malfunction. An automatic transmission system consists of monitoring devices, control and alarm circuitry, arranged so that they interact automatically to operate the station's transmitter and maintain technical parameters within licensed values.

(3) A hybrid system containing some remote control and some ATS features is also permissible.

(4) In the case of remote control or ATS operation, not every station parameter need be monitored or controlled if the licensee has good reason to believe that its stability is so great that its monitoring and control are unnecessary.

(b) *Unattended operation.* Unattended operation is either the absence of human supervision or the substitution of automated supervision of a station's

transmission system for human supervision. In the former case, equipment is employed which is expected to operate within assigned tolerances for extended periods of time. The latter consists of the use of a self-monitoring or ATS-monitored and controlled transmission system that, in lieu of contacting a person designated by the licensee, automatically takes the station off the air within three hours of any technical malfunction which is capable of causing interference.

[60 FR 55481, Nov. 1, 1995]

§ 73.1510 Experimental authorizations.

(a) Licensees of broadcast stations may obtain experimental authorizations to conduct technical experimentation directed toward improvement of the technical phases of operation and service, and for such purposes may use a signal other than the normal broadcast program signal.

(b) Experimental authorizations may be requested by filing an informal application with the FCC in Washington, DC, describing the nature and purpose of the experimentation to be conducted, the nature of the experimental signal to be transmitted, and the proposed schedule of hours and duration of the experimentation. Experimental authorizations shall be posted with the station license.

(c) Experimental operations are subject to the following conditions:

(1) The authorized power of the station may not be exceeded, except as specifically authorized for the experimental operations.

(2) Emissions outside the authorized bandwidth must be attenuated to the degree required for the particular type of station.

(3) The experimental operations may be conducted at any time the station is authorized to operate, but the minimum required schedule of programming for the class and type of station must be met. AM stations also may conduct experimental operations during the experimental period (12 midnight local time to local sunrise) and at additional hours if permitted by the experimental authorization provided no interference is caused to other stations maintaining a regular operating schedule within such period(s).

(4) If an experimental authorization permits the use of additional facilities or hours of operation for experimental purposes, no sponsored programs or commercial announcements may be transmitted during such experimentation.

(5) The licensee may transmit regularly scheduled programming concurrently with the experimental transmission if there is no significant impairment of service.

(6) No charges may be made, either directly or indirectly, for the experimentation; however, normal charges may be made for regularly scheduled programming transmitted concurrently with the experimental transmissions.

(d) The FCC may request a report of the research, experimentation and results at the conclusion of the experimental operation.

[43 FR 32783, July 28, 1978]

§ 73.1515 Special field test authorizations.

(a) A special field test authorization may be issued to conduct field strength surveys to aid in the selection of suitable sites for broadcast transmission facilities, determine coverage areas, or to study other factors influencing broadcast signal propagation. The applicant for the authorization must be qualified to hold a license under section 303(1)(l) of the Communications Act.

(b) Requests for authorizations to operate a transmitter under a Special field test authorization must be in writing using an informal application in letter form, signed by the applicant and including the following information:

(1) Purpose, duration and need for the survey.

(2) Frequency, transmitter output powers and time of operation.

(3) A brief description of the test antenna system, its estimated effective radiated field and height above ground or average terrain, and the geographic coordinates of its proposed location(s).

(c) Operation under a special field test authorization is subject to the following conditions:

(1) No objectionable interference will result to the operation of other authorized radio services; in this connection, the power requested shall not exceed that necessary for the purposes of the test.

(2) The carriers will be unmodulated except for the transmission of a test-pattern on a visual TV transmitter, and for hourly voice station identification on aural AM, FM and TV transmitters.

(3) The transmitter output power or antenna input power may not exceed those specified in the test authorization and the operating power must be maintained at a constant value for each phase of the tests.

(4) The input power to the final amplifier stage, and the AM antenna current or the FM or TV transmitter output power must be observed and recorded at half hour intervals and at any time that the power is adjusted or changed. Copies of these records must be submitted to the FCC with the required report.

(5) The test equipment may not be permanently installed, unless such installation has been separately authorized. Mobile units are not deemed permanent installations.

(6) Test transmitters must be operated by or under the immediate direction of an operator holding a commercial radio operator license (any class, unless otherwise endorsed).

(7) A report, containing the measurements, their analysis and other results of the survey shall be filed with the FCC in Washington, DC within sixty (60) days following the termination of the test authorization.

(8) The test transmission equipment, installation and operation thereof need not comply with the requirements of FCC rules and standards except as specified in this section if the equipment, installation and operation are consistent with good engineering principles and practices.

(d) A special field test authorization may be modified or terminated by notification from the FCC if in its judgment such action will promote the public interest, convenience and necessity.

[44 FR 58734, Oct. 11, 1979, as amended at 46 FR 35463, July 8, 1981; 49 FR 4211, Feb. 3, 1984; 49 FR 20670, May 16, 1984]

§ 73.1520 Operation for tests and maintenance.

(a) Broadcast stations may be operated for tests and maintenance of their transmitting systems on their assigned frequencies using their licensed operating power and antennas during their authorized hours of operation without specific authorization from the FCC.

(b) Licensees of AM stations may operate for tests and maintenance during the hours from 12 midnight local time to local sunrise, if no interference is caused to other stations maintaining a regular operating schedule within such period. No AM station licensed for ''daytime'' or ''specified hours'' of operation may broadcast any regular or scheduled programs during this period of test and maintenance operation.

(c) Licensees of AM stations may obtain special antenna test authorizations, and operate under the provisions described in § 73.157, to operate with nighttime facilities during daytime hours in conducting directional antenna field strength and antenna proof of performance measurements.

[43 FR 32783, July 28, 1978, as amended at 45 FR 6401, Jan. 28, 1980]

§ 73.1530 Portable test stations [Definition].

A portable test station is one that is moved from place to place for making field strength and ground conductivity measurements, for selecting station transmitter sites, and conducting other specialized propagation tests. Portable test stations are not normally used while in motion, and may not be used for the transmission of programs intended to be received by the public.

[43 FR 32783, July 28, 1978]

§ 73.1540 Carrier frequency measurements.

(a) The carrier frequency of each AM and FM station and the visual carrier frequency and the difference between the visual carrier and the aural carrier or center frequency of each TV station shall be measured or determined as often as necessary to ensure that they are maintained within the prescribed tolerances.

(b) In measuring the carrier frequency, the licensee may use any

method or procedure that has sufficient precision to establish that the carrier frequency is within the prescribed departure limits.

(c) The primary standard of frequency for radio frequency measurements is the standard frequency maintained by the National Bureau of Standards or the standard signals of Stations WWV, WWVB, and WWVH of the National Bureau of Standards.

[43 FR 32783, July 28, 1978, as amended at 48 FR 44805, Sept. 30, 1983]

§ 73.1545 Carrier frequency departure tolerances.

(a) *AM stations.* The departure of the carrier frequency for monophonic transmissions or center frequency for stereophonic transmissions may not exceed ± 20 Hz from the assigned frequency.

(b) *FM stations.* (1) The departure of the carrier or center frequency of an FM station with an authorized transmitter output power more than 10 watts may not exceed ±2000 Hz from the assigned frequency.

(2) The departure of the carrier or center frequency of an FM station with an authorized transmitter output power of 10 watts or less may not exceed ±3000 Hz from the assigned frequency.

(c) *TV stations.* (1) The departure of the visual carrier frequency of a TV station may not exceed ±1000 Hz from the assigned visual carrier frequency.

(2) The departure of the aural carrier frequency of a TV station may not exceed ±1000 Hz from the actual visual carrier frequency plus exactly 4.5 MHz.

(d) *International broadcast stations.* The departure of the carrier frequency of an International broadcast station may not exceed 0.0015% of the assigned frequency on which the station is transmitting.

[44 FR 58734, Oct. 11, 1979; 44 FR 64408, Nov. 7, 1979, as amended at 47 FR 13165, Mar. 29, 1982]

§ 73.1560 Operating power and mode tolerances.

(a) *AM stations.* (1) Except as provided for in paragraph (d) of this section, the antenna input power of an AM station as determined by the procedures specified in § 73.51 must be maintained as near as is practicable to the authorized antenna input power and may not be less than 90% nor more than 105% of the authorized power.

(2) Whenever the transmitter of an AM station cannot be placed into the specified operating mode at the time required, transmissions of the station must be immediately terminated. However, if the radiated field at any bearing or elevation does not exceed that permitted for that time of day, operation in the mode with the lesser radiated field may continue under the notification procedures of paragraph (d) of this section.

(b) *FM stations.* Except as provided in paragraph (d) of this section, the transmitter output power of an FM station, with power output as determined by the procedures specified in § 73.267, which is authorized for output power more than 10 watts must be maintained as near as practicable to the authorized transmitter output power and may not be less than 90% nor more than 105% of the authorized power. FM stations operating with authorized transmitter output power of 10 watts or less, may operate at less than the authorized power, but not more than 105% of the authorized power.

(c) *TV stations.* (1) Except as provided in paragraph (d) of this section, the visual output power of a TV transmitter, as determined by the procedures specified in § 73.663, must be maintained as near as is practicable to the authorized transmitter output power and may not be less than 80% nor more than 110% of the authorized power.

(2) The output power of the aural transmitter shall be maintained to provide an aural carrier ERP not to exceed 22% of the peak authorized visual ERP.

(3) The FCC may specify deviation from the power of tolerance requirements for subscription television operations to the extent it deems necessary to permit proper operation.

(d) *Reduced power operation.* In the event it becomes technically impossible to operate with the authorized power, a broadcast station may operate at reduced power for a period of not more than 30 days without specific authority from the FCC. If operation at reduced power will exceed 10 consecutive days, a notification must be sent to the FCC in Washington, D.C., not

later than the 10th day of the lower power operation. In the event the normal power is restored prior to the expiration of the 30 day period, the licensee must notify the FCC upon restoration of normal operation. If causes beyond the control of the licensee prevent restoration of authorized power within 30 days, an informal written request must be made to the FCC in Washington, DC, no later than the 30th day for the additional time as may be necessary.

[44 FR 58734, Oct. 11, 1979, as amended at 49 FR 22093, May 25, 1984; 49 FR 29069, July 18, 1984; 49 FR 47610, Dec. 6, 1984; 50 FR 26568, June 27, 1985; 50 FR 40015, Oct. 1, 1985]

§ 73.1570 Modulation levels: AM, FM, and TV aural.

(a) The percentage of modulation is to be maintained at as high a level as is consistent with good quality of transmission and good broadcast service, with maximum levels not to exceed the values specified in paragraph (b). Generally, the modulation should not be less than 85% on peaks of frequent recurrence, but where lower modulation levels may be required to avoid objectionable loudness or to maintain the dynamic range of the program material, the degree of modulation may be reduced to whatever level is necessary for this purpose, even though under such circumstances, the level may be substantially less than that which produces peaks of frequent recurrence at a level of 85%.

(b) Maximum modulation levels must meet the following limitations:

(1) *AM stations.* In no case shall the amplitude modulation of the carrier wave exceed 100% on negative peaks of frequent recurrence, or 125% on positive peaks at any time.

(i) AM stations transmitting stereophonic programs not exceed the AM maximum stereophonic transmission signal modulation specifications of stereophonic system in use.

(ii) For AM stations transmitting telemetry signals for remote control or automatic transmission system operation, the amplitude of modulation of the carrier by the use of subaudible tones must not be higher than necessary to effect reliable and accurate data transmission and may not, in any case, exceed 6%.

(2) *FM Stations.* The total modulation must not exceed 100 percent on peaks of frequent reoccurrence referenced to 75 kHz deviation. However, stations providing subsidiary communications services using subcarriers under provisions of § 73.319 concurrently with the broadcasting of stereophonic or monophonic programs may increase the peak modulation deviation as follows:

(i) The total peak modulation may be increased 0.5 percent for each 1.0 percent subcarrier injection modulation.

(ii) In no event may the modulation of the carrier exceed 110 percent (82.5 kHz peak deviation).

(3) TV station. In no case shall the total modulation of the aural carrier exceed 100% on peaks of frequent recurrence, unless some other peak modulation level is specified in an instrument of authorization. For monophonic transmissions, 100% modulation is defined as ±25 kHz.

(c) If a limiting or compression amplifier is employed to maintain modulation levels, precaution must be taken so as not to substantially alter the dynamic characteristics of programs.

[44 FR 58735, Oct. 11, 1979, as amended at 47 FR 13165, Mar. 29, 1982; 49 FR 14508, Apr. 12, 1984; 49 FR 15081, Apr. 17, 1984; 49 FR 27147, July 2, 1984; 49 FR 47610, Dec. 6, 1984; 49 FR 48312, Dec. 12, 1984; 51 FR 26251, July 22, 1986; 56 FR 64872, Dec. 12, 1991]

§ 73.1580 Transmission system inspections.

Each AM, FM, and TV station licensee or permittee must conduct periodic complete inspections of the transmitting system and all required monitors to ensure proper station operation.

[60 FR 55482, Nov. 1, 1995]

§ 73.1590 Equipment performance measurements.

(a) The licensee of each AM, FM and TV station, except licensees of Class D non-commercial educational FM stations authorized to operate with 10 watts or less output power, must make equipment performance measurements for each main transmitter as follows:

(1) Upon initial installation of a new or replacement main transmitter.

(2) Upon modification of an existing transmitter made under the provisions of § 73.1690, Modification of transmission systems, and specified therein.

(3) Installation of AM stereophonic transmission equipment pursuant to § 73.128.

(4) Installation of FM subcarrier or stereophonic transmission equipment pursuant to § 73.295, § 73.297, § 73.593 or § 73.597.

(5) Installation of TV stereophonic or subcarrier transmission equipment pursuant to §§ 73.669 and 73.1690.

(6) Annually, for AM stations, with not more than 14 months between measurements.

(7) When required by other provisions of the rules or the station license.

(b) Measurements for spurious and harmonic emissions must be made to show compliance with the transmission system requirements of § 73.44 for AM stations; § 73.317 for FM stations and § 73.687 for TV stations. Measurements must be made under all conditions of modulation expected to be encountered by the station whether transmitting monophonic or stereophonic programs and providing subsidiary communications services.

(c) TV visual equipment performance measurements must be made with the equipment adjusted for normal program operation at the transmitter antenna sampling port to yield the following information:

(1) Field strength or voltage of the lower side-band for a modulating frequency of 1.25 MHz or greater, (including 3.58 MHz for color), and of the upper side-band for a modulating frequency of 4.75 MHz or greater.

(2) Data showing that the waveform of the transmitted signal conforms to that specified by the standards for TV transmissions.

(3) Photographs of a test pattern taken from a receiver or monitor connected to the transmitter output.

(4) Data showing envelope delay characteristics of the radiated signal.

(5) Data showing the attenuation of spurious and harmonic radiation, if, after type acceptance, any changes have been made in the transmitter or associated equipment (filters, multiplexer, etc.) which could cause changes in its radiation products.

(d) The data required by paragraphs (b) and (c) of this section, together with a description of the equipment and procedure used in making the measurements, signed and dated by the qualified person(s) making the measurements, must be kept on file at the transmitter or remote control point for a period of 2 years, and on request must be made available during that time to duly authorized representatives of the FCC.

[47 FR 8589, Mar. 1, 1982, as amended at 51 FR 18450, May 20, 1986]

§ 73.1610 Equipment tests.

(a) During the process of construction of a new broadcast station, the permittee, after notifying the FCC in Washington, D.C. may, without further authority from the FCC, conduct equipment tests for the purpose of making such adjustments and measurements as may be necessary to assure compliance with the terms of the construction permit, the technical provisions of the application therefore, the rules and regulations and the applicable engineering standards. For AM stations, equipment tests, including either a directional or nondirectional proof of performance required by the construction permit, may be conducted during daytime hours provided that the antenna system is first substantially tuned during the experimental period. The nondirectional proof shall be conducted with power adjusted to 25% of that specified in the permit for the authorized directional facilities or, if applicable, to such higher power as is specified in the same permit for authorized nondirectional facilities. For licensed stations, see § 73.1615, Operation During Modification of Facilities; and § 73.157, Antenna Testing During Daytime.

(b) The FCC may notify the permittee not to conduct equipment tests or may modify, cancel, suspend, or change the modes of testing or the dates and times for such tests in order to resolve interference complaints or when such action may appear to be in the public interest, convenience, and necessity.

(c) Equipment tests may be continued so long as the construction permit shall remain valid.

(d) The authorization for tests embodied in this section shall not be construed as constituting a license to operate but as a necessary part of construction.

[43 FR 32783, July 28, 1978, as amended at 47 FR 40174, Sept. 13, 1982; 50 FR 30947, July 31, 1985]

§ 73.1615 Operation during modification of facilities.

When the licensee of an existing AM, FM or TV station is in the process of modifying existing facilities as authorized by a construction permit and determines it is necessary to either discontinue operation or to operate with temporary facilities to continue program service, the following procedures apply:

(a) Licensees holding a construction permit for modification of directional or nondirectional FM and TV or nondirectional AM station facilities may, without specific FCC authority, for a period not exceeding 30 days:

(1) Discontinue operation, or

(2) Operate with temporary facilities to maintain, as nearly as possible, but not exceed, the size of the presently licensed coverage area.

(b) Licensees of an AM station holding a construction permit which involves directional facilities and which does not involve a change in operating frequency may, without specific FCC authority, for a period not exceeding 30 days:

(1) Discontinue operation, or

(2) Operate with reduced power or with parameters at variance from licensed tolerances while maintaining monitoring point field strengths within licensed limits during the period subsequent to the commencement of modifications authorized by the construction permit, or

(3) Operate in a nondirectional mode during the presently licensed hours of directional operation with power reduced to 25% or less of the nominal licensed power, or whatever higher power, not exceeding licensed power, will insure that the radiated field strength specified by the license is not exceeded at any given asimuth for the corresponding hours of directional operation, or

(4) Operate in a nondirectional mode during daytime hours, if not already so licensed, only as necessary to conduct a required nondirectional proof of performance with a power not to exceed 25% of the maximum power authorized by the construction permit for directional operation, or

(5) Operate during daytime hours with either the daytime or nighttime directional pattern and with the power authorized by the construction permit only as necessary to take proof of performance measurements. Operating power shall be promptly reduced to presently licensed level during any significant period of time that these measurements are not being taken. No daytime operation of construction permit directional patterns authorized by this paragraph shall be conducted before such patterns have been substantially tuned during the experimental period.

(6) In the event the directional pattern authorized by the construction permit replaces a licensed directional pattern, the licensee may operate with the substantially adjusted construction permit pattern during the corresponding licensed hours of directional operation with power not exceeding that specified for the licensed pattern.

(c) Such operation or discontinuance of operation in accordance with the provisions of paragraph (a) or (b) of this section may begin upon notification to the FCC in Washington, DC.

(1) Should it be necessary to continue the procedures in either paragraph (a) or (b) of this section beyond 30 days, an informal letter request signed by the licensee or the licensee's representative must be sent to the FCC in Washington, DC. prior to the 30th day.

(2) The license of a broadcasting station that fails to transmit broadcast signals for any consecutive 12-month period expires as a matter of law at the end of that period, notwithstanding any provision, term, or condition of the license or construction permit to the contrary.

(d) Licensees of an AM station holding a construction permit which authorizes both a change in frequency and directional facilities must request and obtain authority from the FCC in Washington, DC. prior to using any

new installation authorized by the permit, or using temporary facilities.

(1) The request is to be made at least 10 days prior to the date on which the temporary operation is to commence. The request is to be made by letter which shall describe the operating modes and facilities to be used. Such letter requests shall be signed by the licensee or the licensee's representative.

(2) Discontinuance of operation is permitted upon notification to the FCC In Washington, DC. Should it be necessary to discontinue operation longer than 30 days, an informal letter request, signed by the licensee or the licensee's representatives, must be sent to the FCC in Washington, DC prior to the 30th day.

(e) The FCC may modify or cancel the temporary operation permitted under the provisions of paragraph (a), (b), (c) or (d) of this section without prior notice or right to hearing.

[50 FR 30947, July 31, 1985, as amended at 61 FR 28767, June 6, 1996]

§ 73.1620 Program tests.

(a) Upon completion of construction of an AM, FM or TV station in accordance with the terms of the construction permit, the technical provisions of the application, the rules and regulations and the applicable engineering standards, program tests may be conducted in accordance with the following:

(1) The permittee of a nondirectional AM or FM station, or a nondirectional or directional TV station, may begin program tests upon notification to the FCC in Washington, DC provided that within 10 days thereafter, an application for a license is filed with the FCC in Washington, DC.

(2) The permittee of an FM station with a directional antenna system must file an application for license on FCC Form 302–FM requesting authority to commence program test operations at full power with the FCC in Washington, D.C. This license application must be filed at least 10 days prior to the date on which full power operations are desired to commence. The application for license must contain any exhibits called for by conditions on the construction permit. The staff will review the license application and the request for program test authority and issue a letter notifying the applicant whether full power operation has been approved. Upon filing of the license application and related exhibits, and while awaiting approval of full power operation, the FM permittee may operate the directional antenna at one half (50%) of the authorized effective radiated power. Alternatively, the permittee may continue operation with its existing licensed facilities pending the issuance of program test authority at the full effective radiated power by the staff.

(3) FM licensees replacing a directional antenna pursuant to § 73.1690 (c)(2) without changes which require a construction permit (*see* § 73.1690(b)) may immediately commence program test operations with the new antenna at one half (50%) of the authorized ERP upon installation. If the directional antenna replacement is an EXACT duplicate of the antenna being replaced (i.e., same manufacturer, antenna model number, and measured composite pattern), program tests may commence with the new antenna at the full authorized power upon installation. The licensee must file a modification of license application on FCC Form 302–FM within 10 days of commencing operations with the newly installed antenna, and the license application must contain all of the exhibits required by § 73.1690(c)(2). After review of the modification-of-license application to cover the antenna change, the Commission will issue a letter notifying the applicant whether program test operation at the full authorized power has been approved for the replacement directional antenna.

(4) The permittee of an AM station with a directional antenna system must file an application for license on FCC Form 302–AM requesting program test authority with the FCC in Washington, DC at least ten (10) days prior to the date on which it desires to commence program test operations. The application must provide an AM directional antenna proof of performance, containing the exhibits required by § 73.186. After review of the application to cover the construction permit, the

Commission will issue a letter notifying the applicant whether program test operations may commence. Program test operations may not commence prior to issuance of staff approval.

(b) The Commission reserves the right to revoke, suspend, or modify program tests by any station without right of hearing for failure to comply adequately with all terms of the construction permit or the provisions of § 73.1690(c) for a modification of license application, or in order to resolve instances of interference. The Commission may, at its discretion, also require the filing of a construction permit application to bring the station into compliance the Commission's rules and policies.

(c) Unless sooner suspended or revoked, the program test authority continues valid during FCC consideration of the application for license, and during this period further extension of the construction permit is not required. Program test authority shall be automatically terminated by final determination upon the application for station license.

(d) All operation under program test authority shall be in strict compliance with the rules governing broadcast stations and in strict accordance with representations made in the application for license pursuant to which the tests were authorized.

(e) Acceptance by the FCC of notification of the station of program tests, or the granting of program test authority by the FCC, is not to be construed by the permittee as approval by the FCC of the application for station license.

(f) The licensee of a UHF TV station which is not in operation on, but assigned to, the same allocated channel which a 1000 watt UHF translator station is authorized to use (see § 73.3516, ''Specification of facilities''), shall notify the licensee of the translator station, in writing, at least 10 days prior to commencing or resuming operation. The TV station licensee shall also certify to the FCC in Washington, DC that such advance notice has been given to the translator station licensee.

(g) *Reports required.* In their application for a license to cover a construction permit and on the first anniversary of the commencement of program tests, applicants for new broadcast facilities that were granted after designation for a comparative hearing as a result of a post designation settlement or a decision favoring them after comparative consideration must report.

(1) Any deviations from comparative proposals relating to integration of ownership and management and diversification of the media of mass communciation contained in their application for a construction permit at the time such application was granted; and

(2) Any deviations from an active/passive ownership structure proposed in their application for a construction permit at the time such application was granted.

(3) The reports referred to in paragraphs (g)(1) and (2) of this section shall not be required in any case in which the order granting the application relieved the applicant of the obligation to adhere to such proposals.

[43 FR 32784, July 28, 1978, as amended at 45 FR 6401, Jan. 28, 1980; 47 FR 28388, June 30, 1982; 49 FR 38132, Sept. 27, 1984; 56 FR 795, Jan. 9, 1991; 56 FR 25639, June 5, 1991; 57 FR 48333, Oct. 23, 1992; 62 FR 51059, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51059, Sept. 30, 1997, § 73.1620 was amended by revising paragraph (a)(2); by adding paragraphs (a)(3) and (a)(4); and by revising paragraph (b), effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§ 73.1620 Program tests.

(a) * * *

(2) The permittee of an AM or FM station with a directional antenna system must file an application for license requesting program test authority with the FCC in Washington, DC at least 10 days prior to the date on which it desires to begin program tests. Also, an antenna proof of performance must be filed with the request by an AM or FM station with a directional antenna.

* * * * *

(b) The FCC reserves the right to revoke or suspend program tests by any station without right of hearing for failure to comply adequately with all terms of the construction permit or in order to resolve instances of objectionable interference.

* * * * *

§ 73.1635 Special temporary authorizations (STA).

(a) A special temporary authorization (STA) is the authority granted to a permittee or licensee to permit the operation of a broadcast facility for a limited period at a specified variance from the terms of the station authorization or requirements of the FCC rules applicable to the particular class of station.

(1) A request for a STA should be filed with FCC in Washington, DC at least 10 days prior to the date of the proposed operation.

(2) The request is to be made by letter and shall fully describe the proposed operation and the necessity for the requested STA. Such letter requests shall be signed by the licensee or the licensee's representative.

(3) A request for a STA necessitated by unforeseen equipment damage or failure may be made without regard to the procedural requirements of this section (e.g. via telegram or telephone). Any request made pursuant to this paragraph shall be followed by a written confirmation request conforming to the requirements of paragraph (a)(2) of this section. Confirmation requests shall be submitted within 24 hours. (See also § 73.1680 Emergency Antennas).

(4) An STA may be granted for an initial period not to exceed 180 days. A limited number of extensions of such authorizations may be granted for additional periods not exceeding 180 days per extension. An STA necessitated by technical or equipment problems, however, may, in practice, be granted for an initial period not to exceed 90 days with a limited number of extensions not to exceed 90 days per extension. The permittee or licensee must demonstrate that any further extensions requested are necessary and that all steps to resume normal operation are being undertaken in an expeditions and timely fashion. The license of a broadcasting station that fails to transmit broadcast signals for any consecutive 12-month period expires as a matter of law at the end of that period, notwithstanding any STA or provision, term, or condition of the license to the contrary.

(5) Certain rules specify special considerations and procedures in situations requiring an STA or permit temporary operation at variance without prior authorization from the FCC when notification is filed as prescribed in the particular rules. See § 73.62, Directional antenna system tolerances; § 73.157, Antenna testing during daytime; § 73.158, Directional antenna monitoring points; § 73.691, Visual modulation monitoring; § 73.1250, Broadcasting emergency information; § 73.1350, Transmission system operation; § 73.1560, Operating power and mode tolerances; § 73.1570, Modulation levels: AM, FM, and TV aural; § 73.1615, Operation during modification of facilities; § 73.1680, Emergency antennas; and § 73.1740, Minimum operating schedule.

(b) An STA may be modified or cancelled by the FCC without prior notice or right to hearing.

(c) No request by an AM station for temporary authority to extend its hours of operation beyond those authorized by its regular authorization will be accepted or granted by the FCC except in emergency situations conforming with the requirements of § 73.3542, Application for Emergency Authorization. See also § 73.1250, Broadcasting Emergency Information.

[50 FR 30948, July 31, 1985, as amended at 58 FR 51250, Oct. 1, 1993; 60 FR 55482, Nov. 1, 1995; 61 FR 28767, June 6, 1996]

§ 73.1650 International agreements.

(a) The rules in this part 73, and authorizations for which they provide, are subject to compliance with the international obligations and undertakings of the United States. Accordingly, all provisions in this part 73 are subject to compliance with applicable requirements, restrictions, and procedures accepted by the United States that have been established by or pursuant to treaties or other international agreements, arrangements, or understandings to which the United States is a signatory, including applicable annexes, protocols, resolutions, recommendations and other supplementing documents associated with such international instruments.

(b) The United States is a signatory to the following treaties and other international agreements that relate,

in whole or in part, to AM, FM or TV broadcasting:

(1) The following instruments of the International Telecommunication Union:

(i) Constitution.

(ii) Convention.

(iii) Radio Regulations.

(2) Regional Agreements for the Broadcasting Service in Region 2:

(i) MF Broadcasting 535–1605 kHz, Rio de Janeiro, 1981.

(ii) MF Broadcasting 1605–1705 kHz, Rio de Janeiro, 1988.

(3) Bi-lateral Agreements between the United States and Canada relating to:

(i) AM Broadcasting.

(ii) FM Broadcasting.

(iii) TV Broadcasting.

(4) Bi-lateral Agreements between the United States and Mexico relating to:

(i) AM Broadcasting.

(ii) FM Broadcasting.

(iii) TV Broadcasting.

(5) Bi-lateral Agreement between the United States and the Bahama Islands relating to presunrise operations by AM stations.

(6) North American Regional Broadcasting Agreement (NARBA), which, for the United States, remains in effect with respect to the Dominican Republic and the Bahama Islands.

The documents listed in this paragraph are available for inspection in the office of the Chief, Planning and Negotiations Division, International Bureau, FCC, Washington, DC. Copies may be purchased from the FCC Copy Contractor, whose name may be obtained from the FCC Consumer Assistance Office.

[54 FR 39737, Sept. 28, 1989, as amended at 56 FR 64872, Dec. 12, 1991; 60 FR 5333, Jan. 27, 1995]

§ 73.1660 Acceptability of broadcast transmitters.

(a) An AM, FM or TV transmitter may be type accepted or notified upon the request of any manufacturer of transmitters following the procedures described in Part 2 of the FCC Rules. If acceptable, the transmitter will be included in the FCC's ''Radio Equipment List, Equipment Acceptable for Licensing.'' Since March 5, 1984, these transmitters have been authorized under notification.

(b) A permittee or licensee planning to install and use as a main transmitter one not included on the FCC's ''Radio Equipment List'' must obtain authority to use such a transmitter by filing for a construction permit on FCC Form 301 (FCC Form 340 for noncommercial educational stations). The application must include a complete description and circuit diagram of the transmitter, description of the carrier frequency determining circuits, complete operating parameters, and measurement data as would be requlred for a grant of type acceptance. A permittee or licensee planning to modify a transmitter which is included on the FCC's ''Radio Equipment List'' or for which an FCC Form 301 has been submitted and approved, must follow the requirements contained in § 73.1690.

(c) A transmitter which was in use prior to January 30, 1955, may continue to be used by the licensee, and successors or assignees, if it continues to comply with the technical requirements for the type of station at which it is used.

(d) AM stereophonic exciter-generators for interfacing with type accepted or notified AM transmitters may be type accepted upon request from any manufacturer by the procedures described in part 2 of the FCC Rules. Broadcast licensees may modify their type accepted AM stereophonic exciter-generators in accordance with § 73.1690.

(e) Additional rules covering type acceptance and notification, modification of authorized transmitters, and withdrawal of a grant of authorization are contained in part 2 of the FCC Rules.

[43 FR 53740, Nov. 17, 1978, as amended at 49 FR 4000, Feb. 1, 1984; 51 FR 18451, May 20, 1986; 51 FR 41629, Nov. 18, 1986; 51 FR 44478, Dec. 10, 1986]

§ 73.1665 Main transmitters.

(a) Each AM, FM and TV broadcast station must have at least one main transmitter which complies with the provisions of the transmitter technical requirements for the type and class of station. A main transmitter is one which is used for regular program service having power ratings appropriate for the authorized operating power(s).

(b) There is no maximum power rating limit for FM or TV station transmitters, however, the maximum rated transmitter power of a main transmitter installed at an AM station shall be as follows:

Authorized power	Maximum rated transmitter power (kW)
0.25, 0.5, or 1 kW	1
2.5 kW	5
5 or 10 kW	10
25 or 50 kW	50

(c) A licensee may, without further authority or notification to the FCC, replace an existing main transmitter or install additional main transmitter(s) for use with the authorized antenna if the replacement or additional transmitter(s) is type accepted or notified as shown in the FCC's ''Radio Equipment List''. Within 10 days after commencement of regular use of the replacement or additional transmitter(s), equipment performance measurements, as prescribed for the type of station are to be completed.

NOTE: Pending the availability of AM broadcast transmitters that are type-accepted for use in the 1605–1705 kHz band, transmitters that are type-accepted for use in the 535–1605 kHz band as shown on the FCC's Radio Equipment List may be utilized in the 1605–1705 kHz band if it is shown that the requirements of § 73.44 have been met. FCC approval of the manufacturer's application for type-acceptance will supersede the applicability of this note.

[43 FR 53741, Nov. 17, 1978, as amended at 47 FR 8590, Mar. 1, 1982; 47 FR 28388, June 30, 1982; 49 FR 4000, Feb. 1, 1984; 51 FR 18451, May 20, 1986; 56 FR 64872, Dec. 12, 1991]

§ 73.1670 Auxiliary transmitters.

(a) A licensee of a broadcast station may, without further authority from the FCC, install and use with the main antenna system one or more auxiliary transmitters for the following purposes:

(1) The transmission of regular programs upon failure of the main transmitter.

(2) The transmission of regular programs during maintenance or modification of the main transmitter.

(3) Emergency broadcast system operation.

(4) The transmission of regular programs by an AM station authorized for Presunrise (PSRA) and/or Postsunset (PSSA) operation.

(5) The transmission of tests to determine the operating condition of the auxiliary transmitter or auxiliary antenna.

(6) For testing, upon the request of representatives of the FCC.

(b) Authorization to install an auxiliary transmitter for use with other than the main antenna or authorized auxiliary antenna must be obtained by filing an application for a construction permit on FCC form 301 (FCC form 340 for noncommercial educational stations).

(c) The following technical and operating standards apply to auxiliary transmitters:

(1) The auxiliary transmitter may be operated on only the station's authorized frequency and within the required carrier frequency departure tolerance for the type of station.

(2) The carrier frequency of the auxiliary transmitter must be measured as often as necessary to ensure that it is maintained within the prescribed tolerance.

(3) When using an auxiliary transmitter, the operating power may be less than the authorized power but may not exceed the authorized power within the permitted tolerance for the type of station. If operation with an auxiliary transmitter at reduced power continues for a period exceeding 10 days, the FCC in Washington, DC must be notified. (See § 73.51, AM; § 73.267, FM; § 73.567, NCE–FM; and § 73.663, TV).

(4) Normal operator requirements apply to the operation of the auxiliary transmitter.

NOTE: After January 1, 1979, new licenses will not be issued nor will existing licenses be renewed for auxiliary transmitters that are operated into the main antenna system.

[43 FR 53741, Nov. 17, 1978, as amended at 44 FR 22740, Apr. 17, 1979; 48 FR 36463, Aug. 11, 1983; 48 FR 42960, Sept. 20, 1983; 48 FR 44806, Sept. 30, 1983; 50 FR 32417, Aug. 12, 1985; 51 FR 32088, Sept. 9, 1986]

§ 73.1675 Auxiliary antennas.

(a) An auxiliary antenna is one that is permanently installed and available for use when the main antenna is out

of service for repairs or replacement. An auxiliary antenna may be located at the same transmitter site as the station's main antenna or at a separate site. In either case, however, the coverage area when operating with the auxiliary antenna may not extend beyond the coverage area of the main antenna. An application for an auxiliary antenna authorization filed under the procedures given in paragraph (b) or (c) of this section must contain a map showing the following contours for both the main and auxiliary antenna radiation:

(1) *AM stations:* The 0.5 mv/m field strength contours.

(2) *FM stations:* The 1.0 mv/m field strength contours.

(3) *TV stations:* The Grade B coverage contours.

(b) An application for a construction permit to install a new auxiliary antenna, or to make changes in an existing auxiliary antenna for which prior FCC authorization is required (see § 73.1690), must be filed on FCC Form 301 (FCC Form 340 for noncommercial educational stations).

(c)(1) Where an FM or TV licensee proposes to use a formerly licensed main facility as an auxiliary facility, or proposes to modify a presently authorized auxiliary facility, and no changes in the height of the antenna radiation center are required in excess of the limits in § 73.1690(c)(1), the FM or TV licensee may apply for the proposed auxiliary facility by filing a modification of license application. The modified auxiliary facility must operate on the same channel as the licensed main facility. An exhibit must be provided with this license application to demonstrate compliance with § 73.1675(a). All FM and TV licensees may request a decrease from the authorized facility's ERP in the license application. An FM or TV licensee may also increase the ERP of the auxiliary facility in a license modification application, provided the application contains an analysis demonstrating compliance with the Commission's radiofrequency radiation guidelines, and an analysis showing that the auxiliary facility will comply with § 73.1675(a). Auxiliary facilities mounted on an AM antenna tower must also demonstrate compliance with § 73.1692 in the license application.

(2) Where an AM licensee proposes to use a former licensed main facility as an auxiliary facility with an ERP less than or equal to the ERP specified on the former main license, the AM station may apply to license the proposed auxiliary facility by filing a modification of license application on Form 302-AM. The proposed auxiliary facilities must have been previously licensed on the same frequency as the present main facility. The license application must contain an exhibit to demonstrate compliance with § 73.1675(a).

[43 FR 53741, Nov. 17, 1978, as amended at 44 FR 22740, Apr. 17, 1979; 45 FR 26066, Apr. 17, 1980; 50 FR 13974, Apr. 9, 1985; 51 FR 32088, Sept. 9, 1986; 62 FR 51060, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51060, Sept. 30, 1997, § 73.1675 was amended by revising paragraph (c), effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§ 73.1675 Auxiliary antennas.

* * * * *

(c) Authority to use a formerly licensed main antenna without changes or modifications as an auxiliary antenna may be obtained by filing FCC Form 302.

§ 73.1680 Emergency antennas.

(a) An emergency antenna is one that is erected for temporary use after the authorized main and auxiliary antennas are damaged and cannot be used.

(b) Prior authority from the FCC is not required to erect and commence using an emergency antenna to restore program service to the public. However, an informal request to continue operation with the emergency antenna must be made to the FCC in Washington, DC within 24 hours after commencement of its use. The request is to include a description of the damage to the authorized antenna, a description of the emergency antenna, and the station operating power with the emergency antenna.

(1) *AM stations.* AM stations may use a horizontal or vertical wire or a nondirectional vertical element of a directional antenna as an emergency antenna. AM stations using an emergency nondirectional antenna or a horizontal

or vertical wire pursuant to this section, in lieu or authorized directional facilities, shall operate with power reduced to 25% or less of the nominal licensed power, or, a higher power, not exceeding licensed power, while insuring that the radiated filed strength does not exceed that authorized in any given azimuth for the corresponding hours of directional operation.

(2) *FM and TV stations.* FM and TV stations may erect any suitable radiator, or use operable sections of the authorized antenna(s) as an emergency antenna.

(c) The FCC may prescribe the output power, radiation limits, or other operating conditions when using an emergency antenna, and emergency antenna authorizations may be modified or terminated in the event harmful interference is caused to other stations or services by the use of an emergency antenna.

[43 FR 53741, Nov. 17, 1978, as amended at 44 FR 22740, Apr. 17, 1979; 50 FR 30948, July 31, 1985]

§ 73.1690 Modification of transmission systems.

The following procedures and restrictions apply to licensee modifications of authorized broadcast transmission system facilities.

(a) The following changes are prohibited:

(1) Those that would result in the emission of signals outside of the authorized channel exceeding limits prescribed for the class of service.

(2) Those that would cause the transmission system to exceed the equipment performance measurements prescribed for the class of service, (AM, § 73.44; FM, §§ 73.317, 73.319, and 73.322; TV, §§ 73.682 and 73.687).

(b) The following changes may be made only after the grant of a construction permit application on FCC Form 301 for commercial stations or Form 340 for noncommercial educational stations:

(1) Any construction of a new tower structure for broadcast purposes, except for replacement of an existing tower with a new tower of identical height and geographic coordinates.

(2) Any change in station geographic coordinates, including coordinate corrections. FM and TV directional stations must also file a construction permit application for any move of the antenna to another tower structure located at the same coordinates.

(3) Any change which would require an increase along any azimuth in the composite directional antenna pattern of an FM station from the composite directional antenna pattern authorized (*see* § 73.316), or any increase from the authorized directional antenna pattern for a TV station (*see* § 73.685).

(4) Any change in the directional radiation characteristics of an AM directional antenna system. *See* § 73.45 and § 73.150.

(5) Any decrease in the authorized power of an AM station or the ERP of a TV station, or any decrease or increase in the ERP of an FM commercial station, which is intended for compliance with the multiple ownership rules in § 73.3555.

(6) For FM noncommercial educational stations, any of the following:

(i) Any increase in the authorized maximum ERP, whether horizontally or vertically polarized, for a noncommercial educational FM station operating on Channels 201 through 220, or a Class D FM station operating on Channel 200.

(ii) For those FM noncommercial educational stations on Channels 201 to 220, or a Class D FM station operating on Channel 200, which are within the separation distances specified in Table A of § 73.525 with respect to a Channel 6 television station, any increase in the horizontally or vertically polarized ERP from the presently authorized ERP.

(iii) For those FM noncommercial educational stations on Channels 201 through 220 which are located within the separation distances in § 73.525 with respect to a Channel 6 television station, or a Class D FM station operating on Channel 200, any decrease in the presently authorized horizontal effective radiated power which would eliminate the horizontal ERP to result in use of vertical ERP only.

(iv) For those FM noncommercial educational stations which employ separate antennas for the horizontal ERP

and the vertical ERP, mounted at different heights, the station may not increase or decrease either the horizontal ERP or the vertical ERP without a construction permit.

(7) Any increase in the authorized ERP of a television station, FM commercial station, or noncommercial educational FM station, except as provided for in §§ 73.1690(c)(4), (c)(5), or (c)(7), or § 73.1675(c)(1) in the case of auxiliary facilities.

(8) A commercial TV or noncommercial educational TV station operating on Channels 14 or Channel 69 may increase its horizontally or vertically polarized ERP only after the grant of a construction permit. A television station on Channels 15 through 21 within 341 km of a cochannel land mobile operation, or 225 km of a first-adjacent channel land mobile operation, must also obtain a construction permit before increasing the horizontally or vertically polarized ERP (*see* part 74, § 74.709(a) and (b) for tables of urban areas and corresponding reference coordinates of potentially affected land mobile operations).

(c) The following FM and TV station modifications may be made without prior authorization from the Commission. A modification of license application must be submitted to the Commission within 10 days of commencing program test operations pursuant to § 73.1620. With the exception of applications filed solely pursuant to Sections (c)(6), (c)(9), or (c)(10), the modification of license application must contain an exhibit demonstrating compliance with the Commission's radiofrequency radiation guidelines. In addition, except for applications solely filed pursuant to Sections (c)(6) or (c)(9), where the installation is located within 3.2 km of an AM tower or is located on an AM tower, an exhibit demonstrating compliance with § 73.1692 is also required.

(1) Replacement of an omnidirectional antenna with one of the same or different number of antenna bays, provided that the height of the antenna radiation center is not more than 2 meters above or 4 meters below the authorized values. Any concurrent change in ERP must comply with § 73.1675(c)(1), 73.1690(4), (c)(5), or (c)(7). Program test operations at the full authorized ERP may commence immediately upon installation pursuant to § 73.1620(a)(1).

(2) Replacement of a directional FM antenna, where the measured composite directional antenna pattern does not exceed the licensed composite directional pattern at any azimuth, where no change in effective radiated power will result, and where compliance with the principal coverage requirements of § 73.315(a) will be maintained by the measured directional pattern. The antenna must be mounted not more than 2 meters above or 4 meters below the authorized values. The modification of license application on Form 302-FM to cover the antenna replacement must contain all of the data in the following sections (i) through (v). Program test operations at one half (50%) power may commence immediately upon installation pursuant to § 73.1620(a)(3). However, if the replacement directional antenna is an exact replacement (i.e., no change in manufacturer, antenna model number, AND measured composite antenna pattern), program test operations may commence immediately upon installation at the full authorized power.

(i) A measured directional antenna pattern and tabulation on the antenna manufacturer's letterhead showing both the horizontally and vertically polarized radiation components and demonstrating that neither of the components exceeds the authorized composite antenna pattern along any azimuth.

(ii) Contour protection stations authorized pursuant to § 73.215 or § 73.509 must attach a showing that the RMS (root mean square) of the composite measured directional antenna pattern is 85% or more of the RMS of the authorized composite antenna pattern. *See* § 73.316(c)(9). If this requirement cannot be met, the licensee may include new relative field values with the license application to reduce the authorized composite antenna pattern so as to bring the measured composite antenna pattern into compliance with the 85 percent requirement.

(iii) A description from the manufacturer as to the procedures used to measure the directional antenna pattern. The antenna measurements must

be performed with the antenna mounted on a tower, tower section, or scale model equivalent to that on which the antenna will be permanently mounted, and the tower or tower section must include transmission lines, ladders, conduits, other antennas, and any other installations which may affect the measured directional pattern.

(iv) A certification from a licensed surveyor that the antenna has been oriented to the proper azimuth.

(v) A certification from a qualified engineer who oversaw installation of the directional antenna that the antenna was installed pursuant to the manufacturer's instructions.

(3) A directional TV station on Channels 2 through 13 or 22 through 68, or a directional TV station on Channels 15 through 21 which is in excess of 341 km (212 miles) from a cochannel land mobile operation or in excess of 225 km (140 miles) from a first-adjacent channel land mobile operation (*see* Part 74, § 74.709(a) and (b) for tables of urban areas and reference coordinates of potentially affected land mobile operations), may replace a directional TV antenna by a license modification application, if the proposed horizontal theoretical directional antenna pattern does not exceed the licensed horizontal directional antenna pattern at any azimuth and where no change in effective radiated power will result. The modification of license application on Form 302–TV must contain all of the data set forth in § 73.685(f).

(4) Commercial and noncommercial educational FM stations operating on Channels 221 through 300 (except Class D), NTSC TV stations operating on Channels 2 through 13 and 22 through 68, and TV stations operating on Channels 15 through 21 that are in excess of 341 km (212 miles) from a cochannel land mobile operation or in excess of 225 km (140 miles) from a first-adjacent channel land mobile operation [*see* Part 74, § 74.709(a) and (b) for tables of urban areas and reference coordinates of potentially affected land mobile operations], which operate omnidirectionally, may increase the vertically polarized effective radiated power up to the authorized horizontally polarized effective radiated power in a license modification application. Noncommercial educational FM licensees and permittees on Channels 201 through 220, that do not use separate antennas mounted at different heights for the horizontally polarized ERP and the vertically polarized ERP, and are located in excess of the separations from a Channel 6 television station listed in Table A of § 73.525(a)(1), may also increase the vertical ERP, up to (but not exceeding) the authorized horizontally polarized ERP via a license modification application. Program test operations may commence at full power pursuant to § 73.1620(a)(1).

(5) Those Class A FM commercial stations which were permitted to increase ERP pursuant to MM Docket No. 88–375 by a modification of license application remain eligible to do so, provided that the station meets the requirements of § 73.1690 (c)(1) and is listed on one of the Public Notices as authorized to increase ERP, or by a letter from the Commission's staff authorizing the change. These Public Notices were released on November 3, 1989; November 17, 1989; December 8, 1989; March 2, 1990; and February 11, 1991. The increased ERP must comply with the multiple ownership requirements of § 73.3555. Program test operations may commence at full power pursuant to § 73.1620(a)(1).

(6) FM contour protection stations authorized pursuant to § 73.215 which have become fully spaced under § 73.207 may file a modification of license application to delete the § 73.215 contour protection designation with an exhibit to demonstrate that the station is fully spaced in accordance with § 73.207. The contour protection designation will be removed upon grant of the license application. Applications filed under this rule section will be processed on a first come / first served basis with respect to conflicting FM commercial minor change applications and modification of license applications (including those filed pursuant to § 73.1690 (b) and (c)(6) and (c)(7)).

(7) FM omnidirectional commercial stations, and omnidirectional noncommercial educational FM stations operating on Channels 221 through 300 (except Class D), which are not designated as contour protection stations pursuant to § 73.215 and which meet the

spacing requirements of § 73.207, may file a license modification application to increase ERP to the maximum permitted for the station class, provided that any change in the height of the antenna radiation center remains in accordance with § 73.1690(c)(1). Program test operations may commence at full power pursuant to § 73.1620(a)(1). All of the following conditions also must be met before a station may apply pursuant to this section:

(i) The station may not be a ''grandfathered'' short-spaced station authorized pursuant to § 73.213 or short-spaced by a granted waiver of § 73.207;

(ii) If the station is located in or near a radio quiet zone, radio coordination zone, or a Commission monitoring station (*see* § 73.1030 and § 0.121(c)), the licensee or permittee must have secured written concurrence from the affected radio quiet zone, radio coordination zone, or the Commission's Compliance and Information Bureau in the case of a monitoring station, to increase effective radiated power PRIOR to implementation. A copy of that concurrence must be submitted with the license application to document that concurrence has been received;

(iii) The station does not require international coordination as the station does not lie within the border zones, or clearance has been obtained from Canada or Mexico for the higher power operation within the station's specified domestic class and the station complies with § 73.207(b)(2) and (3) with respect to foreign allotments and allocations;

(iv) The increased ERP will not cause the station to violate the multiple ownership requirements of § 73.3555.

(8) FM commercial stations and FM noncommercial educational stations may decrease ERP on a modification of license application provided that exhibits are included to demonstrate that all six of the following requirements are met:

(i) Commercial FM stations must continue to provide a 70 dBu principal community contour over the community of license, as required by § 73.315(a). Noncommercial educational FM stations must continue to provide a 60 dBu contour over at least a portion of the community of license. The 60 and 70 dBu contours must be predicted by use of the standard contour prediction method in § 73.313(b), (c), and (d).

(ii) For both commercial FM and noncommercial educational FM stations, the location of the main studio remains within the 70 dBu principal community contour, as required by § 73.1125, or otherwise complies with that rule. The 70 dBu contour must be predicted by use of the standard contour prediction method in § 73.313(b), (c), and (d).

(iii) For commercial FM stations only, there is no change in the authorized station class as defined in § 73.211.

(iv) For commercial FM stations only, the power decrease is not necessary to achieve compliance with the multiple ownership rule, § 73.3555.

(v) Commercial FM stations, noncommercial educational FM stations on Channels 221 through 300, and noncommercial educational FM stations on Channels 200 through 220 which are located in excess of the distances in Table A of § 73.525 with respect to a Channel 6 TV station, may not use this rule to decrease the horizontally polarized ERP below the value of the vertically polarized ERP.

(vi) Noncommercial educational FM stations on Channels 201 through 220 which are within the Table A distance separations of § 73.525, or Class D stations on Channel 200, may not use the license modification process to eliminate an authorized horizontally polarized component in favor of vertically polarized-only operation. In addition, noncommercial educational stations operating on Channels 201 through 220, or Class D stations on Channel 200, which employ separate horizontally and vertically polarized antennas mounted at different heights, may not use the license modification process to increase or decrease either the horizontal ERP or vertical ERP without a construction permit.

(9) The licensee of an AM, FM, or TV commercial station may propose to change from commercial to noncommercial educational on a modification of license application, provided that the application contains completed Sections II and IV of FCC Form

340. In addition, a noncommercial educational AM licensee, a TV licensee on a channel not reserved for noncommercial educational use, or an FM licensee on Channels 221 to 300 (except Class D FM) on a channel not reserved for noncommercial educational use, may apply to change from educational to commercial via a modification of license application, and no exhibits are required with the application. The change will become effective upon grant of the license application.

(10) Replacement of a transmission line with one of a different type or length which changes the transmitter operating power (TPO) from the authorized value, but not the ERP, must be reported in a license modification application to the Commission.

(d) The following changes may be made without authorization from the FCC, however informal notification of the changes must be made according to the rule sections specified:

(1) Change in studio location within the principal community contour. See § 73.1125.

(2) Commencement of remote control operation pursuant to §§ 73.1400 and 73.1410.

(3) Modification of an AM directional antenna sampling system. See § 73.68.

(e) Any electrical and mechanical modification to authorized transmitting equipment that is not otherwise restricted by the preceding provisions of this section, may be made without FCC notification or authorization. Equipment performance measurements must be made within ten days after completing the modifications (See § 73.1590). An informal statement, diagram, etc., describing the modification must be retained at the transmitter site for as long as the equipment is in use.

[47 FR 8590, Mar. 1, 1982]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 73.1690, see the List of CFR Sections Affected in the Finding Aids section of this volume.

EFFECTIVE DATE NOTE: At 62 FR 51060, Sept. 30, 1997, § 73.1690 was amended by revising paragraphs (b) and (c), effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§ 73.1690 Modification of transmission systems.

* * * * *

(b) The following changes may be made only upon specific authority of the FCC. Applications requesting authorization must be filed on FCC Form 301 for commercial stations and on FCC Form 340 for noncommercial educational stations.

(1) Any change in the location, or directional radiation characteristics of a directional antenna system. (See § 73.45 and § 73.150, AM; § 73.316, FM; or § 73.685, TV.)

(2) Change in the operating power from that specified on the station authorization, except as provided in paragraph (c)(4) of this section.

(3) Change in location of the main studio to a location outside the station's principal community contour, except as provided for in § 73.1125.

(c) The following FM and TV station modifications may be made and operation commenced without prior authorization from the FCC, provided that the modifications would not possibly affect the operation of any co-located or nearby AM station. An application for license modification must be filed on FCC Form 302 within 10 days following completion of the changes. Equipment performance measurements are not required for applications covering changes described in paragraphs (c) (1) and (2) of this section.

(1) Replacement of a non-directional antenna with one of the same or different type or number of bays, provided that the height above ground of the center of radiation is within 2 meters of that specified in the station authorization, the parameters are within that permitted by its class designation, and there is no change in the maximum effective radiated power.

(2) Installation of a transmission line with one of a different type or length which requires change in the transmitter output power to maintain the licensed effective radiated power.

(3) Installation of harmonic filters, sideband filters or diplexers of a different type which requires a change in the transmitter output power to maintain the licensed effective radiated power.

(4) On or after December 1, 1989, increase in the effective radiated power of eligible Class A FM stations pursuant to MM Docket 88–375, when such increase is effected by:

(i) Replacement of a non-directional antenna with another non-directional antenna having higher gain, provided that the height above ground of the center of radiation is within ±2 meters of that specified in the station authorization; and/or

(ii) Increase in the power input to the antenna, as a result of adjustment of the transmitter output power, change in the type or

length of the transmission line, and/or installation of filters or diplexers.

NOTE: Class A stations eligible for a power increase pursuant to paragraph (c)(4) are those which appear on a list issued by the Commission in November 1989.

* * * * *

§ 73.1692 Broadcast station construction near or installation on an AM broadcast tower.

Where a broadcast licensee or permittee proposes to mount a broadcast antenna on an AM station tower, or where construction is proposed within 0.8 km of an AM nondirectional tower or within 3.2 km of an AM directional station, the broadcast licensee or permittee is responsible for ensuring that the construction does not adversely affect the AM station, as follows:

(a) *Installations on an AM nondirectional tower.* During installation of the broadcast antenna and related equipment, the AM station shall determine operating power by the indirect method (*see* § 73.51). Upon the completion of the installation, antenna impedance measurements on the AM antenna shall be made, and, prior to or simultaneously with the filing of the license application covering the broadcast station installation, an application on FCC Form 302–AM (including a tower sketch of the installation) shall be filed with the Commission for the AM station to return to direct power measurement.

(b) *Installations on an AM directional array.* Prior to commencing construction, the broadcast permittee or licensee shall notify the AM station so that, if necessary, the AM station may determine operating power by the indirect method (*see* § 73.51) and request special temporary authority pursuant to § 73.1635 to operate with parameters at variance in order to maintain monitoring point field strengths within authorized limits. Both prior to the commencement of construction and upon completion of construction, a partial proof of performance (as defined by § 73.154) shall be conducted to establish that the AM array has not been adversely affected. Prior to or simultaneously with filing of the license application to cover the broadcast station construction, the results of the partial proof of performance shall be filed with the Commission on Form 302–AM.

(c) *Tower erections or modifications within 0.8 km of an AM nondirectional tower.* Prior to commencing the construction of tower modifications, or the erection of a new tower, within 0.8 km of an AM nondirectional tower, the broadcast permittee or licensee is required to notify the AM station so that the AM station may commence determining operating power by the indirect method (*see* § 73.51). The broadcast licensee or permittee shall be responsible for the installation and continued maintenance of detuning apparatus necessary to prevent adverse effects on the radiation pattern of the AM station. Both prior to construction of the tower modifications and upon completion of construction, antenna impedance measurements of the AM station shall be made. In addition, sufficient field strength measurements taken at a minimum of 10 locations along each of 8 equally spaced radials, shall be made to establish that the AM radiation pattern is essentially omnidirectional. Prior or simultaneously with the filing of the application for license to cover this permit, the results of the impedance measurements and the field strength measurements shall be filed with the Commission on FCC Form 302–AM for the AM station to return to the direct method of power determination.

(d) *Tower erections or modifications within 3.2 km of an AM directional station.* Prior to commencing construction of tower modifications, or the erection of a new tower structure, within 3.2 km of an AM directional array, the broadcast permittee or licensee shall notify the AM station so that, if necessary, the AM station may determine operating power by the indirect method (*see* § 73.51) and request special temporary authority pursuant to § 73.1635 to operate with parameters at variance in order to maintain monitoring point field strengths within authorized limits. The broadcast licensee or permittee shall be responsible for the installation and continued maintenance of detuning apparatus necessary to prevent adverse effects upon the radiation pattern of the AM station. Both prior to the commencement of construction

and upon completion of construction, a partial proof of performance (as defined by § 73.154) shall be conducted to establish that the AM array has not been adversely affected. Prior to or simultaneously with filing of the license application to cover the broadcast station construction, the results of the partial proof of performance shall be filed with the Commission on Form 302–AM.

[62 FR 51062, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51062, Sept. 30, 1997, § 73.1692 was added, effective Dec. 1, 1997.

§ 73.1695 Changes in transmission standards.

The FCC will consider the question whether a proposed change or modification of transmission standards adopted for broadcast stations would be in the public interest, convenience, and necessity, upon petition being filed by the person proposing such change or modification, setting forth the following:

(a) The exact character of the change or modification proposed;

(b) The effect of the proposed change or modification upon all other transmission standards that have been adopted by the FCC for broadcast stations;

(c) The experimentation and field tests that have been made to show that the proposed change or modification accomplishes an improvement and is technically feasible;

(d) The effect of the proposed change or modification in the adopted standards upon operation and obsolescence of receivers;

(1) Should a change of modification in the transmission standards be adopted by the FCC, the effective date thereof will be determined in the light of the considerations mentioned in this paragraph (d);

(2) [Reserved]

(e) The change in equipment required in existing broadcast stations for incorporating the proposed change or modification in the adopted standards; and

(f) The facts and reasons upon which the petitioner bases the conclusion that the proposed change or modification would be in the public interest, convenience, and necessity.

[49 FR 4211, Feb. 3, 1984]

§ 73.1700 Broadcast day.

The term *broadcast day* means that period of time between the station's sign-on and its sign-off.

[43 FR 45849, Oct. 4, 1978]

§ 73.1705 Time of operation.

(a) Commercial and noncommercial educational TV and commercial FM stations will be licensed for unlimited time operation. Application may be made for voluntary share-time operation.

(b) Noncommercial educational FM stations will be licensed for unlimited and share time operation according to the provisions of § 73.561.

(c) AM stations in the 535–1705 kHz band will be licensed for unlimited time. In the 535–1605 kHz band, stations that apply for share time and specified hours operations may also be licensed. AM stations licensed to operate daytime-only and limited-time may continue to do so; however, no new such stations will be authorized, except for fulltime stations that reduce operating hours to daytime-only for interference reduction purposes.

[43 FR 45849, Oct. 4, 1978, as amended at 56 FR 64872, Dec. 12, 1991]

§ 73.1710 Unlimited time.

Operation is permitted 24 hours a day.

[43 FR 45849, Oct. 4, 1978]

§ 73.1715 Share time.

Operation is permitted by two or more broadcast stations using the same channel in accordance with a division of hours mutually agreed upon and considered part of their licenses.

(a) If the licenses of stations authorized to share time do not specify hours of operation, the licensees shall endeavor to reach an agreement for a definite schedule of periods of time to be used by each. Such agreement shall be in writing and each licensee shall file it in duplicate original with each application to the FCC in Washington, DC for renewal of license. If and when

such written agreements are properly filed in conformity with this Section, the file mark of the FCC will be affixed thereto, one copy will be retained by the FCC, and one copy returned to the licensee to be posted with the station license and considered as a part thereof. If the license specifies a proportionate time division, the agreement shall maintain this proportion. If no proportionate time division is specified in the license, the licensees shall agree upon a division of time. Such division of time shall not include simultaneous operation of the stations unless specifically authorized by the terms of the license.

(b) If the licensees of stations authorized to share time are unable to agree on a division of time, the FCC in Washington, DC shall be so notified by a statement filed with the applications for renewal of licenses. Upon receipt of such statement, the FCC will designate the applications for a hearing and, pending such hearing, the operating schedule previously adhered to shall remain in full force and effect.

(c) A departure from the regular schedule in a time-sharing agreement will be permitted only in cases where an agreement to that effect is put in writing, is signed by the licensees of the stations affected thereby and filed in triplicate by each licensee with the FCC in Washington, DC prior to the time of the time of the proposed change. If time is of the essence, the actual departure in operating schedule may precede the actual filing of written agreement, provided appropriate notice is sent to the FCC.

(d) If the license of an AM station authorized to share time does not specify the hours of operation, the station may be operated for the transmission of regular programs during the experimental period provided an agreement thereto is reached with the other stations with which the broadcast day is shared: *And further provided,* Such operation is not in conflict with § 73.72 (Operating during the experimental period). Time-sharing agreements for operation during the experimental period need not be submitted to the FCC.

(e) Noncommercial educational FM stations are authorized for share time operation according to the provisions of § 73.561.

[43 FR 45849, Oct. 4, 1978, as amended at 47 FR 40174, Sept. 13, 1982]

§ 73.1720 Daytime.

Operation is permitted during the hours between average monthly local sunrise and average monthly local sunset.

(a) The controlling times for each month of the year are stated in the station's instrument of authorization. Uniform sunrise and sunset times are specified for all of the days of each month, based upon the actual times of sunrise and sunset for the fifteenth day of the month adjusted to the nearest quarter hour. Sunrise and sunset times are derived by using the standardized procedure and the tables in the 1946 American Nautical Almanac issued by the United States Naval Observatory.

(b) [Reserved]

[43 FR 45849, Oct. 4, 1978]

§ 73.1725 Limited time.

(a) Operation is applicable only to Class B (secondary) AM stations on a clear channel with facilities authorized before November 30, 1959. Operation of the secondary station is permitted during daytime and until local sunset if located west of the Class A station on the channel, or until local sunset at the Class A station if located east of that station. Operation is also permitted during nighttime hours not used by the Class A station or other stations on the channel.

(b) No authorization will be granted for:

(1) A new limited time station;

(2) A limited time station operating on a changed frequency;

(3) A limited time station with a new transmitter site materially closer to the 0.1 mV/m contour of a co-channel U.S. Class A station; or

(4) Modification of the operating facilities of a limited time station resulting in increased radiation toward any point on the 0.1 mV/m contour of a co-channel U.S. Class A station during the hours after local sunset in which the limited time station is permitted to operate by reason of location east of the Class A station.

(c) The licensee of a secondary station which is authorized to operate limited time and which may resume operation at the time the Class A station (or stations) on the same channel ceases operation shall, with each application for renewal of license, file in triplicate a copy of its regular operating schedule. It shall bear a signed notation by the licensee of the Class A station of its objection or lack of objection thereto. Upon approval of such operating schedule, the FCC will affix its file mark and return one copy to the licensee authorized to operate limited time. This shall be posted with the station license and considered as a part thereof. Departure from said operating schedule will be permitted only pursuant to § 73.1715 (Share time).

[56 FR 64872, Dec. 12, 1991]

§ 73.1730 Specified hours.

(a) Specified hours stations must operate in accordance with the exact hours specified in their license. However, such stations, operating on local channels, unless sharing time with other stations, may operate at hours beyond those specified in their licenses to carry special events programing. When such programs are carried during nighttime hours, the station's authorized nighttime facilities must be used.

(b) Other exceptions to the adherence to the schedule of specified hours of operation are provided in § 73.72 (Operating during the experimental period), § 73.1250 (Broadcasting emergency information) and § 73.1740 (Minimum operating schedule).

[43 FR 45850, Oct. 4, 1978]

§ 73.1735 AM station operation pre-sunrise and post-sunset.

Certain classes of AM stations are eligible to operate pre-sunrise and/or post-sunset for specified periods with facilities other than those specified on their basic instruments of authorization. Such pre-sunrise and post-sunset operation is authorized pursuant to the provisions of § 73.99 of the Rules.

[49 FR 41249, Oct. 22, 1984]

§ 73.1740 Minimum operating schedule.

(a) All commercial broadcast stations are required to operate not less than the following minimum hours:

(1) *AM and FM stations.* Two-thirds of the total hours they are authorized to operate between 6 a.m. and 6 p.m. local time and two-thirds of the total hours they are authorized to operate between 6 p.m. and midnight, local time, each day of the week except Sunday.

(i) Class D stations which have been authorized nighttime operations need comply only with the minimum requirements for operation between 6 a.m. and 6 p.m., local time.

(2) *TV stations.* (i) During the first 36 months of operation, not less than 2 hours daily in any 5 broadcast days per calendar week and not less than a total of:

(A) 12 hours per week during the first 18 months.

(B) 16 hours per week during the 19th through 24th months.

(C) 20 hours per week during the 25th through 30th months.

(D) 24 hours per week during the 31st through 36th months.

(ii) After 36 months of operation, not less than 2 hours in each day of the week and not less than a total of 28 hours per calendar week.

(iii) Visual transmissions of test patterns, slides, or still pictures accompanied by unrelated aural transmissions may not be counted in computing program service (see § 73.653).

(3) ''Operation'' includes the period during which the station is operated pursuant to temporary authorization or program tests, as well as during the license period.

(4) In the event that causes beyond the control of a licensee make it impossible to adhere to the operating schedule of this section or to continue operating, the station may limit or discontinue operation for a period of not more than 30 days without further authority from the FCC. Notification must be sent to the FCC in Washington, D.C. not later than the 10th day of limited or discontinued operation. During such period, the licensee shall continue to adhere to the requirements in the station license pertaining to the lighting of antenna structures. In the

event normal operation is restored prior to the expiration of the 30 day period, the licensee will so notify the FCC of this date. If the causes beyond the control of the licensee make it impossible to comply within the allowed period, informal written request shall be made to the FCC no later than the 30th day for such additional time as may be deemed necessary.

(b) Noncommercial educational AM and TV stations are not required to operate on a regular schedule and no minimum hours of operation are specified; but the hours of actual operation during a license period shall be taken into consideration in the renewal of noncommercial educational AM and TV broadcast licenses. Noncommercial educational FM stations are subject to the operating schedule requirements according to the provisions of § 73.561.

(c) The license of any broadcasting station that fails to transmit broadcast signals for any consecutive 12-month period expires as a matter of law at the end of that period, notwithstanding any provision, term, or condition of the license to the contrary.

[43 FR 45850, Oct. 4, 1978, as amended at 53 FR 1032, Jan. 15, 1988; 56 FR 64873, Dec. 12, 1991; 61 FR 28767, June 6, 1996]

§ 73.1745 Unauthorized operation.

(a) No broadcast station shall operate at times, or with modes or power, other than those specified and made a part of the license, unless otherwise provided in this part.

(b) Any unauthorized departure from an operating schedule which is required to be filed with the FCC in Washington, DC, will be considered as a violation of a material term of the license.

[43 FR 45850, Oct. 4, 1978]

§ 73.1750 Discontinuance of operation.

The licensee of each station shall notify the FCC in Washington, DC of permanent discontinuance of operation at least two days before operation is discontinued. Immediately after discontinuance of operation, the licensee shall forward the station license and other instruments of authorization to the FCC, Washington, DC for cancellation. The license of any broadcasting station that fails to transmit broadcast signals for any consecutive 12-month period expires as a matter of law at the end of that period, notwithstanding any provision, term, or condition of the license to the contrary. If a licensee surrenders its license pursuant to an interference reduction arrangement, and its surrender is contingent upon the grant of another application, the licensee surrendering the license must identify in its notification the contingencies involved.

[47 FR 40175, Sept. 13, 1982, as amended at 61 FR 28767, June 6, 1996; 61 FR 46563, Sept. 4, 1996]

§ 73.1800 General requirements related to the station log.

(a) The licensee of each station must maintain a station log as required by § 73.1820. This log shall be kept by station employees competent to do so, having actual knowledge of the facts required. All entries, whether required or not by the provisions of this part, must accurately reflect the station operation. Any employee making a log entry shall sign the log, thereby attesting to the fact that the entry, or any correction or addition made thereto, is an accurate representation of what transpired.

(b) The logs shall be kept in an orderly and legible manner, in suitable form and in such detail that the data required for the particular class of station concerned are readily available. Key letters or abbreviations may be used if the proper meaning or explanation is contained elsewhere in the log. Each sheet must be numbered and dated. Time entries must be made in local time and must be indicated as advanced (*e.g.*, EDT) or non-advanced (*e.g.*, EST) time.

(c) Any necessary corrections of a manually kept log after it has been signed in accordance with paragraph (a) of this section shall be made only by striking out the erroneous portion and making a corrective explanation on the log or attachment to it. Such corrections shall be dated and signed by the person who kept the log or the station chief operator, the station manager or an officer of the licensee.

(d) No automatically kept log shall be altered in any way after entries have been recorded. When automatic

logging processes fail or malfunction, the log must be kept manually for that period and in accordance with the requirements of this section.

(e) No log, or portion thereof, shall be erased, obliterated or willfully destroyed during the period in which it is required to be retained. (Section 73.1840, Retention of logs.)

(f) Application forms for licenses and other authorizations may require that certain technical operating data be supplied. These application forms should be kept in mind in connection with the maintenance of the station log.

[43 FR 45850, Oct. 4, 1978, as amended at 48 FR 38481, Aug. 24, 1983; 48 FR 44806, Sept. 30, 1983; 49 FR 14509, Apr. 12, 1984; 49 FR 33663, Aug. 24, 1984; 50 FR 40016, Oct. 1, 1985]

§ 73.1820 Station log.

(a) Entries must be made in the station log either manually by a person designated by the licensee who is in actual charge of the transmitting apparatus, or by automatic devices meeting the requirements of paragraph (b) of this section. Indications of operating parameters that are required to be logged must be logged prior to any adjustment of the equipment. Where adjustments are made to restore parameters to their proper operating values, the corrected indications must be logged and accompanied, if any parameter deviation was beyond a prescribed tolerance, by a notation describing the nature of the corrective action. Indications of all parameters whose values are affected by the modulation of the carrier must be read without modulation. The actual time of observation must be included in each log entry. The following information must be entered:

(1) *All stations:* (i) Entries required by § 17.49 of this chapter concerning any observed or otherwise known extinguishment or improper functioning of a tower light:

(A) The nature of such extinguishment or improper functioning.

(B) The date and time the extinguishment or improper operation was observed or otherwise noted.

(C) The date, time and nature of adjustments, repairs or replacements made.

(ii) Any entries not specifically required in this section, but required by the instrument of authorization or elsewhere in this part.

(iii) An entry of each test and activation of the Emergency Alert System (EAS) pursuant to the requirement of part 11 of this chapter and the EAS Operating Handbook. Stations may keep EAS data in a special EAS log which shall be maintained at a convenient location; however, this log is considered a part of the station log.

(2) *Directional AM stations without an FCC–approved antenna sampling system* (See § 73.68): (i) An entry at the beginning of operations in each mode of operation, and thereafter at intervals not exceeding 3 hours, of the following (actual readings observed prior to making any adjustments to the equipment and an indication of any corrections to restore parameters to normal operating values):

(A) Common point current.

(B) When the operating power is determined by the indirect method, the efficiency factor F and either the product of the final amplifier input voltage and current or the calculated antenna input power. See § 73.51(e).

(C) Antenna monitor phase or phase deviation indications.

(D) Antenna monitor sample currents, current ratios, or ratio deviation indications.

(ii) Entries required by § 73.61 performed in accordance with the schedule specified therein.

(iii) Entries of the results of calibration of automatic logging devices (see paragraph (b) of this section) or indicating instruments (see § 73.67), whenever performed.

(b) Automatic devices accurately calibrated and with appropriate time, date and circuit functions may be utilized to record entries in the station log *Provided:*

(1) The recording devices do not affect the operation of circuits or accuracy of indicating instruments of the equipment being recorded;

(2) The recording devices have an accuracy equivalent to the accuracy of the indicating instruments;

(3) The calibration is checked against the original indicators as often as necessary to ensure recording accuracy;

(4) In the event of failure or malfunctioning of the automatic equipment, the person designated by the licensee as being responsible for the log small make the required entries in the log manually at that time;

(5) The indicating equipment conforms to the requirements of § 73.1215 (Indicating instruments—specifications) except that the scales need not exceed 5 cm (2 inches) in length. Arbitrary scales may not be used.

(c) In preparing the station log, original data may be recorded in rough form and later transcribed into the log.

[43 FR 45854, Oct. 4, 1978, as amended at 44 FR 58735, Oct. 11, 1979; 47 FR 24580, June 7, 1982; 48 FR 38481, Aug. 24, 1983; 48 FR 44806, Sept. 30, 1983; 49 FR 33603, Aug. 23, 1984; 58 FR 44951, Aug. 25, 1993; 59 FR 67102, Dec. 28, 1994; 60 FR 55482, Nov. 1, 1995]

§ 73.1835 Special technical records.

The FCC may require a broadcast station licensee to keep operating and maintenance records as necessary to resolve conditions of actual or potential interference, rule violations, or deficient technical operation.

[48 FR 38482, Aug. 24, 1983]

§ 73.1840 Retention of logs.

(a) Any log required to be kept by station licensees shall be retained by them for a period of 2 years. However, logs involving communications incident to a disaster or which include communications incident to or involved in an investigation by the FCC and about which the licensee has been notified, shall be retained by the licensee until specifically authorized in writing by the FCC to destroy them. Logs incident to or involved in any claim or complaint of which the licensee has notice shall be retained by the licensee until such claim or complaint has been fully satisfied or until the same has been barred by statute limiting the time for filing of suits upon such claims.

(b) Logs may be retained on microfilm, microfiche or other data-storage systems subject to the following conditions:

(1) Suitable viewing—reading devices shall be available to permit FCC inspection of logs pursuant to § 73.1226, availability to FCC of station logs and records.

(2) Reproduction of logs, stored on data-storage systems, to full-size copies, is required of licensees if requested by the FCC or the public as authorized by FCC rules. Such reproductions must be completed within 2 full work days of the time of the request.

(3) Corrections to logs shall be made:

(i) Prior to converting to a data-storage system pursuant to the requirements of § 73.1800 (c) and (d), (§ 73.1800, General requirements relating to logs).

(ii) After converting to a data-storage system, by separately making such corrections and then associating with the related data-stored logs. Such corrections shall contain sufficient information to allow those reviewing the logs to identify where corrections have been made, and when and by whom the corrections were made.

(4) Copies of any log required to be filed with any application; or placed in the station's local public inspection file as part of an application; or filed with reports to the FCC must be reproduced in fullsize form when complying with these requirements.

[45 FR 41151, June 18, 1980, as amended at 46 FR 13907, Feb. 24, 1981; 46 FR 18557, Mar. 25, 1981; 49 FR 33663, Aug. 24, 1984]

§ 73.1870 Chief operators.

(a) The licensee of each AM, FM, or TV broadcast station must designate a person to serve as the station's chief operator. At times when the chief operator is unavailable or unable to act (*e.g.*, vacations, sickness), the licensee shall designate another person as the acting chief operator on a temporary basis.

(b) Chief operators shall be employed or serve on the following basis:

(1) The chief operator for an AM station using a directional antenna or operating with greater than 10 kW authorized power, or of a TV station is to be an employee of the station on duty for whatever number of hours each week the station licensee determines is necessary to keep the station's technical operation in compliance with FCC rules and the terms of the station authorization.

(2) Chief operators for non-directional AM stations operating with authorized powers not exceeding 10 kW and FM stations may be either an employee of the station or engaged to serve on a contract basis for whatever number of hours each week the licensee determines is necessary to keep the station's technical operation in compliance with the FCC rules and terms of the station authorization.

(3) The designation of the chief operator must be in writing with a copy of the designation posted with the station license. Agreements with chief operators serving on a contract basis must be in writing with a copy kept in the station files.

(c) The chief operator is responsible for completion of the following duties specified in this paragraph below. When these duties are delegated to other persons, the chief operator shall maintain supervisory oversight sufficient to know that each requirement has been fulfilled in a timely and correct manner.

(1) Inspections and calibrations of the transmission system, required monitors, metering and control systems; and any necessary repairs or adjustments where indicated. (See § 73.1580.)

(2) Periodic AM field monitoring point measurements, equipment performance measurements, or other tests as specified in the rules or terms of the station license.

(3) Review of the station records at least once each week to determine if required entries are being made correctly. Additionally, verification must be made that the station has been operated as required by the rules or the station authorization. Upon completion of the review, the chief operator or his designee must date and sign the log, initiate any corrective action which may be necessary, and advise the station licensee of any condition which is repetitive.

(4) Any entries which may be required in the station records. (See § 73.1820.)

[46 FR 35463, July 8, 1981, as amended at 47 FR 31580, July 21, 1982; 48 FR 38482, Aug. 24, 1983; 48 FR 44806, Sept. 30, 1983; 49 FR 20670, May 16, 1984; 49 FR 50048, Dec. 26, 1984; 50 FR 32416, Aug. 12, 1985; 60 FR 55482, Nov. 1, 1995]

§ 73.1910 Fairness Doctrine.

The Fairness Doctrine is contained in section 315(a) of the Communications Act of 1934, as amended, which provides that broadcasters have certain obligations to afford reasonable opportunity for the discussion of conflicting views on issues of public importance. See FCC public notice ''Fairness Doctrine and the Public Interest Standards,'' 39 FR 26372. Copies may be obtained from the FCC upon request.

[43 FR 45856, Oct. 4, 1978]

§ 73.1920 Personal attacks.

(a) When, during the presentation of views on a controversial issue of public importance, an attack is made upon the honesty, character, integrity or like personal qualities of an identified person or group, the licensee shall, within a reasonable time and in no event later than one week after the attack, transmit to the persons or group attacked:

(1) Notification of the date, time and identification of the broadcast;

(2) A script or tape (or an accurate summary if a script or tape is not available) of the attack; and

(3) An offer of a reasonable opportunity to respond over the licensee's facilities.

(b) The provisions of paragraph (a) of this section shall not apply to broadcast material which falls within one or more of the following categories:

(1) Personal attacks on foreign groups or foreign public figures;

(2) Personal attacks occurring during uses by legally qualified candidates.

(3) Personal attacks made during broadcasts not included in paragraph (b)(2) of this section and made by legally qualified candidates, their authorized spokespersons, or those associated with them in the campaign, on other such candidates, their authorized spokespersons or persons associated with the candidates in the campaign; and

(4) Bona fide newscasts, bona fide news interviews, and on-the-spot coverage of bona fide news events, including commentary or analysis contained in the foregoing programs.

(c) The provisions of paragraph (a) of this section shall be applicable to editorials of the licensee, except in the case of noncommercial educational stations since they are precluded from editorializing (section 399(a), Communications Act).

[43 FR 45856, Oct. 4, 1978, as amended at 44 FR 45956, Aug. 6, 1979]

§ 73.1930 Political editorials.

(a) Where a licensee, in an editorial,

(1) Endorses or,

(2) Opposes a legally qualified candidate or candidates, the licensee shall, with 24 hours after the editorial, transmit to, respectively,

(i) The other qualified candidate or candidates for the same office or,

(ii) The candidate opposed in the editorial,

(A) Notification of the date and the time of the editorial,

(B) A script or tape of the editorial and

(C) An offer of reasonable opportunity for the candidate or a spokesman of the candidate to respond over the licensee's facilities. Where such editorials are broadcast on the day of the election or within 72 hours prior to the day of the election, the licensee shall comply with the provisions of this paragraph sufficiently far in advance of the broadcast to enable the candidate or candidates to have a reasonable opportunity to prepare a response and to present it in a timely fashion.

(b) Inasmuch as noncommercial educational stations may not engage in editorializing nor may support nor oppose any candidate for political office (section 399, Communications Act), the provisions of paragraph (a) of this section, do not apply to such stations.

[43 FR 45856, Oct. 4, 1978, as amended at 47 FR 3791, Jan. 27, 1982; 51 FR 9965, Mar. 24, 1986]

§ 73.1940 Legally qualified candidates for public office.

(a) A legally qualified candidate for public office is any person who:

(1) Has publicly announced his or her intention to run for nomination or office;

(2) Is qualified under the applicable local, State or Federal law to hold the office for which he or she is a candidate; and

(3) Has met the qualifications set forth in either paragraph (b), (c), (d), or (e) of this section.

(b) A person seeking election to any public office including that of President or Vice President of the United States, or nomination for any public office except that of President or Vice President, by means of a primary, general or special election, shall be considered a legally qualified candidate if, in addition to meeting the criteria set forth in paragraph (a) of this section, that person:

(1) Has qualified for a place on the ballot; or

(2) Has publicly committed himself or herself to seeking election by the write-in method and is eligible under applicable law to be voted for by sticker, by writing in his or her name on the ballot or by other method, and makes a substantial showing that he or she is a bona fide candidate for nomination or office.

(c) A person seeking election to the office of President or Vice President of the United States shall, for the purposes of the Communications Act and the rules in 47 CFR chapter I, be considered legally qualified candidates only in those States or territories (or the District of Columbia) in which they have met the requirements set forth in paragraphs (a) and (b) of this section: Except, that any such person who has met the requirements set forth in paragraphs (a) and (b) of this section in at least 10 States (or 9 and the District of Columbia) shall be considered a legally qualified candidate for election in all States, territories, and the District of Columbia for the purposes of this Act.

(d) A person seeking nomination to any public office, except that of President or Vice President of the United States, by means of a convention, caucus or similar procedure, shall be considered a legally qualified candidate if, in addition to meeting the requirements set forth in paragraph (a) of this section, that person makes a substantial showing that he or she is a bona fide candidate for such nomination: Except, that no person shall be considered a legally qualified candidate for nomination by the means set forth in this

paragraph prior to 90 days before the beginning of the convention, caucus or similar procedure in which he or she seeks nomination.

(e) A person seeking nomination for the office of President or Vice President of the United States shall, for the purposes of the Communications Act and the rules thereunder, be considered a legally qualified candidate only in those States or territories (or the District of Columbia) in which, in addition to meeting the requirements set forth in paragraph (a) of this section:

(1) He or she, or proposed delegates on his or her behalf, have qualified for the primary or Presidential preference ballot in that State, territory or the District of Columbia; or

(2) He or she has made a substantial showing of a bona fide candidacy for such nomination in that State, territory or the District of Columbia; except, that any such person meeting the requirements set forth in paragraphs (a)(1) and (2) of this section in at least 10 States (or 9 and the District of Columbia) shall be considered a legally qualified candidate for nomination in all States, territories and the District of Columbia for purposes of this Act.

(f) The term ''substantial showing'' of a bona fide candidacy as used in paragraphs (b), (d) and (e) of this section means evidence that the person claiming to be a candidate has engaged to a substantial degree in activities commonly associated with political campaigning. Such activities normally would include making campaign speeches, distributing campaign literature, issuing press releases, maintaining a campaign committee, and establishing campaign headquarters (even though the headquarters in some instances might be the residence of the candidate or his or her campaign manager). Not all of the listed activities are necessarily required in each case to demonstrate a substantial showing, and there may be activities not listed herein which would contribute to such a showing.

[57 FR 27708, June 22, 1992]

§ 73.1941 Equal opportunities.

(a) *General requirements.* Except as otherwise indicated in § 73.1944, no station licensee is required to permit the use of its facilities by any legally qualified candidate for public office, but if any licensee shall permit any such candidate to use its facilities, it shall afford equal opportunities to all other candidates for that office to use such facilities. Such licensee shall have no power of censorship over the material broadcast by any such candidate. Appearance by a legally qualified candidate on any:

(1) Bona fide newscast;

(2) Bona fide news interview;

(3) Bona fide news documentary (if the appearance of the candidate is incidental to the presentation of the subject or subjects covered by the news documentary); or

(4) On-the-spot coverage of bona fide news events (including, but not limited to political conventions and activities incidental thereto) shall not be deemed to be use of broadcasting station. (section 315(a) of the Communications Act.)

(b) *Uses.* As used in this section and § 73.1942, the term ''use'' means a candidate appearance (including by voice or picture) that is not exempt under paragraphs 73.1941 (a)(1) through (a)(4) of this section.

(c) *Timing of request.* A request for equal opportunities must be submitted to the licensee within 1 week of the day on which the first prior use giving rise to the right of equal opportunities occurred: Provided, however, That where the person was not a candidate at the time of such first prior use, he or she shall submit his or her request within 1 week of the first subsequent use after he or she has become a legally qualified candidate for the office in question.

(d) *Burden of proof.* A candidate requesting equal opportunities of the licensee or complaining of noncompliance to the Commission shall have the burden of proving that he or she and his or her opponent are legally qualified candidates for the same public office.

(e) *Discrimination between candidates.* In making time available to candidates for public office, no licensee shall make any discrimination between candidates in practices, regulations, facilities, or services for or in connection with the service rendered pursuant to this part,

or make or give any preference to any candidate for public office or subject any such candidate to any prejudice or disadvantage; nor shall any licensee make any contract or other agreement which shall have the effect of permitting any legally qualified candidate for any public office to broadcast to the exclusion of other legally qualified candidates for the same public office.

[57 FR 208, Jan. 3, 1992, as amended at 59 FR 14568, Mar. 29, 1994]

§ 73.1942 Candidate rates.

(a) Charges for use of stations. The charges, if any, made for the use of any broadcasting station by any person who is a legally qualified candidate for any public office in connection with his or her campaign for nomination for election, or election, to such office shall not exceed:

(1) During the 45 days preceding the date of a primary or primary runoff election and during the 60 days preceding the date of a general or special election in which such person is a candidate, the lowest unit charge of the station for the same class and amount of time for the same period.

(i) A candidate shall be charged no more per unit than the station charges its most favored commercial advertisers for the same classes and amounts of time for the same periods. Any station practices offered to commercial advertisers that enhance the value of advertising spots must be disclosed and made available to candidates on equal terms. Such practices include but are not limited to any discount privileges that affect the value of advertising, such as bonus spots, time-sensitive make goods, preemption priorities, or any other factors that enhance the value of the announcement.

(ii) The Commission recognizes non-premptible, preemptible with notice, immediately preemptible and run-of-schedule as distinct classes of time.

(iii) Stations may establish and define their own reasonable classes of immediately preemptible time so long as the differences between such classes are based on one or more demonstrable benefits associated with each class and are not based solely upon price or identity of the advertiser. Such demonstrable benefits include, but are not limited to, varying levels of preemption protection, scheduling flexibility, or associated privileges, such as guaranteed time-sensitive make goods. Stations may not use class distinctions to defeat the purpose of the lowest unit charge requirement. All classes must be fully disclosed and made available to candidates.

(iv) Stations may establish reasonable classes of preemptible with notice time so long as they clearly define all such classes, fully disclose them and make available to candidates.

(v) Stations may treat non-preemptible and fixed position as distinct classes of time provided that stations articulate clearly the differences between such classes, fully disclose them, and make them available to candidates.

(vi) Stations shall not establish a separate, premium-period class of time sold only to candidates. Stations may sell higher-priced non-preemptible or fixed time to candidates if such a class of time is made available on a *bona fide* basis to both candidates and commercial advertisers, and provided such class is not functionally equivalent to any lower-priced class of time sold to commercial advertisers.

(vii) [Reserved]

(viii) Lowest unit charge may be calculated on a weekly basis with respect to time that is sold on a weekly basis, such as rotations through particular programs or dayparts. Stations electing to calculate the lowest unit charge by such a method must include in that calculation all rates for all announcements scheduled in the rotation, including announcements aired under long-term advertising contracts. Stations may implement rate increases during election periods only to the extent that such increases constitute ''ordinary business practices,'' such as seasonal program changes or changes in audience ratings.

(ix) Stations shall review their advertising records periodically throughout the election period to determine whether compliance with this section requires that candidates receive rebates or credits. Where necessary, stations shall issue such rebates or credits promptly.

(x) Unit rates charged as part of any package, whether individually negotiated or generally available to all advertisers, must be included in the lowest unit charge calculation for the same class and length of time in the same time period. A candidate cannot be required to purchase advertising in every program or daypart in a package as a condition for obtaining package unit rates.

(xi) Stations are not required to include non-cash promotional merchandising incentives in lowest unit charge calculations; provided, however, that all such incentives must be offered to candidates as part of any purchases permitted by the licensee. Bonus spots, however, must be included in the calculation of the lowest unit charge calculation.

(xii) Makes goods, defined as the rescheduling of preempted advertising, shall be provided to candidates prior to election day if a station has provided a time-sensitive make good during the year preceding the pre-election periods, perspectively set forth in paragraph (a)(1) of this section, to any commercial advertiser who purchased time in the same class.

(xiii) Stations must disclose and make available to candidates any make good policies provided to commercial advertisers. If a station places a make good for any commercial advertiser or other candidate in a more valuable program or daypart, the value of such make good must be included in the calculation of the lowest unit charge for that program or daypart.

(2) At any time other than the respective periods set forth in paragraph (a)(1) of this section, stations may charge legally qualified candidates for public office no more than the changes made for comparable use of the station by commercial advertisers. The rates, if any, charged all such candidates for the same office shall be uniform and shall not be rebated by any means, direct or indirect. A candidate shall be charged no more than the rate the station would charge for comparable commercial advertising. All discount privileges otherwise offered by a station to commercial advertisers must be disclosed and made available upon equal terms to all candidate for public office.

(b) If a station permits a candidate to use its facilities, the station shall make all discount privileges offered to commercial advertisers, including the lowest unit charges for each class and length of time in the same time period, and all corresponding discount privileges, available upon equal terms to all candidates. This duty includes an affirmative duty to disclose to candidates information about rates, terms conditions and all value-enhancing discount privileges offered to commercial advertisers. Stations may use reasonable discretion in making the disclosure; provided, however, that the disclosure includes, at a minimum, the following information:

(1) A description and definition of each class of time available to commercial advertisers sufficiently complete to allow candidates to identify and understand what specific attributes differentiate each class;

(2) A description of the lowest unit charge and related privileges (such as priorities against preemption and make goods prior to specific deadlines) for each class of time offered to commercial advertisers;

(3) A description of the station's method of selling preemptible time based upon advertiser demand, commonly known as the ''current selling level,'' with the stipulation that candidates will be able to purchase at these demand-generated rates in the same manner as commercial advertisers;

(4) An approximation of the likelihood of preemption for each kind of preemptible time; and

(5) An explanation of the station's sales practices, if any, that are based on audience delivery, with the stipulation that candidates will be able to purchase this kind of time, if available to commercial advertisers.

(c) Once disclosure is made, stations shall negotiate in good faith to actually sell time to candidates in accordance with the disclosure.

(d) This rule (§ 73.1942) shall not apply to any station licensed for non-commercial operation.

[57 FR 209, Jan. 3, 1992, as amended at 57 FR 27709, June 22, 1992]

§ 73.1943 Political file.

(a) Every licensee shall keep and permit public inspection of a complete and orderly record (political file) of all requests for broadcast time made by or on behalf of a candidate for public office, together with an appropriate notation showing the disposition made by the licensee of such requests, and the charges made, if any, if the request is granted. The ''disposition'' includes the schedule of time purchased, when spots actually aired, the rates charged, and the classes of time purchased.

(b) When free time is provided for use by or on behalf of candidates, a record of the free time provided shall be placed in the political file.

(c) All records required by this paragraph shall be placed in the political file as soon as possible and shall be retained for a period of two years. As soon as possible means immediately absent unusual circumstances.

[57 FR 210, Jan. 3, 1992]

§ 73.1944 Reasonable access.

(a) Section 312(a)(7) of the Communications Act provides that the Commission may revoke any station license or construction permit for willful or repeated failure to allow reasonable access to, or to permit purchase of, reasonable amounts of time for the use of a broadcasting station by a legally qualified candidate for Federal elective office on behalf of his candidacy.

(b) *Weekend Access.* For purposes of providing reasonable access, a licensee shall make its facilities available for use by federal candidates on the weekend before the election if the licensee has provided similar access to commercial advertisers during the year preceding the relevant election period. Licensees shall not discriminate between candidates with regard to weekend access.

[57 FR 210, Jan. 3, 1992]

§ 73.2080 Equal employment opportunities.

(a) *General EEO policy.* Equal opportunity in employment shall be afforded by all licensees or permittees of commercially or noncommercially operated AM, FM, TV, or international broadcast stations (as defined in this part) to all qualified persons, and no person shall be discriminated against in employment by such stations because of race, color, religion, national origin, or sex.

(b) *EEO program.* Each broadcast station shall establish, maintain, and carry out a positive continuing program of specific practices designed to ensure equal opportunity in every aspect of station employment policy and practice. Under the terms of its program, a station shall:

(1) Define the responsibility of each level of management to ensure a positive application and vigorous enforcement of its policy of equal opportunity, and establish a procedure to review and control managerial and supervisory performance;

(2) Inform its employees and recognized employee organizations of the positive equal employment opportunity policy and program and enlist their cooperation;

(3) Communicate its equal employment opportunity policy and program and its employment needs to sources of qualified applicants without regard to race, color, religion, national origin, or sex, and solicit their recruitment assistance on a continuing basis;

(4) Conduct a continuing program to exclude all unlawful forms of prejudice or discrimination based upon race, color, religion, national origin, or sex from its personnel policies and practices and working conditions; and

(5) Conduct a continuing review of job structure and employment practices and adopt positive recruitment, job design, and other measures needed to ensure genuine equality of opportunity to participate fully in all organizational units, occupations, and levels of responsibility.

(c) *EEO program requirements.* A broadcast station's equal employment opportunity program should reasonably address itself to the specific areas set forth below, to the extent possible, and to the extent that they are appropriate in terms of the station's size, location, etc.:

(1) Disseminate its equal opportunity program to job applicants and employees. For example, this requirement may be met by:

(i) Posting notices in the station's office and other places of employment, informing employees, and applicants for employment, of their equal employment opportunity rights. Where it is appropriate, such equal employment opportunity notices should be posted in languages other than English;

(ii) Placing a notice in bold type on the employment application informing prospective employees that discrimination because of race, color, religion, national origin, or sex is prohibited;

(iii) Seeking the cooperation of labor unions, if represented at the station, in the implementation of its EEO program and the inclusion of non-discrimination provisions in union contracts;

(iv) Utilizing media for recruitment purposes in a manner that will contain no indication, either explicit or implicit, of a preference for one sex over another and that can be reasonably expected to reach minorities and women.

(2) Use minority organizations, organizations for women, media, educational institutions, and other potential sources of minority and female applicants, to supply referrals whenever job vacancies are available in its operation. For example, this requirement may be met by:

(i) Placing employment advertisements in media that have significant circulation among minorities residing and/or working in the recruiting area;

(ii) Recruiting through schools and colleges, including those located in the station's local area, with significant minority-group enrollments;

(iii) Contacting, both orally and in writing, minority and human relations organizations, leaders, and spokesmen and spokeswomen to encourage referral of qualified minority or female applicants;

(iv) Encouraging current employees to refer minority or female applicants;

(v) Making known to recruitment sources in the employer's immediate area that qualified minority members and females are being sought for consideration whenever you hire and that all candidates will be considered on a nondiscriminatory basis.

(3) Evaluate its employment profile and job turnover against the availability of minorities and women in its recruitment area. For example, this requirement may be met by:

(i) Comparing the composition of the relevant labor area with composition of the station's workforce;

(ii) Where there is underrepresentation of either minorities and/or women, examining the company's personnel policies and practices to assure that they do not inadvertently screen out any group and take appropriate action where necessary. Data on representation of minorities and women in the available labor force are generally available on a metropolitan statistical area (MSA) or county basis.

(4) Undertake to offer promotions of qualified minorities and women in a nondiscriminatory fashion to positions of greater responsibility. For example, this requirement may be met by:

(i) Instructing those who make decisions on placement and promotion that qualified minority employees and females are to be considered without discrimination, and that job areas in which there is little or no minority or female representation should be reviewed;

(ii) Giving qualified minority and female employees equal opportunity for positions which lead to higher positions. Inquiring as to the interest and skills of all lower paid employees with respect to any of the higher paid positions.

(5) Analyze its efforts to recruit, hire, and promote minorities and women and address any difficulties encountered in implementing its equal employment opportunity program. For example, this requirement may be met by:

(i) Avoiding use of selection techniques or tests that have the effect of discriminating against qualified minority groups or females;

(ii) Reviewing seniority practices to ensure that such practices are nondiscriminatory;

(iii) Examining rates of pay and fringe benefits for employees having the same duties, and eliminating any inequities based upon race or sex discrimination.

(d) *Mid-term review for television broadcast stations.* The Commission will conduct a mid-term review of the employment practices of each broadcast television station at two and one half

years following the station's most recent license expiration date as specified in § 73.1020. The Commission will use the employment profile information provided on the first two Form 395–B reports submitted following such license expiration date to determine whether television station's employment profiles as compared to the applicable labor force data, are in compliance with the Commission's processing criteria. Television broadcast stations which employment profiles fall below the processing criteria will receive a letter noting any necessary improvements identified as a result of the review.

[52 FR 26684, July 16, 1987, as amended at 58 FR 42249, Aug. 9, 1993]

§ 73.3500 Application and report forms.

Following are the FCC broadcast application and report forms, listed by number.

Form number	Title
301	Application for Authority to Construct or Make Changes in a Commercial Broadcast Station.
301–A	Application for Authority to Operate a Broadcast Station by Remote Control or to Make Changes in a Remote Control Authorization.
302–AM	Application for AM Broadcast Station License.
302–FM	Application for FM Broadcast Station License.
302–TV	Application for Television Broadcast Station License.
303–S Application for Renewal of License for AM, FM, TV, Translator, or LPTV Station.	
307	Application for Extension of Broadcast Construction Permit or to Replace Expired Construction Permit.
308	Application for Permit to Deliver Programs to Foreign Broadcast Stations.
309	Application for Authority to Construct or Make Changes in an International or Experimental Broadcast Station.
310	Application for an International or Experimental Broadcast Station License.
311	Application for Renewal of an International or Experimental Broadcast Station License.
313	Application for Authorization in the Auxiliary Broadcast Services.
313–R	Application for Renewal of Auxiliary Broadcast License (Short Form).
314	Application for Consent to Assignment of Broadcast Station Construction Permit or License.
315	Application for Consent to Transfer of Control of Corporation Holding Broadcast Station Construction Permit or License.
316	Application for Consent to Assignment of Broadcast Station Construction Permit or License or Transfer of Control of Corporation Holding Broadcast Station Construction Permit or License.
323	Ownership Report.
323–E	Ownership Report for Noncommercial Educational Broadcast Station.
330	Application for authorization to construct new or make changes in Instructional TV Fixed and/or Response Stations, or to assign or transfer such stations.
330–L	Application for Instructional Television Fixed Station License.
330–R	Application for Renewal of Instructional TV Fixed Station and/or Response Station(s) and Low Power Relay Station(s) License.
340	Application for Authority to Construct or Make Changes in a Noncommercial Educational Broadcast Station.
345	Application for Consent to Assignment of a TV or FM Translator Station Construction Permit or License.
346	Application for Authority to Construct or Make Changes in a Low Power TV, TV Translator or TV Booster Station.
347	Application for a Low Power TV, TV Translator or TV Booster Station License.
349	Application for Authority to Construct or Make Changes in an FM Translator or FM Booster Station.
350	Application for an FM Translator or FM Booster Station License.
395–B	Annual Employment Report and instructions.
396	Broadcast Equal Employment Opportunity Program Report.
396–A	Broadcast Equal Employment Opportunity Model Program Report.
398	Children's Television Programming Report.

[44 FR 38486, July 2, 1979]

EDITORIAL NOTE: For FEDERAL REGISTER citations affecting § 73.3500, see the List of CFR Sections Affected in the Finding Aids section of this volume.

EFFECTIVE DATE NOTES: 1. At 61 FR 43998, Aug. 27, 1996, in § 73.3500, the table was amended by adding entry ''398'' in numerical order, effective either Jan. 2, 1997 or after approval has been given by the Office of Management and Budget, whichever comes later.

2. At 62 FR 51063, Sept. 3, 1997, § 73.3500 was amended by removing the entroy for ''Form 302'' and inserting the entries ''Form 302–AM'' and ''Form 302–TV'', effective Dec. 1, 1997.

§ 73.3511 Applications required.

(a) *Formal application* means any request for authorization where an FCC form for such request is prescribed. The prescription of an FCC form includes the requirement that the proper edition of the form is used. Formal applications on obsolete forms are subject to the provisions of § 73.3564 concerning

acceptance of applications and § 73.3566 concerning defective applications.

(b) *Informal application*1 means all other written requests for authorization. All such applications should contain a caption clearly indicating the nature of the request submitted therein.

(c) Formal and informal applications must comply with the requirements as to signing specified herein and in § 73.3513.

[44 FR 38486, July 2, 1979, as amended at 47 FR 40172, Sept. 13, 1982]

§ 73.3512 Where to file; number of copies.

All applications for authorizations required by § 73.3511 shall be filed at the FCC in Washington, DC (Applications requiring fees as set forth at Part 1, Subpart G of this chapter must be filed in accordance with § 0.401(b) of the rules.) The number of copies required for each application is set forth in the FCC Form which is to be used in filing such application.

[52 FR 10231, Mar. 31, 1987]

§ 73.3513 Signing of applications.

(a) Applications, amendments thereto, and related statements of fact required by the FCC must be signed by the following persons:

(1) *Individual Applicant.* The applicant, if the applicant is an individual.

(2) *Partnership.* One of the partners, if the applicant is a partnership.

(3) *Corporation.* An officer, if the applicant is a corporation.

(4) *Unincorporated Association.* A member who is an officer, if the applicant is an unincorporated association.

(5) *Governmental Entity.* Such duly elected or appointed officials as may be competent to do so under the law of the applicable jurisdiction, if the applicant is an eligible governmental entity, such as a State or Territory of the United States and political subdivisions thereof, the District of Columbia, and a unit of local government, including an unincorporated municipality.

(b) Applications, amendments thereto, and related statements of fact required by the FCC may be signed by the applicant's attorney in case of the applicant's physical disability or of his absence from the United States. The attorney shall in that event separately set forth the reason why the application is not signed by the applicant. In addition, if any matter is stated on the basis of the attorney's belief only (rather than his knowledge), he shall separately set forth his reasons for believing that such statements are true.

(c) Only the original of applications, amendments, or related statements of fact, need be signed; copies may be conformed.

(d) Applications, amendments, and related statements of fact need not be submitted under oath. Willful false statements made therein however, will be considered a violation of § 73.1015, are also punishable by fine and imprisonment, U.S. Code, Title 18, section 1001, and by appropriate adminstrative sanctions including revocation of station license pursuant to section 312(a)(i) of the Communications Act.

[44 FR 38487, July 2, 1979, as amended at 51 FR 3069, Jan. 23, 1986]

§ 73.3514 Content of applications.

(a) Each application shall include all information called for by the particular form on which the application is required to be filed, unless the information called for is inapplicable, in which case this fact shall be indicated.

(b) The FCC may require an applicant to submit such documents and written statements of fact as in its judgment may be necessary. The FCC may also, upon its own motion or upon motion of any party to a proceeding, order the applicant to amend the application so as to make it more definite and certain.

[44 FR 38487, July 2, 1979]

§ 73.3516 Specification of facilities.

(a) An application for facilities in the AM, FM, or TV broadcast services or low power TV service shall be limited to one frequency, or channel, and no application will be accepted for filing if it requests an alternate frequency or channel. Applications specifying split frequency AM operations using one frequency during daytime hours complemented by a different frequency during nighttime hours will not be accepted for filing.

(b) An application for facilities in the experimental and auxiliary broadcast services may request the assignment of more than one frequency if consistent with applicable rules in Part 74. Such applications must specify the frequency or frequencies requested and may not request alternate frequencies.

(c) An application for a construction permit for a new broadcast station, the facilities for which are specified in an outstanding construction permit or license, will not be accepted for filing.

(d) An application for facilities in the International broadcast service may be filed without a request for specific frequency, as the FCC will assign frequencies from time to time in accordance with §§ 73.702 and 73.711.

(e) An application for construction permit for a new broadcast station or for modification of construction permit or license of a previously authorized broadcast station will not be accepted for filing if it is mutually exclusive with an application for renewal of license of an existing broadcast station unless the application for renewal of license is filed on or before May 1, 1995 and unless the mutually exclusive construction permit application is tendered for filing by the end of the first day of the last full calendar month of the expiring license term. A petition to deny an application for renewal of license of an existing broadcast station will be considered as timely filed if it is tendered for filing by the end of the first day of the last full calendar month of the expiring license term.

(1) If the license renewal application is not timely filed as prescribed in § 73.3539, the deadline for filing petitions to deny thereto is the 90th day after the FCC gives public notice that it has accepted the late-filed renewal application for filing. In the case of a renewal application filed on or before May 1, 1995, if the license renewal application is not timely filed as prescribed in § 73.3539, the deadline for filing applications mutually exclusive therewith is the 90th day after the FCC gives public notice that it has accepted the late-filed renewal application for filing.

(2) If any deadline falls on a nonbusiness day, the cutoff shall be the close of business of the first full business day thereafter.

(3) The dates when the licenses of all broadcast and broadcast auxiliary services regularly expire are listed in §§ 73.733, 73.1020 and 74.15.

[44 FR 38487, July 2, 1979, as amended at 47 FR 21494, May 18, 1982; 49 FR 47843, Dec. 7, 1984; 51 FR 44071, Dec. 8, 1986; 56 FR 64873, Dec. 12, 1991; 61 FR 18291, Apr. 25, 1996]

§ 73.3517 Contingent applications.

Contingent applications for new stations and for changes in facilities of existing stations are not acceptable for filing. Contingent applications will be accepted for filing under circumstances described below:

(a) Upon filing of an application for the assignment of a license or construction permit, or for a transfer of control of a licensee or permittee, the proposed assignee or transferee may, upon payment of the processing fee prescribed in Subpart G, Part 1 of this chapter, file applications in its own name for authorization to make changes in the facilities to be assigned or transferred contingent upon approval and consummation of the assignment or transfer. Any application filed pursuant to this paragraph must be accompanied by a written statement from the existing licensee which specifically grants permission to the assignee or permittee to file such application. The processing fee will not be refundable should the assignment or transfer not be approved. The existing licensee or permittee may also file a contingent application in its own name, but fees in such cases also not refundable.

(b) Whenever the FCC determines that processing of any application filed pursuant to paragraph (a) of this section, would be contrary to sound administrative practice or would impose an unwarranted burden on its staff and resources, the FCC may defer processing of such application until the assignment or transfer has been granted and consummated.

(c) Upon payment of the filing fees prescribed in § 1.1111 of this chapter, the Commission will accept two or more applications filed by existing AM licensees for modification of facilities that are contingent upon granting of

both, if granting such contingent applications will reduce interference to one or more AM stations or will otherwise increase the area of interference-free service. The applications must state that they are filed pursuant to an interference reduction arrangement and must cross-reference all other contingent applications.

(d) Modified proposals curing conflicts between mutually exclusive clusters of applications filed in accordance with paragraphs (c) of this section will be accepted for 60 days following issuance of a public notice identifying such conflicts.

NOTE 1: No application to move to a frequency in the 1605–1705 kHz band may be part of any package of contingent applications associated with a voluntary agreement.

NOTE 2: In cases where no modified proposal is filed pursuant to paragraph (d) of this section, the Commission will grant the application resulting in the greatest net interference reduction.

[44 FR 38487, July 2, 1979, as amended at 45 FR 41152, June 18, 1980; 52 FR 5294, Feb. 20, 1987; 53 FR 36787, Sept. 22, 1988; 56 FR 64873, Dec. 12, 1991]

§ 73.3518 Inconsistent or conflicting applications.

While an application is pending and undecided, no subsequent inconsistent or conflicting application may be filed by or on behalf of or for the benefit of the same applicant, successor or assignee.

[44 FR 38487, July 2, 1979]

§ 73.3519 Repetitious applications.

(a) Where the FCC has denied an application for a new station or for any modification of services or facilities, or dismissed such application with prejudice, no like application involving service of the same kind for substantially the same area by substantially the same applicant, or his successor or assignee, or on behalf or for the benefit of the original parties in interest, may be filed within 12 months from the effective date of the FCC's action. However, applicants whose applications have been denied in a comparative hearing may apply immediately for another available facility.

(b) Where an appeal has been taken from the action of the FCC in denying a particular application, another application for the same class of broadcast station and for the same area, in whole or in part, filed by the same applicant, or his successor or assignee, or on behalf of, or for the benefit of the original parties in interest, will not be considered until final disposition of such appeal.

[44 FR 38488, July 2, 1979]

§ 73.3520 Multiple applications.

Where there is one application for new or additional facilities pending, no other application for new or additional facilities for a station of the same class to serve the same community may be filed by the same applicant, or successor or assignee, or on behalf of, or for the benefit of the original parties in interest. Multiple applications may not be filed simultaneously.

[44 FR 38488, July 2, 1979]

§ 73.3521 Mutually exclusive applications for low power television, television translators and television booster stations.

When there is a pending application for a new low power television, television translator, or television booster station, or for major changes in an existing station, no other application which would be directly mutually exclusive with the pending application may be filed by the same applicant or by any applicant in which any individual in common with the pending application has any interest, direct or indirect, except that interests or less than 1% will not be considered.

[52 FR 31400, Aug. 20, 1987]

§ 73.3522 Amendment of applications.

(a) *Predesignation amendment.* (1) Subject to the provisions of §§ 73.3525, 73.3571, 73.3572, 73.3573, and 73.3580, and except as provided in paragraph (a)(2) of this section, any application, other than an application for a low power TV, TV translator, TV booster or a nonreserved band FM station may be amended as a matter of right prior to the adoption date of an order designating such applications for hearings,

merely by filing the appropriate number of copies of the amendments in question duly executed in accordance with § 73.3513. If a petition to deny (or to designate for hearing) has been filed, the amendment shall be served on the petitioner.

(2) Subject to the provisions of §§ 73.3525, 73.3571, 73.3572, 73.3573 and 73.3580, and except for applications for low power TV, TV translator, TV booster or non-reserved band FM stations, mutually exclusive broadcast applications may be amended as a matter of right by the date specified (not less than 30 days after issuance) in the FCC's Public Notice announcing the acceptance for filing of the last-filed mutually exclusive application. Subsequent amendments prior to designation of the proceeding for hearing will be considered only upon a showing of good cause for late filing or pursuant to § 1.65 or § 73.3514. Unauthorized or untimely amendments are subject to return by the FCC's staff without consideration.

(3) Subject to the provisions of §§ 73.3525, 73.3572 and 73.3580, any application for a low power TV, TV translator or TV booster station may be amended as a matter of right during the application window filing period pursuant to § 73.3564(d). If it is determined that a low power TV, TV translator or TV booster application is substantially complete but contains some defect(s) or omission(s), a deficiency letter will be issued affording the applicant 30 days to correct the defect.

(4) No applicant for a low power TV, TV translator or TV booster station which is mutually exclusive can improve its status with respect to § 1.1622 by amendment of its application subsequent to the release of the initial Public Notice announcing the public lottery that will resolve the applicant's mutual exclusivity pursuant to § 1.1601 *et seq.*, not withstanding the requirements of § 1.65.

(5) Paragraphs (b) and (c) of this section are not applicable to applications for low power TV, TV translator, or TV booster stations.

(6) Subject to the provisions of § 73.3525, 73.3573, and 73.3580, applications for non-reserved band FM stations (other than Class D stations) may be amended as a matter of right during the appropriate window filing period pursuant to § 73.3564(d). For a period of 30 days following the FCC's issuance of a Public Notice announcing the tender of the application, minor amendments may be filed as a matter of right. For applications received on or after August 7, 1992, an applicant whose application is found to meet minimum filing requirements but nevertheless is not complete and acceptable shall have the opportunity in the 30-day period specified in the FCC staff's deficiency letter to correct all deficiencies in the tenderability and acceptability of the underlying application, including any deficiency not specifically identified by the staff. [For minimum filing requirements see § 73.3564(a). Examples of tender defects appear at 50 FR 19936 at 19945–46 (May 13, 1985), *reprinted as* Appendix D, *Report and Order*, MM Docket No. Docket No. 91–347, 7 FCC Red 5074, 5083–88 (1992). For examples of acceptance defects see 49 FR 47331.] Prior to the end of the period specified in the deficiency letter, a submission seeking to correct a tender and/or acceptance defect in an application meeting minimum filing requirements will be treated as an amendment for good cause if it would successfully and directly correct the defect. Other amendments prior to designation for hearing or grant will be considered only upon a showing of good cause for late filing or pursuant to § 1.65 or § 73.3514. Unauthorized or untimely amendments are subject to return by the Commission without consideration. However, an amendment to a non-reserved band application will not be accepted after the close of the appropriate filing window if the effect of such amendment is to alter the proposed facility's coverage area so as to produce a conflict with an applicant who files subsequent to the initial applicant but prior to the amendment application. Similarly, an applicant subject to ''first come/first serve'' processing will not be permitted to amend its application and retain filing priority if the result of such amendment is to alter the facility's coverage area so as to produce a conflict with an applicant who files subsequent to the initial applicant but prior to the amendment.

(b) *Postdesignation amendment.* (1) Except as provided in paragraph (b)(2) of this section, requests to amend an application after it has been designated for hearing will be considered only upon written petition properly served upon the parties of record in accordance with § 1.47 and, where applicable, compliance with the provisions of § 73.3525, and will be considered only upon a showing of good cause for late filing. In the case of requests to amend the engineering proposal (other than to make changes with respect to the type of equipment specified), good cause will be considered to have been shown only if, in addition to the usual good cause consideration, it is demonstrated:

(i) That the amendment is necessitated by events which the applicant could not reasonably have foreseen (e.g., notification of a new foreign station or loss of transmitter site by condemnation); and

(ii) That the amendment does not require an enlargement of issues or the addition of new parties to the proceeding.

(2) In comparative broadcast cases (including comparative renewal proceedings), amendments relating to issues first raised in the designation order may be filed as a matter of right within 30 days after that Order or a summary thereof is published in the FEDERAL REGISTER, or by a date certain to be specified in the Order.

(c) Notwithstanding the provisions of paragraph (b) of this section, and subject to compliance with the provisions of § 73.3525, a petition for leave to amend may be granted, provided it is requested that the application as amended be removed from the hearing docket and returned to the processing line. See § 73.3571.

NOTE 1: When two or more broadcast applications are tendered for filing which are mutually exclusive with each other but not in conflict with any previously filed applications which have been accepted for filing, the FCC, where appropriate, will announce acceptance of the earliest tendered application and place the later filed application or applications on a subsequent public notice of acceptance for filing in order to establish a deadline for the filing of amendments as a matter of right for all applicants in the group.

[44 FR 38488, July 2, 1979, as amended at 44 FR 40311, July 10, 1979; 51 FR 19347, May 29, 1986; 52 FR 31400, Aug. 20, 1987; 53 FR 26074, July 11, 1988; 57 FR 34878, Aug. 7, 1992; 58 FR 51250, Oct. 1, 1993; 59 FR 31556, June 20, 1994]

§ 73.3523 Dismissal of applications in renewal proceedings.

(a) An applicant for construction permit, that has filed an application that is mutually exclusive with an application for renewal of a license of an AM, FM or television station (hereinafter competing applicant'') filed on or before May 1, 1995, and seeks to dismiss or withdraw its application and thereby remove a conflict between applications pending before the Commission, must obtain the approval of the Commission.

(b) If a competing applicant seeks to dismiss or withdraw its application prior to the Initial Decision stage of the hearing on its application, it must submit to the Commission a request for approval of the dismissal or withdrawal of its application, a copy of any written agreement related to the dismissal or withdrawal of its application, and an affidavit setting forth:

(1) A certification that neither the applicant nor its principals has received or will receive any money or other consideration in exchange for dismissing or withdrawing its application;

(2) A statement that its application was not filed for the purpose of reaching or carrying out an agreement with any other applicant regarding the dismissal or withdrawal of its application; and

(3) The terms of any oral agreement relating to the dismissal or withdrawal of its application.

In addition, within 5 days of the applicant's request for approval, each remaining competing applicant and the renewal applicant must submit an affidavit setting forth:

(4) A certification that neither the applicant nor its principals has paid or will pay any money or other consideration in exchange for the dismissal or withdrawal of the application; and

(5) The terms of any oral agreement relating to the dismissal or withdrawal of the application.

(c) If a competing applicant seeks to dismiss or withdraw its application after the Initial Decision stage of the hearing on its application, it must submit to the Commission a request for approval of the dismissal or withdrawal of its application, a copy of the any written agreement related to the dismissal or withdrawal, and an affidavit setting forth:

(1) A certification that neither the applicant nor its principals has received or will receive any money or other consideration in excess of the legitimate and prudent expenses of the applicant;

(2) The exact nature and amount of any consideration paid or promised;

(3) An itemized accounting of the expenses for which it seeks reimbursement;

(4) A statement that its application was not filed for the purpose of reaching or carrying out an agreement with any other applicant regarding the dismissal or withdrawal of its application; and

(5) The terms of any oral agreement relating to the dismissal or withdrawal of its application.

In addition, within 5 days of the applicant's request for approval, each remaining party to any written or oral agreement must submit an affidavit setting forth:

(6) A certification that neither the applicant nor its principals has paid or will pay money or other consideration in excess of the legitimate and prudent expenses of the withdrawing applicant in exchange for the dismissal or withdrawal of the application; and

(7) The terms of any oral agreement relating the dismissal or withdrawal of the application.

(d) For the purpose of this section:

(1) Affidavits filed pursuant to this section shall be executed by the applicant, permittee or licensee, if an individual; a partner having personal knowledge of the facts, if a partnership; or an officer having personal knowledge of the facts, if a corporation or association.

(2) An application shall be deemed to be pending before the Commission from the time an application is filed with Commission until an order of the Commission granting or denying the application is no longer subject to reconsideration by the Commission or to review by any court.

(3) ''Legitimate and prudent expenses'' are those expenses reasonably incurred by an applicant in preparing, filing, and prosecuting its application.

(4) ''Other consideration'' consists of financial concessions, including but not limited to the transfer of assets or the provision of tangible pecuniary benefit, as well as nonfinancial concessions that confer any type of benefit on the recipient.

[54 FR 22598, May 25, 1989, as amended at 61 FR 18291, Apr. 25, 1996]

§ 73.3525 Agreements for removing application conflicts.

(a) Except as provided in § 73.3523 regarding dismissal of applications in comparative renewal proceedings, whenever applicants for a construction permit for a broadcast station enter into an agreement to procure the removal of a conflict between applications pending before the FCC by withdrawal or amendment of an application or by its dismissal pursuant to § 73.3568, all parties thereto shall, within 5 days after entering into the agreement, file with the FCC a joint request for approval of such agreement. The joint request shall be accompanied by a copy of the agreement, including any ancillary agreements, and an affidavit of each party to the agreement setting forth:

(1) The reasons why it is considered that such agreement is in the public interest;

(2) A statement that its application was not filed for the purpose of reaching or carrying out such agreement;

(3) A certification that neither the applicant nor its principals has received any money or other consideration in excess of the legitimate and prudent expenses of the applicant; *Provided* That this provision shall not apply to *bona fide* merger agreements;

(4) The exact nature and amount of any consideration paid or promised;

(5) An itemized accounting of the expenses for which it seeks reimbursement; and

(6) The terms of any oral agreement relating to the dismissal or withdrawal of its application.

(b) Whenever two or more conflicting applications for construction permits for broadcast stations pending before the FCC involve a determination of fair, efficient and equitable distribution of service pursuant to section 307(b) of the Communications Act, and an agreement is made to procure the withdrawal (by amendment to specify a different community or by dismissal pursuant to § 73.3568) of the only application or applications seeking the same facilities for one of the communities involved, all parties thereto shall file the joint request and affidavits specified in paragraph (a) of this section.

(1) If upon examination of the proposed agreement the FCC finds that withdrawal of one of the applications would unduly impede achievement of a fair, efficient and equitable distribution of radio servce among the several States and communities, then the FCC shall order that further opportunity be afforded for other persons to apply for the facilities specified in the application or applications to be withdrawn before acting upon the pending request for approval of the agreement.

(2) Upon release of such order, any party proposing to withdraw its application shall cause to be published a notice of such proposed withdrawal at least twice a week for 2 consecutive weeks within the 3-week period immediately following release of the FCC's order, in a daily newspaper of general circulation published in the community in which it was proposed to locate the station. However, if there is no such daily newspaper published in the community, the notice shall be published as follows:

(i) If one or more weekly newspapers of general circulation are published in the community in which the station was proposed to be located, notice shall be published in such a weekly newspaper once a week for 3 consecutive weeks within the 4-week period immediately following the release of the FCC's order.

(ii) If no weekly newspaper of general circulation is published in the community in which the station was proposed to be located, notice shall be published at least twice a week for 2 consecutive weeks within the 3-week period immediately following the release of the FCC's order in the daily newspaper having the greatest general circulation in the community in which the station was proposed to be located.

(3) The notice shall state the name of the applicant; the location, frequency and power of the facilities proposed in the application; the location of the station or stations proposed in the applications with which it is in conflict; the fact that the applicant proposes to withdraw the application; and the date upon which the last day of publication shall take place.

(4) Such notice shall additionally include a statement that new applications for a broadcast station on the same frequency, in the same community, with substantially the same engineering characteristics and proposing to serve substantially the same service area as the application sought to be withdrawn, timely filed pursuant to the FCC's rules, or filed, in any event, within 30 days from the last date of publication of the notice (notwithstanding any provisions normally requiring earlier filing of a competing application), will be entitled to comparative consideration with other pending mutually exclusive affidavits.

(5) Within 7 days of the last day of publication of the notice, the applicant proposing to withdraw shall file a statement in triplicate with the FCC giving the dates on which the notice was published, the text of the notice and the name and location of the newspaper in which the notice was published.

(6) Where the FCC orders that further opportunity be afforded for other persons to apply for the facilities sought to be withdrawn, no application of any party to the agreement will be acted upon by the FCC less than 30 days from the last day of publication of the notice specified in paragraph (b)(2) of this section. Any applications for a broadcast station on the same frequency in the same community, with substantially the same engineering characteristics and proposing to serve substantially the same service area as the application sought to be withdrawn, filed

within the 30-day period following the last date of publication of the notice (notwithstanding any provisions normally requiring earlier filing of a competing application), or otherwise timely filed, will be entitled to comparative consideration with other pending mutually exclusive applications. If the application of any party to which the new application may be in conflict has been designated for hearing, any such new application will be entitled to consolidation in the proceeding.

(c) Except where a joint request is filed pursuant to paragraph (a) of this section, any applicant filing an amendment pursuant to §73.3522(a) or a request for dismissal pursuant to §73.3568(a) which would remove a conflict with another pending application; or a petition for leave to amend pursuant to §73.3522 (b) or (c) which would permit a grant of the amended applcation or an application previously in conflict with the amended application; or a request for dismissal pursuant to §73.3568(c), shall file with it an affidavit as to whether or not consideration (including an agreement for merger of interests) has been promised to or received by such applicant, directly or indirectly, in connection with the amendment, petition or request.

(d) Upon the filing of a petition for leave to amend or to dismiss an application for broadcast facilities which has been designated for hearing or upon the dismissal of such application on the FCC's own motion pursuant to §73.3568(b), each applicant or party remaining in hearing, as to whom a conflict would be removed by the amendment or dismissal shall submit for inclusion in the record of that proceeding an affidavit stating whether or not he has directly or indirectly paid or promised consideration (including an agreement for merger of interests) in connection with the removal of such conflict.

(e) Where an affidavit filed pursuant to paragraph (c) of this section states that consideration has been paid or promised, the affidavit shall set forth in full all relevant facts, including, but not limited to, the material listed in paragraph (a) of this section for inclusions in affidavits.

(f) Affidavits filed pursuant to this section shall be executed by the applicant, permittee or licensee, if an individual; a partner having personal knowledge of the facts, if a partnership; or an officer having personal knowledge of the facts, if a corporation or association.

(g) Requests and affidavits which relate to an application which has not been designated for hearing shall bear the file number of such application. If the affiant is also an applicant, the affidavit shall also bear the file number of affiant's pending application(s). Requests and affidavits which relate to an application which is designated for hearing shall bear the file number of that application and the hearing docket number and will be acted on by the presiding officer.

(h) For the purposes of this section an application shall be deemed to be ''pending'' before the FCC and a party shall be considered to have the status of an ''applicant'' from the time an application is filed with the FCC until an order of the FCC granting or denying it is no longer subject to reconsideration by the FCC or to review by any court.

(i) For purposes of this section, ''legitimate and prudent expenses'' are those expenses reasonably incurred by an applicant in preparing, filing, prosecuting, and settling its application for which reimbursement is being sought.

(j) For purposes of this section, ''other consideration'' consists of financial concessions, including, but not limited to the transfer of assets or the provision of tangible pecuniary benefit, as well as non-financial concessions that confer any type of benefit on the recipient.

(k) For purposes of this section, an ''ancillary agreement'' means any agreement relating to the dismissal of an application or settling of a proceeding, including any agreement on the part of an applicant or principal of an applicant to render consulting services to another party or principal of another party in the poroceeding.

NOTE: Although §74.780 of the Rules makes this section generally applicable to low power TV, TV translators, and TV booster

stations, paragraph (b) of this section shall not be applicable to such stations.

[56 FR 28097, June 19, 1991]

§ 73.3526 Local public inspection file of commercial stations.

(a) *Records to be maintained.* Every applicant for a construction permit for a new station in the commercial broadcast services shall maintain for public inspection a file containing the material described in paragraph (a)(1) of this section. Every permittee or licensee of an AM, FM or TV station in the commercial broacast services shall maintain for public inspection a file containing the material described in paragraphs (a)(1), (2), (3), (4), (5), (6), (7) and (10) of this section. In addition, every permittee or licensee of a TV station shall maintain for public inspection a file containing material described in paragraph (a)(8) of this section; every permittee or licensee of an AM or FM station shall maintain for public inspection a file containing material described in paragraph (a)(9) of this section. The material to be contained in the file is as follows:

(1) A copy of every application tendered for filing, with respect to which local public notice is required to be given under the provisions of § 73.3580 or § 73.3594; and all exhibits, letters and other documents tendered for filing as part thereof; all amendments thereto, copies of all documents incorporated therein by reference, all correspondence between the FCC and the applicant pertaining to the application after it has been tendered for filing, and copies of Initial Decisions and Final Decisions in hearing cases pertaining thereto, which according to the provisions of §§ 0.451 through 0.461 of the rules are open for public inspection at the offices of the FCC. Information incorporated by reference which is already in the local file need not be duplicated if the entry making the reference sufficienty identifies the information so that it may be found in the file, and if there has been no change in the document since the date of filing and the applicant, after making the reference, so states. If petitions to deny are filed against the application, and have been duly served on the applicant, a statement that such a petition has been filed shall appear in the local file together with the name and address of the party filing the petition. The file shall also contain a copy of every written citizen agreement. For purposes of this section, a citizen agreement is a written agreement between a broadcast applicant, permittee, or licensee, and one or more citizens or citizen groups, entered for primarily noncommercial purposes. This definition includes those agreements that deal with goals or proposed practices directly or indirectly affecting station operation in the public interest, in areas such as—but not limited to—community ascertainment, programming, and employment. It excludes common commercial agreements such as advertising contracts; union, employment, and personal services contracts; network affiliation, syndication, program supply contracts and so on. However, the mere inclusion of commercial terms in a primarily noncommercial agreement—such as a provision for payment of fees for future services of the citizen-parties (see ''Report and Order,'' Docket 19518, 57 FCC 2d 494 1976))—would not cause the agreement to be considered commercial for purposes of this section.

NOTE: Applications tendered for filing on or before May 13, 1965, which are subsequently designated for hearing after May 13, 1965, with local notice being given pursuant to the provisions of § 73.3594, and material related to such applications, need not be placed in the file required to be kept by this section. Applications tendered for filing after May 13, 1965, which contain major amendments to applications tendered for filing on or before May 13, 1965, with local notice of the amending application being given pursuant to the provisions of § 73.3580, need not be placed in the file requred to be kept by this section.

(2) A copy of every application tendered for filing by the licensee or permittee for such station which is not included in paragraph (a)(1) of this section and which involves changes in program service, which requests an extension of time in which to complete construction of a new station, or which requests consent to involuntary assignment or transfer, or to voluntary assignment or transfer not resulting in a substantial change in ownership or control and which may be applied for

on FCC Form 316; and copies of all exhibits, letters, and other documents filed as part thereof, all amendments thereto, all correspondence between the FCC and the applicant pertaining to the application after it has been tendered for filing, and copies of all documents incorporated therein by reference, which according to the provisions of §§0.451 through 0.461 of the rules are open for public inspection at the offices of the FCC. Information incorporated by reference which is already in the local file need not be duplicated if the entry making the reference sufficiently identifies the information so that it may be found in the file, and there has been no change in the document since the date of filing and the licensee, after making the reference, so states. If petitions to deny are filed against the application, and have been duly served on the applicant, a statement that such a petition has been filed shall appear in the local file together with the name and address of the party filing the petition.

NOTE: The engineering section of the applications mentioned in paragraphs (a)(1) and (2) of this section, and material related to the engineering section, need not be kept in the file required to be maintained by this paragraph. If such engineering section contains service contour maps submitted with that section, copies of such maps and information (State, county, city, street address, or other identifying information) showing main studio and transmitter location shall be kept in the file.

(3) A copy of every ownership report or supplemental ownership report filed by the licensee or permittee for such station after May 13, 1965, pursuant to the provisions of this part; and copies of all exhibits, letters, and other documents filed as part thereof, all amendments thereto, all correspondence between the permittee or licensee and the FCC pertaining to the reports after they have been filed, and all documents incorporated therein by reference, including contracts listed in such reports in accordance with the provisions of §73.3615(a)(4)(i) and which according to the provisions of §§0.451 through 0.461 of the rules are open for public inspection at the offices of the FCC. Information incorporated by reference which is already in the local file need not be duplicated if the entry making the reference sufficiently identifies the information so that it may be found in the file, and if there has been no change in the document since the date of filing and the licensee or permittee, after making the reference, so states.

(4) Such records as are required to be kept by §73.1940 concerning broadcasts by candidates for public office.

(5) A copy of every annual employment report filed by the licensee or permittee for such station pursuant to the provisions of this part; and copies of all exhibits, letters and other documents filed as part thereof, all amendments thereto, and all correspondence between the permittee or licensee and the FCC pertaining to the reports after they have been filed and all documents incorporated therein by reference and which according to the provisions of §§0.451 through 0.461 of the rules are open for public inspection at the offices of the FCC.

(6) The Public and Broadcasting—A Procedure Manual (see FCC 74–942, 39 FR 32288, September 5, 1974).

(7) Letters received from members of the public as are required to be retained by §73.1202.

(8)(i) For commerical TV broadcast stations, every three months a list of programs that have provided the station's most significant treatment of community issues during the preceding three month period. The list for each calendar quarter is to be filed by the tenth day of the succeeding calendar quarter (*e.g.*, January 10 for the quarter October–December, April 10 for the quarter January–March, etc.). The list include a brief narrative describing what issues were given significant treatment and the programming that provided this treatment. The description of the programs should include, but is not limited to, the time, date, duration and title of each program in which the issue was treated.

(ii) For commercial TV broadcast stations, records sufficient to permit substantiation of the station's certification, in its license renewal application, of compliance with the commercial limits on children's programming established in 47 U.S.C. 303a and 47 CFR 73.670.

(iii) For commercial TV broadcast stations, on a quarterly basis, a completed Children's Television Programming Report (''Report''), on FCC Form 398, reflecting efforts made by the licensee during the preceding quarter, and efforts planned for the next quarter, to serve the educational and informational needs of children. The Report for each quarter is to be filed by the tenth day of the succeeding calendar quarter. The Report shall identify the licensee's educational and informational programming efforts, including programs aired by the station that are specifically designed to serve the educational and informational needs of children, and it shall explain how programs identified as Core Programming meet the definition set forth in § 73.671(c). The Report shall include the name of the individual at the station responsible for collecting comments on the station's compliance with the Children's Television Act, and it shall be separated from other materials in the public inspection file. Licensees shall publicize in an appropriate manner the existence and location of these Reports. For an experimental period of three years, licensees shall file these Reports with the Commission on an annual basis, *i.e.*, four quarterly reports filed jointly each year, preferably in electronic form. These Reports shall be filed with the Commission on January 10, 1998, January 10, 1999, and January 10, 2000.

(9) For commercial AM and FM broadcast stations, every three months a list of programs that have provided the station's most significant treatment of community issues during the preceding three month period. The list for each calendar quarter is to be filed by the tenth of the succeeding calendar quarter (*e.g.*, January 10 for the quarter October-December, April 10 for the quarter January-March, etc.). The list shall include a brief narrative describing what issues were given significant treatment and the programming that provided this treatment. The description of the programs should include, but is not limited to, the time, date, duration and title of each program in which the issue was treated.

(10) Each applicant for renewal of license shall, within 7 days of the last day of broadcast of the local public notice of filing announcements required pursuant to § 73.3580(h), place in the station's local public inspection file a statement certifying compliance with this requirement. The dates and times that the pre-filing and post-filing notices were broadcast and the text thereof shall be made part of the certifying statement.

(11) Every television broadcast station owned or controlled by a television network shall maintain the records required by § 73.661. These records shall be maintained in the file until the remaining syndication rules expire.

(12) For commercial radio stations, a copy of every agreement or contract involving time brokerage of the licensee's station or of another station by the licensee, with confidential or proprietary information redacted where appropriate.

(b) *Responsibility in case of assignment or transfer.* (1) In cases involving applications for consent to assignment of broadcast station construction permits or licenses, with respect to which public notice is required to be given under the provisions of § 73.3580 or § 73.3594, the file mentioned in paragraph (a) of this section shall be maintained by the assignor. If the assignment is consented to by the FCC and consummated, the assignee shall maintain the file commencing with the date on which notice of the consummation of the assignment is filed with the FCC. The file maintained by the assignee shall cover the period both before and after the time when the notice of consummation of assignment was filed. The assignee is responsible for obtaining copies of the necessary documents from the assignor or from the FCC files.

(2) In cases involving applications for consent to transfer of control of a permittee or licensee of a broadcast station, the file mentioned in paragraph (a) of this section shall be maintained by the permittee or licensee.

(c) *Station to which reports pertain.* The file need contain only applications, ownership reports, and related material that concern the station for which the file is kept. Applicants, permittees, and licensees need not keep in

the file copies of such applications, reports, and material which pertain to other stations with regard to which they may be applicants, permittees, or licensees, except to the extent that such information is reflected in the materials required to be kept under the provisions of this section.

(d) *Location of records.* The file shall be maintained at the main studio of the station, where such studio is located in the community to which the station is licensed or where such studio is located outside of the community of license pursuant to authorization granted under § 73.1125(a) of the rules prior to July 16, 1987, or at any accessible place (such as a public registry for documents or an attorney's office) in the community to which the station is or is proposed to be licensed. The file shall be available for public inspection at any time during regular business hours.

(e) *Period of retention.* The records specified in paragraph (a)(4) of this section shall be retained for periods specified in § 73.1940 (2 years). The manual specified in paragraph (a)(6) of this section shall be retained indefinitely. The letters specified in paragraph (a)(7) of this section shall be retained for the period specified in § 73.1202 (3 years). The ''significant treatment of community issues'' list and the records demonstrating the station's response to the educational and informational needs of children specified in paragraph (a)(8) of this section shall be retained by commercial broadcast television licensees for the term of license, 5 years. Commercial AM and FM radio licensees shall retain the ''significant treatment of community issues list'' specified in paragraph (a)(9) of this section for the term of license, 7 years. The certification specified in paragraph (a)(10) of this section shall be retained for the period specified in § 73.3580 (for as long as the application to which it refers). The records specified in paragraphs (a)(1), (2), (3), and (5) of this section shall be retained, as follows:

(1) The applicant for a construction permit for a new station shall maintain such a file so long as the application is pending before the FCC or any proceeding involving that application is pending before the courts. (If the application is granted, paragraph (e)(2) of this section shall apply.)

(2) The permittee or licensee shall maintain such a file so long as an authorization to operate the station is outstanding, and shall permit public inspection of the material as long as it is retained by the licensee even though the request for inspection is made after the conclusion of the required retention period specified in this paragraph. However, material which is voluntarily retained after the required retention time may be kept in a form and place convenient to the licensee and shall be made available to the inquiring party, in good faith after written request, at a time and place convenient to both the party and the licensee.

Applications and related material placed in the file shall be retained for a period beginning with the date that they are tendered for filing and ending with the expiration of one license term (five (5) years for television licensees or seven (7) years for radio licensees) or until the grant of the first renewal application of the television or radio broadcast license in question, whichever is later, with two exceptions:

(i) Engineering material pertaining to a former mode of operation need not be retained longer than 3 years after a station commences operation under a new or modified mode; and

(ii) Material having a substantial bearing on a matter which is the subject of a claim against the licensee, or relating to an FCC investigation or a complaint to the FCC of which the licensee has been advised, shall be retained until the licensee is notified in writing that the material may be discarded, or, if the matter is a private one, the claim has been satisfied or is barred by statute of limitations. Where an application or related material incorporates by reference material in earlier applications and material concerning programming and related matters (section IV and related material), the material so referred to shall be retained as long as the application referring to it. If a written agreement is not incorporated in an application tendered for filing with the FCC, the starting date of the retention period for that agreement is the date the agreement is executed.

(f) Copies of any material required to be in the public file of any applicant for a construction permit, or permittee or licensee of any commercial TV or radio station shall be available for machine reproduction upon request made in person, provided the requesting party shall pay the reasonable cost of reproduction. Requests for machine copies shall be fulfilled at a location specified by the applicant, permittee or licensee, within a reasonable period of time which, in no event, shall be longer than seven days unless reproduction facilities are unavailable in the applicant's, permittee's, or licensee's community. The applicant, permittee or licensee is not required to honor requests made by mail, but may do so if it chooses.

(g) Statements of a commercial television station's election with respect to either must-carry or retransmission consent as defined in §76.64 of this chapter shall be retained in the public file of the television station for the duration of the three year election period to which the statement applies.

[50 FR 8630, Mar. 4, 1985, as amended at 51 FR 20292, 20293, June 4, 1986; 53 FR 17046, May 13, 1988; 53 FR 32901, Aug. 29, 1988; 56 FR 19616, Apr. 29, 1991; 56 FR 26270, June 6, 1991; 56 FR 28825, June 25, 1991; 56 FR 64209, Dec. 9, 1991; 57 FR 18091, Apr. 29, 1992; 57 FR 42704, Sept. 16, 1992; 58 FR 28932, May 18, 1993; 59 FR 62344, Dec. 5, 1994; 61 FR 43998, Aug. 27, 1996]

EFFECTIVE DATE NOTES: 1. At 57 FR 18093, Apr. 29, 1992, in §73.3526, paragraph (e) introductory text was revised, effective August 1, 1992. At 57 FR 35763, Aug. 11, 1992, the effective date was deferred pending action by the agency. At 57 FR 37888, Aug. 21, 1992, the effective date was further delayed. For the convenience of the user, the revised text is set forth as follows:

§ 73.3526 Local public inspection file of commercial stations.

* * * * *

(e) *Period of retention.* The records specified in paragraph (a)(4) of this section shall be retained for periods specified in §73.1940 (2 years). The manual specified in paragraph (a)(6) of this section shall be retained indefinitely. The letters specified in paragraph (a)(7) of this section shall be retained for the period specified in §73.1202 (3 years). The ''significant treatment of community issues'' list and the records demonstrating the station's response to the educational and informational needs of children specified in paragraph (a)(8) of this section shall be retained by commercial broadcast television licensees for the term of license (5 years). Commercial AM and FM radio licensees shall retain the ''significant treatment of community issues list'' specified in paragraph (a)(9) of this section for the term of license (7 years). The certification specified in paragraph (a)(10) of this section shall be retained for the period specified in §73.3580 (for as long as the application to which it refers). The records specified in paragraph (a)(12) of this section shall be retained as long as the contract or agreement is in force. The records specified in paragraphs (a) (1), (2), (3), and (5) of this section shall be retained as follows:

* * * * *

2. At 59 FR 62344, Dec. 5, 1994, in §73.3526, paragraph (g) was added. This amendment contains information collection and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

3. At 61 FR 43998, Aug. 27, 1996, in §73.3526, paragraph (a)(8)(iii) was revised, effective either Jan. 2, 1997 or after approval has been given by the Office of Management and Budget, whichever comes later.

§ 73.3527 Local public inspection file of noncommercial educational stations.

(a) *Records to be maintained.* Every applicant for a construction permit for a new station in the noncommercial educational broadcast servcies shall maintain for public inspection a file containing the material in paragraph (a)(1) of this section. Every permittee or licensee of a station in the noncommercial educational broadcast services shall maintain for public inspection a file containing the material described in paragraphs (a) (1) through (9) of this section. The material to be contained in the file is as follows:

(1) A copy of every application tendered for filing with respect to which local public notice is required to be given under the provisions of §73.3580 or §73.3594; and all exhibits, letters and other documents tendered for filing as part thereof, all amendments thereto, copies of all documents incorporated therein by reference, all correspondence between the FCC And the applicant pertaining to the application after

it has been tendered for filing, and copies of Initial Decisions and Final Decisions in hearing cases pertaining thereto, which according to the provisions of §§0.451 through 0.461 of the rules are open for public inspection at the offices of the FCC. Information incorporated by reference which is already in the local file need not be duplicated if the entry making the reference sufficiently identifies the information so that it may be found in the file, and if there has been no change in the document since the date of filing and the applicant, after making the reference, so states. If petitions to deny are filed against the application, and have been duly served on the applicant, a statement that such a petition has been filed shall appear in the local file together with the name and address of the party filing the petition.

NOTE: Applications tendered for filing on or before May 13, 1965, which were subsequently designated for hearing after May 13, 1965, with local notice being given pursuant to the provisions of §73.3594, and material related to such applications, need not be placed in the file required to be kept by this section. Materials tendered for filing after May 13, 1965, which contain major amendments to applications tendered for filing on or before May 13, 1965, which local notice of the amending application being given pursuant to the provisions of §73.3580 need not be placed in the file required to be kept by this section.

(2) A copy of every application tendered for filing by the licensee or permittee for such station after May 13, 1965, pursuant to the provisions of this part, which is not included in paragraph (a)(1) of this section and which involves changes in program service, which requests an extension of time in which to complete construction of a new station, or which requests consent to involuntary assignment or transfer, or to voluntary assignment or transfer not resulting in a substantial change in ownership or control and which may be applied for on FCC Form 316; and copies of all exhibits, letters, and other documents filed as part thereof, all amendments thereto, all correspondence between the FCC and the applicant pertaining to the application after it has been tendered for filing, and copies of all documents incorporated therein by reference, which according to the provisions of §§0.451 through 0.461 of the rules are open for public inspection at the offices of the FCC. Information incorporated by reference which is already in the local file need not be duplicated if the entry making the reference sufficiently identifies the information so that it may be found in the file, and there has been no change in the document since the date of filing and the licensee, after making the reference so states. If petitions to deny are filed against the application, and have been duly served on the applicant, a statement that such a petition has been filed shall appear in the local file together with the name and address of the party filing the petition.

NOTE: The engineering section of the applications mentioned in paragraphs (a) (1) and (2) of this section, and material related to the engineering section, need not be kept in the file required to be maintained by this paragraph. If such engineering section contains service contour maps submitted with that section, copies of such maps and information (State, county, city, street address, or other identifying information) showing main studio and transmitter location shall be kept in the file.

(3) A copy of contracts listed in ownership reports filed in accordance with the provisions of §73.3615(e) and which according to the provisions of §§0.451 through 0.461 of the rules are open for public inspection at the offices of the FCC. Information incorporated by reference which is already in the local file need not be duplicated if the enty making the reference sufficiently identifies the information so that it may be found in the file, and if there has been no change in the document since the date of filing and the licensee or permittee, after making the reference, so states.

(4) Such records as are required to be kept by §73.1940, ''Broadcasts by candidates for public office.

(5) A copy of every annual employment report filed by the licensee or permittee for such station pursuant to the provisions of this Part; and copies of all exhibits, letters and other documents filed as part thereof, all amendments thereto, all correspondence between the permittee or licensee and the FCC pertaining to the reports after they have been filed and all documents incorporated therein by reference and

which, according to the provisions of §§0.451 through 0.461 of the rules, are open for public inspection at the office of the FCC.

(6) The Public and Broadcasting: Revised Edition (see FCC 74–942, 39 FR 32288, September 5, 1974).

(7) For nonexempt noncommercial educational broadcast stations, every three months a list of programs that have provided the station's most significant treatment of community issues during the preceding three month period. The list for each calendar quarter is to be filed by the tenth day of the succeeding calendar quarter (e.g. January 10 for the quarter October–December, April 10 for the quarter January–March, etc.). The list shall include a brief narrative describing what issues were given significant treatment and the programming that provided this treatment. The description of the programs should include, but is not limited to, the time, date, duration and title of each program in which the issue was treated.

(8) The lists of donors supporting specific programs.

(9) Each applicant for renewal of license shall, within 7 days of the last day of broadcast of the local public notice of filing announcements required pursuant to §73.3580(h), place in the station's public inspection file a statement certifying compliance with this requirement. The dates and times that the pre-filing and post-filing notices were broadcast and the text thereof shall be made part of the certifying statement.

(b) *Responsibility in case of assignment or transfer.* (1) In cases involving applications for consent to assignment of broadcast station construction permits or licenses, with respect to which public notice is required to be given under the provisions of §73.3580 or §73.3594, the file mentioned in paragraph (a) of this section shall be maintained by the assignor. If the assignment is consented to by the FCC, and consummated, the assignee shall maintain the file commencing with the date on which notice of the consummation of the assignment is filed with the FCC. The file maintained by the assignee shall cover the period both before and after the time when the notice of consummation of assignment was filed. The assignee is responsible for obtaining copies of the necessary documents from the assignor or from the FCC files.

(2) In cases involving applications for consent to transfer of control of a permittee or licensee of a broadcast station, the file mentioned in paragraph (a) of this section shall be maintained by the permittee or licensee.

(c) *Station to which records pertain.* The file need contain only applications, ownership reports, and related material that concern the station for which the file is kept. Applicants, permittees and licensees need not keep in the file copies of such applications, reports and material which pertain to other stations with regard to which they may be applicants, permittees, or licensees, except to the extent that such information is reflected in the materials required to be kept under the provisions of this section.

(d) *Location of records.* The file shall be maintained at the main studio of the station, where such studio is located in the community to which the station is licensed or where such studio is located outside of the community of license pursuant to authorization granted under §73.1125(a) of the rules prior to July 16, 1987, or at any accessible place (such as a public registry for documents or an attorney's office) in the community to which the station is or is proposed to be licensed. The file shall be available for public inspection at any time during regular business hours.

(e) *Period of retention.* The records specified in paragraph (a)(4) of this section shall be retained for the period specified in §73.1940 (two years). The manual specified in paragraph (a)(6) of this section shall be retained indefinitely. The issues/programs list specified (a)(7) shall be retained for the term of the license (5 years and 7 years for TV and radio respectively). The donor lists specified in paragraph (a)(8) of this section shall be retained for two years. The certification specified in paragraph (a)(9) of this section shall be retained for the period specified in §73.3580 (for as long as the application to which it refers). The records specified in paragraphs (a)(1), (2), (3), and (5)

of this section must be retained as follows:

(1) The applicant for a construction permit for a new station shall maintain such a file so long as the proceeding in which that application was filed is pending before the FCC or any proceeding involving that application is pending before the courts. (If the application is granted, paragraph (e)(2) of this section shall apply.)

(2) The permittee or licensee shall maintain such a file so long as an authorization to operate the station is outstanding, and shall permit public inspection of the material as long as it is retained by the licensee even though the request for inspection is made after the conclusion of the required retention period specified in this paragraph. However, material which is voluntarily retained after the required retention time may be kept in a form and place convenient to the licensee and shall be made available to the inquiring party, in good faith after written request, at a time and place convenient to both the party and the licensee.

Applications and related material placed in the file shall be retained for a period beginning with the date that they are tendered for filing and ending with the expiration of one license term (five (5) years for television licensees or seven (7) years for radio licensees) or until the grant of the first renewal application of the television or radio broadcast license in question, whichever is later, with two exceptions:

(i) Engineering material pertaining to a former mode of operation need not be retained longer than 3 years after a station commences operation under a new or modified mode; and

(ii) Material having a substantial bearing on a matter which is the subject of a claim against the licensee, or relating to an FCC investigation or a complaint to the FCC of which the licensee has been advised, shall be retained until the licensee is notified in writing that the material may be discarded, or, if the matter is a private one, the claim has been satisfied or is barred by statutes of limitations. Where an application or related material incorporates by reference material in an earlier application and material concerning programming and related matters (section IV and related material), the material so referred to shall be retained as long as the application referring to it.

(f) Copies of any material required to be in the public file of any applicant for a construction permit, or permittee or licensee of any noncommercial educational TV or radio station shall be available for machine reproduction upon request made in person, provided the requesting party shall pay the reasonable costs of reproduction. Requests for machine copies shall be fulfilled at a location specified by the applicant, permittee or licensee, within a reasonable period of time which, in no event, shall be longer than seven days unless reproduction facilities are unavailable in the applicant's, permittee's or licensee's community. The applicant, permittee or licensee is not required to honor requests made by mail but may do so if it chooses.

(g) Noncommercial television stations requesting mandatory carriage on any cable system pursuant to § 76.56 of this chapter shall place a copy of such request in its public file and shall retain both the request and relevant correspondence for the duration of any period to which the statement applies.

[50 FR 8632, Mar. 4, 1985, as amended at 53 FR 15225, Apr. 28, 1988; 53 FR 17047, May 13, 1988; 53 FR 32901, Aug. 29, 1988; 59 FR 62344, Dec. 5, 1994]

EFFECTIVE DATE NOTE: At 59 FR 62344, Dec. 5, 1994, § 73.3527 was amended by adding paragraph (g). Paragraph (g) contains information collection and recordkeeping requirements and will not become effective until approval has been given by the Office of Management and Budget.

§ 73.3533 Application for construction permit or modification of construction permit.

(a) Application for construction permit, or modification of a construction permit, for a new facility or change in an existing facility is to be made on the following forms:

(1) FCC Form 301, ''Application for Authority to Construct or Make Changes in an Existing Commercial Broadcast Station.''

(2) FCC Form 309, ''Application for Authority to Construct or Make Changes in an Existing International or Experimental Broadcast Stations.''

(3) FCC Form 313, ''Application for Authorization in the Auxiliary Broadcast Services.''

(4) FCC Form 330, ''Application for Authorization to Construct New or Make Changes in an Instructional Television Fixed and/or Response Station(s), or to Assign to Transfer Such Station(s).''

(5) FCC Form 340, ''Application for Authority to Construct or Make Changes in a Noncommercial Educational Broadcast Station.''

(6) FCC Form 346, ''Application for Authority to Construct or Make Changes in a Low Power TV, TV Translator or TV Booster Station.''

(7) FCC Form 349, ''Application for Authority to Construct or Make Changes in an FM Translator or FM Booster Station.''

(b) The filing of an application for modification of construction permit does not extend the expiration date of the construction permit. Extension of the expiration date must be applied for on FCC Form 307, in accordance with the provisions of § 73.3534.

(c) In each application referred to in paragraph (a) of this section, the applicant will provide the Antenna Structure Registration Number (FCC Form 854R) of the antenna structure upon which it will locate its proposed antenna. In the event the antenna structure does not already have a Registration Number, either the antenna structure owner shall file FCC Form 854 (''Application for Antenna Structure Registration'') in accordance with part 17 of this chapter or the applicant shall provide a detailed explanation why registration and clearance of the antenna structure is not necessary.

[44 FR 38494, July 2, 1979, as amended at 47 FR 28388, June 30, 1982; 49 FR 32582, Aug. 15, 1984; 50 FR 40016, Oct. 1, 1985; 53 FR 36788, Sept. 22, 1988; 61 FR 4367, Feb. 6, 1996]

§ 73.3534 Application for extension of construction permit or for construction permit to replace expired construction permit.

(a) Application for extension of time within which to construct a station shall be filed on FCC Form 307, ''Application for Extension of Broadcast Construction Permit or to Replace Expired Construction Permit.'' The application shall be filed at least 30 days prior to the expiration date of the construction permit if the facts supporting such application for extension are known to the applicant in time to permit such filing. In other cases, an application will be accepted upon a showing satisfactory to the FCC of sufficient reasons for filing within less than 30 days prior to the expiration date.

(b) Applications for extension of time to construct broadcast stations, with the exception of International Broadcast and Instructional TV Fixed stations, will be granted only if one of the following three circumstances have occurred:

(1) Construction is complete and testing is underway looking toward prompt filing of a license application;

(2) Substantial progress has been made *i.e.*, demonstration that equipment is on order or on hand, site acquired, site cleared and construction proceeding toward completion; or

(3) No progress has been made for reasons clearly beyond the control of the permittee (such as delays caused by governmental budgetary processes and zoning problems) but the permittee has taken all possible steps to expeditiously resolve the problem and proceed with construction.

(c) Applications for extension of time to construct International Broadcast and Instructional TV Fixed stations will be granted upon a specific and detailed showing that the failure to complete was due to causes not under the control of the permittee, or upon a specific and detailed showing of other sufficient to justify an extension.

(d) If an application for extension of time within which to construct a station is approved, such an extension will be limited to a period of no more than 6 months except when as assignment or transfer has been approved that provides for a longer period up to a maximum of 12 months from the date of consummation.

(e) Application for a construction permit to replace an expired construction permit shall be filed on FCC Form 307. Such applications must be filed within 30 days of the expiration date of the authorization sought to be replaced. If approved, such authorization shall specify a period of not more than

6 months within which construction shall be completed and application for license filed.

[50 FR 52779, Dec. 26, 1985, as amended at 53 FR 36788, Sept. 22, 1988]

§ 73.3535 Application to modify authorized but unbuilt facilities, or to assign or transfer control of an unbuilt facility.

(a) If a permittee finds it necessary to file either an application to modify its authorized, but unbuilt facilities, or an assignment/transfer application, such application shall be filed within the first 9 months of the issuance of the original construction permit for radio and other broadcast and auxiliary stations, or within 12 months of the issuance of the original construction permit for television facilities. Before such an application can be granted, the permittee or assignee must certify that it will immediately begin building after the modification is granted or the assignment is consummated.

(b) Modification and assignment applications filed after the time periods stated in paragraph (a) will not be granted absent a showing that one of the following three criteria apply: (1) Construction is complete and testing is underway looking toward prompt filing of a license application; (2) substantial progress has been made *i.e.*, demonstration that equipment is on order or on hand, site acquired, site cleared and construction proceeding toward completion; or (3) no progress has been made for reasons clearly beyond the control of the permittee (such as delays caused by governmental budgetary processes and zoning problems) but the permittee has taken all possible steps to expeditiously resolve the problem and proceed with construction. A certification by the permittee or the assignee that it immediately will begin building after the modification is granted or the assignment is consummated is also necessary. A seller must make the ''one of three criteria'' showing in an assignment application.

(c) If a modification is granted, the time period allowed for construction will be 6 months from the issuance of the authorization to modify or the remainder of the construction period, whichever is longer. Also, in the case of an assignment, the time period allowed for construction will be 12 months from the consummation of the assignment or the remainder of the construction period, whichever is longer. The extension will be given subject to the condition that the modification is completed or the assignment is consummated. Failure to modify or consummate within the time allowed will result in cancellation of the construction permit.

(d) We will not entertain an application for modification of an authorized but unbuilt facility or an application for assignment or transfer of control of an unbuilt facility if filed after the expiration of the initial construction period.

[50 FR 52779, Dec. 26, 1985]

§ 73.3536 Application for license to cover construction permit.

(a) The application for station license shall be filed by the permittee pursuant to the requirements of § 73.1620 Program tests.

(b) The following application forms shall be used:

(1)(i) Form 302–AM for AM stations, ''Application for New AM Station Broadcast License.''

(ii) Form 302–FM for FM stations, ''Application for FM Station License.''

(iii) Form 302–TV for television stations, ''Application for TV Station Broadcast License.''

(2) FCC Form 310, ''Application for an International or Experimental Broadcast Station License.''

(3) FCC Form 313, ''Application for Authorization in the Auxiliary Broadcast Services.''

(4) FCC Form 330–L ''Application for Instructional Television Fixed Station License.''

(5) FCC Form 347, ''Application for a Low Power TV, TV Translator or TV Booster Station License.''

(6) FCC Form 350, ''Application for an FM Translator or FM Booster Station License.''

[44 FR 38495, July 2, 1979, as amended at 49 FR 32582, Aug. 15, 1984; 50 FR 40016, Oct. 1, 1985; 51 FR 18451, May 20, 1986; 51 FR 32088, Sept. 9, 1986; 52 FR 31400, Aug. 20, 1987; 53 FR 36788, Sept. 22, 1988; 62 FR 51063, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51063, Sept. 30, 1997, § 73.3536 was amended by revising paragraph (b)(1), effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§ 73.3536 Application for license to cover construction permit.

* * * * *

(b) * * *

(1) FCC Form 302, ''Application for a New Broadcast Station License.''

* * * * *

§ 73.3537 Application for license to use former main antenna as an auxiliary.

See § 73.1675, *Auxiliary facility*.

[62 FR 51063, Sept. 30, 1997]

EFFECTIVE DATE NOTE; At 62 FR 51063, Sept. 30, 1997, § 73.3537 was revised, effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§ 73.3537 Application for license to use former main antenna as an auxiliary.

A licensee may apply on FCC Form 302 for authority to use a formerly licensed main antenna system as an auxiliary antenna.

[51 FR 32088, Sept. 9, 1986]

§ 73.3538 Application to make changes in an existing station.

Where prior authority is required from the FCC to make changes in an existing station, the following procedures shall be used to request that authority:

(a) An application for construction permit using the forms listed in § 73.3533 must be filed for authority to:

(1) Make any of the changes listed in § 73.1690(b).

(2) Change the hours of operation of an AM station, where the hours of operation are specified on the license or permit.

(3) Install a transmitter which has not been approved (type accepted) by the FCC for use by licensed broadcast stations.

(4) Any change in the location, height, or directional radiating characteristics of the antenna or antenna system.

(b) An informal application filed in accordance with § 73.3511 is to be used to obtain authority to make the following changes in the station authorization:

(1) To specify a new AM station directional antenna field monitoring point as a substitute for one that is no longer suitable or available, such as due to construction. The request is to include sufficient measurement data taken at the new monitoring point to establish its reliability in comparison with data taken at the old monitoring point on the same radial, the routing directions to the new point, a location photograph, and such other information as the FCC may request.

(2) To modify or discontinue the obstruction marking or lighting of the antenna supporting structure where that specified on the station authorization either differs from that specified in FCC Rules, part 17, or is not appropriate for other reasons.

(3) Relocation of a main studio outside the principal community contour may require the filing and approval of a letter request for authority to make this change prior to implementation. *See* § 73.1125.

[44 FR 38495, July 2, 1979, as amended at 44 FR 69935, Dec. 5, 1979; 49 FR 4000, Feb. 1, 1984; 52 FR 21685, June 9, 1987; 62 FR 51063, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51063, Sept. 30, 1997, § 73.3538 was amended by revising the introductory text, the introductory text of paragraph (a), and paragraphs (a)(1) through (a)(3); by removing paragraphs (a)(5) through (a)(7); and by adding paragraph (b)(3), effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§ 73.3538 Application to make changes in an existing station.

Where prior authority from the FCC is required to make changes in an existing station the following procedures shall be used to request that authority:

(a) An application for a construction permit using the forms specified in § 73.3533 must be filed for authority to make the following changes:

(1) Any change involving frequency, power or location of the station.

(2) A change in the hours of operation of an AM station, where the hours of operation are specified on the station license.

(3) The installation of a transmitter which has not been authorized by the FCC for use by licensed broadcast stations.

(4) * * *

(5) To move the main studio location of an AM station to a location outside the principal community contour or to move the studio from one location outside the principal community contour to another such location (other than to a point within the principal community). See § 73.1125.

(6) To move the main studio of an FM station to a location outside the principal community contour or to move the studio from one location outside the principal community contour to another such location (other than to the collocated studio-transmitter site of a commonly-owned AM station licensed to the same community or to a point within the principal community). See § 73.1125.

(7) To move the main studio of a TV station to a location outside the principal community contour or to move the studio from one location outside the principal community contour to another such location (other than to a point within the principal community). See § 73.1125.

* * * * *

§ 73.3539 Application for renewal of license.

(a) Unless otherwise directed by the FCC, an application for renewal of license shall be filed not later than the first day of the fourth full calendar month prior to the expiration date of the license sought to be renewed, except that applications for renewal of license of an experimental broadcast station shall be filed not later than the first day of the second full calendar month prior to the expiration date of the license sought to be renewed. If any deadline prescribed in this paragraph falls on a nonbusiness day, the cutoff shall be the close of business of the first full business day thereafter.

(b) No application for renewal of license of any broadcast station will be considered unless there is on file with the FCC the information currently required by §§ 73.3612 through 73.3615, inclusive, for the particular class of station.

(c) Whenever the FCC regards an application for a renewal of license as essential to the proper conduct of a hearing or investigation, and specifically directs that it be filed by a date certain, such application shall be filed within the time thus specified. If the licensee fails to file such application within the prescribed time, the hearing or investigation shall proceed as if such renewal application had been received.

(d) Renewal application forms titles and numbers are listed in § 73.3500, Application and Report Forms.

[44 FR 38495, July 2, 1979, as amended at 47 FR 28388, June 30, 1982; 49 FR 32582, Aug. 15, 1984]

§ 73.3540 Application for voluntary assignment or transfer of control.

(a) Prior consent of the FCC must be obtained for a voluntary assignment or transfer of control.

(b) Application should be filed with the FCC at least 45 days prior to the contemplated effective date of assignment or transfer of control.

(c) Application for consent to the assignment of construction permit or license must be filed on FCC Form 314 ''Assignment of license'' or FCC Form 316 ''Short form'' (See paragraph (f) of this section).

(d) Application for consent to the transfer of control of a corporation holding a construction permit or license must be filed on FCC Form 315 ''Transfer of Control'' or FCC Form 316 ''Short form'' (see paragraph (f) of this section).

(e) Application for consent to the assignment of construction permit or license or to the transfer of control of a corporate licensee or permittee for an FM or TV translator station, a low power TV station and any associated auxiliary station, such as translator microwave relay stations and UHF translator booster stations, only must be filed on FCC Form 345 ''Application for Transfer of Control of Corporate Licensee or Permittee, or Assignment of License or Permit for an FM or TV translator Station, or a Low Power TV Station.''

(f) The following assignment or transfer applications may be filed on FCC ''Short form'' 316:

(1) Assignment from an individual or individuals (including partnerships) to a corporation owned and controlled by such individuals or partnerships without any substantial change in their relative interests;

(2) Assignment from a corporation to its individual stockholders without effecting any substantial change in the disposition of their interests;

(3) Assignment or transfer by which certain stockholders retire and the interest transferred is not a controlling one;

(4) Corporate reorganization which involves no substantial change in the beneficial ownership of the corporation;

(5) Assignment or transfer from a corporation to a wholly owned subsidiary thereof or vice versa, or where there is an assignment from a corporation to a corporation owned or controlled by the assignor stockholders without substantial change in their interests; or

(6) Assignment of less than a controlling interest in a partnership.

[44 FR 38496, July 2, 1979, as amended at 48 FR 21486, May 12, 1983; 49 FR 47843, Dec. 7, 1984; 50 FR 32416, Aug. 12, 1985]

§ 73.3541 Application for involuntary assignment of license or transfer of control.

(a) The FCC shall be notified in writing promptly of the death or legal disability of an individual permittee or licensee, a member of a partnership, or a person directly or indirectly in control of a corporation which is a permittee or licensee.

(b) Within 30 days after the occurrence of such death or legal disability, an application on FCC Form 316 shall be filed requesting consent to involuntary assignment of such permit or license or for involuntary transfer of control of such corporation to a person or entity legally qualified to succeed to the foregoing interests under the laws of the place having jurisdiction over the estate involved.

[44 FR 38496, July 2, 1979]

§ 73.3542 Application for emergency authorization.

(a) Authority may be granted, on a temporary basis, in extraordinary circumstances requiring emergency operation to serve the public interest. such situations include: emergencies involving danger to life and property; a national emergency proclaimed by the President or the Congress of the U.S.A and; the continuance of any war in which the United States is engaged, and where such action is necessary for the national defense or security or otherwise in furtherance of the war effort.

(1) An informal application may be used. The FCC may grant such construction permits, station licenses, modifications or renewals thereof, without the filing of a formal application.

(2) No authorization so granted shall continue to be effective beyond the period of the emergency or war requiring it.

(3) Each individual request submitted under the provisions of this paragraph shall contain, as a minimum requirement, the following information:

(i) Name and address of applicant.

(ii) Location of proposed installation or operation.

(iii) Official call letters of any valid station authorization already held by applicant and the station location.

(iv) Type of service desired (not required for renewal or modification unless class of station is to be modified).

(v) Frequency assignment, authorized transmitter power(s), authorized class(es) of emission desired (not required for renewal; required for modification only to the extent such information may be involved).

(vi) Equipment to be used, specifying the manufacturer and type or model number (not required for renewal; required for modification only to the extent such information may be involved).

(vii) Statements to the extent necessary for the FCC to determine whether or not the granting of the desired authorization will be in accordance with the citizenship eligibility requirements of section 310 of the Cummunications Act.

(viii) Statement of facts which, in the opinion of the applicant, constitute an emergency to be found by the FCC for the purpose of this section. This statement must also include the estimated duration of the emergency and if during an emergency or war declared by the President or Congress, why such action, without formal application, is necessary for the national defense or security or in furtherance of the war effort.

(b) Emergency operating authority issued under this section may be cancelled or modified by the FCC without

prior notice or right to hearing. See also § 73.1250, Broadcasting Emergency Information, for situations in which emergency operation may be conducted without prior authorization, and § 73.1635, Special Temporary Authorization (STA), for temporary operating authorizations necessitated by circumstances not within the ambit of its section.

[50 FR 30948, July 31, 1985]

§ 73.3543 Application for renewal or modification of special service authorization.

(a) No new special service authorization will be issued. However, consideration will be given to renewal or modification of a special service authorization which was outstanding on February 3, 1958, providing a satisfactory showing has been made in regard to the following, among others:

(1) That the requested operation may not be granted on a regular basis under the existing rules governing the operation of AM stations;

(2) That experimental operation is not involved as provided for by § 73.1510 (Experimental authorizations); and

(3) That public interest, convenience and necessity will be served by the authorization requested.

[44 FR 38496, July 2, 1979]

§ 73.3544 Application to obtain a modified station license.

Where prior authority from the FCC is not required to make certain changes in the station authorization or facilities, but a modified station license must be obtained, the following procedures shall be used to obtain modification of the station license:

(a) The changes specified in § 73.1690(c) may be made by the filing of a license application using the forms listed in § 73.3536(b)(1).

(b) An informal application filed according to the procedures specified in § 73.3511(b) shall be used to cover the following changes:

(1) A correction of the routing instructions and description of an AM station directional antenna system field monitoring point, when the point itself is not changed.

(2) A change in the type of AM station directional antenna monitor. See § 73.69.

(3) A change in the location of the station main studio when prior authority to move the main studio location is not required.

(4) The location of a remote control point of an AM or FM station when prior authority to operate by remote control is not required.

(c) A change in the name of the licensee where no change in ownership or control is involved may be accomplished by written notification by the licensee to the Commission.

[44 FR 38497, July 2, 1979, as amended at 45 FR 20483, Mar. 28, 1980; 50 FR 32416, Aug. 12, 1985; 62 FR 51063, Sept. 30, 1997]

EFFECTIVE DATE NOTE: At 62 FR 51063, Sept. 30, 1997, § 73.3544 was amended by revising paragraph (a), effective Dec. 1, 1997. For the convenience of the user, the superseded text is set forth as follows:

§ 73.3544 Application to obtain a modified station license.

* * * * *

(a) An application for a station license using the forms specified in § 73.3536 shall be used to cover the following changes:

(1) A change in the type of FM or TV transmitting antenna where prior authority from the FCC is not required to make such a change. See § 73.1690, Modification of transmission systems.

(2) A change in the output power of FM or TV aural or visual transmitters to accommodate a change in the antenna type or transmission line.

* * * * *

§ 73.3545 Application for permit to deliver programs to foreign stations.

Application under section 325(c) of the Communications Act for authority to locate, use, or maintain a broadcast studio in connection with a foreign station consistently received in the United States, should be made on FCC Form 308, ''Application for Permit to Deliver Programs to Foreign Broadcast Stations.'' An informal application may be used by applicants holding an AM, FM or TV broadcast station license or construction permit. Informal applications must, however, contain a description of the nature and character

of the programming proposed, together with other information requested on Page 4 of Form 308.

[44 FR 38497, July 2, 1979, as amended at 58 FR 51250, Oct. 1, 1993]

§ 73.3549 Requests for extension of authority to operate without required monitors, indicating instruments, and EAS encoders and decoders.

Requests for extension of authority to operate without required monitors, transmission system indicating instruments, or encoders and decoders for monitoring and generating the EAS codes and Attention Signal should be made to the Engineer in Charge of the Field Office in which the station is operating. Such requests must contain information as to when and what steps were taken to repair or replace the defective equipment and a brief description of the alternative procedures being used while the defective equipment is out of service.

[44 FR 38497, July 2, 1979, as amended at 59 FR 67103, Dec. 28, 1994]

§ 73.3550 Requests for new or modified call sign assignments.

(a) Requests for new or modified call sign assignments for broadcast stations shall be made by letter to the Secretary, FCC, Washington, DC 20554. An original and one copy of the letter shall be submitted. Incomplete or otherwise defective filings will be returned by the FCC. As many as five call sign choices, listed in decending order of preference, may be included in a single request. A call sign may not be reserved.

(b) No request for a new call sign assignment will be accepted from an applicant for a new station until the FCC has granted a construction permit. Failure by the permittee of a new station to request the assignment of a specific call sign within 30 days of grant of the construction permit will result in the FCC, on its own motion, assigning an appropriate call sign. All initial construction permits for low power TV stations will be issued with a five-character low power TV call sign.

(c) An applicant for transfer or assignment of an outstanding construction permit or license may, in accordance with this section, request a new call sign assignment at the time the application for transfer or assignment is filed, or at any time thereafter. In the absence of written consent of the proposed transferor or assignor, no change in call sign assignment will be made effective until such application is granted by the FCC and the transaction consummated.

(d) Where an application is granted by the FCC for transfer or assignment of the construction permit or license of a station whose existing call sign conforms to that of a commonly owned station not part of the transaction, the licensee shall, within 30 days after consummation, request a different call sign or submit a statement of written consent to retain the conforming call sign from the existing owner and the licensee of any other station that may be using the station's call sign. In such cases, should a suitable application or proper consent statement not be submitted within that period of time, the FCC will, on its own motion, select an appropriate call sign and effect the change in call sign assignment.

(e) Call signs beginning with the letter ''K'' will not be assigned to stations located east of the Mississippi River, nor will call signs beginning with the letter ''W'' be assigned to stations located west of the Mississippi River.

(f) Only four-letter call signs (plus an LP suffix or FM or TV suffixes, if used) will be assigned. However, subject to the other provisions of this section, a call sign of a station may be conformed to a commonly owned station holding a three-letter call assignment (plus FM, TV or LP suffixes, if used).

(g) Subject to the foregoing limitations, applicants may request call signs of their choice if the combination is available. Objections to the assignment of requested call signs will not be entertained at the FCC. However, this does not hamper any party from asserting such rights as it may have under private law in some other forum. Should it be determined by an appropriate forum that a station should not utilize a particular call sign, the initial assignment of a call sign will not serve as a bar to the making of a different assignment.

(h) Call signs are assigned on a ''first-come-first-served'' basis. Receipt by

the FCC of a request for an available call sign blocks the acceptance of competing requests until the first received request is processed to completion. In the case of requests for the same call sign being received on the same date at the FCC, the assignment (if otherwise grantable) will be made to the station having the longest continuous record of broadcasting operation under substantially unchanged ownership and control. However, involuntary and *pro forma* assignments will not be taken into account in determining priority. If a low-power TV operator and an AM, FM or full-power TV operator apply for the same call sign on the same date at the FCC, the AM, FM or full-power TV operator will prevail.

NOTE: The provisions of paragraph (h) of this section shall not apply to a licensee requesting a transfer to another frequency where the existing and new facilities serve substantially the same area (*i.e.,* where at least one of the stations serves both communities of license).

(i) Stations in different broadcast services (or operating jointly in the 535–1605 kHz band and in the 1605–1705 kHz band) which are under common control may request that their call signs be conformed by the assignment of the same basic call sign if that call sign is not being used by a non-commonly owned station. For the purposes of this paragraph, 50% or greater common ownership shall constitute a prima facie showing of common control.

(j) The provisions of this section shall not apply to International broadcast stations, to stations authorized under Part 74 of the rules (except as provided in § 74.783 of this chapter), nor to FM or TV stations seeking to modify an existing call sign only to the extent of adding or deleting an ''–FM'' or ''–TV'' suffix. The latter additions and deletions may be effective upon notification to the Commission.

(k) Unless subject to a pending transfer or assignment application, a change in call sign assignment will be made effective on the date specified in the telegram authorizing the change. In this regard, the applicant may include with its application a request for a specific effective date to take place within 45 days of the submission of its application for a call sign. Postponement of the effective date will be granted only in response to a timely request and for only the most compelling reasons.

(l) Four-letter combinations commencing with ''W'' or ''K'' which are assigned as call signs to ships or to other radio services are not available for assignment to broadcast stations, with or without the ''–FM'' or ''–TV'' suffix.

(m) Users of nonlicensed, low-power devices operating under Part 15 of the FCC rules may use whatever identification is currently desired, so long as propriety is observed and no confusion results with a station for which the FCC issues a license.

(n) Where a requested call sign, without the ''–FM,'' ''–TV'' or ''–LP'' suffix, would conform to the call sign of any other non-commonly owned station(s) operating in a different service, the applicant must obtain and submit with the application for the call sign the written consent of the licensee(s) of such stations.

[48 FR 57136, Dec. 28, 1983, as amended at 52 FR 5295, Feb. 20, 1987; 52 FR 43079, Nov. 9, 1987; 56 FR 64873, Dec. 12, 1991; 59 FR 31556, June 20, 1994]

§ 73.3555 Multiple ownership.

(a)(1) *Radio contour overlap rule.* No license for an AM or FM broadcasting station shall be granted to any party (including all parties under common control) if the grant of such license will result in overlap of the principal community contour of that station and the principal community contour of any other broadcasting station directly or indirectly owned, operated, or controlled by the same party, except that such license may be granted in connection with a transfer or assignment from an existing party with such interests, or in the following circumstances:

(i) In a radio market with 45 or more commercial radio stations, a party may own, operate, or control up to 8 commercial radio stations, not more than 5 of which are in the same service (AM or FM);

(ii) In a radio market with between 30 and 44 (inclusive) commercial radio stations, a party may own, operate, or

control up to 7 commercial radio stations, not more than 4 of which are in the same service (AM or FM);

(iii) In a radio market with between 15 and 29 (inclusive) commercial radio stations, a party may own, operate, or control up to 6 commercial radio stations, not more than 4 of which are in the same service (AM or FM); and

(iv) In a radio market with 14 or fewer commercial radio stations, a party may own, operate, or control up to 5 commercial radio stations, not more than 3 of which are in the same service (AM or FM), except that a party may not own, operate, or control more than 50 percent of the stations in such market.

(2) Overlap between two stations in different services is permissible if neither of those two stations overlaps a third station in the same service.

(3) (i) Where the principal community contours of two radio stations overlap and a party (including all parties under common control) with an attributable ownership interest in one such station brokers more than 15 percent of the broadcast time per week of the other such station, that party shall be treated as if it has an interest in the brokered station subject to the limitations set forth in paragraph (a)(1) of this section. This limitation shall apply regardless of the source of the brokered programming supplied by the party to the brokered station.

(ii) Every time brokerage agreement of the type described in paragraph (a)(3)(i) of this section shall be undertaken only pursuant to a signed written agreement that shall contain a certification by the licensee or permittee of the brokered station verifying that it maintains ultimate control over the station's facilities, including specifically control over station finances, personnel and programming, and by the brokering station that the agreement complies with the provisions of paragraph (a) of this section.

(4) For purposes of this paragraph (a):

(i) The ''principal community contour'' for AM stations is the predicted or measured 5 mV/m groundwave contour computed in accordance with § 73.183 or § 73.186 and for FM stations is the predicted 3.16 mV/m contour computed in accordance with § 73.313.

(ii) The number of stations in a radio market is the number of commercial stations whose principal community contours overlap, in whole or in part, with the principal community contours of the stations in question (i.e., the station for which an authorization is sought and any station in the same service that would be commonly owned whose principal community contour overlaps the principal community contour of that station). In addition, if the area of overlap between the stations in question is overlapped by the principal community contour of a commonly owned station or stations in a different service (AM or FM), the number of stations in the market includes stations whose principal community contours overlap the principal community contours of such commonly owned station or stations in a different service.

(iii) ''Time brokerage'' is the sale by a licensee of discrete blocks of time to a ''broker'' that supplies the programming to fill that time and sells the commercial spot announcements in it.

(b) *Television contour overlap (duopoly) rule.* No license for a TV broadcast station shall be granted to any party (including all parties under common control) if the grant of such license will result in overlap of the Grade B contour of that station (computed in accordance with § 73.684) and the Grade B contour of any other TV broadcast station directly or indirectly owned, operated, or controlled by the same party.

(c) *One-to-a-market ownership rule.* No license for an AM, FM or TV broadcast station shall be granted to any party (including all parties under common control) if such party directly or indirectly owns, operates or controls one or more such broadcast stations and the grant of such license will result in:

(1) The predicted or measured 2 mV/m groundwave contour of an existing or proposed AM station, computed in accordance with § 73.183 or § 73.186, encompassing the entire community of license of an existing or proposed TV broadcast station(s), or the Grade A contour(s) of the TV broadcast station(s), computed in accordance with § 73.684, encompassing the entire community of license of the AM station; or

(2) The predicted 1 mV/m contour of an existing or proposed FM station,

computed in accordance with § 73.313, encompassing the entire community of license of an existing or proposed TV broadcast station(s), or the Grade A contour(s) of the TV broadcast station(s), computed in accordance with § 73.684, encompassing the entire community of license of the FM station.

(d) *Daily newspaper cross-ownership rule.* No license for an AM, FM or TV broadcast station shall be granted to any party (including all parties under common control) if such party directly or indirectly owns, operates or controls a daily newspaper and the grant of such license will result in:

(1) The predicted or measured 2 mV/m contour of an AM station, computed in accordance with § 73.183 or § 73.186, encompassing the entire community in which such newspaper is published; or

(2) The predicted 1 mV/m contour for an FM station, computed in accordance with § 73.313, encompassing the entire community in which such newspaper is published; or

(3) The Grade A contour of a TV station, computed in accordance with § 73.684, encompassing the entire community in which such newspaper is published.

(e)(1) *National television multiple ownership rule.* No license for a commercial TV broadcast station shall be granted, transferred or assigned to any party (including all parties under common control) if the grant, transfer or assignment of such license would result in such party or any of its stockholders, partners, members, officers or directors, directly or indirectly, owning, operating or controlling, or having a cognizable interest in TV stations which have an aggregate national audience reach exceeding thirty-five (35) percent.

(2) For purposes of this paragraph (e):

(i) *National audience reach* means the total number of television households in the Arbitron Area of Dominant Influence (ADI) markets in which the relevant stations are located divided by the total national television households as measured by ADI data at the time of a grant, transfer or assignment of a license. For purposes of making this calculation, UHF television stations shall be attributed with 50 percent of the television households in their ADI market. Where the relevant application forms require a showing with respect to audience reach and the application relates to an area where Arbitron ADI market data are unavailable, then the applicant shall make a showing as to the number of television households in its market. Upon such a showing, the Commission shall make a determination as to the appropriate audience reach to be attributed to the applicant.

(ii) *TV broadcast station or TV station* excludes stations which are primarily satellite operations.

(f) This section is not applicable to noncommercial educational FM and noncommercial educational TV stations.

NOTE 1: The word ''control'' as used herein is not limited to majority stock ownership, but includes actual working control in whatever manner exercised.

NOTE 2: In applying the provisions of this section, ownership and other interests in broadcast licensees, cable television systems and daily newspapers will be attributed to their holders and deemed cognizable pursuant to the following criteria:

(a) Except as otherwise provided herein, partnership and direct ownership interests and any voting stock interest amounting to 5% or more of the outstanding voting stock of a corporate broadcast licensee, cable television system or daily newspaper will be cognizable;

(b) No minority voting stock interest will be cognizable if there is a single holder of more than 50% of the outstanding voting stock of the corporate broadcast licensee, cable television system or daily newspaper in which the minority interest is held;

(c) Investment companies, as defined in 15 U.S.C. 80a–3, insurance companies and banks holding stock through their trust departments in trust accounts will be considered to have a cognizable interest only if they hold 10% or more of the outstanding voting stock of a corporate broadcast licensee, cable television system or daily newspaper, or if any of the officers or directors of the broadcast licensee, cable television system or daily newspaper are representatives of the investment company, insurance company or bank concerned. Holdings by a bank or insurance company will be aggregated if the bank or insurance company has any right to determine how the stock will be voted. Holdings by investment companies will be aggregated if under common management.

(d) Attribution of ownership interests in a broadcast licensee, cable television system or daily newspaper that are held indirectly

by any party through one or more intervening corporations will be determined by successive multiplication of the ownership percentages for each link in the vertical ownership chain and application of the relevant attribution benchmark to the resulting product, except that wherever the ownership percentage for any link in the chain exceeds 50%, it shall not be included for purposes of this multiplication. [For example, if A owns 10% of company X, which owns 60% of company Y, which owns 25% of ''Licensee,'' then X's interest in ''Licensee'' would be 25% (the same as Y's interest since X's interest in Y exceeds 50%), and A's interest in ''Licensee'' would be 2.5% (0.1×0.25). Under the 5% attribution benchmark, X's interest in ''Licensee'' would be cognizable, while A's interest would not be cognizable.]

(e) Voting stock interests held in trust shall be attributed to any person who holds or shares the power to vote such stock, to any person who has the sole power to sell such stock, and to any person who has the right to revoke the trust at will or to replace the trustee at will. If the trustee has a familial, personal or extra-trust business relationship to the grantor or the beneficiary, the grantor or beneficiary, as appropriate, will be attributed with the stock interests held in trust. An otherwise qualified trust will be ineffective to insulate the grantor or beneficiary from attribution with the trust's assets unless all voting stock interests held by the grantor or beneficiary in the relevant broadcast licensee, cable television system or daily newspaper are subject to said trust.

(f) Holders of non-voting stock shall not be attributed an interest in the issuing entity. Holders of debt and instruments such as warrants, convertible debentures, options or other non-voting interests with rights of conversion to voting interests shall not be attributed unless and until conversion is effected.

(g)(1) A limited partnership interest shall be attributed to a limited partner unless that partner is not materially involved, directly or indirectly, in the management or operation of the media-related activities of the partnership and the licensee or system so certifies.

(2) In order for a licensee or system to make the certification set forth in paragraph (g)(1) of this section, it must verify that the partnership agreement or certificate of limited partnership, with respect to the particular limited partner exempt from attribution, establishes that the exempt limited partner has no material involvement, directly or indirectly, in the management or operation of the media activities of the partnership. The criteria which would assume adequate insulation for purposes of this certification are described in the *Memorandum Opinion and Order* in MM Docket No. 83–46, FCC 85–252 (released June 24, 1985), as modified on reconsideration in the *Memorandum Opinion and Order* in MM Docket No. 83–46, FCC 86–410 (released November 28, 1986). Irrespective of the terms of the certificate of limited partnership or partnership agreement, however, no such certification shall be made if the individual or entity making the certification has actual knowledge of any material involvement of the limited partners in the management or operation of the media-related businesses of the partnership.

(h) Officers and directors of a broadcast licensee, cable television system or daily newspaper are considered to have a cognizable interest in the entity with which they are so associated. If any such entity engages in businesses in addition to its primary business of broadcasting, cable television service or newspaper publication, it may request the Commission to waive attribution for any officer or director whose duties and responsibilities are wholly unrelated to its primary business. The officers and directors of a parent company of a broadcast licensee, cable television system or daily newspaper, with an attributable interest in any such subsidiary entity, shall be deemed to have a cognizable interest in the subsidiary unless the duties and responsibilities of the officer or director involved are wholly unrelated to the broadcast licensee, cable television system or daily newspaper subsidiary, and a statement properly documenting this fact is submitted to the Commission. [This statement may be included on the appropriate Ownership Report.] The officers and directors of a sister corporation of a broadcast licensee, cable television system or daily newspaper shall not be attributed with ownership of these entities by virtue of such status.

(i) Discrete ownership interests will be aggregated in determining whether or not an interest is cognizable under this section. An individual or entity will be deemed to have a cognizable investment if:

(1) The sum of the interests held by or through ''passive investors'' is equal to or exceeds 10 percent; or

(2) The sum of the interests other than those held by or through ''passive investors'' is equal to or exceeds 5 percent; or

(3) The sum of the interests computed under paragraph (i)(1) of this section plus the sum of the interests computed under paragraph (i)(2) of this section is equal to or exceeds 10 percent.

NOTE 3: In cases where record and beneficial ownership of voting stock is not identical (*e.g.*, bank nominees holding stock as record owners for the benefit of mutual funds, brokerage houses holding stock in street names for the benefit of customers, investment advisors holding stock in their own names for the benefit of clients, and insurance companies holding stock), the party having the right to determine how the stock

will be voted will be considered to own it for purposes of these rules.

NOTE 4: Paragraphs (a) through (e) of this section will not be applied so as to require divestiture, by any licensee, of existing facilities, and will not apply to applications for increased power for Class C stations, to applications for assignment of license or transfer of control filed in accordance with § 73.3540(f) or § 73.3541(b), or to applications for assignment of license or transfer of control to heirs or legatees by will or intestacy if no new or increased overlap would be created between commonly owned, operated or controlled broadcast stations in the same service and if no new encompassment of Communities proscribed in paragraphs (c) and (d) of this section as to commonly owned, operated or controlled broadcast stations or daily newspaper would result. Said paragraphs will apply to all applications for new stations, to all other applications for assignment or transfer, and to all applications for major changes in existing stations except major changes that will result in overlap of contours of broadcast stations in the same service with each other no greater than already existing. (The resulting areas of overlap of contours of such broadcast stations with each other in such major change cases may consist partly or entirely of new terrain. However, if the population in the resulting areas substantially exceeds that in the previously existing overlap areas, the Commission will not grant the application if it finds that to do so would be against the public interest, convenience or necessity.) Commonly owned, operated or controlled broadcast stations with overlapping contours or with community-encompassing contours prohibited by this section may not be assigned or transferred to a single person, group or entity, except as provided above in this note and by § 73.3555(a). If a commonly owned, operated or controlled broadcast station and daily newspaper fall within the encompassing proscription of this section, the station may not be assigned to a single person, group or entity if the newspaper is being simultaneously sold to such single person, group or entity.

NOTE 5: Paragraphs (a) through (e) of this section will not be applied to cases involving television stations that are ''satellite'' operations. Such cases will be considered in accordance with the analysis set forth in the *Report and Order* in MM Docket No. 87–8, FCC 91–182(released July 8, 1991), in order to determine whether common ownership, operation, or control of the stations in question would be in the public interest. An authorized and operating ''satellite'' television station, the Grade B contour of which overlaps that of a commonly owned, operated, or controlled ''non-satellite'' parent television broadcast station, or the Grade A contour of which completely encompasses the community of publication of a commonly owned, operated, or controlled daily newspaper, or the community of license of a commonly owned, operated, or controlled AM or FM broadcast station, or the community of license of which is completely encompassed by the 2 mV/m contour of such AM broadcast station or the 1 mV/m contour of such FM broadcast station, may subsequently become a ''non-satellite'' station under the circumstances described in the aforementioned *Report and Order* in MM Docket No. 87–8. However, such commonly owned, operated, or controlled ''non-satellite'' television stations and AM or FM stations with the aforementioned community encompassment, may not be transferred or assigned to a single person, group, or entity except as provided in Note 4 of this section. Nor shall any application for assignment or transfer concerning such ''non-satellite'' stations be granted if the assignment or transfer would be to the same person, group or entity to which the commonly owned, operated, or controlled newspaper is proposed to be transferred, except as provided in Note 4 of this section.

NOTE 6: For the purposes of this section a daily newspaper is one which is published four or more days per week, which is in the English language and which is circulated generally in the community of publication. A college newspaper is not considered as being circulated generally.

NOTE 7: The Commission will entertain requests to waive the restrictions of paragraph (c) of this section on a case-by-case basis. The Commission will look favorably upon waiver applications that meet either of the following two standards:

(1) Those involving radio and television station combinations in the top 25 television markets where there will be at least 30 separately owned, operated and controlled broadcast licensees after the proposed combination, as determined by counting television licensees in the relevant ADI television market and radio licensees in the relevant television metropolitan market;

(2) Those involving ''failed'' broadcast stations that have not been operated for a substantial period of time, *e.g.*, four months, or that are involved in bankruptcy proceedings. For the purposes of determining the top 25 ADI television markets, the relevant ADI television market, and the relevant television metropolitan market for each prospective combination, we will use the most recent *Arbitron Ratings Television ADI Market Guide.* We will determine that number of radio stations in the relevant television metropolitan market and the number of television licensees within the relevant ADI television market based on the most recent Commission ownership records.

Other waiver requests will be evaluated on a more rigorous case-by-case basis, as set forth in the *Second Report and Order* in MM Docket No. 87–7, FCC 88–407, released February 23, 1989, and *Memorandum Opinion and Order* in MM Docket No. 87–7, FCC 89–256, released August 4, 1989.

NOTE 8: Paragraph (a)(1) of this section will not apply to an application for an AM station license in the 535–1605 kHz band where grant of such application will result in the overlap of 5 mV/m groundwave contours of the proposed station and that of another AM station in the 535–1605 kHz band that is commonly owned, operated or controlled if the applicant shows that a significant reduction in interference to adjacent or co-channel stations would accompany such common ownership. Such AM overlap cases will be considered on a case-by-case basis to determine whether common ownership, operation or control of the stations in question would be in the public interest. Applicants in such cases must submit a contingent application of the major or minor facilities change needed to achieve the interference reduction along with the application which seeks to create the 5 mV/m overlap situation.

NOTE 9: Paragraph (a)(1) of this section will not apply to an application for an AM station license in the 1605–1705 kHz band where grant of such application will result in the overlap of the 5 mV/m groundwave contours of the proposed station and that of another AM station in the 535–1605 kHz band that is commonly owned, operated or controlled. Paragraphs (d)(1)(i) and (d)(1)(ii) of this section will not apply to an application for an AM station license in the 1605–1705 kHz band by an entity that owns, operates, controls or has a cognizable interest in AM radio stations in the 535–1605 kHz band.

NOTE 10: Authority for joint ownership granted pursuant to Note 9 will expire at 3 a.m. local time on the fifth anniversary for the date of issuance of a construction permit for an AM radio station in the 1605–1705 kHz band.

[59 FR 49007, Sept. 26, 1994, as amended at 59 FR 62613, Dec. 6, 1994; 61 FR 10690 and 10692, Mar. 15, 1996]

§ 73.3556 Duplication of programming on commonly owned or time brokered stations.

(a) No commercial AM or FM radio station shall operate so as to devote more than 25 percent of the total hours in its average broadcast week to programs that duplicate those of any station in the same service (AM or FM) which is commonly owned or with which it has a time brokerage agreement if the principal community contours (predicted or measured 5 mV/m groundwave for AM stations and predicted 3.16 mV/m for FM stations) of the stations overlap and the overlap constitutes more than 50 percent of the total principal community contour service area of either station.

(b) For purposes of this section, duplication means the broadcasting of identical programs within any 24 hour period.

(c) Any party engaged in a time brokerage arrangement which conflicts with the requirements of paragraph (a) of this section on September 16, 1992, shall bring that arrangement into compliance within one year thereafter.

[57 FR 18093, Apr. 29, 1992, as amended at 57 FR 42706, Sept. 16, 1992]

EFFECTIVE DATE NOTE: At 57 FR 18093, Apr. 29, 1992, § 73.3556 was added, effective August 1, 1992. At 57 FR 35763, Aug. 11, 1992, the effective date was deferred pending action by the agency. At 57 FR 37888, Aug. 21, 1992, the effective date was further deferred. At 57 FR 42706, Sept. 16, 1992, paragraph (a) was revised and paragraph (c) was added, effective September 16, 1992. The agency will publish a notice of the effective date of paragraph (b) in the FEDERAL REGISTER at a later date.

§ 73.3561 Staff consideration of applications requiring Commission action.

Upon acceptance of an application, the complete file is reviewed by the staff and, except where the application is acted upon by the staff pursuant to delegation of authority, a report containing the recommendations of the staff and any other documents required is prepared and placed on the Commission's agenda.

[44 FR 38499, July 2, 1979]

§ 73.3562 Staff consideration of applications not requiring action by the Commission.

Those applications which do not require action by the Commission but which, pursuant to the delegations of authority set forth in subpart B of part 0, may be acted upon by the Chief, Mass Media Bureau, are forwarded to the Mass Media Bureau for necessary action. If the application is granted, the formal authorization is issued. In any case where it is recommended that

the application be set for hearing, where a novel question of policy is presented, or where the Chief, Mass Media Bureau desires instructions from the Commission, the matter is placed on the Commission agenda.

[49 FR 14509, Apr. 12, 1984]

§ 73.3564 Acceptance of applications.

(a) Applications tendered for filing are dated upon receipt and then forwarded to the Mass Media Bureau, where an administrative examination is made to ascertain whether the applications are complete. Except for non-reserved band FM (except for Class D) applications, those found to be complete or substantially complete are accepted for filing and are given file numbers.In the case of minor defects as to completeness, the applicant will be required to supply the missing or correct information. Applications that are not substantially complete will be returned to the applicant. In the case of non-reserved band FM applications received on or after August 7, 1992, applications will be placed on public notice if they meet the following two-tiered minimum filing requirement prior to close of the filing window in window proceedings and as initially filed in first come/first served proceedings:

(1) The application must include:

(i) Applicant's name and address,

(ii) Applicant's original signature,

(iii) Principal community,

(iv) Channel or frequency,

(v) Class of station, and

(vi) Transmitter site coordinates; and

(2) The application must not omit more than 3 of the second tier items specified in appendix C, Report and Order, MM Docket No. 91–347, FCC 92–328, 7 FCC Rcd 5074 (1992). Applications found not to meet minimum filing requirements will be returned to the applicant. Applications found to meet minimum filing requirements but that contain deficiencies in tender and/or acceptance information shall be given an opportunity for corrective amendment pursuant to § 73.3522. Applications found to be substantially complete and in accordance with the Commission's core legal and technical requirements will be accepted for filing. Applications with uncorrected tender and/or acceptance defects remaining after the opportunity for corrective amendment will be dismissed with no further opportunity for corrective amendment. In the case of low power TV, TV translator and TV booster applications, those found to be substantially complete will be listed on a Commission public notice as tendered for filing and given file numbers. Those that are not substantially complete will be returned to the applicant. If it is determined that a low power TV, TV translator or TV booster application is substantially complete but contains some defect(s) or omission(s), a deficiency letter will be issued affording the applicant 30 days to correct the defect. If the defect is not corrected within 30 days of the date on the deficiency letter, the application will be returned with no further opportunity to amend.

NOTE: For non-reserved band FM applications received prior to August 7, 1992 applications with deficiencies in tender and/or acceptance information will be returned to the applicant without an opportunity for corrective amendment. See 50 FR 19936 (May 13, 1985).

(b) Acceptance of an application for filing merely means that it has been the subject of a preliminary review by the FCC's administrative staff as to completeness. Such acceptance will not preclude the subsequent dismissal of the application if it is found to be patently not in accordance with the FCC's rules.

(c) At regular intervals, the FCC will issue a Public Notice listing all applications and major amendments thereto which have been accepted for filing, except for low power TV, TV translator, TV booster, and non-reserved band FM stations. Pursuant to §§ 73.3571(c), 73.3572(c) and 73.3573(d) such notice shall establish a cut-off date (not less than 30 days from the date of issuance) for the filing of mutually exclusive applications and petitions to deny. However, no application will be accepted for filing unless certification of compliance with the local notice requirements of § 73.3580(h) has been made in the tendered application.

(d) New and major change applications for non-reserved band FM stations (except for Class D stations) and for low power TV and TV translator stations will be accepted only on

date(s) specified by the Commission. Low power TV and TV translator station filing period(s) will be designated by the Commission in a Public Notice. No more than five (5) applications for new low power TV or TV translator stations may be tendered for filing by any applicant, or by any individual or entity having an interest of one (1) percent or greater in any applicant(s) in a single filing period. This restriction does not apply to applications for major or minor changes in low power TV or TV translator stations as defined by § 73.3572. Non-reserved band FM facilities and major change applications will have filing dates designated by the Commission in the following manner:

(1) For all vacant non-reserved band FM allocations listed on the FM Table of Allotments, § 73.202, as of March 14, 1985, a one-time filing period or ''window'' will open for 30 days, beginning on the 31st day after the date of publication of the *Report and Order* in MM Docket No. 84–750 in the FEDERAL REGISTER and will close on the 60th day after such publication. (This filing window does not apply to the 689 FM channels added to the FM Table of Allotments by the Commission's decision in MM Docket No. 84–231).

(2) The 689 FM allocations added to the FM Table of Allotments by MM Docket 84–231 will be subject to a series of windows. The Audio Services Division of the Mass Media Bureau will establish, by Public Notice, the window filing dates for this group of allotments.

(3) Each *Report and Order* specifying a new non-reserved FM band allocation will identify the window filing period which will begin upon the effective date of that *Order* and continue for at least 30 days.

(4) Where no applications are tendered during a window filing period, applications may be tendered any time after the window closes. These applications will be processed on a ''first come/first serve'' basis and will be treated as simultaneously filed if filed on the same day. Any applications received after the filing of a lead applicant will be placed in a queue, according to filing date, behind the lead applicant.

(5) If a non-reserved band FM channel allotment is vacant after the grant of a construction permit becomes final, because of a lapsed construction permit or for any other reason, the FCC will, by Public Notice, announce a subsequent filing window for the acceptance of new applications for such channels.

(6) However, no application will be accepted for tender unless certification of compliance with the local notice requirements of § 73.3580(h) has been made in the tendered application.

(e) Applications for operation in the 1605–1705 kHz band will be accepted only if filed pursuant to the terms of § 73.30(b).

[44 FR 38499, July 2, 1979, as amended at 50 FR 19943, May 13, 1985; 52 FR 7421, Mar. 11, 1987; 52 FR 31400, Aug. 20, 1987; 56 FR 64873, Dec. 12, 1991; 57 FR 34878, Aug. 7, 1992; 59 FR 31556, June 20, 1994]

§ 73.3566 Defective applications.

(a) Applications which are determined to be patently not in accordance with the FCC rules, regulations, or other requirements, unless accompanied by an appropriate request for waiver, will be considered defective and will not be accepted for filing or if inadvertently accepted for filing will be dismissed. Requests for waiver shall show the nature of the waiver or exception desired and shall set forth the reasons in support thereof.

(b) If an applicant is requested by the FCC to file any additional documents or information not included in the prescribed application form, a failure to comply with such request will be deemed to render the application defective, and such application will be dismissed.

[44 FR 38499, July 2, 1979]

§ 73.3568 Dismissal of applications.

(a) Subject to the provisions of § 73.3523 (Dismissal of applications in renewal proceedings) and § 73.3525 (Agreements for removing application conflicts), any application may, upon request of the applicant be dismissed without prejudice as a matter of right prior to the designation of such application for hearing. An applicant's request for the return of an application that has been accepted for filing will be regarded as a request for dismissal.

(b) Failure to prosecute an application, or failure to respond to official correspondence or request for additional information, will be cause for dismissal. Subject to the provisions of § 73.3525, such dismissal will be without prejudice where an application has not yet been designated for hearing, but may be made with prejudice after designation for hearing.

(c) Subject to the provisions of § 73.3523 (Dismissal of applications in renewal proceedings) and § 73.3525 (Agreements for removing application conflicts), requests to dismiss an application without prejudice after it has been designated for hearing will be considered only upon written petition properly served upon all parties of record. Such requests shall be granted only upon a showing that the request is based on circumstances wholly beyond the applicant's control which preclude further prosecution of his application.

[44 FR 38499, July 2, 1979, as amended at 54 FR 22599, May 25, 1989]

§ 73.3571 Processing of AM broadcast station applications.

(a) Applications for AM broadcast facilities are divided into three groups.

(1) In the first group are applications for new stations or for major changes in the facilities of authorized stations. A major change is any increase in power except where accompanied by a complimentary reduction of antenna efficiency which leads to the same amount, or less, radiation in all directions (in the horizontal and vertical planes when skywave propagation is involved, and in the horizontal plane only for daytime considerations), relative to the presently authorized radiation levels, or any change in frequency, hours of operation, or community of license. However, the FCC may, within 15 days after the acceptance for filing of any other application for modification of facilities, advise the applicant that such application is considered to be one for a major change and therefore is subject to the provisions of §§ 73.3580 and 1.1111 of this chapter pertaining to major changes.

(2) The second group consists of applications for licenses and all other changes in the facilities of authorized stations.

(3) The third group consists of applications for operation in the 1605–1705 kHz band which are filed subsequent to Commission notification that allotments have been awarded to petitioners under the procedure specified in § 73.30.

(b) If an application is amended so as to effect a major change as defined in paragraph (a)(1) of this section or so as to result in a situation where the original party or parties to the application do not retain more than 50% ownership interest in the application as originally filed, § 73.3580 will apply to such amended application.

(c) Applications for new stations or for major changes in the facilities of authorized stations are processed as nearly as possible in the order in which they are filed. Such applications will be placed in the processing line in numerical sequence, and are drawn by the staff for study, the lowest file number first. Thus, the file number determines the order in which the staff's work is begun on a particular application or group of conflicting applications. In order that those applications which are entitled to be grouped for processing may be fixed prior to the time processing of the earliest filed application is begun, the FCC will periodically release a Public Notice listing applications which have been accepted for filing and announcing a date (not less than 30 days after release) on which the listed applications will be considered available and ready for processing and by which all mutually exclusive applications and/or petitions to deny the listed applications must be filed.

(1) In order to grant a major or minor change application made contingent upon the grant of another licensee's request for a facility modification, the Commission will not consider mutually exclusive applications by other parties that would not protect the currently authorized facilities of the contingent applicants. Such major change applications remain, however, subject to the provisions of §§ 73.3580 and 1.1111. The Commission shall grant contingent requests for construction permits for station modifications only upon a finding that such action will promote the public interest, convenience and necessity.

(2) In addition to announcing the acceptance of mutually exclusive applications and establishing a date for the filing of petitions to deny such applications, the public notice referred to in paragraph (c) of this section will also announce the date on which all mutually exclusive applicants (including the previously accepted lead applicant) will be required to pay the hearing fee established in part 1 of these rules, 47 CFR 1.1104(2)(c) of this chapter. The date for fee payment shall be at least 30 days after the date established for peitions to deny.

(3) Whenever the public notice announces the acceptance of an application that is mutually exclusive with a renewal application, it shall also announce that the mutually exclusive applicants and the renewal applicant will be required to pay the hearing fee on the date established in the public notice.

(d) Applications proposing to increase the power of an AM station are subject to the following requirements:

(1) In order to be acceptable for filing, any application which does not involve a change in site must propose at least a 20% increase in the station's nominal power.

(2) Applications involving a change in site are not subject to the requirements in paragraph (d)(1) of this section.

(3) Applications for nighttime power increases for Class D stations are not subject to the requirements of this section and will be processed as minor changes.

(4) [Reserved]

(5) The following special procedures will be followed in authorizing Class II–D daytime-only stations on 940 and 1550 kHz, and Class III daytime-only stations on the 41 regional channels listed in § 73.26(a), to operate unlimited-time.

(i) Each eligible daytime-only station in the foregoing categories will receive an Order to Show Cause why its license should not be modified to specify operation during nighttime hours with the facilities it is licensed to start using at local sunrise, using the power stated in the Order to Show Cause, that the Commission finds is the highest nighttime level—not exceeding 0.5 kW—at which the station could operate without causing prohibited interference to other domestic or foreign stations, or to co-channel or adjacent channel stations for which pending applications were filed before December 1, 1987.

(ii) Stations accepting such modification shall be reclassified. Those authorized in such Show Cause Orders to operate during nighttime hours with a power of 0.25 kW or more, or with a power that, although less than 0.25 kW, is sufficient to enable them to attain RMS field strengths of 141 mV/m or more at 1 kilometer, shall be redesignated as Class II–B stations if they are assigned to 940 or 1550 kHz, and as unlimited-time Class III stations if they are assigned to regional channels.

(iii) Stations accepting such modification that are authorized to operate during nighttime hours at powers less than 0.25 kW, and that cannot with such powers attain RMS field strengths of 141 mV/m or more at 1 kilometer, shall be redesignated as Class II–S stations if they are assigned to 940 or 1550 kHz, and as Class III–S stations if they are assigned to regional channels.

(iv) Applications for new stations may be filed at any time on 940 and 1550 kHz and on the regional channels. Also, stations assigned to 940 or 1550 kHz, or to the regional channels, may at any time, regardless of their classifications, apply for power increases up to the maximum generally permitted. Such applications for new or changed facilities will be granted without taking into account interference caused to Class II–S or Class III–S stations, but will be required to show interference protection to other classes of stations, including stations that were previously classified as Class II–S or Class III–S, but were later reclassified as Class II–B or Class III unlimited-time stations as a result of subsequent facilities modifications that permitted power increases qualifying them to discountinue their ''S'' subclassification.

(e) Applications other than those for new stations or for major changes in the facilities of authorized stations are not placed on the processing line but are processed as nearly as possible in the order in which they are filed.

(f) Applications for change of license to change hours of operation of a Class

C station, to decrease hours of operation of any other class of station, or to change station location involving no change in transmitter site will be considered without reference to the processing line.

(g) If, upon examination, the FCC finds that the public interest, convenience and necessity will be served by the granting of an application, the same will be granted. If the FCC is unable to make such a finding and it appears that a hearing may be required, the procedure set forth in § 73.3593 will be followed.

(h) When an application which has been designated for hearing has been removed from the hearing docket, the application will be returned to its proper position (as determined by the file number) in the processing line. Whether or not a new file number will be assigned will be determined pursuant to paragraph (i) of this section, after the application has been removed from the hearing docket.

(i)(1) A new file number will be assigned to an application for a new station, or for major changes in the facilities of an authorized station, when it is amended to change frequency, to increase power, to increase hours of operation, or to change station location. Any other amendment modifying the engineering proposal, except an amendment regarding the type of equipment specified, will also result in the assignment of a new file number unless such amendment is accompanied by a complete engineering study showing that the amendments would not involve new or increased interference problems with existing stations or other applications pending at the time the amendment is filed. If, after submission and acceptance of such an engineering amendment, subsequent examination indicates new or increased interference problems within either existing stations or other applications pending at the time the amendment was received at the FCC, the application will then be assigned a new file number and placed in the processing line according to the numerical sequence of the new file number.

(2) A new file number will be assigned where an application for a new station is amended (whether by a single amendment or by a series of amendments) so as to result in a situation where the original party or parties to the application do not retain more than 50% ownership interest in the application as originally filed, and § 73.3580 will apply to such amended application.

(3) Where an amendment to an application would require a new file number pursuant to paragraph (j)(1) or (j)(2) of this section, the applicant will have an opportunity to withdraw the amendment at any time prior to designation for a hearing if applicable; and may be afforded, subject to the discretion of the Administrative Law Judge, an opportunity to withdraw the amendment after designation for a hearing.

(4) An application for changes in the facilities of an existing station will continue to carry the same file number even though (pursuant to FCC approval) an assignment of license or transfer of control of said licensee or permittee has taken place if, upon consummation, the application is amended to reflect the new ownership.

(j) When an application is reached for processing, and it is necessary to address a letter to the applicant asking further information, the application will not be processed until the information requested is received, and the application will be placed in the pending file to await the applicant's response.

(k) When an application is placed in the pending file, the applicant will be notified of the reason for such action.

[44 FR 38501, July 2, 1979; 44 FR 40311, July 10, 1979, as amended at 46 FR 36852, July 16, 1981; 49 FR 14745, Apr. 13, 1984; 49 FR 32589, Aug. 15, 1984; 49 FR 48187, Dec. 11, 1984; 50 FR 18848, May 2, 1985; 50 FR 24522, June 11, 1985; 52 FR 21311, June 5, 1987; 53 FR 1032, Jan. 15, 1988; 54 FR 39534, Sept. 27, 1989; 55 FR 19265, May 9, 1990; 56 FR 795, Jan. 9, 1991; 56 FR 64874, Dec. 12, 1991; 61 FR 46563, Sept. 4, 1996]

§ 73.3572 Processing of TV broadcast, low power TV, TV translator and TV booster station applications.

(a) Applications for TV stations are divided into two groups:

(1) In the first group are applications for new stations or major changes in the facilities of authorized stations. A major change for TV broadcast stations authorized under this part is any change in frequency or community of

license which is in accord with a present allotment contained in the Table of Allotments (§ 73.606). Other requests for change in frequency or community of license for TV broadcast stations must first be submitted in the form of a petition for rulemaking to amend the Table of Allotments. In the case of low power TV, TV translator, and TV booster stations authorized under Part 74 of this chapter, a major change is any change in:

(i) Frequency (output channel) assignment (does not apply to TV boosters);

(ii) Transmitting antenna system including the direction of the radiation, directive antenna pattern or transmission line;

(iii) Antenna height;

(iv) Antenna location exceeding 200 meters; or

(v) Authorized operating power.

(2) However, if the proposed modification of facilities, other than a change in frequency, will not increase the signal range of the low power TV, TV translator or TV booster station in any horizontal direction, the modification will not be considered a major change. Provided, that in the case of an authorized low power TV, TV translator or TV booster station which is predicted to cause or receive interference to or from an authorized TV broadcast station pursuant to § 74.705 or interferes with broadcast or other services under § 74.703 or § 74.709, that an application for a change in output channel, together with technical modifications which are necessary to avoid interference (including a change in antenna location of less than 16.1 km), will not be considered as an application for a major change in those facilities. Provided further, that the FCC may, within 15 days after the acceptance of any other application for modification of facilities, advise the applicant that such application is considered to be one for a major change and therefore subject to the provisions of §§ 73.3580 and 1.1111 pertaining to major changes.

(b) A new file number will be assigned to an application for a new station or for major changes in the facilities of an authorized station, when it is amended so as to effect a major change, as defined in paragraph (a)(1) of this section, or result in a situation where the original party or parties to the application do not retain more than 50% ownership interest in the application as originally filed and § 73.3580 will apply to such amended application. An application for change in the facilities of any existing station will continue to carry the same file number even though (pursuant to FCC approval) an assignment of license or transfer of control of such licensee or permittee has taken place if, upon consummation, the application is amended to reflect the new ownership.

(c) Where an amendment to an application would require a new file number pursuant to paragraph (b) of this section, the applicant will have the opportunity to withdraw the amendment at any time prior to designation for a hearing if applicable; and may be afforded, subject to the discretion of the Administrative Law Judge, an opportunity to withdraw the amendment after designation for a hearing.

(d) Applications for TV stations, other than low power TV, TV translator and TV booster stations, will be processed as nearly as possible in the order in which they are filed. Such applications will be placed in the processing line in numerical sequence, and will be drawn by the staff for study, the lowest file number first. In order that those applications which are entitled to be grouped for processing may be fixed prior to the time processing of the earliest filed application is begun, the FCC will periodically release a Public Notice listing applications which have been accepted for filing and announcing a date (not less than 30 days after issuance) on which the listed applications will be considered available and ready for processing and by which all mutually exclusive applications and petitions to deny the listed applications must be filed.

(1) In addition to announcing the acceptance of mutually exclusive applications and establishing a date for the filing of petitions to deny such applications, the public notice referred to in paragraph (c) of this section will also announce the date on which all mutually exclusive applicants (including the previously accepted lead applicant) will be required to pay the hearing fee

established in part 1 of these rules, 47 CFR 1.1104(1)(c) of this chapter. The date for fee payment shall be at least 30 days after the date established for petitions to deny.

(2) Whenever the public notice announces the acceptance of an application that is mutually exclusive with a renewal application, it shall also announce that the mutually exclusive applicants and the renewal applicant will be required to pay the hearing fee on the date established in the public notice.

(e) Except for applications for low power TV, TV translator and TV booster stations, regardless of the number of applications filed for channels in a city or the number of assignments available in that city, those applications which are mutually exclusive, i.e., which request the same channel, will be designated for hearing. All other applications for channels will, if the applicants are duly qualified, receive grants. For example, if channels 6, 13, 47 and 53 have been assigned to City X and there are pending two applications for Channel 6 and one application for each of the remaining channels, the latter three applications will be considered grants without hearing and the two mutually exclusive applications requesting Channel 6 will be designated for hearing. If there are two pending applications for Channel 6 and two applications for Channel 13, separate hearings will be held.

(f) Where applications, other than applications for low power TV, TV translator, and TV booster stations, are mutually exclusive because the distance between the respective proposed transmitter sites is contrary to the station separation requirements set forth in § 73.610, such applications will be processed and designated for hearing at the time the application with the lower file number is reached for processing. In order to be considered mutually exclusive with a lower file number application, the higher file number application must have been accepted for filing at least one day before the lower file number application has been acted upon by the FCC.

(g) *Processing of applications for low power TV and TV translator stations.* (1) Applications for low power TV and TV translator stations will be processed as nearly as possible in the order in which they are filed. Such applications will be placed in the processing line in numerical sequence, and will be drawn by the staff for study, the lowest file number first. The FCC will specify, by Public Notice, a period for filing low power TV or TV translator applications. The filing period will open no less than 30 days after release of the Public Notice and remain open for an least five work days.

(2) Subsequently, the FCC will release a Public Notice: (i) Establishing a date, time, and place for a public lottery; (ii) accepting for filing mutually exclusive applications which were timely filed during the filing period previously specified by the FCC; (iii) designating the listed mutually exclusive applications for public lottery pursuant to the procedures set forth in § 1.1601 *et seq.;* and (iv) describing each applicant's certified perferences and selection probabilities and assigning to each applicant a number block. (It will be the applicant's responsibility to notify the FCC, within 30 days of the release of the Public Notice, or any omissions of applications or clerical or mathematical errors in preferences or probabilities. The FCC will not entertain appeals involving these matters if timely notification to the FCC has not been made.) If necessary, the FCC will release subsequent Public Notices correcting only clerical or mathematical errors and including any previously omitted mutually exclusive applications. The public lottery pursuant to the procedures set forth in § 1.1601 *et seq.*, will be held no less than 30 days subsequent to the initially released Public Notice announcing the lottery. Subsequent to the lottery, the FCC will release a Public Notice announcing the selection of a tentative selectee resulting from the lottery and providing and opportunity for the filing of Petitions to Deny pursuant to the requirements of § 73.3584(c). If, upon examination, the FCC finds that the public interest, convenience and necessity will be served by the granting of a tentative selectee's application, the same will be granted. Those applications which, due to the lottery, are no longer mutually exclusive with other applications will

be announced in a Public Notice proposing the grant of those applications and providing an opportunity for the filing of Petitions to Deny pursuant to § 73.3584(c). Groups of mutually exclusive applicants remaining after a lottery will be designated for lottery. Applications which are are not grantable due to mutual exclusivity with the permittee selected by lottery will be dismissed.

(3) If, upon examination, the FCC is unable to find that the public interest, convenience and necessity will be served by the granting of a lottery tentative selectee's applications, and it appears that a hearing may be required, the procedure set forth in § 73.3593 will be followed. No further action will be taken with reference to the other applications in the lottery group from which the tentative selectee was selected until the tentative selectee's qualifications to be a permittee are resolved. If the tentative selectee is ultimately found to be unqualified to be a permittee, the procedure set forth in paragraph (f)(2) of this section will be followed.

(4) The FCC will periodically release a Public Notice accepting for filing and proposing for grant those applications which were timely filed during the filing period specified by the FCC in a Public Notice for filing low power TV or TV translator applications, but which are not mutually exclusive with any other application, and providing an opportunity for the filing of Petitions to Deny pursuant to § 73.3584.

NOTE 1: Notwithstanding paragraph (f)(1) and § 73.3522(a)(3), applications for low power TV and TV translator stations will be processed within the tiered processing framework as set forth in *Notice on Interim Processing,* 45 FR 62004 (published September 17, 1980), *Order Imposing Freeze,* 46 FR 26062 (published May 11, 1981), and *Report and Order in the Matter of Inquiry Into the Future Role of Low Power Television Broadcasting and Television Translators in the National Telecommunications System,* 47 FR 21468 (published May 18, 1982).

NOTE 2: Pursuant to § 73.3584(c), the Commission may announce, by the Public Notice designating the applications for public lottery, that a Notice of Petition to Deny will be required to be filed no later than 30 days after issuance of the Public Notice.

(5) TV booster station applications may be filed at any time and will be subject to the following procedures:

(i) Subsequent to filing, the FCC will release a Public Notice accepting for filing and proposing for grant those applications which are not mutually exclusive with any other TV translator, low power TV, or TV booster application, and providing for the filing of Petitions To Deny pursuant to § 73.3584;

(ii) Any application received during the filing period for TV translator, low power TV, or TV booster applications with which it is mutually exclusive will be included in the relevant public lottery pursuant to § 1.1601 *et seq.;* and

(iii) Applications received after the filing date for applications with which it is mutually exclusive will be dismissed as an untimely filing.

[44 FR 38502, July 2, 1979, as amended at 48 FR 27205, June 13, 1983; 48 FR 34039, July 27, 1983; 49 FR 47843, Dec. 7, 1984; 52 FR 31400, Aug. 20, 1987; 55 FR 19265, May 9, 1990; 56 FR 795, Jan. 9, 1991; 56 FR 33720, July 23, 1991]

§ 73.3573 Processing FM broadcast station applications.

(a) Applications for FM broadcast stations are divided into two groups:

(1) In the first group are applications for new stations or for major changes in the facilities of authorized stations. A major change for FM station authorized under this part is any change in frequency or community of license which is in accord with a present allotment contained in the Table of Allotments (73.202 (b)). Other requests for change in frequency or community of license for FM stations must first be submitted in the form of a petition for rule making to amend the Table of Allotments. Applications filed on a first come, first served basis may propose a higher or lower class adjacent, intermediate frequency or co-channel in an application for a new FM broadcast station. A licensee or permittee may seek the higher or lower class adjacent, intermediate frequency or co-channel or the same class adjacent channel of its existing FM broadcast station authorization by filing a minor change application. For noncommercial educational FM stations, a major change is any change in frequency or community of license or any change in power

or antenna location or height above average terrain (or combination thereof) which would result in a change of 50% or more in the area within the station's predicted 1 mV/m field strength contour. (A change in area is defined as the sum of the area gained and the area lost as a percentage of the original area). However, the FCC may within 15 days after the acceptance of the application for modification of facilities, advise the applicant that such application is considered to be one for a major change and therefore subject to the provisions of §§ 73.3580 and 1.1111 of this chapter pertaining to major changes.

(2) The second group consists of applications for licenses and all other changes in the facilities of authorized stations.

(b) A new file number will be assigned to an application for a new station or for major changes in the facilities of an authorized station, when it is amended so as to effect a major change, as defined in paragraph (a)(1) of this section, or result in a situation where the original party or parties to the application do not retain more than 50% ownership interest in the application as originally filed, and § 73.3580 will apply to such amended application. An application for changes in the facilities of any existing station will continue to carry the same file number even though (pursuant to FCC approval) an assignment of license or transfer of control of such licensee or permittee has taken place if, upon consummation, the application is amended to reflect the new ownership.

(c) Where an amendment to an application would require a new file pursuant to paragraph (b) of this section, the applicant will have the opportunity to withdraw the amendment at any time prior to designation for a hearing if applicable; and may be afforded, subject to the discretion of the Administrative Law Judge, an opportunity to withdraw the amendment after designation for a hearing.

(d) If, upon examination, the FCC finds that the public interest, convenience and necessity will be served by the granting of an application for FM broadcast facilities, the same will be granted. If the FCC is unable to make such a finding and it appears that a hearing may be required, the procedure given in § 73.3593 will be followed.

(e) Applications for reserved band and Class D FM broadcast stations will be processed as nearly as possible in the order in which they are filed. Such applications will be placed in the processing line in numerical sequence, and will be drawn by the staff for study, the lowest file number first. In order that those applications which are entitled to be grouped for processing may be fixed prior to the time processing of the earliest filed application is begun, the FCC will periodically release a Public Notice listing applications which have been accepted for filing and announcing a date (not less than 30 days after publication) on which the listed applications will be considered available and ready for processing and by which all mutually exclusive applications and/or petitions to deny the listed applications must be filed.

(f) Where reserved band plus Class D applications are mutually exclusive because the distance between their respective proposed transmitter sites is contrary to the station separation requirements set forth in § 73.507, such applications will be processed and designated for hearing at the time the application with the lower file number is reached for processing. In order to be considered mutually exclusive with a lower file number application, the higher file number application must have been accepted for filing at least one day before the lower file number application has been acted upon by the FCC.

(g) Processing non-reserved FM broadcast station applications.

(1) Applications for non-reserved FM broadcast stations will be processed as nearly as possible in the order in which they are tendered. Such applications will be placed in the processing line in numerical sequence, and will be drawn by the staff for study, the lowest file number first. The FCC will specify, pursuant to § 73.3564(d), the filing periods for non-reserved band FM applications.

(2) All applications received during the appropriate filing period or ''window'' which are found to be mutually exclusive will be designated for hearing. All other applications will, if the

applicants are duly qualified, receive grants. The FCC will periodically release a Public Notice listing applications pending hearings or grant and announcing a date (not less than 30 days after issuance) by which petitions to deny must be filed.

(i) In addition to announcing the acceptance of mutually exclusive applications and establishing a date for the filing of petitions to deny such applications, the public notice referred to in paragraph (g)(2) of this section will also announce the date on which all mutually exclusive applicants will be required to pay the hearing fee established in part 1 of these rules, 47 CFR 1.1104(2)(c) of this chapter. The date for fee payment shall be at least 30 days after the date established for petitions to deny.

(ii) Whenever the public notice announces the acceptance of an application that is mutually exclusive with a renewal application, it shall also announce that the mutually exclusive applicants and the renewal applicant will be required to pay the hearing fee on the date established in the public notice.

(3) If, after the close of the appropriate window filing period, a non-reserved FM allotment remains vacant, processing for that channel will be on a ''first come/first serve'' basis with the first acceptable application cutting off the filing rights of subsequent applicants. All applications received on the same day will be treated as simultaneously tendered and, if they are found to be mutually exclusive, will be designated for hearing. Applications received after the tender of a lead application will be grouped, according to filing date, behind the lead application in a queue. The priority rights of the lead applicant, as against all other applicants, are determined by the date of filing but the filing date for subsequent applicants for that channel and community only reserves a place in the queue. The rights of an applicant in a queue ripen only upon a final determination that the lead applicant is unacceptable and if the queue member is reached and found acceptable. The queue will remain behind the lead applicant until a construction permit is finally granted, at which time the queue dissolves. If there is no queue or if no queue member is found acceptable, that allotment remains subject to ''first come/first serve'' processing. The FCC will periodically release a Public Notice listing those pending hearings or grant and announcing a date (not less than 30 days after issuance) by which petitions to deny must be filed.

(h) Resolving processing conflicts between the reserved and non-reserved bands. The reserved bands include Class D stations.

(1) Reserved band applicants, applying for a channel on the non-reserved band are subject to the processing procedures in paragraph (f).

(2) If a reserved band applicant has generated a cut-off list that overlaps a non-reserved band window filing period, the non-reserved band applicant must file within the cut-off if he seeks mutually exclusive status with the reserved band applicant.

(3) Following the close of a non-reserved band application filing window, the non-reserved band applicant is subject to the ''first come/first serve'' rules and would lose to a pre-filed reserved band applicant.

NOTE 1: Applications to modify the channel and/or class of an FM broadcast station to an adjacent channel, intermediate frequency (IF) channel, or co-channel shall not require any other amendments to the Table of Allotments. Such applications may resort to the provisions of the Commission's Rules permitting short spaced stations as set forth in § 73.215 as long as the applicant shows by separate exhibit attached to the application the existence of an allotment reference site which meets the allotment standards, the minimum spacing requirements of § 73.207 and the city grade coverage requirements of § 73.315. This exhibit must include a site map or, in the alternative, a statement that the transmitter will be located on an existing tower. Examples of unsuitable allotment reference sites include those which are offshore, in a national or state park in which tower construction is prohibited, on an airport, or otherwise in an area which would necessarily present a hazard to air navigation.

NOTE 2: Processing of applications for new low power educational FM applications:

Pending the Commission's restudy of the impact of the rule changes pertaining to the allocations of 10-watt and other low power noncommercial educational FM stations, applications for such new stations, or major changes in existing ones, will not be accepted for filing. Exceptions are: (1) In Alaska,

applications for new Class D stations or major changes in existing ones are acceptable for filing; and (2) applications for existing Class D stations to change frequency are acceptable for filing. In (2), upon the grant of such application, the station shall become a Class D (secondary) station. (See First Report and Order, Docket 20735, FCC 78–386, 43 FR 25821, and Second Report and Order, Docket 20735, FCC 78–384, 43 FR 39704.) Effective date of this FCC imposed ''freeze'' was June 15, 1978. Applications which specify facilities of at least 100 watts effective radiated power will be accepted for filing.

NOTE 3: For rules on processing FM translator and booster stations, see § 74.1233 of this chapter.

[44 FR 38503, July 2, 1979, as amended at 48 FR 29510, June 27, 1983; 49 FR 32589, Aug. 15, 1984; 50 FR 19943, May 13, 1985; 54 FR 11954, Mar. 23, 1989; 55 FR 19265, May 9, 1990; 55 FR 50692, Dec. 10, 1990; 56 FR 796, Jan. 9, 1991; 58 FR 38535, July 19, 1993]

§ 73.3574 Processing of international broadcast station applications.

(a) Applications for International station facilities are divided into two groups.

(1) In the first group are applications for new stations, or for major changes in the facilities of authorized stations. A major change is any change in or addition to authorized zones or areas of reception, any change in transmitter location other than one in the immediate vicinity of existing antennas of the station, or any change in power, or antenna directivity. However, the FCC may, within 15 days after the acceptance for filing of any other application for modification, advise the applicant that such application is considered to be one for a major change and therefore is subject to §§ 1.1111 and 73.3580 pertaining to major changes.

(2) The second group consists of applications for licenses and all other changes in the facilities of authorized stations.

(b) If an application is amended so as to effect a major change as defined in paragraph (a)(1) of this section, or so as to result in an assignment or transfer of control which, in the case of an authorized station, would require the filing of an application therefor on FCC Form 314 or 315 (see § 73.3540), § 73.3580 will apply to such amended application.

(c) Applications for International stations will be processed as nearly as possible in the order in which they are filed.

[44 FR 38504, July 2, 1979]

§ 73.3578 Amendments to applications for renewal, assignment or transfer of control.

(a) Any amendments to an application for renewal of any instrument of authorization shall be considered to be a minor amendment. However, the FCC may, within 15 days after tender for filing of any amendment, advise the applicant that the amendment is considered to be a major amendment and therefore is subject to the provisions of § 73.3580.

(b) Any amendment to an application for assignment of construction permit or license, or consent to the transfer of control of a corporation holding such a construction permit or license, shall be considered to be a minor amendment, except that any amendment which seeks a change in the ownership interest of the proposed assignee or transferee which would result in a change in control, or any amendment which would require the filing of FCC Forms 314, 315, or 345 (see § 73.3540), if the changes sought were made in an original application for assignment or transfer of control, shall be considered to be a major amendment. However, the FCC may, within 15 days after the acceptance for filing of any other amendment, advise the applicant that the amendment is considered to be a major amendment and therefore is subject to the provisions of § 73.3580.

[44 FR 38504, July 2, 1979, as amended at 51 FR 18451, May 20, 1986]

§ 73.3580 Local public notice of filing of broadcast applications.

(a) All applications for instruments of authorization in the broadcast service (and major amendments thereto, as indicated in §§ 73.3571, 73.3572, 73.3573, 73.3574 and 73.3578) are subject to the local public notice provisions of this section, except applications for:

(1) A minor change in the facilities of an authorized station, as indicated in §§ 73.3571, 73.3572, 73.3573 and 73.3574.

(2) Consent to an involuntary assignment or transfer or to a voluntary assignment or transfer which does not result in a change of control and which may be applied for on FCC Form 316 pursuant to the provisions of § 73.3540(b).

(3) A license under section 319(c) of the Communications Act or, pending application for or grant of such license, any special or temporary authorization to permit interim operation to facilitate completion of authorized construction or to provide substantially the same service as would be authorized by such license.

(4) Extension of time to complete construction of authorized facilities.

(5) An authorization of facilities for remote pickup or studio links for use in the operation of a broadcast station.

(6) Authorization pursuant to section 325(c) of the Communications Act (''* * * studios of foreign stations'') where the programs to be transmitted are special events not of a continuing nature.

(7) An authorization under any of the proviso clauses of section 308(a) of the Communications Act concerning applications for and conditions in licenses.

(b) Applications (as originally filed or amended) will be acted upon by the FCC no sooner than 30 days following public notice of acceptance for filing or amendment, except as otherwise permitted in § 73.3542, ''Application for temporary authorization.''

(c) An applicant who files an application or amendment thereto which is subject to the provisions of this section, must give a notice of this filing in a newspaper. Exceptions to this requirement are applications for renewal of AM, FM, TV and International broadcasting stations; low power TV stations; TV and FM translator stations, TV booster stations; FM booster stations; and applications subject to paragraph (e) of this section. The local public notice must be completed within 30 days of the tendering of the application. In the event the FCC notifies the applicant that a major change is involved, requiring the applicant to file public notice pursuant to §§ 73.3571, 73.3572, 73.3573 or 73.3578, this filing notice shall be given in a newspaper following this notification.

(1) *Notice requirements for these applicants are as follows.* (i) In a daily newspaper of general circulation published in the community in which the station is located, or proposed to be located, at least twice a week for two consecutive weeks in a three-week period; or,

(ii) If there is no such daily newspaper, in a weekly newspaper of general circulation published in that community, once a week for 3 consecutive weeks in a 4-week period; or,

(iii) If there is no daily or weekly newspaper published in that community, in the daily newspaper from wherever published, which has the greatest general circulation in that community, twice a week for 2 consecutive weeks within a 3-week period.

(2) *Notice requirements for applicants for a permit pursuant to section 325(b) of the Communications Act (''* * * Studios of Foreign Stations'') are as follows.* In a daily newspaper of general circulation in the largest city in the principal area to be served in the U.S.A. by the foreign broadcast station, at least twice a week for 2 consecutive weeks within a three-week period.

(3) *Notice requirements for applicants for a change in station location are as follows.* In the community in which the station is located and the one in which it is proposed to be located, in a newspaper with publishing requirements as in paragraphs (c)(1)(i), (ii) or (iii) of this section.

(4) The notice required in paragraphs (c)(1), (2) and (3) of this section shall contain the information described in paragraph (f) of this section.

(d) The licensee of an operating broadcast station who files an application or amendment thereto which is subject to the provisions of this section must gibe notice as follows:

(1) An applicant who files for renewal of a broadcast station license, other than a low power TV station license not locally originating programming as defined by § 74.701(h), an FM translator station or a TV translator station license, must give notice of this filing by broadcasting announcements on applicant's station. (Sample and schedule of announcements are below.) Newspaper publication is not required. An applicant who files for renewal of a low power TV station license not locally

originating programming as defined by § 74.701(h), an FM translator station or a TV translator station license will comply with (g) below.

(2) An applicant who files an amendment of an application for renewal of a broadcast station lincense will comply with paragraph (d)(1) of this section.

(3) An applicant who files for modification, assignment or transfer of a broadcast station license (except for International broadcast, low power TV, TV translator, TV booster, FM translator and FM booster stations) shall give notice of the filing in a newspaper as described in paragraph (c) of this section, and also broadcast the same notice over the station as follows:

(i) At least once daily on four days in the second week immediately following either the tendering for filing of the application or immediately following notification to the applicant by the FCC that Public Notice is required pursuant to §§ 73.3571, 73.3572, 73.3573 or § 73.3578. For commercial radio stations these announcements shall be made between 7 a.m. and 9 a.m. and/or 4 p.m. and 6 p.m. For stations which neither operate between 7 a.m. and 9 a.m. nor between 4 p.m. and 6 p.m., these announcements shall be made during the first two hours of broadcast operation. For commercial TV stations, these announcements shall be made between 6 p.m. and 11 p.m. (5 p.m. and 10 p.m. Central and Mountain time).

(4) The broadcast notice requirements for those filing renewal applications and amendments thereto are as follows:

(i) *Pre-filing announcements.* During the period and beginning on the first day of the sixth calendar month prior to the expiration of the license, and continuing to the date on which the application is filed, the following announcement shall be broadcast on the 1st and 16th day of each calendar month. Stations broadcasting primarily in a foreign language should broadcast the announcements in that language.

On (*date of last renewal grant*) (*Station's call letters*) was granted a license by the Federal Communication Commission to serve the public interest as a public trustee until (*expiration date*).

Our license will expire on (*date*). We must file an application for renewal with the FCC (*date four calendar months prior to expiration date*). When filed, a copy of this application will be available for public inspection during our regular business hours. It contains information concerning this station's performance during the last (*period of time covered by the application*).

Individuals who wish to advise the FCC of facts relating to our renewal application and to whether this station has operated in the public interest should file comments and petitions with the FCC by (*date first day of last full calendar month prior to the month of expiration).*

Further information concerning the FCC's broadcast license renewal process is available at (*address of location of the station's public inspection file*) or may be obtained from the FCC, Washington, DC 20554.

(A) An applicant who files for renewal of a low power TV station locally originating programming (as defined by § 74.701(h)) shall broadcast this announcement, except that statements indicating there is a public inspection file at the station containing the renewal application and other information on the license renewal process, shall be omitted.

(B) This announcement shall be made during the following time periods:

(*1*) For commercial TV stations—at least two of the required announcements between 6 p.m. and 11 p.m. (5 p.m. and 10 p.m. Central and Mountain Time).

(*2*) For commercial radio stations—at least two of the required announcements between 7 a.m. and 9 a.m. and/or 4 p.m. and 6 p.m. For stations which neither operate between 7 a.m. and 9 a.m. nor between 4 p.m. and 6 p.m., at least two of the required announcements shall be made during the first two hours of broadcast operation.

(*3*) For noncommercial educational stations, at the same time as commercial stations, except that such stations need not broadcast the announcement during any month during which the station does not operate.

(*4*) For low power TV stations locally originating programming (as defined by § 74.701(h)), at the same time as for commercial TV stations, or as close to that time as possible.

(ii) *Post-filing announcements.* During the period beginning of the date on which the renewal application is filed

to the sixteenth day of the next to last full calendar month prior to the expiration of the license, all applications for renewal of broadcast station licenses shall broadcast the following announcement on the 1st and 16th day of each calendar month. Stations broadcasting primarily in a foreign language should broadcast the announcements in that language.

On (*date of last renewal grant*) (*Station's call letters*) was granted a license by the Federal Communications Commission to serve the public interest as a public trustee until (*expiration date*).

Our license will expire on (*date*). We have filed an application for renewal with the FCC.

A copy of this application is available for public inspection during our regular business hours. It contains information concerning this station's performance during the last (*period of time covered by application*).

Individuals who wish to advise the FCC of facts relating to our renewal application and to whether this station has operated in the public interest should file comments and petitions with the FCC by (*date first day of last full calendar month prior to the month of expiration*).

Further information concerning the FCC's broadcast license renewal process is available at (*address of location of the station's public inspection file*) or may be obtained from the FCC, Washington, DC 20554.

(A) An applicant who files for renewal of a low power TV station locally originating programming (as defined by § 74.701(h)) shall broadcast this announcement, except that statements indicating there is a public inspection file at the station containing the renewal application and other information on the license renewal process, shall be omitted.

(B) This announcement shall be made during the following time periods:

(*1*) For commercial TV stations—at least three of the required announcements between 6 p.m. and 11 p.m. (5 p.m. and 10 p.m. Central and Mountain time), at least one announcement between 9 a.m. and 1 p.m., at least one announcement between 1 p.m. and 5 p.m., and at least one announcement between 5 p.m. and 7 p.m.

(*2*) For commercial radio stations—at least three of the required announcements between 7 a.m. and 9 a.m. and/or 4 p.m. and 6 p.m., at least one announcement between 9 a.m. and noon, at least one announcement between noon and 4 p.m., and at least one announcement between 7 p.m. and midnight. For stations which do not operate between 7 a.m. and 9 a.m. or between 4 p.m. and 6 p.m., at least three of the required announcements shall be made during the first two hours of broadcast operation.

(*3*) For noncommercial educational stations, at the same time as commercial stations, except that such stations need not broadcast the announcement during any month during which the station does not operate. In such instances noncommercial educational stations shall meet the requirements in the exact order specified in paragraph (d)(4)(ii)(A) (*1*) or (*2*) of this section (e.g., if only four renewal notices are broadcast by an educational TV licensee, 3 must be broadcast between 6 p.m. and 11 p.m. and the fourth between 9 a.m. and 1 p.m.).

(*4*) For low power TV stations locally originating programming (as defined by § 74.701(h)), at the same time as for commercial TV stations, or as close to that time as possible.

(iii) TV broadcast stations (commercial and noncommercial educational), in presenting the pre- and post-filing announcements, must use visuals with the licensee's and the FCC's addresses when this information is being orally presented by the announcer.

(iv) Stations which have not received a renewal grant since the filing of their previous renewal application, shall use the following first paragraph for the pre-filing and the post-filing announcements:

(*Station's call letters*) is licensed by the Federal Communications Commission to serve the public interest as a public trustee.

(e) When the station in question is the only operating station in its broadcast service which is located in the community involved, or if it is a noncommercial educational station, publication of the notice in a newspaper, as provided in paragraph (c) of this section is not required, and publication by broadcast over that station as provided in paragraph (d) of this section shall be deemed sufficient to meet the notice requirements of this section. Noncommercial educational broadcast stations which do not broadcast during

the portion of the year in which the period of broadcast of notice falls must comply with the provisions of paragraph (c) of this section.

(f) The notice required by paragraphs (c) and (d) of this section shall contain, when applicable, the following information, except as otherwise provided in paragraphs (d) (1) and (2) and (e) of this section in regard to renewal applications:

(1) The name of the applicant, if the applicant is an individual; the names of all partners, if the applicant is a partnership; or the names of all officers and directors and of those persons holding 10% or more of the capital stock or other ownership interest if the applicant is a corporation or an unincorporated association. (In the case of applications for assignment or transfer of control, information should be included for all parties to the application.)

(2) The purpose for which the application was or will be filed (such as, construction permit, modification, assignment or transfer of control).

(3) The date when the application or amendment was tendered for filing with the FCC.

(4) The call letters, if any, of the station, and the frequency or channel on which the station is operating or proposes to operate.

(5) In the case of an application for construction permit for a new station, the facilities sought, including type and class of station, power, location of studios, transmitter site and antenna height.

(6) In the case of an application for modification of a construction permit or license, the exact nature of the modification sought.

(7) In the case of an amendment to an application, the exact nature of the amendment.

(8) In the case of applications for a permit pursuant to Section 325(b) of the Communications Act (''* * * studios of foreign stations''), the call letters and location of the foreign radio broadcast station, the frequency or channel on which it operates, and a description of the programs to be transmitted over the station.

(9) A statement that a copy of the application, amendment(s), and related material are on file for public inspection at a stated address in the community in which the station is located or is proposed to be located. See §§ 73.3526 and 73.3527.

(g) An applicant who files for authorization or major modifications, or a major amendment thereto, for a low power TV, TV translator, TV booster, FM translator, or FM booster station, must give notice of this filing in a daily, weekly or biweekly newspaper of general circulation in the community or area to be served. Likewise, an applicant for assignment, transfer or renewal, or a major amendment thereto, for a low power TV, TV translator or FM translator station, must give this same type of newspaper notice. The filing notice will be given immediately following the tendering for filing of the application or amendment, or immediately following notification to the applicant by the FCC that public notice is required pursuant to §§ 73.3572, 73.3573, or 73.3578.

(1) Notice requirements for these applicants are as follows:

(i) In a newspaper at least one time; or

(ii) If there is no newspaper published or having circulation in the community or area to be served, the applicant shall determine an appropriate means of providing the required notice to the general public, such as posting in the local post office or other public place. The notice shall state:

(A) The name of the applicant, the community or area to be served, and the transmitter site.

(B) The purpose for which the application was filed.

(C) The date when the application or amendment was filed with the FCC.

(D) The output channel or channels on which the station is operating or proposes to operate and the power used or proposed to be used.

(E) In the case of an application for changes in authorized facilities, the nature of the changes sought.

(F) In the case of a major amendment to an application, the nature of the amendment.

(G) A statement, if applicable, that the station engages in or intends to engage in rebroadcasting, and the call letters, location and channel of operation of each station whose signals it is

rebroadcasting or intends to rebroadcast.

(H) A statement that invites comment from individuals who wish to advise the FCC of facts relating to the renewal application and whether the station has operated in the public interest.

(h) The applicant may certify in the appropriate application that it has or will comply with the public notice requirements contained in paragraphs (c), (d) or (g) of this section. However, an applicant for renewal of a license that is required to maintain a public inspection file, shall, within 7 days of the last day of broadcast of the required publication announcements, place in its public inspection file a statement certifying compliance with § 73.3580 along with the dates and times that the pre-filing and post-filing notices were broadcast and the text thereof. This certification need not be filed with the Commission but shall be retained in the public inspection file for as long as the application to which it refers.

(i) Paragraphs (a) through (h) of this section apply to major amendments to license renewal applications. See § 73.3578(a).

[44 FR 38504, July 2, 1979, as amended at 44 FR 65765, Nov. 15, 1979; 45 FR 6402, Jan. 28, 1980; 46 FR 36852, July 16, 1981; 47 FR 17066, Apr. 21, 1982; 49 FR 33664, Aug. 24, 1984; 49 FR 47844, Dec. 7, 1984; 50 FR 40015, Oct. 1, 1985; 52 FR 21686, June 9, 1987; 52 FR 31401, Aug. 20, 1987; 53 FR 26074, July 11, 1988; 57 FR 14647, Apr. 22, 1992; 58 FR 51251, Oct. 1, 1993]

§ 73.3584 Procedure for filing petitions to deny.

(a) Except in the case of applications for new low power TV, TV translator or TV booster stations, for major changes in the existing facilities of such stations, or for applications for a change in output channel tendered by displaced low power TV and TV translator stations pursuant to § 73.3572(a)(1), any party in interest may file with the Commission a Petition to Deny any application (whether as originally filed or if amended so as to require a new file number pursuant to §§ 73.3571(j), 73.3572(b), 73.3573(b), 73.3574(b) or 73.3578) for which local notice pursuant to § 73.3580 is required, provided such petitions are filed prior to the day such applications are granted or designated for hearing; but where the FCC issues a public notice pursuant to the provisions of §§ 73.3571(c), 73.3572(c) or § 73.3573(d), establishing a ''cut-off'' date, such petitions must be filed by the date specified. In the case of applications for transfers and assignments of construction permits or station licenses, Petitions to Deny must be filed not later than 30 days after issuance of a public notice of the acceptance for filing of the applications. In the case of applications for renewal of license, Petitions to Deny may be filed at any time up to the deadline established in § 73.3516(e). Requests for extension of time to file Petitions to Deny applications for new broadcast stations or major changes in the facilities of existing stations or applications for renewal of license will not be granted unless all parties concerned, including the applicant, consent to such requests, or unless a compelling showing can be made that unusual circumstances make the filing of a timely petition impossible and the granting of an extension warranted.

(b) Except in the case of applications for new low power TV or TV translator stations, or for major changes in the existing facilities of such stations, the applicant may file an opposition to any Petition to Deny, and the Petitioner a reply to such opposition in which allegations of fact or denials thereof shall be supported by affidavit of a person or persons with personal knowledge thereof. The times for filing such oppositions and replies shall be those provided in § 1.45 except that as to a Petition to Deny an application for renewal of license, an opposition thereto may be filed within 30 days after the Petition to Deny is filed, and the party that filed the Petition to Deny may reply to the opposition within 20 days after opposition is due or within 20 days after the opposition is filed, whichever is longer. The failure to file an opposition or a reply will not necessarily be construed as an admission of fact or argument contained in a pleading.

(c) In the case of applications for new low power TV, TV translator, or TV booster stations, for major changes in the existing facilities of such stations,

or for applications for a change in output channel tendered by displaced low power TV and TV translator stations pursuant to § 73.3572(a)(1), any party in interest may file with the FCC a Petition to Deny any applcation (whether as originally filed or if amended so as to require a new file number pursuant to § 73.3572(b)) for which local notice pursuant to § 73.3580 is required, provided such petitions are filed within 30 days of the FCC Public Notice proposing the application for grant (applicants may file oppositions within 15 days after the Petition to Deny is filed); but where the FCC selects a tentative permittee pursuant to Section 1.1601 *et seq.*, Petitions to Deny shall be accepted only if directed against the tentative selectee and filed after issuance of and within 15 days of FCC Public Notice announcing the tentative selectee. The applicant may file an opposition within 15 days after the Petition to Deny is filed. In cases in which the minimum diversity preference provided for in § 1.1623(f)(1) has been applied, an ''objection to diversity claim'' and opposition thereto, may be filed against any applicant receiving a diversity preference, within the same time period provided herein for Petitions and Oppositions. In all pleadings, allegations of fact or denials thereof shall be supported by appropriate certification. However, the FCC may announce, by the Public Notice announcing the acceptance of the last-filed mutually exclusive application, that a notice of Petition to Deny will be required to be filed no later than 30 days after issuance of the Public Notice.

(d) Untimely Petitions to Deny, as well as other pleadings in the nature of a Petition to Deny, and any other pleadings or supplements which do not lie as a matter of law or are otherwise procedurally defective, are subject to return by the FCC's staff without consideration.

[48 FR 27206, June 13, 1983, as amended at 52 FR 31401, Aug. 20, 1987; 53 FR 2499, Jan. 28, 1988; 55 FR 28914, July 16, 1990; 61 FR 18291, Apr. 25, 1996]

§ 73.3587 Procedure for filing informal objections.

Before FCC action on any application for an instrument of authorization, any person may file informal objections to the grant. Such objections may be submitted in letter form (without extra copies) and shall be signed. The limitation on pleadings and time for filing pleadings provided for in § 1.45 of the rules shall not be applicable to any objections duly filed under this section.

[44 FR 38507, July 2, 1979]

§ 73.3588 Dismissal of petitions to deny or withdrawal of informal objections.

(a) Whenever a petition to deny or an informal objection has been filed against any application, and the filing party seeks to dismiss or withdraw the petition to deny or the informal objection, either unilaterally or in exchange for financial consideration, that party must file with the Commission a request for approval of the dismissal or withdrawal, a copy of any written agreement related to the dismissal or withdrawal, and an affidavit setting forth:

(1) A certification that neither the petitioner nor its principals has received or will receive any money or other consideration in excess of legitimate and prudent expenses in exchange for the dismissal or withdrawal of the petition to deny;

(2) The exact nature and amount of any consideration received or promised;

(3) An itemized accounting of the expenses for which it seeks reimbursement; and

(4) The terms of any oral agreement related to the dismissal or withdrawal of the petition to deny.

In addition, within 5 days of petitioner's request for approval, each remaining party to any written or oral agreement must submit an affidavit setting forth:

(5) A certification that neither the applicant nor its principals had paid or will pay money or other consideration in excess of the legitimate and prudent expenses of the petitioner in exchange for dismissing or withdrawing the petition to deny; and

(6) The terms of any oral agreement relating to the dismissal or withdrawal of the petition to deny.

(b) Citizens' agreements. For purposes of this section, citizens agreements include agreements arising whenever a petition to deny or informal objection has been filed against any application and the filing party seeks to dismiss or withdraw the petition or objection in exchange for nonfinancial consideration (*e.g.*, programming, ascertainment or employment initiatives). The parties to such an agreement must file with the Commission a joint request for approval of the agreement, a copy of any written agreement, and an affidavit executed by each party setting forth:

(1) Certification that neither the petitioner, nor any person or organization related to the petitioner, has received or will receive any money or other consideration in connection with the citizens' agreement other than legitimate and prudent expenses incurred in prosecuting the petition to deny;

(2) Certification that neither the petitioner, nor any person or organization related to petitioner is or will be involved in carrying out, for a fee, any programming, ascertainment, employment or other non-financial initiative referred to in the citizens' agreement; and

(3) The terms of any oral agreement.

(c) For the purposes of this section:

(1) Affidavits filed pursuant to this section shall be executed by the applicant, permittee or licensee, if an individual; a partner having personal knowledge of the facts, if a partnership; or an officer having personal knowledge of the facts, if a corporation or association.

(2) A petition shall be deemed to be pending before the Commission from the time a petition is filed with the Commission until an order of the Commission granting or denying the petition is no longer subject to reconsideration by the Commission or to review by any court.

(3) ''Legitimate and prudent expenses'' are those expenses reasonably incurred by a petitioner in preparing, filing, and prosecuting its petition for which reimbursement is being sought.

(4) ''Other consideration'' consists of financial concessions, including but not limited to the transfer of assets or the provision of tangible pecuniary benefit, as well as non-financial concessions that confer any type of benefit on the recipient.

[54 FR 22598, May 25, 1989. Redesignated and amended at 55 FR 28914, July 16, 1990]

§ 73.3589 Threats to file petitions to deny or informal objections.

(a) No person shall make or receive any payments in exchange for withdrawing a threat to file or refraining from filing a petition to deny or an informal objection. For the purposes of this section, reimbursement by an applicant of the legitimate and prudent expenses of a potential petitioner or objector incurred reasonably and directly in preparing to file a petition to deny will not be considered to be payment for refraining from filing a petition to deny or informal objection. Payments made directly to a potential petitioner or objector, or a person related to a potential petitioner or objector, to implement nonfinancial promises are prohibited unless specifically approved by the Commission.

(b) Whenever any payment is made in exchange for withdrawing a threat to file or refraining from filing a petition to deny or informal objection, the licensee must file with the Commission a copy of any written agreement related to the dismissal or withdrawal, and an affidavit setting forth:

(1) Certification that neither the would-be petitioner, nor any person or organization related to the would-be petitioner, has received or will receive any money or other consideration in connection with the citizens' agreement other than legitimate and prudent expenses reasonably incurred in preparing to file the petition to deny;

(2) Certification that unless such arrangement has been specifically approved by the Commission, neither the would-be petitioner, nor any person or organization related to the would-be petitioner, is or will be involved in carrying out, for a fee, any programming ascertainment, employment or other nonfinancial initiative referred to in the citizens' agreement; and

(3) The terms of any oral agreement.

(c) For purposes of this section:

(1) Affidavits filed pursuant to this section shall be executed by the licensee, if an individual; a partner having personal knowledge of the facts, if a partnership; or an officer having personal knowledge of the facts, if a corporation or association.

(2) ''Legitimate and prudent expenses'' are those expenses reasonably incurred by a would-be petitioner in preparing to file its petition for which reimbursement is being sought.

(3) ''Other consideration'' consists of financial concessions, including but not limited to the transfer of assets or the provision of tangible pecuniary benefit, as well as non-financial concessions that confer any type of benefit on the recipient.

[55 FR 28914, July 16, 1990]

§ 73.3591 Grants without hearing.

(a) Except for renewal applications filed after May 1, 1995 which will be subject to paragraph (d) of this section, in the case of any application for an instrument of authorization, other than a license pursuant to a construction permit, the FCC will make the grant if it finds (on the basis of the application, the pleadings filed or other matters which it may officially notice) that the application presents no substantial and material question of fact and meets the following requirements:

(1) There is not pending a mutually exclusive application filed in accordance with paragraph (b) of this section;

(2) The applicant is legally, technically, financially, and otherwise qualified;

(3) The applicant is not in violation of provisions of law, the FCC rules, or established policies of the FCC; and

(4) A grant of the application would otherwise serve the public interest, convenience and necessity.

(b) In making its determinations pursuant to the provisions of paragraph (a) of this section, the FCC will not consider any other application, or any application if amended so as to require a new file number, as being mutually exclusive or in conflict with the application under consideration unless such other application was substantially complete, and tendered for filing by:

(1) The close of business on the day preceding the day designated by Public Notice as the day the listed application is to be available and ready for processing;

(2) The date prescribed in § 73.3516(e) in the case of applications which are mutually exclusive with applications for renewal of license of broadcast stations; or

(3) The close of business on the day designated by the FCC pursuant to § 73.3564(d) as the date(s) for filing low power TV or TV translator applications.

(c) If a petition to deny the application has been filed in accordance with § 73.3584 and the FCC makes the grant in accordance with paragraph (a) of this section, the FCC will deny the petition and issue a concise statement setting forth the reasons for denial and disposing of all substantial issues raised by the petition.

(d) Renewal applications filed after May 1, 1995 will be governed by the criteria established in 47 U.S.C. § 309(k).

[44 FR 38507, July 2, 1979, as amended at 50 FR 47844, Dec. 7, 1984; 59 FR 31557, June 20, 1994; 61 FR 18291, Apr. 25, 1996]

§ 73.3592 Conditional grant.

(a) Where a grant of an application would preclude the grant of any application or applications mutually exclusive with it, the FCC may, if the public interest will be served thereby, make a conditional grant of one of the applications and designate all of the mutually exclusive applications for hearing. Such conditional grant will be made upon the express condition that such grant is subject to being withdrawn if, at the hearing, it is shown that public interest will be better served by a grant of one of the other applications. Such conditional grants will be issued only where it appears:

(1) That some or all of the applications were not filed in good faith but were filed for the purpose of delaying or hindering the grant of another application; or

(2) That public interest requires the prompt establishment of broadcast service in a particular community or area; or

(3) That a grant of one or more applications would be in the public interest, and that a delay in making a grant to

any applicant until after the conclusion of a hearing on all applications might jeopardize the rights of the United States under the provisions of international agreement to the use of the frequency in question; or

(4) That a grant of one application would be in the public interest, and that it appears from an examination of the remaining applications that they cannot be granted because they are in violation of provisions of the Communications Act, other statutes, or the provisions of the FCC rules.

(b) When two or more applications for the same AM, FM or TV assignment have been designated for hearing, the FCC may, if the public interest will be served thereby, make a conditional grant to a group composed of any two or more of the competing applicants, such grant to terminate when the successful applicant commences operation under the terms of a regular authorization. No conditional grant will be made unless all of the competing applicants have been afforded a reasonable opportunity to participate in the group seeking the conditional grant. In its application, the group shall include a special showing as to the need for the service pending operation by the successful applicant under the terms of a regular authorization; the effect, if any, of a grant on the position of any applicant which is not a member of the group; and any other factors which are deemed pertinent to the public interest judgment.

[44 FR 38507, July 2, 1979]

§ 73.3593 Designation for hearing.

If the FCC is unable, in the case of any application for an instrument of authorization, to make the findings specified in § 73.3591(a), it will formally designate the application for hearing on the grounds or reasons then obtaining and will forthwith notify the applicant and all known parties in interest of such action and the grounds and reasons therefor, specifying with particularity the matters and things in issue but not including issues or requirements phrased generally.

[44 FR 38508, July 2, 1979]

§ 73.3594 Local public notice of designation for hearing.

(a) Except as otherwise provided in paragraph (c) of this section when an application subject to the provisions of § 73.3580 (except for applications for International broadcast, low power TV, TV translator, FM translator, and FM booster stations) is designated for hearing, the applicant shall give notice of such designation as follows: Notice shall be given at least twice a week, for 2 consecutive weeks within the 3-week period immediately following release of the FCC's order, specifying the time and place of the commencement of the hearing, in a daily newspaper of general circulation published in the community in which the station is located or proposed to be located.

(1) However, if there is no such daily newspaper published in the community, the notice shall be given as follows:

(i) If one or more weekly newspapers of general circulation are published in the community in which the station is located or proposed to be located, notice shall be given in such a weekly newspaper once a week for 3 consecutive weeks within the 4-week period immediately following the release of the FCC's order, specifying the time and place of the commencement of the hearing;

(ii) If no weekly newspaper of general circulation is published in the community in which the station is located or proposed to be located, notice shall be given at least twice a week for 2 consecutive weeks within the 3-week period immediately following the release of the FCC's orders, specifying the time and place of the commencement of the hearing in the daily newspaper having the greatest general circulation in the community in which the station is located or proposed to be located.

(2) In the case of an application for a permit pursuant to Section 325(c) of the Communications Act, the notice shall be given at least twice a week for 2 consecutive weeks within the 3-week period immediately following release of the FCC's order, specifying the time and place of the commencement of the hearing in a daily newspaper of general circulation in the largest city in the

principal area to be served in the United States by the foreign radio broadcast station.

(3) In the case of an application for change in the location of a station, the notice shall be given both in the community in which the station is located and in the community in which the station is proposed to be located.

(b) When an application which is subject to the provisions of § 73.3580 and which seeks modification, assignment, transfer, or renewal of an operating broadcast station is designated for hearing (except for applications for an International broadcast, low power TV, TV translator, FM translator, or FM booster stations), the applicant shall, in addition to giving notice of such designation as provided in paragraph (a) of this section, cause the same notice to be broadcast over that station at least once daily for 4 days in the second week immediately following the release of the FCC's order, specifying the time and place of the commencement of the hearing. In the case of both commercial and noncommercial TV broadcast stations such notice shall be broadcast orally with the camera focused on the announcer. The notice required by this paragraph shall be broadcast during the following periods:

(1) For commercial TV stations, between 7:00 p.m. and 10:00 p.m.

(2) For commercial AM and FM stations, between 7:00 a.m. and 10:00 a.m., but if such stations do not operate during those hours, then between 6:00 p.m. and 9:00 p.m.

(3) For noncommercial educational TV stations, between 7:00 p.m. and 10:00 p.m., but if the period of broadcast of notice falls within a portion of the year during which such stations do not broadcast, then such stations need not comply with the provisions of this paragraph.

(4) For noncommercial educational AM and FM stations, between 3:00 p.m. and 10:00 p.m., but if the period of broadcast of notice falls within a portion of the year during which such stations do not broadcast, then such stations need not comply with the provisions of this paragraph.

(c) If the station in question is the only operating station in its broadcast service which is located in the community involved, or if it is a noncommerical educational station, publication of the notice in a newspaper, as provided in paragraph (a) of this section, is not required, and publication by broadcast over that station as provided in paragraph (b) of this section shall be deemed sufficient to meet the requirements of paragraphs (a) and (b) of this section. However, noncommercial educational stations which do not broadcast during the portion of the year in which the period of broadcast of notice falls must comply with the provisions of paragraph (a) of this section.

(d) The notice required by paragraphs (a) and (b) of this section shall state:

(1) The name of the applicant or applicants designated for hearing.

(2) The call letters, if any, of the stations or stations involved, and the frequencies or channels on which the station or stations are operating or proposed to operate.

(3) The time and place of the hearing.

(4) The issues in the hearing as listed in the FCC's order or summary of designation for hearing.

(5) A statement that a copy of the application, amendment(s), and related material are on file for public inspection at a stated address in the community in which the station is located or is proposed to be located. See §§ 73.3526 and 73.3527.

(e) When an application for renewal of license is designated for hearing, the notice shall contain the following additional statements:

(1) Immediately preceding the listing of the issues in the hearing:

The application of this station for a renewal of its license to operate this station in the public interest was tendered for filing with the Federal Communications Commission on (*date*). After considering this application, the FCC has determined that it is necessary to hold a hearing to decide the following questions:

(2) Immediately following the listing of the issues in the hearing:

The hearing will be held at (*place of hearing*) commencing at (*time*), on (*date*). Members of the public who desire to give evidence concerning the foregoing issues should write to the Federal Communications Commission, Washington, DC 20554, not later than (*date*). Letters should set forth in detail the specific facts concerning which the writer wishes to

give evidence. If the FCC believes that the evidence is legally competent, material, and relevant to the issues, it will contact the person in question.

(Here the applicant shall insert, as the date on or before which members of the public who desire to give evidence should write to the FCC, the date 30 days after the date of release of the FCC's order specifying the time and place of the commencement of the hearing.)

(f) When an application for a low power TV, TV translator, FM translator, or FM booster station which is subject to the provisions of § 73.3580 is designated for hearing, the applicant shall give notice of such designation as follows: Notice shall be given at least once during the 2-week period immediately following release of the FCC's order, specifying the time and place of the commencement of the hearing in a daily, weekly or biweekly publication having general circulation in the community or area to be served. However, if there is no publication of general circulation in the community or area to be served, the applicant shall determine an appropriate means of providing the required notice to the general public, such as posting in the local post office or other public place. The notice shall state:

(1) The name of the applicant or applicants designated for hearing.

(2) The call letters, if any, of the station or stations involved, the output channel or channels of such stations, and, for any rebroadcasting, the call letters, channel and location of the station or stations being or proposed to be rebroadcast.

(3) The time and place of the hearing.

(4) The issues in the hearing as listed in the FCC's order or summary of designation for hearing.

(5) If the application is for renewal of license, the notice shall contain, in addition to the information required by paragraphs (f) (1) through (4) of this section, the statements required by paragraph (e) of this section.

(g) Within 7 days of the last day of publication or broadcast of the notice required by paragraphs (a) and (b) of this section, the applicant shall file a statement in triplicate with the FCC setting forth the dates on which the notice was published, the newspaper in which the notice was published, the text of the notice, and/or, where applicable, the date and time the notice was broadcast and the text thereof. When public notice is given by other means, as provided in pararaph (f) of this section, the applicant shall file, within 7 days of the giving of such notice, the text of the notice, the means by which it was accomplished, and the date thereof.

(h) The failure to comply with the provisions of this section is cause for dismissal of an application with prejudice. However, upon a finding that applicant has complied (or proposes to comply) with the provisions of Section 311(a)(2) of the Communications Act, and that the public interest, convenience and necessity will be served thereby, the presiding officer may authorize an applicant, upon a showing of special circumstances, to publish notice in a manner other than that prescribed by this section; may accept publication of notice which does not conform strictly in all respects with the provisions of this section; or may extend the time for publishing notice.

[44 FR 38508, July 2, 1979, as amended at 47 FR 21495, May 18, 1982; 48 FR 9012, Mar. 3, 1983; 49 FR 38132, Sept. 27, 1984; 51 FR 19347, May 29, 1986; 52 FR 21686, June 9, 1987; 58 FR 51251, Oct. 1, 1993]

§ 73.3597 Procedures on transfer and assignment applications.

(a) If, upon the examination of an application for FCC consent to an assignment of a broadcast construction permit or license or for a transfer of control of a corporate permittee or licensee, it appears that the station involved has been operated on-air by the current licensee or permittee for less than one year, the application will be designated for hearing on appropriate issues unless the FCC is able to find that:

(1) The permit or license was not authorized either through the Minority Ownership Policy or after a comparative hearing or, in the case of low power TV and TV translator stations, the permit or license was not authorized after a lottery in which the permittee or licensee benefited from minority or diversity preferences;

(2) The application involves an FM translator station or FM booster station only;

(3) The application involves a *pro forma* assignment or transfer of control; or

(4) The assignor or transferor has made an affirmative factual showing, supported by affidavits of a person or persons with personal knowledge thereof, which establishes that, due to unavailability of capital, to death or disability of station principals, or to other changed circumstances affecting the licensee or permittee occurring subsequent to the acquisition of the license or permit, FCC consent to the proposed assignment or transfer of control will serve the public interest, convenience and necessity.

(5) the assignee or transferee has made an affirmative factual showing, supported by affidavits of a person or persons with personal knowledge thereof, which established that the proposed transaction would involve an assignment or transfer to a minority-owned or minority controlled entity in furtherance of our Minority Ownership Policy.

(b)(1) The commencement date of the one-year period set forth in paragraph (a) of this section shall be the date on which the station initiated program tests in accordance with § 73.1620 or § 74.14.

(2) In determining whether the station has been operating on-air for one year, the FCC will calculate the period between the date of initiation of program tests (as specified in paragraph (b)(1) of this section) and the date the application for transfer or assignment is tendered for filing with the FCC.

(c)(1) As used in paragraphs (c) and (d) of this section:

(i) *Unbuilt station* refers to an AM, FM, or TV broadcast station or a low power TV or TV translator station for which a construction permit is outstanding, and, regardless of the stage of physical completion, as to which program tests have not commenced or, if required, been authorized.

(ii) *Seller* includes the assignor(s) of a construction permit for an unbuilt station, the transferor(s) of control of the holder of such construction permit, and any principal or such assignor(s) or transferor(s) who retains an interest in the permittee or acquires or reacquires such interest within 1 year after commencing program tests.

(2) The FCC will not consent to the assignment or transfer of control of the construction permit of an unbuilt station if the agreements or understandings between the parties provide for, or permit, payment to the seller of a sum in excess of the aggregate amount clearly shown to have been legitimately and prudently expended and to be expended by the seller, solely for preparing, filing, and advocating the grant of the construction permit for the station, and for other steps reasonably necessary toward placing the station in operation.

(3)(i) Applications for consent to the assignment of a construction permit or transfer of control shall, in the case of unbuilt stations, be accompanied by declarations both by the assignor (or transferor) and by the assignee (or transferee) that, except as clearly disclosed in detail in the applications, there are no agreements or understandings for reimbursement of the seller's expenses or other payments to the seller, for the seller's retention of any interest in the station, for options or any other means by which the seller may acquire such an interest, or for any other actual or potential benefit to the seller in the form of loans, the subsequent repurchase of the seller's retained interest, or otherwise.

(ii) When the seller is to receive reimbursement of his expenses, the applications of the parties shall include an itemized accounting of such expenses, together with such factual information as the parties rely upon for the requisite showing that those expenses represent legitimate and prudent outlays made solely for the purposes allowable under paragraph (c)(2) of this section.

(d)(1) Whenever an agreement for the assignment of the construction permit of an unbuilt station or for the transfer of control of the permittee of an unbuilt station, or any arrangement or understanding incidental thereto, provides for the retention by the seller of any interest in the station, or for any other actual or potential benefit to the seller in the form of loans or otherwise, the question is raised as to whether the

transaction involves actual or potential gain to the seller over and above the legitimate and prudent out-of-pocket expenses allowable under paragraph (c)(2) of this section. In such cases the FCC will designate the assignment or transfer applications for evidentiary hearing. However, a hearing is not mandatory in cases coming within paragraph (d)(2) of this section.

(2) It is not intended to forbid the seller to retain an equity interest in an unbuilt station which he is transferring or assigning if the seller obligates himself, for the period ending 1 year after commencing program tests, to provide that part of the total capital made available to the station, up to the end of that period, which is proportionate to the seller's equity share in the permittee, taking into account equity capital, loan capital, and guarantees of interest and amortization payments for loan capital provided by the seller before the transfer or assignment. This condition will be satisfied:

(i) In the case of equity capital: By paid-in cash capital contributions proportionate to the seller's equity share;

(ii) In cases where any person who has an equity interest in the permittee provides loan capital: By the seller's provision of that part of the total loan capital provided by equity holders which is proportionate to the seller's equity share; and

(iii) In cases where any person cosigns or otherwise guarantees payments under notes given for loan capital provided by nonequity holders: By similar guarantees by the seller covering that part of such payments as is proportionate to the seller's equity share. However, this condition shall not be deemed to be met if the guarantees given by persons other than the seller cover, individually or collectively, a larger portion of such payments than the ratio of the combined equities of persons other than the seller to the total equity.

(3) In cases which are subject to the requirements of paragraphs (d)(2) (i), (ii) and (iii) of this section:

(i) The assignee's (or transferee's) application shall include a showing of the anticipated capital needs of the station through the first year of its operation and the seller's financial capacity to comply with the above requirements, in the light of such anticipated capital needs.

(ii) The FCC will determine from its review of the applications whether a hearing is necessary to ensure compliance with the above requirements.

(iii) Compliance with the above requirements will be subject to review by the FCC at any time, either when considering subsequently filed applications or whenever the FCC may otherwise find it desirable.

(iv) Within 30 days after any time when a seller is required to provide equity or loan capital or execute guarantees, the permittee shall furnish the FCC a written report containing sufficient details as to the sources and amounts of equity capital paid in, loan capital made available, or guarantees obtained as to enable the FCC to ascertain compliance with the above requirements.

(v) No steps shall be taken by the permittee to effectuate arrangements for the provision of equity or loan capital from sources not previously identified and disclosed to the FCC, until 30 days after the permittee has filed with the FCC a report of such arrangements and of provisions made for the seller's compliance with the above requirement.

(vi) The provisions of paragraphs (d)(3) (iv) and (v) of this section shall cease to apply 1 year after commencing program tests.

(4) Applications subject to this paragraph (d) of this section will, in any event, be designated for evidentiary hearing in any case where the agreements, arrangements or understandings with the seller provide for the seller's option to acquire equity in the station or to increase equity interests he retains at the time of the assignment or transfer of control. An evidentiary hearing will similarly be held in any case in which the assignee(s), transferee(s) or any of their principals, or any person in privity therewith, has an option to purchase all or part of the

seller's retained or subsequently acquired equity interests in the station.

[44 FR 38509, July 2, 1979, as amended at 47 FR 24580, June 7, 1982; 47 FR 55930, Dec. 14, 1982; 48 FR 9012, Mar. 3, 1983; 48 FR 27207, June 13, 1983; 50 FR 6946, Feb. 19, 1985; 53 FR 36787, Sept. 22, 1988]

§ 73.3598 Period of construction.

(a) *TV broadcast stations.* Each original construction permit for the construction of a new TV broadcast station, or to make changes in an existing station, shall specify a period of no more than 24 months from the date of issuance of the original construction permit within which construction shall be completed and application for license filed.

(b) *Other broadcast, auxiliary and Instructional TV Fixed Stations.* Each original permit for the construction of a new AM, FM or International Broadcast; low power TV; TV translator; TV booster; FM translator; FM booster; broadcast auxiliary; or Instructional TV Fixed station, or to make changes in such existing stations, shall specify a period of no more than 18 months from the date of issuance of the original construction permit within which construction shall be completed and application for licensed be filed.

(c) An existing AM station operating in the 535–1605 kHz band that receives a conditional permit to operate in the 1605–1705 kHz band; such permit shall specify a period of not more than 18 months from the date of issuance of the original construction permit within which construction shall be completed and application for license filed.

[50 FR 52779, Dec. 26, 1985, as amended at 52 FR 11656, Apr. 10, 1987; 52 FR 31402, Aug. 20, 1987; 56 FR 64874, Dec. 12, 1991]

§ 73.3599 Forefeiture of construction permit.

A construction permit shall be declared forfeited if the station is not ready for operation within the time specified therein or within such further time as the FCC may have allowed for completion, and a notation of the forefeiture of any construction permit under this provision will be placed in the records of the FCC as of the expiration date.

[50 FR 52779, Dec. 26, 1985]

§ 73.3601 Simultaneous modification and renewal of license.

When an application is granted by the FCC necessitating the issuance of a modified license less than 60 days prior to the expiration date of the license sought to be modified, and an application for renewal of the license is granted subsequent or prior thereto (but within 30 days of expiration of the present license), the modified license as well as the renewal license shall be issued to conform to the combined action of the FCC.

[44 FR 38511, July 2, 1979]

§ 73.3603 Special waiver procedure relative to applications.

(a) In the case of any broadcast applications designated for hearing, the parties may request the FCC to grant or deny an application upon the basis of the information contained in the applications and other papers specified in paragraph (b) of this section without the presentation of oral testimony. Any party desiring to follow this procedure should execute and file with the FCC a waiver in accordance with paragraph (e) of this section, and serve copies on all other parties, or a joint waiver may be filed by all the parties. Upon the receipt of waivers from all parties to a proceeding, the FCC will decide whether the case is an appropriate one for determination without the presentation of oral testimony. If it is determined by the FCC that, notwithstanding the waivers, the presentation of oral testimony is necessary, the parties will be so notified and the case will be retained on the hearing docket. If the FCC concludes that the case can appropriately be decided without the presentation of oral testimony, the record will be considered as closed as of the date the waivers of all the parties were first on file with the FCC.

(b) In all cases considered in accordance with this procedure, the FCC will decide the case on the basis of the information contained in the applications and in any other papers pertaining to the applicants or applications

which are open to public inspection and which were on file with the FCC when the record was closed. The FCC may call upon any party to furnish any additional information which the FCC deems necessary to a proper decision. Such information shall be served upon all parties. The waiver previously executed by the parties shall be considered in effect unless within 10 days of the service of such information the waiver is withdrawn.

(c) Any decision by the FCC rendered pursuant to this section will be in the nature of a final decision, unless otherwise ordered by the FCC.

(d) By agreeing to the waiver procedure prescribed in this section, no party shall be deemed to waive the right to petition for reconsideration or rehearing, or to appeal to the courts from any adverse final decision of the FCC.

(e) The waiver provided for by this section shall be in the following form:

WAIVER

Name of applicant .....
Call letters .....
Docket No. .....

The undersigned hereby requests the FCC to consider its application and grant or deny it in accordance with the procedure prescribed in § 73.3603 of the FCC's rules and regulations. It is understood that all the terms and provisions of ——— are incorporated in this waiver.

[44 FR 38511, July 2, 1979]

§ 73.3605 Retention of applications in hearing status after designation for hearing.

(a) After an application for a broadcast facility is designated for hearing, it will be retained in hearing status upon the dismissal or amendment and removal from hearing of any other application or applications with which it has been consolidated for hearing.

(b) Where any applicants for a broadcast facility file a request pursuant to § 73.3525(a) for approval of an agreement to remove a conflict between their applications, the applications will be retained in hearing status pending such proceedings on the joint request as may be ordered and such action thereon as may be taken.

(1) If further hearing is not required on issues other than those arising out of the agreement, the proceeding shall be terminated and appropriate disposition shall be made of the applications.

(2) Where further hearing is required on issues unrelated to the agreement, the presiding officer shall continue to conduct the hearing on such other issues pending final action on the agreement, but the record in the proceeding shall not be closed until such final action on the agreement has been taken.

(3) In any case where a conflict between applications will be removed by an agreement for an engineering amendment to an application, the amended application shall be removed from hearing status upon final approval of the agreement and acceptance of the amendment.

(c) An application for a broadcast facility which has been designated for hearing and which is amended so as to eliminate the need for hearing or further hearing on the issues specified, other than as provided for in paragraph (b) of this section, will be removed from hearing status.

[44 FR 38511, July 2, 1979]

§ 73.3612 Annual employment report.

Each licensee or permittee of a commercially or noncommercially operated AM, FM, TV or International broadcast station with five or more fulltime employees shall file an annual employment report with the FCC on or before May 31 of each year on FCC Form 395.

[44 FR 38511, July 2, 1979]

§ 73.3613 Filing of contracts.

Each licensee or permittee of a commercial or noncommercial AM, FM, TV or International broadcast station shall file with the FCC copies of the following contracts, instruments, and documents together with amendments, supplements, and cancellations (with the substance of oral contracts reported in writing), within 30 days of execution thereof:

(a) Network service: Network affiliation contracts between stations and networks will be reduced to writing and filed as follows:

(1) All network affiliation contracts, agreements, or understandings between

a TV broadcast or low power TV station and a national network. For the purposes of this paragraph the term network means any person, entity, or corporation which offers an interconnected program service on a regular basis for 15 or more hours per week to at least 25 affiliated television licensees in 10 or more states; and/or any person, entity, or corporation controlling, controlled by, or under common control with such person, entity, or corporation.

(2) Each such filing on or after May 1, 1969, initially shall consist of a written instrument containing all of the terms and conditions of such contract, agreement or understanding without reference to any other paper or document by incorporation or otherwise. Subsequent filings may simply set forth renewal, amendment or change, as the case may be, of a particular contract previously filed in accordance herewith.

(3) The FCC shall also be notified of the cancellation or termination of network affiliations, contracts for which are required to be filed by this section.

(b) Ownership or control: Contracts, instruments or documents relating to the present or future ownership or control of the licensee or permittee or of the licensee's or permittee's stock, rights or interests therein, or relating to changes in such ownership or control shall include but are not limited to the following:

(1) Articles of partnership, association, and incorporation, and changes in such instruments;

(2) Bylaws, and any instruments effecting changes in such bylaws;

(3) Any agreement, document or instrument providing for the assignment of a license or permit, or affecting, directly or indirectly, the ownership or voting rights of the licensee's or permittee's stock (common or preferred, voting or nonvoting), such as:

(i) Agreements for transfer of stock;

(ii) Instruments for the issuance of new stock; or

(iii) Agreements for the acquisition of licensee's or permittee's stock by the issuing licensee or permittee corporation. Pledges, trust agreements, options to purchase stock and other executory agreements are required to be filed. However, trust agreements or abstracts thereof are not required to be filed, unless requested specifically by the FCC. Should the FCC request an abstract of the trust agreement in lieu of the trust agreement, the licensee or permittee will submit the following information concerning the trust:

(A) Name of trust;

(B) Duration of trust;

(C) Number of shares of stock owned;

(D) Name of beneficial owner of stock;

(E) Name of record owner of stock;

(F) Name of the party or parties who have the power to vote or control the vote of the shares; and

(G) Any conditions on the powers of voting the stock or any unusual characteristics of the trust.

(4) Proxies with respect to the licensee's or permittee's stock running for a period in excess of 1 year, and all proxies, whether or not running for a period of 1 year, given without full and detailed instructions binding the nominee to act in a specified manner. With respect to proxies given without full and detailed instructions, a statement showing the number of such proxies, by whom given and received, and the percentage of outstanding stock represented by each proxy shall be submitted by the licensee or permittee within 30 days after the stockholders' meeting in which the stock covered by such proxies has been voted. However, when the licensee or permittee is a corporation having more than 50 stockholders, such complete information need be filed only with respect to proxies given by stockholders who are officers or directors, or who have 1% or more of the corporation's voting stock. When the licensee or permittee is a corporation having more than 50 stockholders and the stockholders giving the proxies are not officers or directors or do not hold 1% or more of the corporation's stock, the only information required to be filed is the name of any person voting 1% or more of the stock by proxy, the number of shares voted by proxy by such person, and the total number of shares voted at the particular stockholders' meeting in which the shares were voted by proxy.

(5) Mortgage or loan agreements containing provisions restricting the licensee's or permittee's freedom of operation, such as those affecting voting rights, specifying or limiting the amount of dividends payable, the purchase of new equipment, or the maintenance of current assets.

(6) Any agreement reflecting a change in the officers, directors or stockholders of a corporation, other than the licensee or permittee, having an interest, direct or indirect, in the licensee or permittee as specified by § 73.3615.

(c) Personnel: (1) Management consultant agreements with independent contractors; contracts relating to the utilization in a management capacity of any person other than an officer, director, or regular employee of the licensee or permittee; station management contracts with any persons, whether or not officers, directors, or regular employees, which provide for both a percentage of profits and a sharing in losses; or any similar agreements.

(2) The following contracts, agreements, or understandings need not be filed: Agreements with persons regularly employed as general or station managers or salesmen; contracts with program managers or program personnel; contracts with attorneys, accountants or consulting radio engineers; contracts with performers; contracts with station representatives; contracts with labor unions; or any similar agreements.

(d) Time brokerage agreements: Time brokerage agreements involving radio stations, where the licensee (including all parties under common control) is the brokering entity, there is a principal community contour (predicted or measured 5 mV/m groundwave for AM stations and predicted 3.16 mV/m for FM stations) overlap with the brokered station, and more than 15 percent of the time of the brokered station, on a weekly basis, is brokered by that licensee. Confidential or proprietary information may be redacted where appropriate but such information shall be made available for inspection upon request by the FCC.

(e) The following contracts, agreements or understandings need not be filed but shall be kept at the station and made available for inspection upon request by the FCC: contracts relating to the sale of television broadcast time to ''time brokers'' for resale; subchannel leasing agreements for Subsidiary Communications Authorization operation; franchise/leasing agreements for operation of telecommunications services on the TV vertical blanking interval and in the visual signal; time sales contracts with the same sponsor for 4 or more hours per day, except where the length of the events (such as athletic contests, musical programs and special events) broadcast pursuant to the contract is not under control of the station; and contracts with chief operators.

[44 FR 38512, July 2, 1979, as amended at 47 FR 21496, May 18, 1982; 50 FR 4664, Feb. 1, 1985; 50 FR 30951, July 31, 1985; 51 FR 9966, Mar. 24, 1986; 51 FR 15785, Apr. 28, 1986; 57 FR 18093, Apr. 29, 1992; 57 FR 42706, Sept. 16, 1992; 61 FR 36305, July 10, 1996]

§ 73.3615 Ownership reports.

(a) With the exception of sole proprietorships and partnerships composed entirely of natural persons, each licensee of a commercial AM, FM, or TV broadcast station shall file an Ownership Report on FCC Form 323 once a year, on the anniversary of the date that its renewal application is required to be filed. Licensees owning multiple stations with different anniversary dates need file only one Report per year on the anniversary of their choice, provided that their Reports are not more than one year apart. A licensee with a current and unamended Report on file at the Commission may certify that it has reviewed its current Report and that it is accurate, in lieu of filing a new Report. Ownership Reports shall provide the following information as of a date not more than 60 days prior to the filing of the Report:

(1) In the case of an individual, the name of such individual;

(2) In the case of a partnership, the name of each partner and the interest of each partner. Except as specifically noted below, the names of limited partners shall be reported. A limited partner need not be reported, regardless of the extent of its ownership, if the

limted partner is not materially involved, directly or indirectly, in the management or operation of the licensee and the licensee so certifies.

(i) Any change in partners or in their rights will require prior consent of the FCC upon an application for consent to assignment of license or permit. If such change involves less than a controlling interest, the application for FCC consent to such changes may be made upon FCC Form 316.

(ii) [Reserved]

(3) In the case of a corporation, association, trust, estate or receivership, the data applicable to each:

(i)(A) The name, residence, citizenship, and stockholding of every officer, director, trustee, executor, administrator, receiver and member of an association, and any stockholder which holds stock accounting for 5 percent or more of the votes of the corporation, except that an investment company, insurance company, or bank trust department need be reported only if it holds stock amounting to 10 percent or more of the votes, provided that the licensee certifies that such entity has made no attempt to influence, directly or indirectly, the management or operation of the licensee, and that there is no representation on the licensee's board or among its officers by any person professionally or otherwise associated with the entity.

(B) A licensee shall report any separate interests known to the licensee to be held ultimately by the same individual or entity, whether those interests are held in custodial accounts, by individual holding corporations or otherwise, if, when aggregated:

(*1*) The sum of all interests except those held by or through ''passive investors'' is equal to or exceeds 5 percent; or

(*2*) The sum of all interests held by or through ''passive investors'' is equal to or exceeds 10 percent; or

(*3*) The sum of the interests computed under paragraph (a)(3)(i)(B)(*1*) of this section plus the sum of the interests computed under paragraph (a)(3)(i)(B)(*2*) of this section is equal to or exceeds 10 percent.

(C) If the majority of the voting stock of a corporate licensee is held by a single individual or entity, no other stockholding need be reported for that licensee;

(ii) Full information as to family relationship or business association between two or more officials and/or stockholders, trustees, executors, administrators, receivers, and members of any association;

(iii) Capitalization with a description of the classes and voting power of stock authorized by the corporate charter or other appropriate legal instrument and the number of shares of each class issued and outstanding; and

(iv) Full information with respect to the interest and identity of any person having any direct, indirect, fiduciary, or beneficial interest in the licensee or in its stock accounting for 5% or more of its votes. For example:

(A) Where A is the trustee of stock held for beneficiary B, A shall be reported if A votes the stock or has the sole or shared power to dispose of the stock; B or any other party shall be reported if B or such party votes the stock or has sole power to dispose of the stock or has the power to revoke the trust or replace the trustee at will;

(B) Where X is not a natural person and has attributable ownership interest in the licensee under § 73.3555 of the rules, regardless of its position in the vertical ownership chain, an Ownership Report shall be filed for X which, except as specifically noted below, must contain the same information as required of a licensee. If X has a voting stockholder interest in the licensee, only those voting interests of X that are cognizable after application of the ''multiplier'' described in Note 2(d) of § 73.3555 of the rules, if applicable, shall be reported. If X is a corporation, whether or not its interest in the licensee is by virtue of its ownership of voting stock, the officers and directors shall be reported. With respect to those officers and directors whose duties and responsibilities are wholly unrelated to the licensee, and who wish to be relieved of attribution in the licensee, the name, title and duties of these officers and directors, with statements properly documenting that their duties do not involve the licensee, shall be reported.

(4) In the case of all licensees:

(i) A list of all contracts still in effect required to be filed with the FCC by § 73.3613 showing the date of execution and expiration of each contract; and

(ii) Any interest which the licensee may have in any other broadcast station.

(b) Except as specifically noted below, each permittee of a commercial AM, FM or TV broadcast station shall file an Ownership Report on FCC Form 323 (1) within 30 days of the date of grant by the FCC of an application for original construction permit and (2) on the date that it applies for a station license. The Ownership Report of the permittee shall give the information required by the applicable portions of paragraph (a) of this section. A permittee with a current and unamended Report on file at the Commission may certify that it has reviewed its current Report and it is accurate, in lieu of filing a new Report.

(c) Before any change is made in the organization, capitalization, officers, directors, or stockholders of a corporation other than licensee or permittee, which results in a change in the control of the licensee or permittee, prior FCC consent must be received under § 73.3540. A transfer of control takes place when an individual or group in privity, gains or loses affirmative or negative (50%) control. See instructions on FCC Form 323 (Ownership Report).

(d) Each licensee of a noncommercial educational AM, FM or TV broadcast station shall file an Ownership Report on FCC Form 323–E at the time the application for renewal of station license is required to be filed. Licensees owning more than one noncommercial educational AM, FM or TV broadcast station need file only one Ownership Report at 5 year intervals for TV stations and 7 year intervals for AM and FM stations. Ownership Reports shall give the following information as of a date not more than 30 days prior to the filing of the Ownership Report:

(1) The following information as to all officers, members of governing board, and holders of 1% or more ownership interest (if any): Name, residence, office held, citizenship, principal profession or occupation, and by whom appointed or elected.

(2) Full information with respect to the interest and identity of any individual, organization, corporation, association, or any other entity which has direct or indirect control over the licensee or permittee.

(3) A list of all contracts still in effect required by § 73.3613 to be filed with the FCC, showing the date of execution and expiration of each contract.

(4) Any interest which the licensee or permittee or any of its officers, members of the governing board, and holders of 1% or more ownership interest (if any) held in any other broadcast station.

(e) Each permittee of a noncommercial educational AM, FM or TV broadcast station shall file an Ownership Report on FCC Form 323–E within 30 days of the date of grant by the FCC of an application for original construction permit. The Ownership Report of the permittee shall give the information required by the applicable form.

(f) A supplemental Ownership Report on FCC Form 323–E shall be filed by each licensee or permittee within 30 days after any change occurs in the information required by the Ownership Report from that previously reported. Such report should include, without limitation:

(1) Any change in organization;

(2) Any change in officers or directors;

(3) Any transaction affecting the ownership (direct or indirect) or voting rights with respect to the licensee or permittee (or with respect to any stock interest therein).

(g) A copy of all ownership and supplemental ownership reports and related material filed pursuant to this section shall be maintained and made available for public inspection locally as required by §§ 73.3526 and 73.3527.

[44 FR 38513, July 2, 1979, as amended at 49 FR 19498, May 8, 1984; 50 FR 27450, July 3, 1985; 50 FR 40016, Oct. 1, 1985; 52 FR 1632, Jan. 15, 1987; 53 FR 2499, Jan. 28, 1988; 53 FR 5684, Feb. 25, 1988; 53 FR 36787, Sept. 22, 1988]

§ 73.3999 Enforcement of 18 U.S.C. 1464 (restrictions on the transmission of obscene and indecent material).

(a) No licensee of a radio or television broadcast station shall broadcast any material which is obscene.

(b) No licensee of a radio or television broadcast station shall broadcast on any day between 6 a.m. and 10 p.m. any material which is indecent.

[60 FR 44439, Aug. 28, 1995]

§ 73.4000 Listing of FCC policies.

The following sections list, solely for the purpose of reference and convenience, certain Policies of the FCC. The present listing of FCC policies and citations thereto should not be relied upon as an all-inclusive list, and the failure to include a policy in this list does not affect its validity. Each section bears the title of one Policy and the citations which will direct the user to the specific document(s) pertaining to that Policy.

[44 FR 36387, June 22, 1979]

§ 73.4005 Advertising—refusal to sell.

See 412 U.S. 94 (Supreme Court, 1973).

[44 FR 36388, June 22, 1979]

§ 73.4015 Applications for AM and FM construction permits, incomplete or defective.

See Public Notice, FCC 84–366, dated August 2, 1984, 49 FR 47331, December 3, 1984.

[49 FR 50048, Dec. 26, 1984]

§ 73.4017 Application processing: Commercial FM stations.

See Report and Order, MM Docket 84–750, FCC 85–125, adopted March 4, 1985. 50 FR 19936, May 13, 1985.

[59 FR 52086, Oct. 14, 1994]

§ 73.4045 Barter agreements.

See Order, FCC 72–167, adopted February 16, 1972. 33 FCC 2d 653; 37 FR 4009, February 25, 1972.

[44 FR 36388, June 22, 1979]

§ 73.4050 Children's TV programs.

(a) See Report and Policy Statement, Docket 19142, FCC 74–1174, adopted October 24, 1974. 50 FCC 2d 1; 39 FR 39396, November 6, 1974.

(b) See Report and Order; Policy Statement, Docket 19142, FCC 83–609, adopted December 22, 1983. 96 FCC 2d 634; 49 FR 1704, January 13, 1984.

(c) See Report and Order, MM Dockets 90–570 and 83–670, FCC 91–113, adopted April 9, 1991. 6 FCC Rcd 2111; 56 FR 19611, April 19, 1991; Memorandum Opinion and Order, MM Dockets 90–570 and 83–670, FCC 91–248, adopted August 1, 1991. 6 FCC Rcd 5093; 56 FR 42707, August 29, 1991.

[49 FR 14509, Apr. 12, 1984, as amended at 59 FR 52086, Oct. 14, 1994]

§ 73.4055 Cigarette advertising.

See 15 U.S.C. 1335.

[44 FR 36388, June 22, 1979]

§ 73.4060 Citizens agreements.

(a) See Report and Order, Docket 20495, FCC 75–1359, adopted December 10, 1975. 57 F.C.C. 2d 42; 40 F.R. 49730, December 30, 1975.

(b) See Memorandum Opinion and Order, FCC 78–875, adopted December 21, 1978. 70 F.C.C. 2d 1672.

[44 FR 58720, Oct. 11, 1979]

§ 73.4075 Commercials, loud.

See Memorandum Opinion and Order, BC Docket 79–168, FCC 84–300, adopted June 27, 1984. 49 FR 28077, July 10, 1984.

[49 FR 38132, Sept. 27, 1984]

§ 73.4082 Comparative broadcast hearings—specialized programming formats.

(a) See Memorandum Opinion and Order, FCC 80–33, adopted January 30, 1980. 75 FCC 2d 721.

(b) See Report and Order, Docket 79–137, FCC 79–331, adopted June 1, 1979. 72 FCC 2d 202.

(c) See Memorandum Opinion and Order, FCC 79–206, adopted March 30, 1979. 71 FCC 2d 460.

[47 FR 3792, Jan. 27, 1982]

§ 73.4091 Direct broadcast satellites.

(a) See Report and Order, General Docket 80–603, FCC 82–285, adopted June 23, 1982. 90 FCC 2d 676; 47 FR 31555, July 21, 1982.

(b) See Memorandum Opinion and Order, FCC 82–427, adopted September 23, 1982. 91 FCC 2d.

(c) See Memorandum Opinion and Order, FCC 82–498, adopted November 4, 1982. 91 FCC 2d.

[48 FR 9012, Mar. 3, 1983]

§ 73.4094 Dolby encoder.

See Public Notice dated July 10, 1974, 72 FCC 2d 790.

[45 FR 6403, Jan. 28, 1980]

§ 73.4095 Drug lyrics.

(a) See Public Notice, FCC 71–205, dated March 5, 1971. 28 FCC 2d 409; 36 FR 4901, March 13, 1971.

(b) See Memorandum Opinion and Order, FCC 71–428, adopted April 16, 1971. 31 FCC 2d 377; 36 FR 8090, April 29, 1971.

[44 FR 36388, June 22, 1979]

§ 73.4097 EBS (now EAS) attention signals on automated programing systems.

See Public Notice dated March 1, 1979. 72 FCC 2d 788; 44 FR 17792, March 23, 1979.

[49 FR 50049, Dec. 26, 1984, as amended at 59 FR 67103, Dec. 28, 1994]

§ 73.4099 Financial qualifications, certification of.

See Public Notice, FCC 87–97, adopted March 19, 1987. 52 FR 17333, May 7, 1987.

[53 FR 2499, Jan. 28, 1988]

§ 73.4100 Financial qualifications; new AM and FM stations.

See Public Notice, FCC 78–556, dated August 2, 1978. 69 FCC 2d 407; 43 FR 34841, August 7, 1978.

[44 FR 36388, June 22, 1979]

§ 73.4101 Financial qualifications, TV stations.

See Public Notice, FCC 79–299, dated May 11, 1979. 72 F.C.C. 2d 784; 44 FR 29160, May 18, 1979.

[45 FR 6403, Jan. 28, 1980]

§ 73.4102 FAA communications, broadcast of.

See Public Notice, FCC 72–105, dated February 2, 1972. 37 FR 3567, February 17, 1972.

[45 FR 6403, Jan. 28, 1980]

§ 73.4104 FM assignment policies and procedures.

See Report and Order, BC Docket 80–130, FCC 82–240, adopted May 20, 1982. 90 FCC 2d, 88; 47 FR 26625, June 21, 1982.

[47 FR 54448, Dec. 3, 1982]

§ 73.4107 FM broadcast assignments, Increasing availability of.

(a) See, First Report and Order MM Docket 84–231, FCC 84–640, adopted December 19, 1984. 100 FCC 2d 1332; 50 FR 3514, January 25, 1994.

(b) See, Second Report and Order, MM Docket 84–231, FCC 85–124, adopted March 14, 1985. 101 FCC 2d 630; 50 FR 15558, April 19, 1985.

(c) See, Memorandum Opinion and Order, MM Docket 84–231, FCC 86–76, adopted February 10, 1986. 51 FR 9210, March 18, 1986.

(d) See Public Notice, 51 FR 26009, July 18, 1986.

[51 FR 26251, July 22, 1986, as amended at 52 FR 11656, Apr. 10, 1987; 59 FR 52086, Oct. 14, 1994]

§ 73.4108 FM transmitter site map submissions.

See Memorandum Opinion and Order and Public Notice, adopted October 24, 1986. 1 FCC Rcd 381 (1986); 51 FR 45945, December 23, 1986.

[52 FR 11656, Apr. 10, 1987]

§ 73.4110 Format changes of stations.

See Memorandum Opinion and Order, Docket 20682, FCC 76–744, adopted July 28, 1976. 60 FCC 2d 858; 41 FR 37153, September 2, 1976.

[44 FR 36388, June 22, 1979]

§ 73.4135 Interference to TV reception by FM stations.

See Public Notice, FCC 67–1012, dated August 30, 1967, 74 FCC 2d 619.

(Secs. 4, 5, 303, 48 Stat., as amended, 1066, 1068, 1082 (47 U.S.C. 154, 155, 303))

[44 FR 36388, June 22, 1979, as amended at 45 FR 28142, Apr. 28, 1980; 49 FR 45154, Nov. 15, 1984; 50 FR 5073, Feb. 6, 1985; 51 FR 26251, July 22, 1986]

§ 73.4140 Minority ownership; tax certificates and distress sales.

(a) See Public Notice, FCC 78–322, dated May 25, 1978. 68 FCC 2d 979; 43 FR 25188, June 9, 1978.

(b) See Public Notice, FCC 78–725, dated October 11, 1978. 43 FR 47612, October 16, 1978.

(c) See Policy Statement, General Docket 82–797, FCC 82–523, adopted December 2, 1982. 92 FCC 2d 849; 48 FR 5943, February 9, 1983.

(d) See Report and Order, General Docket 82–797, FCC 84–647, adopted December 21, 1984. 99 FCC 2d 1249; 50 FR 1239, January 10, 1985.

[44 FR 36388, June 22, 1979, as amended at 49 FR 38132, Sept. 27, 1984; 49 FR 50049, Dec. 26, 1984; 50 FR 47055, Nov. 14, 1985; 52 FR 11656, Apr. 10, 1987]

§ 73.4154 Network/AM, FM station affiliation agreements.

See Report, Statement of Policy, and Order, Docket 20721, FCC 77–206, adopted March 10, 1977. 63 FCC 2d 674.

[47 FR 28388, June 30, 1982]

§ 73.4157 Network signals which adversely affect affiliate broadcast service.

See Public Notice, FCC 79–387, dated April 20, 1970. 22 F.C.C. 2d 779.

[45 FR 6403, Jan. 28, 1980]

§ 73.4163 Noncommercial nature of educational broadcast stations.

(a) See Second Report and Order, BC Docket 21136, FCC 81–204, adopted April 23, 1981. 86 FCC 2d 141; 46 FR 27944, May 22, 1981.

(b) See Order, BC Docket 21136, FCC 82–327 adopted July 15, 1982. 90 FCC 2d 895; 47 FR 36171, August 19, 1982.

(c) See Memorandum Opinion and Order, BC Docket 21136, FCC 84–105, adopted March 28, 1984. 97 FCC 2d 255; 49 FR 13534, April 5, 1984.

(d) See, Public Notice, FCC 86–161, dated April 11, 1986. 51 FR 21800, June 16, 1986. Excerpt reprinted at 7 FCC Rcd 827.

(e) See Memorandum Opinion and Order, FCC 90–111, adopted March 28, 1990. 5 FCC Rcd 4920.

[47 FR 54448, Dec. 3, 1982, as amended at 51 FR 26251, July 22, 1986; 59 FR 52087, Oct. 14, 1994]

§ 73.4165 Obscene language.

(a) See *FCC* v. *Pacifica Foundation,* 438 U.S. 726, 57 L.Ed 2d 1073, 46 U.S.L.W. 5018 (1978). See also *Action for Children's Television* v. *FCC,* 852 F.2d 1332 (D.C. Cir. 1988).

(b) See *Action for Children's Television* v. FCC, [ACT III] 11 F.3d 170 (D.C. Cir. 1993). See also, *Action for Children's Television v. FCC,* [ACT IV] 15 F.3d 186 (D.C. Cir. 1994), rehearing granted, en banc.

(c) See Report and Order, GC Docket 92–223, FCC 93–42, adopted January 19, 1993. 8 FCC Rcd 704; 58 FR 5937, January 25, 1993.

(d) See Memorandum Opinion and Order, FCC 93–246, adopted May 11, 1993, 8 FCC Rcd 3600.

(e) See Letter to Rusk Corporation, dated May 6, 1993, FCC 93–229, 8 FCC Rcd 3228.

(f) See Memorandum Opinion and Order, FCC 93–4, adopted January 5, 1993. 8 FCC Rcd 498

(g) See *Branton* v. *FCC,* 993 F.2d 906 (D.C. Cir. 1993).

(h) See Memorandum Opinion and Order, DA 91–557, adopted April 30, 1991. 6 FCC Rcd 2560.

[59 FR 52087, Oct. 14, 1994]

§ 73.4170 Obscene broadcasts.

(a) See *Miller* v. *California,* 413 U.S.C. 15 (1973). See also *Pope* v. *Illinois,* 107 S.Ct. 1918 (1987). 18 U.S.C. 1464.

(b) See Memorandum Opinion and Order, MM Docket 83–575, FCC 88–4, adopted January 12, 1988. 3 FCC Rcd 757. See also Memorandum Opinion and Order, MM Docket 83–575, FCC 93–180, adopted April 2, 1993. 8 FCC Rcd 2753.

(c) See Memorandum Opinion and Order, FCC 87–365, adopted November 24, 1987. 3 FCC Rcd 930.

(d) See ''Memorandum of Understanding between the Federal Communications Commission and the Department of Justice concerning Complaints and

Cases Involving Obscenity and Indecency,'' released April 9, 1991. See also News Release dated April 19, 1991.

[59 FR 52087, Oct. 14, 1994]

§ 73.4180 Payment disclosure: Payola, plugola, kickbacks.

(a) See 47 U.S.C. 507.

(b) See Public Notice, FCC 70–593, dated June 4, 1970. 23 FCC 2d 588; 35 FR 9045, June 11, 1970.

(c) See Public Notice, FCC 88–175, dated May 18, 1988.

[44 FR 36389, June 22, 1979, as amended at 49 FR 20504, May 15, 1984; 59 FR 52087, Oct. 14, 1994]

§ 73.4185 Political broadcasting and telecasting, the law of.

(a) See ''The Law of Political Broadcasting and Cablecasting: Political Primer 1984,'' 100 FCC 2d 1476 (1984).

(b) See Report and Order, MM Docket 91–168, FCC 91–403, adopted December 12, 1991. 7 FCC Rcd 678; 57 FR 189, January 3, 1992; Memorandum Opinion and Order, MM Docket 91–168, FCC 92–210, adopted May 14, 1992. 7 FCC Rcd 4611; 57 FR 27705, June 22, 1992.

[59 FR 52087, Oct. 14, 1994]

§ 73.4190 Political candidate authorization notice and sponsorship identification.

(a) See Joint Public Notice by the Federal Communications Commission and the Federal Election Commission, FCC 78–419, dated June 19, 1978. 69 FCC 2d 1129; 43 FR 30126, July 13, 1978.

(b) See Memorandum Opinion and Order, FCC 92–55, adopted February 12, 1992. 7 FCC Rcd 1616.

[44 FR 36389, June 22, 1979, as amended at 59 FR 52087, Oct. 14, 1994]

§ 73.4195 Political advertising by UHF translators.

See Public Notice, FCC 76936, dated October 8, 1976. 62 FCC 2d 896; 41 FR 45043, October 14, 1976.

[44 FR 36389, June 22, 1979]

§ 73.4210 Procedure Manual: "The Public and Broadcasting".

See FCC 74–942, dated September 5, 1974. 49 FCC 2d 1; 39 FR 32288, dated September 5, 1974.

[44 FR 36389, June 22, 1979]

§ 73.4215 Program matter: Supplier identification.

See Public Notice, FCC 73–595, dated June 1, 1973. 41 FCC 2d 333; 38 FR 14979, June 7, 1973.

[44 FR 36389, June 22, 1979]

§ 73.4235 Short spacing agreements: FM stations.

See Public Notice, FCC 75–1367, dated December 15, 1975. 57 FCC 2d 1263; 40 FR 58893, December 19, 1975.

[44 FR 36389, June 22, 1979]

EFFECTIVE DATE NOTE: At 62 FR 50552, Sept. 26, 1997, § 73.4235 was removed, effective Nov. 25, 1997.

§ 73.4242 Sponsorship identification rules, applicability of.

See Public Notice dated September 3, 1975, 40 FR 41936, September 9, 1975.

[47 FR 28388, June 30, 1982]

§ 73.4246 Stereophonic pilot subcarrier use during monophonic programming.

See Report and Order, Docket 19571, FCC 73–680, adopted June 21, 1973. 41 FCC 2d 534; 38 FR 17021, June 28, 1973.

[47 FR 3792, Jan. 27, 1982]

§ 73.4247 STV: Competing applications.

See Second Report and Order, Docket 21502, FCC 81–13, adopted January 8, 1981. 85 FCC 2d 631; 46 FR 19937, April 2, 1981.

[47 FR 3792, Jan. 27, 1982]

§ 73.4250 Subliminal perception.

(a) See Public Notice, FCC 74–78, dated January 24, 1974. 44 FCC 2d, 1016; 39 FR 3714, January 29, 1974.

(b) See FCC Information Bulletin, ''Subliminal Projection'', dated November 1977.

[44 FR 36389, June 22, 1979]

§ 73.4255 Tax certificates: Issuance of.

(a) See Public Notice, FCC 76–337, dated April 21, 1976. 59 FCC 2d, 91; 41 FR 17605, April 27, 1976.

(b) See Report and Order MM Docket 87–267, FCC 91–303 adopted, September 26, 1991. 6 FCC Rcd 6273; 56 FR 64842, December 12, 1991.

[56 FR 64874, Dec. 12, 1991, as amended at 59 FR 52087, Oct. 14, 1994]

§ 73.4260 Teaser announcements.

See Public Notice, FCC 62–592, dated June 1, 1962. 27 FR 5274, June 5, 1962.

[44 FR 36389, June 22, 1979]

§ 73.4265 Telephone conversation broadcasts (network and like sources).

See Memorandum Opinion and Order, FCC 75–1406, adopted December 18, 1975. 57 FCC 2d, 334; 41 FR 816, January 5, 1976.

[44 FR 36389, June 22, 1979]

§ 73.4266 Tender offer and proxy statements.

See *Policy Statement*, MM Docket 85–218, FCC 86–67, adopted January 30, 1986. 51 FR 9794, March 21, 1986.

[51 FR 26251, July 22, 1986]

§ 73.4267 Time brokerage.

(a) See Policy Statement, Docket 78–355, FCC 80–621, adopted October 21, 1980. 82 FCC 2d 107.

(b) See Report and Order, MM Docket 91–140, FCC 92–97, adopted March 12, 1992. 7 FCC Rcd 2755; 57 FR 18089, April 29, 1992.

(c) See Memorandum Opinion and Order and Further Notice of Proposed Rule Making, MM Docket 91–140, FCC 92–361, adopted August 5, 1992. 7 FCC Rcd 6387; 57 FR 42701, September 16, 1992.

[47 FR 3792, Jan. 27, 1982, as amended at 59 FR 52087, Oct. 14, 1994]

§ 73.4275 Tone clusters; audio attention-getting devices.

See Public Notice, FCC 76–610, dated July 2, 1976. 60 FCC 2d 920; 41 FR 28582, July 12, 1976.

[44 FR 36389, June 22, 1979]

§ 73.4280 Character evaluation of broadcast applicants.

(a) See Report and Order and Policy Statement, Gen. Docket 81–500, BC Docket 78–108, FCC 85–648, adopted December 10, 1985. 102 FCC 2d 1179; 51 FR 3049, January 23, 1986.

(b) See Policy Statement and Order, FCC 90–195, adopted May 10, 1990. 5 FCC Rcd 3252, 55 FR 23082, June 6, 1990.

(c) See Memorandum Opinion and Order, FCC 91–146, adopted May 1, 1991. 6 FCC Rcd 3448, 56 FR 25633, June 5, 1991.

(d) See Memorandum Opinion and Order, FCC 92–448, adopted September 18, 1992. 7 FCC Rcd 6564, 57 FR 47410, October 16, 1992.

[59 FR 52087, Oct. 14, 1994]

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PART 74—EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

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