

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, quadrasonic, 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-multiplex 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 exceed ± 75 kHz.

(d) Digital broadcast television transmission standard. Effective February 1, 2005, transmission of digital broadcast television (DTV) signals shall comply with the standards for such transmissions set forth in ATSC A/52: "ATSC Standard Digital Audio Compression (AC-3)" (incorporated by reference, see § 73.8000), ATSC Doc. A/53B, Revision B with Amendment 1 and Amendment 2: "ATSC Digital Television Standard," 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 (incorporated by reference, see § 73.8000), and ATSC A/65B: "ATSC Program and System Information Protocol for Terrestrial Broadcast and Cable," (Revision B) 2003 (incorporated by reference, see § 73.8000). Although not incorporated by reference, licensees may also consult ATSC Doc. A/54, Guide to Use of the ATSC Digital Television Standard, (October 4, 1995), and ATSC Doc. A/69, Recommended Practice PSIP Implementation Guidelines for Broadcasters (June 25, 2002)

(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, which appears in the Finding Aids section of the printed volume and on GPO Access.

§ 73.683 Field strength contours and presumptive determination of field strength at individual locations.

(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

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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.
- (d) For purposes of determining the eligibility of individual households for

satellite retransmission of distant network signals under the copyright law provisions of 17 U.S.C. 119(d)(10)(A), field strength shall be determined by the Individual Location Longley-Rice (ILLR) propagation prediction model. Guidance for use of the ILLR model for these purposes is provided in OET Bulletin No. 72. This document is available through the Internet on the FCC Home Page at <http://www.fcc.gov>.

(e) In the case of measurements to determine the eligibility of individual households to receive satellite retransmission of distant network signals under the copyright law provisions of 17 U.S.C. 119(d)(10), if a satellite carrier and the network station or stations asserting that the retransmission of a signal of a distant network station is prohibited are unable to agree on a person to conduct the test, the American Radio Relay League, Inc., 225 Main Street, Newington, CT 06111-1494, shall designate the person or organization to conduct measurements based on the technical qualifications and independence of proposed testers. The satellite carrier and network station shall propose testers and provide their qualifications in writing to the American Radio Relay League (ARRL). Individuals may also volunteer themselves as testers by submitting their qualifications to the ARRL. The ARRL can be reached by telephone at 860-594-0200, or email at hq@arrl.org.

(f) A satellite carrier is exempt from the verification requirements of 47 U.S.C. 339(c)(4)(A) with respect to a test requested by a satellite subscriber to whom the retransmission of the signals of local broadcast stations is available under 47 U.S.C. 338 from such carrier. The definitions of satellite carrier, subscriber, and local market contained in 47 CFR 76.66(a) apply to this paragraph (f).

[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; 65 FR 36641, June 9, 2000; 70 FR 21670, Apr. 27, 2005]

§ 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