shall be horizontally polarized. Calibration shall be made in the community unit or, if more than one, in any of the community units of the physical system within a reasonable time period to performing the measurements. If data is recorded digitally the 90th percentile level of points recorded over the cable system shall not exceed 10 μV/m RMS as indicated above; if analog recordings is used the peak values of the curves, when smoothed according to good engineering practices, shall not exceed 10 μV/m RMS.

(b) In paragraphs (a)(1) and (2) of this section the unmodulated test signal used for analog leakage measurements on the cable plant shall—

(1) Be within the VHF aeronautical band 108–137 MHz or any other frequency for which the results can be correlated to the VHF aeronautical band; and

(2) Have an average power level equal to the greater of:

(i) The peak envelope power level of the strongest NTSC or similar analog cable television signal on the system, or

(ii) 1.2 dB greater than the average power level of the strongest QAM or similar digital cable television signal on the system.

(c) In paragraphs (a)(1) and (2) of this section, if a modulated test signal is used for analog leakage measurements, the test signal and detector technique must, when considered together, yield the same result as though an unmodulated test signal were used in conjunction with a detection technique which would yield the RMS value of said unmodulated carrier.

(d) If a sampling of at least 75% of the cable strand (and including any portions of the cable system which are known to have or can reasonably be expected to have less leakage integrity than the average of the system) as described in paragraph (a)(1) of this section cannot be obtained by the cable operator or is otherwise not reasonably feasible, the cable operator shall perform the airspace measurements described in paragraph (a)(2) of this section.

(e) Prior to providing service to any subscriber on a new section of cable plant, the operator shall show compliance with either:

(1) The basic signal leakage criteria in accordance with paragraphs (a)(1) or (2) of this section for the entire plant in operation or

(2) a showing shall be made indicating that no individual leak in the new section of the plant exceeds 20 μV/m at 3 meters in accordance with § 76.609 for analog signals or 17.4 μV/m at 3 meters for digital signals.

(f) Notwithstanding paragraph (a) of this section, a cable operator shall be permitted to operate on any frequency which is offset pursuant to § 76.612 in the frequency band 108–137 MHz for the purpose of demonstrating compliance with the cable television basic signal leakage performance criteria.

[83 FR 7629, Feb. 22, 2018]

§ 76.612 Cable television frequency separation standards.

All cable television systems which operate analog NTSC or similar channels in the frequency bands 108–137 MHZ and 225–400 MHz shall comply with the following frequency separation standards for each NTSC or similar channel:

(a) In the aeronautical radiocommunication bands 118–137, 225–328.6 and 335.4–400 MHz, the frequency of all carrier signals or signal components carried at an average power level equal to or greater than 10^{-4} watts in a 25 kHz bandwidth in any 160 microsecond period must operate at frequencies offset from certain frequencies which may be used by aeronautical radio services operated by Commission licensees or by the United States Government or its Agencies. The aeronautical frequencies from which offsets must be maintained are those frequencies which are within one of the aeronautical bands defined in this subparagraph, and when expressed in MHz and divided by 0.025 yield an integer. The offset must meet one of the following two criteria:

(1) All such cable carriers or signal components shall be offset by 12.5 kHz with a frequency tolerance of ±5 kHz; or

(2) The fundamental frequency from which the visual carrier frequencies are derived by multiplication by an integer

number which shall be 6.0003 MHz with a tolerance of ±1 Hz (Harmonically Related Carrier (HRC) comb generators only).

(b) In the aeronautical radionavigation bands 108–118 and 328.6–335.4 MHz, the frequency of all carrier signals or signal components carrier at an average power level equal to or greater than 10^{-4} watts in a 25 kHz bandwidth in any 160 microsecond period shall be offset by 25 kHz with a tolerance of ±5 kHz. The aeronautical radionavigation frequencies from which offsets must be maintained are defined as follows:

(1) Within the aeronautical band 108–118 MHz when expressed in MHz and divided by 0.025 yield an even integer.

(2) Within the band 328.6–335.4 MHz, the radionavigation glide path channels are listed in Section 87.501 of the Rules.

NOTE: The HRC system, as described above, will meet this requirement in the 328.6–335.4 MHz navigation glide path band. Those Incrementally Related Carriers (IRC) systems, with comb generator reference frequencies set at certain odd multiples equal to or greater than 3 times the 0.0125 MHz aeronautical communications band offset, e.g. (6n + 1.250 ±0.0375) MHz, may also meet the 25 kHz offset requirement in the navigation glide path band.

[50 FR 29400, July 19, 1985, as amended at 83 FR 7630, Feb. 22, 2018]

§ 76.613 Interference from a multichannel video programming distributor (MVPD).

(a) Harmful interference is any emission, radiation or induction which endangers the functioning of a radionavigation service or of other safety services or seriously degrades, obstructs or repeatedly interrupts a radiocommunication service operating in accordance with this chapter.

(b) An MVPD that causes harmful interference shall promptly take appropriate measures to eliminate the harmful interference.

(c) If harmful interference to radio communications involving the safety of life and protection of property cannot be promptly eliminated by the application of suitable techniques, operation of the offending MVPD or appropriate elements thereof shall immediately be suspended upon notification by the Regional Director for the Commission's local field office, and shall not be resumed until the interference has been eliminated to the satisfaction of the Regional Director. When authorized by the Regional Director, short test operations may be made during the period of suspended operation to check the efficacy of remedial measures.

(d) The MVPD may be required by the Regional Director to prepare and submit a report regarding the cause(s) of the interference, corrective measures planned or taken, and the efficacy of the remedial measures.

[42 FR 41296, Aug. 16, 1977, as amended at 62 FR 61031, Nov. 14, 1997; 80 FR 53751, Sept. 8, 2015]

§ 76.614 Cable television system regular monitoring.

Cable television operators transmitting carriers in the frequency bands 108–137 and 225–400 MHz shall provide for a program of regular monitoring for signal leakage by substantially covering the plant every three months. The incorporation of this monitoring program into the daily activities of existing service personnel in the discharge of their normal duties will generally cover all portions of the system and will therefore meet this requirement. Monitoring equipment and procedures utilized by a cable operator shall be adequate to detect a leakage source which produces a field strength in these bands of 20 uV/m or greater at a distance of 3 meters. During regular monitoring, any leakage source which produces a field strength of 20 uV/m or greater at a distance of 3 meters in the aeronautical radio frequency bands shall be noted and such leakage sources shall be repaired within a reasonable period of time.

NOTE 1 TO §76.614: Section 76.1706 contains signal leakage recordkeeping requirements applicable to cable operators.

[65 FR 53616, Sept. 5, 2000]

§ 76.616 Operation near certain aeronautical and marine emergency radio frequencies.

(a) The transmission of carriers or other signal components capable of delivering peak power levels equal to or greater than 10^{-5} watts at any point in a cable television system is prohibited