

| Frequencies  | Authorized bandwidth (kHz)   | Maximum frequency deviation <sup>1</sup> (kHz) | Type of emission <sup>2</sup> |
|--|--|--|-------------------------------|
| 450.00625 to 450.025<br>450.98125 to 450.99375<br>455.00625 to 455.025<br>455.98125 to 455.99375 ..... | Frequencies 160.860 to 455.950 MHz: A1A, A1B, A1D, A1E, A2A, A2B, A2D, A2E, A3E, F1A, F1B, F1D, F1E, F2A, F2B, F2D, F2E, F3E, F9E. |  |                               |
| Up to 12.5 .....   |  |  |                               |
| 1.5 .....  |  |  |                               |
| 450.03125 to 450.61875<br>455.03125 to 455.61875 .....   | Up to 25 .....   | 5  |                               |
| 450.6375 to 450.8625<br>455.6375 to 455.8625 .....   | 25-50 .....  | 10   |                               |
| 450.900, 450.950<br>455.900, 455.950 .....   | 50-100 .....   | 35   |                               |

<sup>1</sup>Applies where F1A, F1B, F1D, F1E, F2A, F2B, F2D, F2E, F3E, or F9E emissions are used.  
<sup>2</sup>Stations operating above 450 MHz shall show a need for employing A1A, A1B, A1D, A1E, A2A, A2B, A2D, A2E, F1A, F1B, F1D, F1E, F2A, F2B, F2D, or F2E emission.  
<sup>3</sup>New or modified licenses for use of the frequencies will not be granted to utilize transmitters on board aircraft, or to use a bandwidth in excess of 30 kHz and maximum deviation exceeding 5 kHz.  
<sup>4</sup>For stations licensed or applied for before April 16, 2003, the sum of the bandwidth of emission and tolerance on frequencies 166.25 MHz or 170.15 MHz shall not exceed 25 kHz, and such operation may continue until January 1, 2005. For new stations licensed or applied for on or after April 16, 2003, the sum of the bandwidth of emission and tolerance on these frequencies shall not exceed 12.5 kHz. For all remote pickup broadcast stations, the sum of the bandwidth of emission and tolerance on these frequencies shall not exceed 12.5 kHz on or after January 1, 2005.

(c) For emissions on frequencies above 25 MHz with authorized bandwidths up to 30 kHz, the emissions shall comply with the emission mask and transient frequency behavior requirements of §§ 90.210 and 90.214 of this chapter. For all other emissions, the mean power of emissions shall be attenuated below the mean output power of the transmitter in accordance with the following schedule:

- (1) On any frequency removed from the assignment frequency by more than 50 percent up to and including 100 percent of the authorized bandwidth: at least 25 dB;
- (2) On any frequency removed from the assigned frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;
- (3) On any frequency removed from the assigned frequency by more than 250 percent on the authorized bandwidth; at least 43 plus 10 log<sup>10</sup> (mean output power, in watts) dB.
- (d) In the event a station's emissions outside its authorized channel cause harmful interference, the Commission may, at its discretion, require the licensee to take such further steps as may be necessary to eliminate the interference.

NOTE: The measurements of emission power can be expressed in peak or mean values provided they are expressed in the same parameters as the unmodulated transmitter carrier power.

(Sec. 5, 48 Stat. 1068; 47 U.S.C. 155)

[41 FR 29686, July 19, 1976, as amended at 41 FR 32429, Aug. 3, 1976; 41 FR 35068, Aug. 19, 1976; 43 FR 14662, Apr. 7, 1978; 43 FR 38391, Aug. 28, 1978; 44 FR 65765, Nov. 15, 1979; 56 FR 28498, June 21, 1991; 63 FR 36604, July 7, 1998; 68 FR 12765, Mar. 17, 2003; 68 FR 25540, May 13, 2003]

**§ 74.463 Modulation requirements.**

- (a) Each new remote pickup broadcast station authorized to operate with a power output in excess of 3 watts shall be equipped with a device which will automatically prevent modulation in excess of the limits set forth in this subpart.
- (b) If amplitude modulation is employed, modulation shall not exceed 100 percent on negative peaks.
- (c) If frequency modulation is employed, emission shall conform to the requirements specified in § 74.462.

[41 FR 29686, July 19, 1976, as amended at 47 FR 54448, Dec. 3, 1982]

**§ 74.464 Frequency tolerance.**

For operations on frequencies above 25 MHz using authorized bandwidths up

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to 30 kHz, the licensee of a remote pickup broadcast station or system shall maintain the operating frequency of each station in compliance with the frequency tolerance requirements of §90.213 of this chapter. For all other operations, the licensee of a remote pickup broadcast station or system shall maintain the operating frequency of each station in accordance with the following:

| Frequency range                  | Tolerance (percent) |                |
|----------------------------------|---------------------|----------------|
|                                  | Base station        | Mobile station |
| 25 to 30 MHz:                    |                     |                |
| 3 W or less .....                | .002                | .005           |
| Over 3 W .....                   | .002                | .002           |
| 30 to 300 MHz:                   |                     |                |
| 3 W or less .....                | .0005               | .005           |
| Over 3 W .....                   | .0005               | .0005          |
| 300 to 500 MHz, all powers ..... | .00025              | .0005          |

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

[41 FR 29686, July 19, 1976, as amended at 42 FR 2071, Jan. 10, 1977; 43 FR 38391, Aug. 28, 1978; 44 FR 65765, Nov. 15, 1979; 68 FR 12766, Mar. 17, 2003; 68 FR 25540, May 13, 2003]

**§ 74.465 Frequency monitors and measurements.**

The licensee of a remote pickup station or system shall provide the necessary means to assure that all operating frequencies are maintained within the allowed tolerances.

[51 FR 4603, Feb. 6, 1986]

**§ 74.482 Station identification.**

(a) Each remote pickup broadcast station shall be identified by the transmission of the assigned station or system call sign, or by the call sign of the associated broadcast station. For systems, the licensee (including those operating pursuant to §74.24 of this part) shall assign a unit designator to each station in the system. The call sign (and unit designator, where appropriate) shall be transmitted at the beginning and end of each period of operation. A period of operation may consist of a single continuous transmission, or a series of intermittent transmissions pertaining to a single event.

(b) In cases where a period of operation is of more than one hour duration identification of remote pickup

broadcast stations participating in the operation shall be made at approximately one-hour intervals. Identification transmissions during operation need not be made when to make such transmissions would interrupt a single consecutive speech, play, religious service, symphony, concert, or any type of production. In such cases, the identification transmissions shall be made at the first interruption in the program continuity and at the conclusion thereof. Hourly identification may be accomplished either by transmission of the station or system call sign and unit designator assigned to the individual station or identification of an associated broadcasting station or network with which the remote pickup broadcast station is being used.

(c) In cases where an automatic relay station is a part of the circuit, the call sign of the relay transmitter may be transmitted automatically by the relay transmitter or by the remote pickup broadcast base or mobile station that actuates the automatic relay station.

(d) Automatically activated equipment may be used to transmit station identification in International Morse Code, provided that the modulation tone is 1200 Hz±800 Hz, the level of modulation of the identification signal is maintained at 40%±10%, and that the code transmission rate is maintained between 20 and 25 words per minute.

(e) For stations using F1E or G1E emissions, identification shall be transmitted in the unscrambled analog (F3E) mode or in International Morse Code pursuant to the provisions of paragraph (d) of this section at intervals not to exceed 15 minutes. For purposes of rule enforcement, all licensees using F1E or G1E emissions shall provide, upon request by the Commission, a full and complete description of the encoding methodology they currently use.

NOTE: Stations are encouraged to identify using their associated part 73 station call sign.

[41 FR 29686, July 19, 1976, as amended at 47 FR 9220, Mar. 4, 1982; 52 FR 47569, Dec. 15, 1987; 56 FR 28499, June 21, 1991; 68 FR 12766, Mar. 17, 2003]