

§ 27.51

than 305 m HAAT are permitted if power levels are reduced below 1000 watts ERP in accordance with Table 1 of this section;

(2) Control stations and mobile stations transmitting in the 747-762 MHz band and the 776-794 MHz band and fixed stations transmitting in the 776-777 MHz band and the 792-794 MHz band are limited to 30 watts ERP;

(3) Portable stations (hand-held devices) transmitting in the 747-762 MHz band and the 776-794 MHz band are limited to 3 watts ERP;

(4) Maximum composite transmit power shall be measured over any interval of continuous transmission using instrumentation calibrated in terms of RMS-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, etc., so as to obtain a true maximum composite measurement for the emission in question over the full bandwidth of the channel.

(c) Peak transmit power shall be measured over any interval of continuous transmission using instrumentation calibrated in terms of rms-equivalent voltage. The measurement results shall be properly adjusted for any instrument limitations, such as detector response times, limited resolution bandwidth capability when compared to the emission bandwidth, etc., so as to obtain a true peak measurement for the emission in question over the full bandwidth of the channel.

TABLE 1—PERMISSIBLE POWER AND ANTENNA HEIGHTS FOR BASE AND FIXED STATIONS IN THE 746-764 MHz AND 777-792 MHz BANDS

Antenna height (AAT) in meters (feet)	Effective radiated power (ERP) (watts)
Above 1372 (4500)	65
Above 1220 (4000) To 1372 (4500)	70
Above 1067 (3500) To 1220 (4000)	75
Above 915 (3000) To 1067 (4000)	100
Above 763 (2500) To 915 (3000)	140
Above 610 (2000) To 763 (2500)	200
Above 458 (1500) To 610 (2000)	350
Above 305 (1000) To 458 (1500)	600
Up to 305 (1000)	1000

[62 FR 16497, Apr. 7, 1997, as amended at 65 FR 3147, Jan. 20, 2000; 65 FR 17602, Apr. 4, 2000; 65 FR 42882, July 12, 2000; 65 FR 57267, Sept. 21, 2000]

§ 27.51 Equipment authorization.

(a) Each transmitter utilized for operation under this part must be of a type that has been authorized by the Commission under its certification procedure.

(b) Any manufacturer of radio transmitting equipment to be used in these services may request equipment authorization following the procedures set forth in subpart J of part 2 of this chapter. Equipment authorization for an individual transmitter may be requested by an applicant for a station authorization by following the procedures set forth in part 2 of this chapter.

[65 FR 3147, Jan. 20, 2000]

§ 27.52 RF safety.

Licensees and manufacturers are subject to the radio frequency radiation exposure requirements specified in sections 1.1307(b), 2.1091, and 2.1093 of this chapter, as appropriate. Applications for equipment authorization of mobile or portable devices operating under this section must contain a statement confirming compliance with these requirements for both fundamental emissions and unwanted emissions. Technical information showing the basis for this statement must be submitted to the Commission upon request.

§ 27.53 Emission limits.

(a) For operations in the bands 2305-2320 MHz and 2345-2360 MHz, the power of any emission outside the licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by the following amounts:

(1) *For fixed, land, and radiolocation land stations:* By a factor not less than $80 + 10 \log (p)$ dB on all frequencies between 2320 and 2345 MHz;

(2) *For mobile and radiolocation mobile stations:* By a factor not less than $110 + 10 \log (p)$ dB on all frequencies between 2320 and 2345 MHz;

(3) *For fixed, land, mobile, radiolocation land and radiolocation mobile stations:* By a factor not less than $70 + 10 \log (p)$