TABLE 2.—450–470 MHz—MAXIMUM ERP/REFERENCE HAAT FOR A SPECIFIC SERVICE AREA RADIUS—Continued

	Service area radius (km)									
	3	8	13	16	24	32	40 [4]	48 [4]	64 [4]	80 [4]
Up to reference HAAT (m) [3]	15	15	15	27	63	125	250	410	950	2700

[1] Maximum ERP indicated provides for a 39 dBu signal strength at the edge of the service area per FCC Report R–6602, Fig. 29 (See § 73.699, Fig. 10 b).
[2] Maximum ERP of 500 watts allowed. Signal strength at the service area contour may be less than 39 dBu.
[3] When the actual antenna HAAT is greater than the reference HAAT, the allowable ERP will be reduced in accordance with the following equation: $ERP_{allow} = ERP_{max} \times (HAAT_{ref} / HAAT_{actual})^2$.
[4] Applications for this service area radius may be granted upon specific request with justification and must include a technical demonstration that the signal strength at the edge of the service area does not exceed 39 dBu.

(h) *470–512 MHz.* Power and height limitations are specified in §§ 90.307 and 90.309.

(i) *806–824/851–869 MHz and 896–901/935–940 MHz.* Power and height limitations are specified in § 90.635.

(j) *902–928 MHz.* LMS systems operating pursuant to subpart M of this part in the 902–927.25 MHz band will be authorized a maximum of 30 watts ERP. LMS equipment operating in the 927.25–928 MHz band will be authorized a maximum of 300 watts ERP. ERP must be measured as peak envelope power. Antenna heights will be as specified in § 90.353(h).

(k) *929–930 MHz.* Limitations on power and antenna heights are specified in § 90.494.

(l) *2450–2483.5 MHz.* The maximum transmitter power is 5 watts.

(m) *All other frequency bands.* Requested transmitter power will be considered and authorized on a case by case basis.

26. Section 90.207 is amended by revising the introductory text, redesignating existing paragraphs (a) through (l) as (b) through (m) respectively, and adding a new paragraph (a) and (n) to read as follows:

§ 90.207 Types of emissions.

Unless specified elsewhere in this part, stations will be authorized emissions as provided for in paragraphs (b) through (n) of this section.

(a) *Explanation of emission symbols.* For a complete listing of emission symbols see § 2.201 of this chapter.

(1) The first symbol indicates the type of modulation on the transmitter carrier.

A—Amplitude modulation, double sideband with identical information on each sideband.

F—Frequency modulation.

G—Phase modulation.

J—Single sideband with suppressed carrier.

P—Unmodulated pulse.

(2) The second symbol indicates the type of signal modulating the transmitter carrier.

0—No modulation.

1—Digital modulation, no subcarrier.

2—Digital modulation, modulated subcarrier.

3—Analog modulation.

(3) The third symbol indicates the type of transmitted information.

A—Telegraphy for aural reception.

B—Telegraphy for machine reception.

C—Facsimile.

D—Data, telemetry, and telecommand.

E—Voice.

N—No transmitted information.

* * * * *

(n) *Other emissions.* Requests for emissions other than those listed in paragraphs (c) through (e) of this section will be considered on a case-by-case basis to ensure that the requested emission will not cause more interference than other currently permitted emissions.

27. Section 90.209 is revised to read as follows:

§ 90.209 Bandwidth limitations.

(a) Each authorization issued to a station licensed under this part will show an emission designator representing the class of emission authorized. The designator will be prefixed by a specified necessary bandwidth. This number does not necessarily indicate the bandwidth occupied by the emission at any instant. In those cases where § 2.202 of this chapter does not provide a formula for the computation of necessary bandwidth, the occupied bandwidth, as defined in Part 2 of this chapter, may be used in lieu of the necessary bandwidth.

(b) The maximum authorized single channel bandwidth of emission corresponding to the type of emission specified in § 90.207 is as follows:

(1) For A1A or A1B emissions, the maximum authorized bandwidth is 0.25 kHz. The maximum authorized bandwidth for type A3E emission is 8 kHz.

(2) For operations below 25 MHz utilizing J3E emission, the bandwidth occupied by the emission shall not exceed 3000 Hz. The assigned frequency will be specified in the authorization. The authorized carrier frequency will be 1400 Hz lower in frequency than the assigned frequency. Only upper sideband emission may be used. In the case of regularly available double sideband radiotelephone channels, an assigned frequency for J3E emissions is available either 1600 Hz below or 1400 Hz above the double sideband radiotelephone assigned frequency.

(3) For all other types of emissions, the maximum authorized bandwidth shall not be more than that normally authorized for voice operations.

(4) Where a frequency is assigned exclusively to a single licensee, more than a single emission may be used within the authorized bandwidth. In such cases, the frequency stability requirements of § 90.213 must be met for each emission.

(5) Unless specified elsewhere, channel spacings and bandwidths that will be authorized in the following frequency bands are given in the following Table.

STANDARD CHANNEL SPACING/BANDWIDTH

Frequency band (MHz)	Channel spacing (kHz)	Authorized bandwidth (kHz)
Below 25 [2]		
25–50	20	20
72–76	20	20
150–174	[1] 7.5	[1] [3] 20/11.25/6
220–222	5	4
421–512 [2]	[1] 6.25	[1] [3] 20/11.25/6
806–821/851–866	25	20
821–824/866–869	12.5	20
896–901/935–940	12.5	13.6
902–928 [4]		
929–930	25	20
1427–1435 [2]		
2450–2483.52 [2]		
Above 2500 [2]		

[1] For stations authorized on or after August 18, 1995.