

to meet the requirements of part 17 of this chapter. *See* § 17.6 of this chapter.

(a) *Marking and lighting.* Antenna structures must be marked, lighted and maintained in accordance with part 17 of this chapter and all applicable rules and requirements of the Federal Aviation Administration.

(b) *Maintenance contracts.* Antenna structure owners (or licensees and permittees, in the event of default by an antenna structure owner) may enter into contracts with other entities to monitor and carry out necessary maintenance of antenna structures. Antenna structure owners (or licensees and permittees, in the event of default by an antenna structure owner) that make such contractual arrangements continue to be responsible for the maintenance of antenna structures in regard to air navigation safety.

[61 FR 4366, Feb. 6, 1996]

Subpart D—Narrowband PCS

§ 24.100 Scope.

This subpart sets out the regulations governing the licensing and operations of personal communications services authorized in the 901–902, 930–931, and 940–941 MHz bands (900 MHz band).

§ 24.101 [Reserved]

§ 24.102 Service areas.

Narrowband PCS service areas are nationwide, regional, and Major Trading Areas (MTAs), as defined in this section. MTAs are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38–39 (MTA Map). Rand McNally organizes the 50 States and the District of Columbia into 47 MTAs. The MTA Map is available for public inspection in the FCC's Library, Room TW-B505, 445 12th Street SW, Washington, D.C.

(a) The nationwide service area consists of the fifty states, the District of Columbia, American Samoa, Guam, Northern Mariana Islands, Puerto Rico, and United States Virgin Islands.

(b) The regional service areas are defined as follows:

(1) Region 1 (Northeast): The Northeast Region consists of the following MTAs: Boston-Providence, Buffalo-

Rochester, New York, Philadelphia, and Pittsburgh.

(2) Region 2 (South): The South Region consists of the following MTAs: Atlanta, Charlotte-Greensboro-Greenville-Raleigh, Jacksonville, Knoxville, Louisville-Lexington-Evansville, Nashville, Miami-Fort Lauderdale, Richmond-Norfolk, Tampa-St. Petersburg-Orlando, and Washington-Baltimore; and, Puerto Rico and United States Virgin Islands.

(3) Region 3 (Midwest): The Midwest Region consists of the following MTAs: Chicago, Cincinnati-Dayton, Cleveland, Columbus, Des Moines-Quad Cities, Detroit, Indianapolis, Milwaukee, Minneapolis-St. Paul, and Omaha.

(4) Region 4 (Central): The Central Region consists of the following MTAs: Birmingham, Dallas-Fort Worth, Denver, El Paso-Albuquerque, Houston, Kansas City, Little Rock, Memphis-Jackson, New Orleans-Baton Rouge, Oklahoma City, San Antonio, St. Louis, Tulsa, and Wichita.

(5) Region 5 (West): The West Region consists of the following MTAs: Honolulu, Los Angeles-San Diego, Phoenix, Portland, Salt Lake City, San Francisco-Oakland-San Jose, Seattle (including Alaska), and Spokane-Billings; and, American Samoa, Guam, and the Northern Mariana Islands.

(c) The MTA service areas are based on the Rand McNally 1992 *Commercial Atlas & Marketing Guide*, 123rd Edition, at pages 38–39, with the following exceptions and additions:

(1) Alaska is separated from the Seattle MTA and is licensed separately.

(2) Guam and the Northern Mariana Islands are licensed as a single MTA-like area.

(3) Puerto Rico and the United States Virgin Islands are licensed as a single MTA-like area.

(4) American Samoa is licensed as a single MTA-like area.

[59 FR 14118, Mar. 25, 1994, as amended at 59 FR 46199, Sept. 7, 1994; 65 FR 35852, June 6, 2000]

§ 24.103 Construction requirements.

(a) Nationwide narrowband PCS licensees shall construct base stations that provide coverage to a composite area of 750,000 square kilometers or

serve 37.5 percent of the U.S. population within five years of initial license grant date; and, shall construct base stations that provide coverage to a composite area of 1,500,000 square kilometers or serve 75 percent of the U.S. population within ten years of initial license grant date. Licensees may, in the alternative, provide substantial service to the licensed area as provided in paragraph (d) of this section.

(b) Regional narrowband PCS licensees shall construct base stations that provide coverage to a composite area of 150,000 square kilometers or serve 37.5 percent of the population of the service area within five years of initial license grant date; and, shall construct base stations that provide coverage to a composite area of 300,000 square kilometers or serve 75 percent of the service area population within ten years of initial license grant date. Licensees may, in the alternative, provide substantial service to the licensed area as provided in paragraph (d) of this section.

(c) MTA narrowband PCS licensees shall construct base stations that provide coverage to a composite area of 75,000 square kilometers or 25 percent of the geographic area, or serve 37.5 percent of the population of the service area within five years of initial license grant date; and, shall construct base stations that provide coverage to a composite area of 150,000 square kilometers or 50 percent of the geographic area, or serve 75 percent of the population of the service area within ten years of initial license grant date. Licensees may, in the alternative, provide substantial service to the licensed area as provided in paragraph (d) of this section.

(d) As an alternative to the requirements of paragraphs (a), (b), and (c) of this section, narrowband PCS licensees may demonstrate that, no later than ten years after the initial grant of their license, they provide substantial service to their licensed area. Licensees choosing this option must notify the FCC by filing FCC Form 601, no later than 15 days after the end of the five year period following the initial grant of their license, that they plan to satisfy the alternative requirement to provide substantial service. "Substan-

tial service" is defined as service that is sound, favorable, and substantially above a level of mediocre service that would barely warrant renewal.

(e) In demonstrating compliance with the construction requirements set forth in this section, licensees must base their calculations on signal field strengths that ensure reliable service for the technology utilized. Licensees may determine the population of geographic areas included within their service contours using either the 1990 census or the 2000 census, but not both.

(1) For the purpose of this section, the service radius of a base station may be calculated using the following formula:

$$d_{km} = 2.53 \times h_m 0.34 \times p^{0.17}$$

where d_{km} is the radial distance in kilometers,

h_m is the antenna HAAT of the base station in meters, and

p is the e.r.p. of the base station in watts.

(2) Alternatively, licensees may use any service radius contour formula developed or generally used by industry, provided that such formula is based on the technical characteristics of their system.

(f) Upon meeting the five and ten year benchmarks in paragraphs (a), (b), and (c) of this section, or upon meeting the substantial service alternative in paragraph (d), licensees shall notify the Commission by filing FCC Form 601 and including a map and other supporting documentation that demonstrate the required geographic area coverage, population coverage, or substantial service to the licensed area. The notification must be filed with the Commission within 15 days of the expiration of the relevant period.

(g) If the sale of a license is approved, the new licensee is held to the original build-out requirement.

(h) Failure by a licensee to meet the above construction requirements shall result in forfeiture of the license and ineligibility to regain it.

[59 FR 14118, Mar. 25, 1994, as amended at 65 FR 35852, June 6, 2000]

§ 24.104 Partitioning and disaggregation.

Nationwide, regional, and MTA licensees may apply to partition their