

## § 21.900

(4) Pertinent information relative to merits of the proposed service.

(5) Propagation characteristics of frequencies used, particularly with respect to the service objective.

(6) Frequencies believed to be more suitable and reasons therefor.

(7) Type of signals or communications employed in the experimental work.

(c) Normally, developmental reports will be made a part of the Commission's public records. However, an applicant may request that the Commission withhold from the public certain reports and associated material relative to the accomplishments achieved under developmental authorization, and, if it appears that such information should be withheld, the Commission will so direct.

### Subparts G–J [Reserved]

### Subpart K—Multipoint Distribution Service

#### § 21.900 Eligibility.

(a) Authorizations for stations in this service will be granted to existing and proposed communications common carriers and non-common carriers. An application will be granted only in cases where it can be shown that:

(1) The applicant is legally, financially, technically, and otherwise qualified to render the proposed service; and

(2) There are frequencies available to enable the applicant to render a satisfactory service; and

(3) The public interest, convenience and necessity would be served by a grant thereof.

(b) The applicant shall state whether service will be provided initially on a common carrier basis or on a non-common carrier basis. An applicant proposing to provide initially common carrier service shall state whether there is any affiliation or relationship to any intended or likely subscriber or program originator.

[63 FR 65102, Nov. 25, 1998; 64 FR 4054, Jan. 27, 1999, as amended at 64 FR 63731, Nov. 22, 1999]

EFFECTIVE DATE NOTE: At 63 FR 65103, Nov. 25, 1998, § 21.900 was revised. Paragraph (a)(2) contains information and recordkeeping re-

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quirements and will not become effective until approval has been given by the Office of Management and Budget.

#### § 21.901 Frequencies.

(a) Frequencies in the bands 2150–2162 MHz, 2596–2644 MHz, 2650–2656 MHz, 2662–2668 MHz, 2674–2680 MHz and 2686–2690 MHz are available for assignment to fixed stations in this service. Frequencies in the band 2150–2160 MHz are shared with nonbroadcast omnidirectional radio systems licensed under other parts of the Commission's Rules, and frequencies in the band 2160–2162 MHz are shared with directional radio systems authorized in other common carrier services. Frequencies in the 2596–2644 MHz band are shared with Instructional Television Fixed Service stations licensed under part 74 of the Commission's Rules. Channels 15, I13, I6 and I14, listed in § 74.939(j) of this chapter, are assigned to fixed stations in the 2596–2620 band, and are shared with Instructional Television Fixed Service Stations licensed under part 74 of the Commission's Rules to operate in this band; grandfathered channels I21, I29, I22 and I30, listed in § 74.939(j) of this chapter, are licensed under part 21 or part 74 of the Commission's Rules, as applicable.

(b) Applicants may be assigned a channel(s) according to one of the following frequency plans:

(1) At 2150–2156 MHz (designated as Channel 1), or

(2) At 2156–2162 MHz (designated as Channel 2), or

(3) At 2156–2160 MHz (designated as Channel 2A), or

(4) At 2596–2602 MHz, 2608–2614 MHz, 2620–2626 MHz, and 2632–2638 MHz (designated as Channels E1, E2, E3 and E4, respectively, with the four channels to be designated the E-group channels), and Channels I5 and I13 listed in § 74.939(j) of this chapter,<sup>1</sup> or

(5) At 2602–2608 MHz, 2614–2620 MHz, 2626–2632 MHz and 2638–2644 MHz (designated as Channels F1, F2, F3 and F4, respectively, with the four channels to be designated the F-group channels), and Channels I6 and I14, listed in § 74.939(j) of this chapter,<sup>1</sup> or

(6) At 2650–2656 MHz, 2662–2668 MHz and 2674–2680 MHz (designated as Channels H1, H2 and H3, respectively, with

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the three channels to be designated the H-group channels).<sup>1</sup>

(c) Channel 2 will be assigned only where there is evidence that no harmful interference will occur to any authorized point-to-point facility in the 2160–2162 MHz band. Channel 2 may be assigned only if the transmitting antenna of the station is to be located within 16.1 kilometers (10 miles) of the coordinates of the following metropolitan areas:

Principal City	Coordinates
Akron, Ohio .....	Lat. 41°05'06" N., long. 81°31'06" W.
Albany-Schenectady-Troy, N.Y.	Lat. 42°39'00" N., long. 73°45'24" W.
Anaheim-Santa Ana-Garden Grove, Calif.	Lat. 33°46'30" N., long. 117°54'48" W.
Atlanta, Ga .....	Lat. 33°45'00" N., long. 84°23'12" W.
Baltimore, Md .....	Lat. 39°17'18" N., long. 76°37'00" W.
Birmingham, Ala .....	Lat. 33°30'42" N., long. 86°48'24" W.
Boston, Mass .....	Lat. 42°21'42" N., long. 71°03'30" W.
Buffalo, N.Y .....	Lat. 42°53'12" N., long. 78°52'30" W.
Chicago, Ill .....	Lat. 41°53'00" N., long. 87°37'30" W.
Cincinnati, Ohio .....	Lat. 39°06'00" N., long. 84°30'48" W.
Cleveland, Ohio .....	Lat. 41°29'48" N., long. 81°42'00" W.
Columbus, Ohio .....	Lat. 39°57'42" N., long. 83°00'06" W.
Dallas, Tex .....	Lat. 32°46'36" N., long. 96°48'42" W.
Dayton, Ohio .....	Lat. 39°45'24" N., long. 84°11'42" W.
Denver, Colo .....	Lat. 39°44'24" N., long. 104°59'18" W.
Detroit, Mich .....	Lat. 42°20'00" N., long. 83°03'00" W.
Fort Worth, Tex .....	Lat. 32°45'00" N., long. 97°17'42" W.
Gary, Ind .....	Lat. 41°36'00" N., long. 87°20'00" W.
Hartford, Conn .....	Lat. 41°46'00" N., long. 72°40'30" W.
Houston, Tex .....	Lat. 29°45'48" N., long. 95°21'42" W.
Indianapolis, Ind .....	Lat. 39°46'12" N., long. 86°09'18" W.
Kansas City, Mo .....	Lat. 39°06'00" N., long. 94°34'42" W.
Los Angeles-Long Beach, Calif.	Lat. 34°03'18" N., long. 118°15'00" W.
Louisville, Ky .....	Lat. 38°14'48" N., long. 85°45'42" W.
Memphis, Tenn .....	Lat. 35°07'30" N., long. 90°03'24" W.
Miami, Fla .....	Lat. 25°46'30" N., long. 80°11'24" W.
Milwaukee, Wis .....	Lat. 43°02'18" N., long. 87°54'48" W.
Minneapolis-St. Paul, Minn.	Lat. 44°59'00" N., long. 93°15'48" W.
New Orleans, La .....	Lat. 29°57'48" N., long. 90°03'48" W.
New York City, N.Y.-Newark-Jersey City-Paterson, N.J.	Lat. 40°42'30" N., long. 74°00'00" W.
Norfolk, Va .....	Lat. 36°50'42" N., long. 76°17'12" W.
Oklahoma City, Okla	Lat. 35°29'30" N., long. 97°30'12" W.
Philadelphia, Pa .....	Lat. 39°57'00" N., long. 75°09'48" W.
Phoenix, Ariz .....	Lat. 33°27'18" N., long. 112°04'24" W.
Pittsburgh, Pa .....	Lat. 40°26'12" N., long. 80°00'30" W.
Portland, Ore .....	Lat. 45°32'06" N., long. 122°37'12" W.
Providence, R.I .....	Lat. 41°49'00" N., long. 71°24'24" W.

<sup>1</sup>No 125 kHz channels are provided for Channels E3, E4, F3, F4, H1, H2 and H3, except for those grandfathered for Channels E3, E4, F3 and F4. The 125 kHz channels associated with Channels E3, E4, F3, F4, H1, H2 and H3 are allocated to the Private Operational Fixed Point-to-Point Microwave Service, pursuant to §101.147(g) of this chapter.

Principal City	Coordinates
Rochester, N.Y .....	Lat. 43°09'30" N., long. 77°36'30" W.
Sacramento, Calif .....	Lat. 38°35'06" N., long. 121°29'24" W.
San Antonio, Tex .....	Lat. 29°25'24" N., long. 98°29'43" W.
San Bernardino-Riverside, Calif.	Lat. 34°06'30" N., long. 117°18'36" W.
San Diego, Calif .....	Lat. 32°42'48" N., long. 117°09'12" W.
San Francisco-Oakland, Calif.	Lat. 37°46'30" N., long. 122°25'00" W.
San Jose-Palo Alto-Sunnyvale, Calif.	Lat. 37°22'36" N., long. 122°02'00" W.
Seattle-Everett, Wash.	Lat. 47°35'48" N., long. 122°19'48" W.
St. Louis, Mo .....	Lat. 38°37'00" N., long. 90°11'36" W.
Syracuse, N.Y .....	Lat. 43°03'06" N., long. 76°09'00" W.
Tampa-St. Petersburg, Fla.	Lat. 27°57'06" N., long. 82°27'00" W.
Toledo, Ohio .....	Lat. 41°38'48" N., long. 83°32'30" W.
Washington, D.C .....	Lat. 38°53'30" N., long. 77°02'00" W.

(d) An MDS licensee or conditional licensee may apply to exchange evenly one or more of its assigned channels with another MDS licensee or conditional licensee in the same system, or with an ITFS licensee or conditional licensee in the same system. The licensees or conditional licensees seeking to exchange channels shall file in tandem with the Commission separate pro forma assignment of license applications, each attaching an exhibit which clearly specifies that the application is filed pursuant to a channel exchange agreement. The exchanged channel(s) shall be regulated according to the requirements applicable to the assignee.

(e) Frequencies in the band segments 18,580–18,820 MHz and 18,920–19,160 MHz that were licensed or had applications pending before the Commission as of September 18, 1998 may continue those operations for point-to-point return links from a subscriber's location on a shared co-primary basis with other services under parts 25, 74, 78 and 101 of this chapter until June 8, 2010. Prior to June 8, 2010, such stations are subject to relocation by licensees in the fixed-satellite service. Such relocation is subject to the provisions of §§101.85 through 101.97 of this chapter. After June 8, 2010, such operations are not entitled to protection from fixed-satellite service operations and must not cause unacceptable interference to fixed-satellite service station operations. No applications for new licenses will be accepted in these bands after June 8, 2000.

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(f) MDS H-channel applications. Frequencies in the bands 2650–2656 MHz, 2662–2668 MHz, or 2674–2680 MHz must be assigned only in accordance with the following conditions: All applications for MDS H-channel stations must specify either the H1, H2, or H3 channel for which an application is filed; however, the Commission may on its own initiative assign different channels in these frequency bands if it is determined that such action would serve the public interest.

(g) Frequencies in the bands 2150–2162 MHz, 2596–2644 MHz, 2650–2656 MHz, 2662–2668 MHz and 2674–2680 MHz are available for point-to-multipoint use and/or for communications between MDS response stations and response station hubs when authorized in accordance with the provisions of § 21.909, provided that such frequencies may be employed for MDS response stations only when transmitting using digital modulation.

[44 FR 60534, Oct. 19, 1979, as amended at 48 FR 33900, July 26, 1983; 49 FR 25479, June 21, 1984; 49 FR 37777, Sept. 26, 1984; 55 FR 46009, Oct. 31, 1990; 56 FR 57598, Nov. 13, 1991; 56 FR 57817, Nov. 14, 1991; 58 FR 11798, Mar. 1, 1993; 58 FR 44895, Aug. 25, 1993; 60 FR 36552, July 17, 1995; 61 FR 26676, May 28, 1996; 63 FR 65102, Nov. 25, 1998; 64 FR 4054, Jan. 27, 1999; 64 FR 63731, Nov. 22, 1999; 65 FR 54169, Sept. 7, 2000; 68 FR 16965, Apr. 8, 2003]

### § 21.902 Interference.

(a) All applicants, conditional licensees, and licensees shall make exceptional efforts to avoid harmful interference to other users and to avoid blocking potential adjacent channel use in the same city and cochannel use in nearby cities. In areas where major cities are in close proximity, careful consideration should be given to minimum power requirements and to the location, height, and radiation pattern of the transmitting antenna. Licensees, conditional licensees, and applicants are expected to cooperate fully in attempting to resolve problems of potential interference before bringing the matter to the attention of the Commission.

(b) As a condition for use of frequency in this service, each applicant, conditional licensee, and licensee is required to:

(1) Not enter into any lease or contract or otherwise take any action that would unreasonably prohibit location of another station's transmitting antenna at any given site inside its own protected service area.

(2) Cooperate fully and in good faith to resolve interference and transmission security problems.

(3) Engineer the system to provide at least 45 dB of cochannel interference protection within the 56.33 km (35 mile) protected service area of any authorized or previously-proposed ITFS or incumbent MDS station, and at each previously-registered ITFS receive site registered as of September 17, 1998 (or the appropriate value for bandwidths other than 6 MHz.)

(4) Engineer the station to provide at least 0 dB of adjacent channel interference protection within the 56.33 km (35 mile) protected service area of any authorized or previously-proposed ITFS or incumbent MDS station, and at each previously-registered ITFS receive site registered as of September 17, 1998 (or the appropriate value for bandwidths other than 6 MHz.)

(5)(i) Engineer the station to limit the calculated free space power flux density to  $-73$  dBW/m<sup>2</sup> (or the appropriate value for bandwidth other than 6 MHz) at the boundary of a 56.33 km (35 mile) protected service area, where there is an unobstructed signal path from the transmitting antenna to the boundary; or alternatively, obtain the written consent of the entity authorized for the adjoining area to exceed the  $-73$  dBW/m<sup>2</sup> limiting signal strength at the common boundary.

(ii) In determining signal path conditions, the following shall be used: a 9.1 meter (30 feet) receiving antenna height, the transmitting antenna height, terrain elevations and 4/3 earth radius propagation conditions.

(6) If a proposed station is within 80 km (50 miles) of the Canadian or Mexican border, the station must be designed to meet the requirements set forth in international treaties.

(7) Notwithstanding the above, main, booster and response stations shall use the following formulas, as applicable, for determining compliance with: (1) Radiated field contour limits where