

MHz Second Report and Order.¹⁵⁴ An auction of 700 MHz licenses commenced January 24, 2008. For the Lower 700 MHz band, 176 licenses over Economic Areas in the A Block, 734 licenses over Cellular Market Areas in the B Block, and 176 licenses over EAs in the E Block are available for licensing.¹⁵⁵ Winning bidders may be eligible for small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years), or very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years).

85. **Upper 700 MHz Band Licenses.** In the *700 MHz Second Report and Order*, the Commission revised its rules regarding Upper 700 MHz licenses. On January 24, 2008, the Commission commenced Auction 73 in which several licenses in the Upper 700 MHz band are available for licensing: 12 licenses over Regional Economic Area Groupings (“REAGs”) in the C Block, and one nationwide license in the D Block.¹⁵⁶ Winning bidders may be eligible for small business status (those with attributable average annual gross revenues that exceed \$15 million and do not exceed \$40 million for the preceding three years), or very small business status (those with attributable average annual gross revenues that do not exceed \$15 million for the preceding three years).

86. **700 MHz Guard Band Licenses.** In the *700 MHz Guard Band Order*, the Commission adopted size standards for “small businesses” and “very small businesses” for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹⁵⁷ A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.¹⁵⁸ Additionally, a very small business is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.¹⁵⁹ SBA approval of these definitions is not required.¹⁶⁰ An auction of 52 Major Economic Area (“MEA”) licenses commenced on September 6, 2000, and closed on September 21, 2000.¹⁶¹ Of the 104 licenses auctioned, 96 licenses

¹⁵⁴ *Service Rules for the 698-746, 747-762 and 777-792 MHz Bands*, WT Docket No. 06-150, *Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems*, CC Docket No. 94-102, *Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones*, WT Docket No. 01-309, *Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services*, WT Docket 03-264, *Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules*, WT Docket No. 06-169, *Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band*, PS Docket No. 06-229, *Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010*, WT Docket No. 96-86, *Second Report and Order*, FCC 07-132 (2007) (“*700 MHz Second Report and Order*”).

¹⁵⁵ See “Auction of 700 MHz Band Licenses Scheduled for January 16, 2008; Comment Sought on Competitive Bidding Procedures For Auction 73,” *Public Notice*, FCC Rcd 15004 (WTB 2007).

¹⁵⁶ See *id.*

¹⁵⁷ See *Service Rules for the 746-764 MHz Bands, and Revisions to Part 27 of the Commission’s Rules*, *Second Report and Order*, 15 FCC Rcd 5299 (2000) (“*746-764 MHz Band Second Report and Order*”).

¹⁵⁸ See *746-764 MHz Band Second Report and Order*, 15 FCC Rcd at 5343, para. 108.

¹⁵⁹ See *id.*

¹⁶⁰ See *id.*, 15 FCC Rcd 5299, 5343, para. 108 n.246 (for the 746-764 MHz and 776-794 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain SBA approval before adopting small business size standards).

¹⁶¹ See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 18026 (2000).

were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.¹⁶²

87. **Specialized Mobile Radio.** The Commission awards “small entity” bidding credits in auctions for Specialized Mobile Radio (SMR) geographic area licenses in the 800 MHz and 900 MHz bands to firms that had revenues of no more than \$15 million in each of the three previous calendar years.¹⁶³ The Commission awards “very small entity” bidding credits to firms that had revenues of no more than \$3 million in each of the three previous calendar years.¹⁶⁴ The SBA has approved these small business size standards for the 900 MHz Service.¹⁶⁵ The Commission has held auctions for geographic area licenses in the 800 MHz and 900 MHz bands. The 900 MHz SMR auction began on December 5, 1995, and closed on April 15, 1996. Sixty bidders claiming that they qualified as small businesses under the \$15 million size standard won 263 geographic area licenses in the 900 MHz SMR band. The 800 MHz SMR auction for the upper 200 channels began on October 28, 1997, and was completed on December 8, 1997. Ten bidders claiming that they qualified as small businesses under the \$15 million size standard won 38 geographic area licenses for the upper 200 channels in the 800 MHz SMR band.¹⁶⁶ A second auction for the 800 MHz band was held on January 10, 2002 and closed on January 17, 2002 and included 23 BEA licenses. One bidder claiming small business status won five licenses.¹⁶⁷

88. The auction of the 1,053 800 MHz SMR geographic area licenses for the General Category channels began on August 16, 2000, and was completed on September 1, 2000. Eleven bidders won 108 geographic area licenses for the General Category channels in the 800 MHz SMR band qualified as small businesses under the \$15 million size standard.¹⁶⁸ In an auction completed on December 5, 2000, a total of 2,800 Economic Area licenses in the lower 80 channels of the 800 MHz SMR service were awarded.¹⁶⁹ Of the 22 winning bidders, 19 claimed small business status and won 129 licenses. Thus, combining all three auctions, 40 winning bidders for geographic licenses in the 800 MHz SMR band claimed status as small business.

89. In addition, there are numerous incumbent site-by-site SMR licensees and licensees with extended implementation authorizations in the 800 and 900 MHz bands. We do not know how many firms provide 800 MHz or 900 MHz geographic area SMR pursuant to extended implementation authorizations, nor how many of these providers have annual revenues of no more than \$15 million. One firm has over \$15 million in revenues. We assume, for purposes of this analysis, that all of the remaining existing extended implementation authorizations are held by small entities, as that small business size standard is approved by the SBA.

¹⁶² See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 4590 (WTB 2001).

¹⁶³ 47 C.F.R. § 90.814(b)(1).

¹⁶⁴ 47 C.F.R. § 90.814(b)(1).

¹⁶⁵ See *Alvarez Letter 1999*.

¹⁶⁶ See “Correction to Public Notice DA 96-586 ‘FCC Announces Winning Bidders in the Auction of 1020 Licenses to Provide 900 MHz SMR in Major Trading Areas,’” *Public Notice*, 18 FCC Rcd 18367 (WTB 1996).

¹⁶⁷ See “Multi-Radio Service Auction Closes,” *Public Notice*, 17 FCC Rcd 1446 (WTB 2002).

¹⁶⁸ See “800 MHz Specialized Mobile Radio (SMR) Service General Category (851-854 MHz) and Upper Band (861-865 MHz) Auction Closes; Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 17162 (2000).

¹⁶⁹ See, “800 MHz SMR Service Lower 80 Channels Auction Closes; Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 1736 (2000).

90. **220 MHz Radio Service – Phase I Licensees.** The 220 MHz service has both Phase I and Phase II licenses. Phase I licensing was conducted by lotteries in 1992 and 1993. There are approximately 1,515 such non-nationwide licensees and four nationwide licensees currently authorized to operate in the 220 MHz band. The Commission has not developed a definition of small entities specifically applicable to such incumbent 220 MHz Phase I licensees. To estimate the number of such licensees that are small businesses, we apply the small business size standard under the SBA rules applicable to “Cellular and Other Wireless Telecommunications” companies. This category provides that a small business is a wireless company employing no more than 1,500 persons.¹⁷⁰ The Commission estimates that most such licensees are small businesses under the SBA’s small business standard.

91. **220 MHz Radio Service – Phase II Licensees.** The 220 MHz service has both Phase I and Phase II licenses. The Phase II 220 MHz service is a new service, and is subject to spectrum auctions. In the 220 MHz Third Report and Order, the Commission adopted a small business size standard for defining “small” and “very small” businesses for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.¹⁷¹ This small business standard indicates that a “small business” is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$15 million for the preceding three years.¹⁷² A “very small business” is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that do not exceed \$3 million for the preceding three years.¹⁷³ The SBA has approved these small size standards.¹⁷⁴ Auctions of Phase II licenses commenced on September 15, 1998, and closed on October 22, 1998.¹⁷⁵ In the first auction, 908 licenses were auctioned in three different-sized geographic areas: three nationwide licenses, 30 Regional Economic Area Group (“EAG”) Licenses, and 875 Economic Area (EA) Licenses. Of the 908 licenses auctioned, 693 were sold.¹⁷⁶ Thirty-nine small businesses won 373 licenses in the first 220 MHz auction. A second auction included 225 licenses: 216 EA licenses and 9 EAG licenses. Fourteen companies claiming small business status won 158 licenses.¹⁷⁷ A third auction included four licenses: 2 BEA licenses and 2 EAG licenses in the 220 MHz Service. No small or very small business won any of these licenses.¹⁷⁸ The Commission conducted a fourth auction in 2007 with three of the five winning bidders claiming small or very small business status.¹⁷⁹

92. **Private Land Mobile Radio (“PLMR”).** PLMR systems serve an essential role in a range of industrial, business, land transportation, and public safety activities. These radios are used by companies of all sizes operating in all U.S. business categories, and are often used in support of the

¹⁷⁰ 13 C.F.R. § 121.201, NAICS code 517212.

¹⁷¹ *Amendment of Part 90 of the Commission’s Rules to Provide For the Use of the 220-222 MHz Band by the Private Land Mobile Radio Service*, Third Report and Order, 12 FCC Rcd 10943, 11068-70, paras. 291-295 (1997).

¹⁷² *Id.* at 11068, para. 291.

¹⁷³ *Id.*

¹⁷⁴ See Letter from Aida Alvarez, Administrator, SBA, to Daniel Phythyon, Chief, WTB, FCC (Jan. 6, 1998) (“*Alvarez to Phythyon Letter 1998*”).

¹⁷⁵ See generally “220 MHz Service Auction Closes,” *Public Notice*, 14 FCC Rcd 605 (1998).

¹⁷⁶ See “FCC Announces It is Prepared to Grant 654 Phase II 220 MHz Licenses After Final Payment is Made,” *Public Notice*, 14 FCC Rcd 1085 (1999).

¹⁷⁷ See “Phase II 220 MHz Service Spectrum Auction Closes,” *Public Notice*, 14 FCC Rcd 11218 (1999).

¹⁷⁸ See “Multi-Radio Service Auction Closes,” *Public Notice*, 17 FCC Rcd 1446 (2002).

¹⁷⁹ See “Auction of Phase II 220 MHz Service Spectrum Licenses Closes,” *Public Notice*, 22 FCC Rcd 11573 (WTB 2007).

licensee's primary (non-telecommunications) business operations. For the purpose of determining whether a licensee of a PLMR system is a small business as defined by the SBA, we use the broad census category, "Cellular and Other Wireless Telecommunications." This definition provides that a small entity is any such entity employing no more than 1,500 persons.¹⁸⁰ The Commission does not require PLMR licensees to disclose information about number of employees, so the Commission does not have information that could be used to determine how many PLMR licensees constitute small entities under this definition. We note that PLMR licensees generally use the licensed facilities in support of other business activities, and therefore, it would also be helpful to assess PLMR licensees under the standards applied to the particular industry subsector to which the licensee belongs.¹⁸¹

93. The Commission's 1994 Annual Report on PLMRs¹⁸² indicates that at the end of fiscal year 1994, there were 1,087,267 licensees operating 12,481,989 transmitters in the PLMR bands below 512 MHz. We note that any entity engaged in a commercial activity is eligible to hold a PLMR license, and that the revised rules in this context could therefore potentially impact small entities covering a great variety of industries.

94. **Fixed Microwave Services.** Fixed microwave services include common carrier,¹⁸³ private operational-fixed,¹⁸⁴ and broadcast auxiliary radio services.¹⁸⁵ At present, there are approximately 22,015 common carrier fixed licensees and 61,670 private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services. The Commission has not created a size standard for a small business specifically with respect to fixed microwave services. For purposes of this analysis, the Commission uses the SBA small business size standard for the category "Cellular and Other Telecommunications," which is 1,500 or fewer employees.¹⁸⁶ The Commission does not have data specifying the number of these licensees that have no more than 1,500 employees, and thus are unable at this time to estimate with greater precision the number of fixed microwave service licensees that would qualify as small business concerns under the SBA's small business size standard. Consequently, the Commission estimates that there are 22,015 or fewer common carrier fixed licensees and 61,670 or fewer private operational-fixed licensees and broadcast auxiliary radio licensees in the microwave services that may be small and may be affected by the rules and policies proposed herein. We note, however, that the common carrier microwave fixed licensee category includes some large entities.

95. **39 GHz Service.** The Commission created a special small business size standard for 39 GHz licenses – an entity that has average gross revenues of \$40 million or less in the three previous

¹⁸⁰ See 13 C.F.R. § 121.201, NAICS code 517212.

¹⁸¹ See generally 13 C.F.R. § 121.201.

¹⁸² Federal Communications Commission, 60th Annual Report, Fiscal Year 1994, at ¶ 116.

¹⁸³ See 47 C.F.R. §§ 101 et seq. (formerly, Part 21 of the Commission's Rules) for common carrier fixed microwave services (except Multipoint Distribution Service).

¹⁸⁴ Persons eligible under parts 80 and 90 of the Commission's Rules can use Private Operational-Fixed Microwave services. See 47 C.F.R. Parts 80 and 90. Stations in this service are called operational-fixed to distinguish them from common carrier and public fixed stations. Only the licensee may use the operational-fixed station, and only for communications related to the licensee's commercial, industrial, or safety operations.

¹⁸⁵ Auxiliary Microwave Service is governed by Part 74 of Title 47 of the Commission's Rules. See 47 C.F.R. Part 74. This service is available to licensees of broadcast stations and to broadcast and cable network entities. Broadcast auxiliary microwave stations are used for relaying broadcast television signals from the studio to the transmitter, or between two points such as a main studio and an auxiliary studio. The service also includes mobile television pickups, which relay signals from a remote location back to the studio.

¹⁸⁶ 13 C.F.R. § 121.201, NAICS code 517212.

calendar years.¹⁸⁷ An additional size standard for “very small business” is: an entity that, together with affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁸⁸ The SBA has approved these small business size standards.¹⁸⁹ The auction of the 2,173 39 GHz licenses began on April 12, 2000 and closed on May 8, 2000. The 18 bidders who claimed small business status won 849 licenses.

96. **Local Multipoint Distribution Service.** Local Multipoint Distribution Service (“LMDS”) is a fixed broadband point-to-multipoint microwave service that provides for two-way video telecommunications.¹⁹⁰ The auction of the 986 LMDS licenses began on February 18, 1998 and closed on March 25, 1998. The Commission established a small business size standard for LMDS licenses as an entity that has average gross revenues of less than \$40 million in the three previous calendar years.¹⁹¹ An additional small business size standard for “very small business” was added as an entity that, together with its affiliates, has average gross revenues of not more than \$15 million for the preceding three calendar years.¹⁹² The SBA has approved these small business size standards in the context of LMDS auctions.¹⁹³ There were 93 winning bidders that qualified as small entities in the LMDS auctions. A total of 93 small and very small business bidders won approximately 277 A Block licenses and 387 B Block licenses. On March 27, 1999, the Commission re-auctioned 161 licenses; there were 32 small and very small businesses winning that won 119 licenses.

97. **218-219 MHz Service.** The first auction of 218-219 MHz (previously referred to as the Interactive and Video Data Service or IVDS) spectrum resulted in 178 entities winning licenses for 594 Metropolitan Statistical Areas (“MSAs”).¹⁹⁴ Of the 594 licenses, 567 were won by 167 entities qualifying as a small business. For that auction, the Commission defined a small business as an entity that, together with its affiliates, has no more than a \$6 million net worth and, after federal income taxes (excluding any carry over losses), has no more than \$2 million in annual profits each year for the previous two years.¹⁹⁵ In the *218-219 MHz Report and Order and Memorandum Opinion and Order*, we defined a small business as an entity that, together with its affiliates and persons or entities that hold interests in such an entity and their affiliates, has average annual gross revenues not exceeding \$15 million for the preceding three years.¹⁹⁶ A very small business is defined as an entity that, together with

¹⁸⁷ See *Amendment of the Commission’s Rules Regarding the 37.0-38.6 GHz and 38.6-40.0 GHz Bands*, ET Docket No. 95-183, Report and Order, 12 FCC Rcd 18600 (1997).

¹⁸⁸ *Id.*

¹⁸⁹ See Letter from Aida Alvarez, Administrator, SBA, to Kathleen O’Brien Ham, Chief, Auctions and Industry Analysis Division, WTB, FCC (Feb. 4, 1998); See Letter from Hector Barreto, Administrator, SBA, to Margaret Wiener, Chief, Auctions and Industry Analysis Division, WTB, FCC (Jan. 18, 2002).

¹⁹⁰ See *Rulemaking to Amend Parts 1, 2, 21, 25, of the Commission’s Rules to Redesignate the 27.5-29.5 GHz Frequency Band, Reallocate the 29.5-30.5 GHz Frequency Band, to Establish Rules and Policies for Local Multipoint Distribution Service and for Fixed Satellite Services*, Second Report and Order, Order on Reconsideration, and Fifth Notice of Proposed Rule Making, 12 FCC Rcd 12545, 12689-90, para. 348 (1997) (“*LMDS Second Report and Order*”).

¹⁹¹ See *LMDS Second Report and Order*, 12 FCC Rcd at 12689-90, para. 348.

¹⁹² See *id.*

¹⁹³ See *Alvarez to Phythyon Letter 1998*.

¹⁹⁴ See “Interactive Video and Data Service (IVDS) Applications Accepted for Filing,” *Public Notice*, 9 FCC Rcd 6227 (1994).

¹⁹⁵ *Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, Fourth Report and Order, 9 FCC Rcd 2330 (1994).

¹⁹⁶ *Amendment of Part 95 of the Commission’s Rules to Provide Regulatory Flexibility in the 218-219 MHz Service*, (continued....)

its affiliates and persons or entities that hold interests in such an entity and its affiliates, has average annual gross revenues not exceeding \$3 million for the preceding three years.¹⁹⁷ The SBA has approved of these definitions.¹⁹⁸ A subsequent auction is not yet scheduled. Given the success of small businesses in the previous auction, and the prevalence of small businesses in the subscription television services and message communications industries, we assume for purposes of this analysis that in future auctions, many, and perhaps most, of the licenses may be awarded to small businesses.

98. **Location and Monitoring Service (“LMS”).** Multilateration LMS systems use non-voice radio techniques to determine the location and status of mobile radio units. For purposes of auctioning LMS licenses, the Commission has defined “small business” as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million.¹⁹⁹ A “very small business” is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$3 million.²⁰⁰ These definitions have been approved by the SBA.²⁰¹ An auction for LMS licenses commenced on February 23, 1999, and closed on March 5, 1999. Of the 528 licenses auctioned, 289 licenses were sold to four small businesses.

99. **Rural Radiotelephone Service.** The Commission has not adopted a size standard for small businesses specific to the Rural Radiotelephone Service.²⁰² A significant subset of the Rural Radiotelephone Service is the Basic Exchange Telephone Radio System (“BETRS”).²⁰³ In the present context, we will use the SBA’s small business size standard applicable to “Cellular and Other Wireless Telecommunications,” *i.e.*, an entity employing no more than 1,500 persons.²⁰⁴ There are approximately 1,000 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 1,000 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

100. **Air-Ground Radiotelephone Service.**²⁰⁵ The Commission has previously used the SBA’s small business definition applicable to “Cellular and Other Wireless Telecommunications,” *i.e.*, an entity employing no more than 1,500 persons.²⁰⁶ There are approximately 100 licensees in the Air-Ground Radiotelephone Service, and under that definition, we estimate that almost all of them qualify as small entities under the SBA definition. For purposes of assigning Air-Ground Radiotelephone Service licenses through competitive bidding, the Commission has defined “small business” as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding

(Continued from previous page) _____
Report and Order and Memorandum Opinion and Order, 15 FCC Rcd 1497 (1999).

¹⁹⁷ *Id.*

¹⁹⁸ See Alvarez to Phythyon Letter 1998.

¹⁹⁹ Amendment of Part 90 of the Commission’s Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, Second Report and Order, 13 FCC Rcd 15182, 15192, ¶ 20 (1998) (“Automatic Vehicle Monitoring Systems Second Report and Order”); see also 47 C.F.R. § 90.1103.

²⁰⁰ Automatic Vehicle Monitoring Systems Second Report and Order, 13 FCC Rcd at 15192, para. 20; see also 47 C.F.R. § 90.1103.

²⁰¹ See Alvarez Letter 1998.

²⁰² The service is defined in § 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

²⁰³ BETRS is defined in §§ 22.757 and 22.759 of the Commission’s Rules, 47 C.F.R. §§ 22.757 and 22.759.

²⁰⁴ 13 C.F.R. § 121.201, NAICS code 517212.

²⁰⁵ The service is defined in § 22.99 of the Commission’s Rules, 47 C.F.R. § 22.99.

²⁰⁶ 13 C.F.R. § 121.201, NAICS codes 517212.

three years not exceeding \$40 million.²⁰⁷ A “very small business” is defined as an entity that, together with controlling interests and affiliates, has average annual gross revenues for the preceding three years not exceeding \$15 million.²⁰⁸ These definitions were approved by the SBA.²⁰⁹ In May 2006, the Commission completed an auction of nationwide commercial Air-Ground Radiotelephone Service licenses in the 800 MHz band (Auction No. 65). On June 2, 2006, the auction closed with two winning bidders winning two Air-Ground Radiotelephone Services licenses. Neither of the winning bidders claimed small business status.

101. **Aviation and Marine Radio Services.** There are approximately 26,162 aviation, 34,555 marine (ship), and 3,296 marine (coast) licensees.²¹⁰ The Commission has not developed a small business size standard specifically applicable to all licensees. For purposes of this analysis, we will use the SBA small business size standard for the category “Cellular and Other Telecommunications,” which is 1,500 or fewer employees.²¹¹ We are unable to determine how many of those licensed fall under this standard. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 62,969 licensees that are small businesses under the SBA standard.²¹² In December 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For this auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars. In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.²¹³ Further, the Commission made available Automated Maritime Telecommunications System (“AMTS”) licenses in Auctions 57 and 61.²¹⁴ Winning bidders could claim status as a very small business or a very small business. A very small business for this service is defined as an entity with attributed average annual gross revenues that do not exceed \$3 million for the preceding three years, and a small business is defined as an entity with attributed average annual gross revenues of more than \$3 million but less than \$15 million for the

²⁰⁷ *Amendment of Part 22 of the Commission's Rules to Benefit the Consumers of Air-Ground Telecommunications Services, Biennial Regulatory Review – Amendment of Parts 1, 22, and 90 of the Commission's Rules, Amendment of Parts 1 and 22 of the Commission's Rules to Adopt Competitive Bidding Rules for Commercial and General Aviation Air-Ground Radiotelephone Service*, WT Docket Nos. 03-103 and 05-42, Order on Reconsideration and Report and Order, 20 FCC Rcd 19663, ¶¶ 28-42 (2005).

²⁰⁸ *Id.*

²⁰⁹ See Letter from Hector V. Barreto, Administrator, SBA, to Gary D. Michaels, Deputy Chief, Auctions and Spectrum Access Division, WTB, FCC (Sept. 19, 2005).

²¹⁰ Vessels that are not required by law to carry a radio and do not make international voyages or communications are not required to obtain an individual license. See Amendment of Parts 80 and 87 of the Commission's Rules to Permit Operation of Certain Domestic Ship and Aircraft Radio Stations Without Individual Licenses, *Report and Order*, WT Docket No. 96-82, 11 FCC Rcd 14849 (1996).

²¹¹ 13 C.F.R. § 121.201, NAICS code 517212.

²¹² A licensee may have a license in more than one category.

²¹³ *Amendment of the Commission's Rules Concerning Maritime Communications*, PR Docket No. 92-257, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853 (1998).

²¹⁴ See “Automated Maritime Telecommunications System Spectrum Auction Scheduled for September 15, 2004, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Auction Procedures,” *Public Notice*, 19 FCC Rcd 9518 (WTB 2004); “Auction of Automated Maritime Telecommunications System Licenses Scheduled for August 3, 2005, Notice and Filing Requirements, Minimum Opening Bids, Upfront Payments and Other Auction Procedures for Auction No. 61,” *Public Notice*, 20 FCC Rcd 7811 (WTB 2005).

preceding three years.²¹⁵ Three of the winning bidders in Auction 57 qualified as small or very small businesses, while three winning entities in Auction 61 qualified as very small businesses.

102. **Offshore Radiotelephone Service.** This service operates on several ultra high frequencies (“UHF”) television broadcast channels that are not used for television broadcasting in the coastal areas of states bordering the Gulf of Mexico.²¹⁶ There is presently 1 licensee in this service. We do not have information whether that licensee would qualify as small under the SBA’s small business size standard for “Cellular and Other Wireless Telecommunications” services.²¹⁷ Under that SBA small business size standard, a business is small if it has 1,500 or fewer employees.²¹⁸

103. **Multiple Address Systems (“MAS”).** Entities using MAS spectrum, in general, fall into two categories: (1) those using the spectrum for profit-based uses, and (2) those using the spectrum for private internal uses. With respect to the first category, the Commission defines “small entity” for MAS licenses as an entity that has average gross revenues of less than \$15 million in the three previous calendar years.²¹⁹ “Very small business” is defined as an entity that, together with its affiliates, has average gross revenues of not more than \$3 million for the preceding three calendar years.²²⁰ The SBA has approved of these definitions.²²¹ The majority of these entities will most likely be licensed in bands where the Commission has implemented a geographic area licensing approach that would require the use of competitive bidding procedures to resolve mutually exclusive applications. The Commission’s licensing database indicates that, as of January 20, 1999, there were a total of 8,670 MAS station authorizations. Of these, 260 authorizations were associated with common carrier service. In addition, an auction for 5,104 MAS licenses in 176 EAs began November 14, 2001, and closed on November 27, 2001.²²² Seven winning bidders claimed status as small or very small businesses and won 611 licenses. On May 18, 2005, the Commission completed an auction (Auction No. 59) of 4,226 MAS licenses in the Fixed Microwave Services from the 928/959 and 932/941 MHz bands. Twenty-six winning bidders won a total of 2,323 licenses. Of the 26 winning bidders in this auction, five claimed small business status and won 1,891 licenses.

104. With respect to the second category, which consists of entities that use, or seek to use, MAS spectrum to accommodate internal communications needs, we note that MAS serves an essential role in a range of industrial, safety, business, and land transportation activities. MAS radios are used by companies of all sizes, operating in virtually all U.S. business categories, and by all types of public safety entities. For the majority of private internal users, the small business size standard developed by the SBA would be more appropriate. The applicable size standard in this instance appears to be that of “Cellular and Other Wireless Telecommunications”. This definition provides that a small entity is any such entity employing no more than 1,500 persons.²²³ The Commission’s licensing database indicates that, as of January 20, 1999, of the 8,670 total MAS station authorizations, 8,410 authorizations were for private radio service, and of these, 1,433 were for private land mobile radio service.

²¹⁵ 47 C.F.R. § 80.1252.

²¹⁶ This service is governed by Subpart I of Part 22 of the Commission’s Rules. *See* 47 C.F.R. §§ 22.1001-22.1037.

²¹⁷ 13 C.F.R. § 121.201, NAICS code 517212.

²¹⁸ *Id.*

²¹⁹ *See Amendment of the Commission’s Rules Regarding Multiple Address Systems, Report and Order, 15 FCC Rcd 11956, 12008, ¶ 123 (2000).*

²²⁰ *Id.*

²²¹ *See Alvarez Letter 1999.*

²²² *See “Multiple Address Systems Spectrum Auction Closes,” Public Notice, 16 FCC Rcd 21011 (2001).*

²²³ *See* 13 C.F.R. § 121.201, NAICS code 517212.

105. **1.4 GHz Band Licensees.** The Commission conducted an auction of 64 1.4 GHz band licenses, beginning on February 7, 2007,²²⁴ and closing on March 8, 2007.²²⁵ In that auction, the Commission defined “small business” as an entity that, together with its affiliates and controlling interests, had average gross revenues that exceed \$15 million but do not exceed \$40 million for the preceding three years, and a “very small business” as an entity that, together with its affiliates and controlling interests, has had average annual gross revenues not exceeding \$15 million for the preceding three years.²²⁶ Neither of the two winning bidders sought designated entity status.²²⁷

106. **Incumbent 24 GHz Licensees.** This analysis may affect incumbent licensees who were relocated to the 24 GHz band from the 18 GHz band, and applicants who wish to provide services in the 24 GHz band. The applicable SBA small business size standard is that of “Cellular and Other Wireless Telecommunications” companies. This category provides that such a company is small if it employs no more than 1,500 persons.²²⁸ For the census category of Paging, Census Bureau data for 2002 show that there were 807 firms in this category that operated for the entire year.²²⁹ Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.²³⁰ Thus, under this category and associated small business size standard, the majority of firms can be considered small. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year.²³¹ Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.²³² Thus, under this second category and size standard, the majority of firms can, again, be considered small. These broader census data notwithstanding, we believe that there are only two licensees in the 24 GHz band that were relocated from the 18 GHz band, Teligent²³³ and TRW, Inc. It is our understanding that Teligent and its related companies have fewer than 1,500 employees, though this may change in the future. TRW is not a small entity. There are approximately 122 licensees in the Rural Radiotelephone Service, and the Commission estimates that there are 122 or fewer small entity licensees in the Rural Radiotelephone Service that may be affected by the rules and policies proposed herein.

107. **Future 24 GHz Licensees.** With respect to new applicants in the 24 GHz band, we have defined “small business” as an entity that, together with controlling interests and affiliates, has average

²²⁴ See “Auction of 1.4 GHz Bands Licenses Scheduled for February 7, 2007,” *Public Notice*, 21 FCC Rcd 12393 (WTB 2006).

²²⁵ See, “Auction of 1.4 GHz Band Licenses Closes; Winning Bidders Announced for Auction No. 69,” *Public Notice*, 22 FCC Rcd 4714 (2007) (“Auction No. 69 Closing PN”).

²²⁶ *Id.*, Attachment C.

²²⁷ See Auction No. 69 Closing PN.

²²⁸ 13 C.F.R. § 121.201, NAICS code 517212.

²²⁹ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization,” Table 5, NAICS code 517211.

²³⁰ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

²³¹ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Establishment and Firm Size (Including Legal Form of Organization,” Table 5, NAICS code 517212.

²³² *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with “1000 employees or more.”

²³³ Teligent acquired the DEMS licenses of FirstMark, the only licensee other than TRW in the 24 GHz band whose license has been modified to require relocation to the 24 GHz band.

annual gross revenues for the three preceding years not exceeding \$15 million.²³⁴ “Very small business” in the 24 GHz band is defined as an entity that, together with controlling interests and affiliates, has average gross revenues not exceeding \$3 million for the preceding three years.²³⁵ The SBA has approved these definitions.²³⁶ The Commission will not know how many licensees will be small or very small businesses until the auction, if required, is held.

108. **Broadband Radio Service.** Broadband Radio Service systems, previously referred to as Multipoint Distribution Service (“MDS”) and Multichannel Multipoint Distribution Service (“MMDS”) systems, and “wireless cable,” transmit video programming to subscribers and provide two-way high speed data operations using the microwave frequencies of the Broadband Radio Service (“BRS”) and Educational Broadband Service (“EBS”) (previously referred to as the Instructional Television Fixed Service (“ITFS”)).²³⁷ In connection with the 1996 BRS auction, the Commission established a small business size standard as an entity that had annual average gross revenues of no more than \$40 million in the previous three calendar years.²³⁸ The BRS auctions resulted in 67 successful bidders obtaining licensing opportunities for 493 Basic Trading Areas (“BTAs”). Of the 67 auction winners, 61 met the definition of a small business. BRS also includes licensees of stations authorized prior to the auction. At this time, we estimate that of the 61 small business BRS auction winners, 48 remain small business licensees. In addition to the 48 small businesses that hold BTA authorizations, there are approximately 392 incumbent BRS licensees that are considered small entities.²³⁹ After adding the number of small business auction licensees to the number of incumbent licensees not already counted, we find that there are currently approximately 440 BRS licensees that are defined as small businesses under either the SBA or the Commission’s rules.

109. In addition, the SBA has developed a small business size standard for Cable and Other Program Distribution, which includes all such companies generating \$13.5 million or less in annual receipts.²⁴⁰ According to Census Bureau data for 2002, there were a total of 1,191 firms in this category that operated for the entire year.²⁴¹ Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million.²⁴² Consequently, we estimate that the majority of providers in this service category are small businesses that may be affected by the

²³⁴ *Amendments to Parts 1, 2, 87 and 101 of the Commission’s Rules To License Fixed Services at 24 GHz*, Report and Order, 15 FCC Rcd 16934, 16967, para. 77 (2000) (“*24 GHz Report and Order*”); see also 47 C.F.R. § 101.538(a)(2).

²³⁵ *24 GHz Report and Order*, 15 FCC Rcd at 16967, para. 77; see also 47 C.F.R. § 101.538(a)(1).

²³⁶ See Letter from Gary M. Jackson, Assistant Administrator, SBA, to Margaret W. Wiener, Deputy Chief, Auctions and Industry Analysis Division, WTB, FCC (July 28, 2000).

²³⁷ *Amendment of Parts 21 and 74 of the Commission’s Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service and Implementation of Section 309(j) of the Communications Act – Competitive Bidding*, MM Docket No. 94-131 and PP Docket No. 93-253, Report and Order, 10 FCC Rcd 9589, 9593, ¶ 7 (1995) (“*MDS Auction R&O*”).

²³⁸ 47 C.F.R. § 21.961(b)(1).

²³⁹ 47 U.S.C. § 309(j). Hundreds of stations were licensed to incumbent MDS licensees prior to implementation of Section 309(j) of the Communications Act of 1934, 47 U.S.C. § 309(j). For these pre-auction licenses, the applicable standard is SBA’s small business size standard.

²⁴⁰ 13 C.F.R. § 121.201, NAICS code 517510.

²⁴¹ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510.

²⁴² *Id.* An additional 61 firms had annual receipts of \$25 million or more.

rules and policies adopted herein. This SBA small business size standard is applicable to EBS. There are presently 2,032 EBS licensees. All but 100 of these licenses are held by educational institutions. Educational institutions are included in this analysis as small entities.²⁴³ Thus, we estimate that at least 1,932 licensees are small businesses.

110. **Television Broadcasting.** The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in broadcasting images together with sound. These establishments operate television broadcasting studios and facilities for the programming and transmission of programs to the public.”²⁴⁴ The SBA has created a small business size standard for Television Broadcasting entities, which is: such firms having \$13 million or less in annual receipts.²⁴⁵ According to Commission staff review of the BIA Financial Network, Inc., Media Access Pro Television Database as of December 7, 2007, about 825 (66 percent) of the 1,250 commercial television stations in the United States have revenues of \$13 million or less. However, in assessing whether a business entity qualifies as small under the above definition, business control affiliations²⁴⁶ must be included. Our estimate, therefore, likely overstates the number of small entities that might be affected by our action, because the revenue figure on which it is based does not include or aggregate revenues from affiliated companies.

111. In addition, an element of the definition of “small business” is that the entity not be dominant in its field of operation. We are unable at this time to define or quantify the criteria that would establish whether a specific television station is dominant in its field of operation. Accordingly, the estimate of small businesses to which rules may apply do not exclude any television station from the definition of a small business on this basis and are therefore over-inclusive to that extent. Also as noted, an additional element of the definition of “small business” is that the entity must be independently owned and operated. We note that it is difficult at times to assess these criteria in the context of media entities and our estimates of small businesses to which they apply may be over-inclusive to this extent.

112. There are also 2,117 low power television stations (“LPTV”).²⁴⁷ Given the nature of this service, we will presume that all LPTV licensees qualify as small entities under the above SBA small business size standard.

113. **Radio Broadcasting.** The SBA defines a radio broadcast entity that has \$6 million or less in annual receipts as a small business.²⁴⁸ Business concerns included in this industry are those “primarily engaged in broadcasting aural programs by radio to the public.”²⁴⁹ According to Commission staff review of the BIA Publications, Inc., Master Access Radio Analyzer Database, as of May 16, 2003, about 10,427 of the 10,945 commercial radio stations in the United States have revenue of \$6 million or less. We note, however, that many radio stations are affiliated with much larger corporations with much

²⁴³ The term “small entity” within SBREFA applies to small organizations (nonprofits) and to small governmental jurisdictions (cities, counties, towns, townships, villages, school districts, and special districts with populations of less than 50,000). 5 U.S.C. §§ 601(4)-(6). We do not collect annual revenue data on EBS licensees.

²⁴⁴ U.S. Census Bureau, 2002 NAICS Definitions, “515120 Television Broadcasting” (partial definition); <http://www.census.gov/epcd/naics02/def/NDEF515.HTM>.

²⁴⁵ 13 C.F.R. § 121.201, NAICS code 515120.

²⁴⁶ “Concerns are affiliates of each other when one concern controls or has the power to control the other or a third party or parties controls or has to power to control both.” 13 C.F.R. § 21.103(a)(1).

²⁴⁷ *FCC News Release*, “Broadcast Station Totals as of September 30, 2007.”

²⁴⁸ See OMB, *North American Industry Classification System: United States, 1997*, at 509 (1997) (Radio Stations) (NAICS code 515112).

²⁴⁹ *Id.*

higher revenue, and that in assessing whether a business concern qualifies as small under the above definition, such business (control) affiliations²⁵⁰ are included.²⁵¹ Our estimate, therefore likely overstates the number of small businesses that might be affected by our action.

114. **Auxiliary, Special Broadcast and Other Program Distribution Services.** This service involves a variety of transmitters, generally used to relay broadcast programming to the public (through translator and booster stations) or within the program distribution chain (from a remote news gathering unit back to the station). The Commission has not developed a definition of small entities applicable to broadcast auxiliary licensees. The applicable definitions of small entities are those, noted previously, under the SBA rules applicable to radio broadcasting stations and television broadcasting stations.²⁵²

115. The Commission estimates that there are approximately 5,618 FM translators and boosters.²⁵³ The Commission does not collect financial information on any broadcast facility, and the Department of Commerce does not collect financial information on these auxiliary broadcast facilities. We believe that most, if not all, of these auxiliary facilities could be classified as small businesses by themselves. We also recognize that most commercial translators and boosters are owned by a parent station which, in some cases, would be covered by the revenue definition of small business entity discussed above. These stations would likely have annual revenues that exceed the SBA maximum to be designated as a small business (\$6.5 million for a radio station or \$13.0 million for a TV station). Furthermore, they do not meet the Small Business Act's definition of a "small business concern" because they are not independently owned and operated.²⁵⁴

116. **Cable and Other Program Distribution.** The Census Bureau defines this category as follows: "This industry comprises establishments primarily engaged as third-party distribution systems for broadcast programming. The establishments of this industry deliver visual, aural, or textual programming received from cable networks, local television stations, or radio networks to consumers via cable or direct-to-home satellite systems on a subscription or fee basis. These establishments do not generally originate programming material."²⁵⁵ The SBA has developed a small business size standard for Cable and Other Program Distribution, which is: all such firms having \$13.5 million or less in annual receipts.²⁵⁶ According to Census Bureau data for 2002, there were a total of 1,191 firms in this category that operated for the entire year.²⁵⁷ Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million.²⁵⁸ Thus, under this size standard, the majority of firms can be considered small.

²⁵⁰ "Concerns are affiliates of each other when one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both." 13 C.F.R. § 121.103(a)(1).

²⁵¹ "SBA counts the receipts or employees of the concern whose size is at issue and those of all its domestic and foreign affiliates, regardless of whether the affiliates are organized for profit, in determining the concern's size." 13 C.F.R. § 121(a)(4).

²⁵² 13 C.F.R. 121.201, NAICS codes 513111 and 513112.

²⁵³ See *supra* note 242.

²⁵⁴ 15 U.S.C. 632.

²⁵⁵ U.S. Census Bureau, 2002 NAICS Definitions, "517510 Cable and Other Program Distribution"; <http://www.census.gov/epcd/naics02/def/NDEF517.HTM>.

²⁵⁶ 13 C.F.R. § 121.201, NAICS code 517510.

²⁵⁷ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510.

²⁵⁸ *Id.* An additional 61 firms had annual receipts of \$25 million or more.

117. **Cable Companies and Systems.** The Commission has also developed its own small business size standards, for the purpose of cable rate regulation. Under the Commission's rules, a "small cable company" is one serving 400,000 or fewer subscribers, nationwide.²⁵⁹ Industry data indicate that, of 1,076 cable operators nationwide, all but eleven are small under this size standard.²⁶⁰ In addition, under the Commission's rules, a "small system" is a cable system serving 15,000 or fewer subscribers.²⁶¹ Industry data indicate that, of 7,208 systems nationwide, 6,139 systems have under 10,000 subscribers, and an additional 379 systems have 10,000-19,999 subscribers.²⁶² Thus, under this second size standard, most cable systems are small.

118. **Cable System Operators.** The Communications Act of 1934, as amended, also contains a size standard for small cable system operators, which is "a cable operator that, directly or through an affiliate, serves in the aggregate fewer than 1 percent of all subscribers in the United States and is not affiliated with any entity or entities whose gross annual revenues in the aggregate exceed \$250,000,000."²⁶³ The Commission has determined that an operator serving fewer than 677,000 subscribers shall be deemed a small operator, if its annual revenues, when combined with the total annual revenues of all its affiliates, do not exceed \$250 million in the aggregate.²⁶⁴ Industry data indicate that, of 1,076 cable operators nationwide, all but ten are small under this size standard.²⁶⁵ We note that the Commission neither requests nor collects information on whether cable system operators are affiliated with entities whose gross annual revenues exceed \$250 million,²⁶⁶ and therefore we are unable to estimate more accurately the number of cable system operators that would qualify as small under this size standard.

119. **Open Video Services.** Open Video Service ("OVS") systems provide subscription services.²⁶⁷ The SBA has created a small business size standard for Cable and Other Program Distribution.²⁶⁸ This standard provides that a small entity is one with \$13.5 million or less in annual receipts. The Commission has certified approximately 25 OVS operators to serve 75 areas, and some of

²⁵⁹ 47 C.F.R. § 76.901(e). The Commission determined that this size standard equates approximately to a size standard of \$100 million or less in annual revenues. *Implementation of Sections of the 1992 Cable Act: Rate Regulation*, Sixth Report and Order and Eleventh Order on Reconsideration, 10 FCC Rcd 7393, 7408 (1995).

²⁶⁰ These data are derived from: R.R. Bowker, *Broadcasting & Cable Yearbook 2006*, "Top 25 Cable/Satellite Operators," pages A-8 & C-2; Warren Communications News, *Television & Cable Factbook 2006*, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857.

²⁶¹ 47 C.F.R. § 76.901(c).

²⁶² Warren Communications News, *Television & Cable Factbook 2006*, "U.S. Cable Systems by Subscriber Size," page F-2. The data do not include 718 systems for which classifying data were not available.

²⁶³ 47 U.S.C. § 543(m)(2); see 47 C.F.R. § 76.901(f) & nn. 1-3.

²⁶⁴ 47 C.F.R. § 76.901(f); see Public Notice, *FCC Announces New Subscriber Count for the Definition of Small Cable Operator*, 16 FCC Rcd 2225 (Cable Services Bureau, 2001).

²⁶⁵ These data are derived from: R.R. Bowker, *Broadcasting & Cable Yearbook 2006*, "Top 25 Cable/Satellite Operators," pages A-8 & C-2 (data current as of June 30, 2005); Warren Communications News, *Television & Cable Factbook 2006*, "Ownership of Cable Systems in the United States," pages D-1805 to D-1857.

²⁶⁶ The Commission does receive such information on a case-by-case basis if a cable operator appeals a local franchise authority's finding that the operator does not qualify as a small cable operator pursuant to § 76.901(f) of the Commission's rules. See 47 C.F.R. § 76.909(b).

²⁶⁷ See 47 U.S.C. § 573.

²⁶⁸ 13 C.F.R. § 121.201, NAICS code 517510.

these are currently providing service.²⁶⁹ Affiliates of Residential Communications Network, Inc. (“RCN”) received approval to operate OVS systems in New York City, Boston, Washington, D.C., and other areas. RCN has sufficient revenues to assure that they do not qualify as a small business entity. Little financial information is available for the other entities that are authorized to provide OVS and are not yet operational. Given that some entities authorized to provide OVS service have not yet begun to generate revenues, the Commission concludes that up to 24 OVS operators (those remaining) might qualify as small businesses that may be affected by the rules and policies proposed herein.

120. **Cable Television Relay Service.** This service includes transmitters generally used to relay cable programming within cable television system distribution systems. The SBA has developed a small business size standard for Cable and Other Program Distribution, which is: all such firms having \$13.5 million or less in annual receipts.²⁷⁰ According to Census Bureau data for 2002, there were a total of 1,191 firms in this category that operated for the entire year.²⁷¹ Of this total, 1,087 firms had annual receipts of under \$10 million, and 43 firms had receipts of \$10 million or more but less than \$25 million.²⁷² Thus, under this size standard, the majority of firms can be considered small.

121. **Multichannel Video Distribution and Data Service.** MVDDS is a terrestrial fixed microwave service operating in the 12.2-12.7 GHz band. The Commission adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits. It defined a very small business as an entity with average annual gross revenues not exceeding \$3 million for the preceding three years; a small business as an entity with average annual gross revenues not exceeding \$15 million for the preceding three years; and an entrepreneur as an entity with average annual gross revenues not exceeding \$40 million for the preceding three years.²⁷³ These definitions were approved by the SBA.²⁷⁴ On January 27, 2004, the Commission completed an auction of 214 MVDDS licenses (Auction No. 53). In this auction, ten winning bidders won a total of 192 MVDDS licenses.²⁷⁵ Eight of the ten winning bidders claimed small business status and won 144 of the licenses. The Commission also held an auction of MVDDS licenses on December 7, 2005 (Auction 63). Of the three winning bidders who won 22 licenses, two winning bidders, winning 21 of the licenses, claimed small business status.²⁷⁶

122. **Amateur Radio Service.** These licenses are held by individuals in a noncommercial

²⁶⁹ See <http://www.fcc.gov/csb/ovs/csovsccer.html>.

²⁷⁰ 13 C.F.R. § 121.201, NAICS code 517510.

²⁷¹ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, Table 4, Receipts Size of Firms for the United States: 2002, NAICS code 517510.

²⁷² *Id.* An additional 61 firms had annual receipts of \$25 million or more.

²⁷³ *Amendment of Parts 2 and 25 of the Commission's Rules to Permit Operation of NGSO FSS Systems Co-Frequency with GSO and Terrestrial Systems in the Ku-Band Frequency Range; Amendment of the Commission's Rules to Authorize Subsidiary Terrestrial Use of the 12.2-12.7 GHz Band by Direct Broadcast Satellite Licenses and their Affiliates; and Applications of Broadwave USA, PDC Broadband Corporation, and Satellite Receivers, Ltd. to provide A Fixed Service in the 12.2-12.7 GHz Band*, ET Docket No. 98-206, Memorandum Opinion and Order and Second Report and Order, 17 FCC Rcd 9614, 9711, ¶ 252 (2002).

²⁷⁴ See Letter from Hector V. Barreto, Administrator, U.S. Small Business Administration, to Margaret W. Wiener, Chief, Auctions and Industry Analysis Division, WTB, FCC (Feb.13, 2002).

²⁷⁵ See “Multichannel Video Distribution and Data Service Auction Closes,” *Public Notice*, 19 FCC Rcd 1834 (2004).

²⁷⁶ See “Auction of Multichannel Video Distribution and Data Service Licenses Closes; Winning Bidders Announced for Auction No. 63,” *Public Notice*, 20 FCC Rcd 19807 (2005).

capacity; these licensees are not small entities.

123. **Aviation and Marine Services.** Small businesses in the aviation and marine radio services use a very high frequency (“VHF”) marine or aircraft radio and, as appropriate, an emergency position-indicating radio beacon (and/or radar) or an emergency locator transmitter. The Commission has not developed a small business size standard specifically applicable to these small businesses. For purposes of this analysis, the Commission uses the SBA small business size standard for the category “Cellular and Other Telecommunications,” which is 1,500 or fewer employees.²⁷⁷ Most applicants for recreational licenses are individuals. Approximately 581,000 ship station licensees and 131,000 aircraft station licensees operate domestically and are not subject to the radio carriage requirements of any statute or treaty. For purposes of our evaluations in this analysis, we estimate that there are up to approximately 712,000 licensees that are small businesses (or individuals) under the SBA standard. In addition, between December 3, 1998 and December 14, 1998, the Commission held an auction of 42 VHF Public Coast licenses in the 157.1875-157.4500 MHz (ship transmit) and 161.775-162.0125 MHz (coast transmit) bands. For purposes of the auction, the Commission defined a “small” business as an entity that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$15 million dollars. In addition, a “very small” business is one that, together with controlling interests and affiliates, has average gross revenues for the preceding three years not to exceed \$3 million dollars.²⁷⁸ There are approximately 10,672 licensees in the Marine Coast Service, and the Commission estimates that almost all of them qualify as “small” businesses under the above special small business size standards.

124. **Personal Radio Services.** Personal radio services provide short-range, low power radio for personal communications, radio signaling, and business communications not provided for in other services. The Personal Radio Services include spectrum licensed under Part 95 of our rules.²⁷⁹ These services include Citizen Band Radio Service (“CB”), General Mobile Radio Service (“GMRS”), Radio Control Radio Service (“R/C”), Family Radio Service (“FRS”), Wireless Medical Telemetry Service (“WMTS”), Medical Implant Communications Service (“MICS”), Low Power Radio Service (“LPRS”), and Multi-Use Radio Service (“MURS”).²⁸⁰ There are a variety of methods used to license the spectrum in these rule parts, from licensing by rule, to conditioning operation on successful completion of a required test, to site-based licensing, to geographic area licensing. Under the RFA, the Commission is required to make a determination of which small entities are directly affected by the rules being proposed. Since all such entities are wireless, we apply the definition of cellular and other wireless telecommunications, pursuant to which a small entity is defined as employing 1,500 or fewer persons.²⁸¹ Many of the licensees in these services are individuals, and thus are not small entities. In addition, due to the mostly unlicensed and shared nature of the spectrum utilized in many of these services, the Commission lacks direct information upon which to base an estimation of the number of small entities under an SBA definition that might be directly affected by the proposed rules.

125. **Public Safety Radio Services.** Public Safety radio services include police, fire, local

²⁷⁷ 13 C.F.R. § 121.201, NAICS code 517212.

²⁷⁸ *Amendment of the Commission’s Rules Concerning Maritime Communications*, Third Report and Order and Memorandum Opinion and Order, 13 FCC Rcd 19853 (1998).

²⁷⁹ 47 C.F.R. Part 90.

²⁸⁰ The Citizens Band Radio Service, General Mobile Radio Service, Radio Control Radio Service, Family Radio Service, Wireless Medical Telemetry Service, Medical Implant Communications Service, Low Power Radio Service, and Multi-Use Radio Service are governed by Subpart D, Subpart A, Subpart C, Subpart B, Subpart H, Subpart I, Subpart G, and Subpart J, respectively, of Part 95 of the Commission’s rules. See generally 47 C.F.R. Part 95.

²⁸¹ 13 C.F.R. § 121.201, NAICS Code 517212.

government, forestry conservation, highway maintenance, and emergency medical services.²⁸² There are a total of approximately 127,540 licensees in these services. Governmental entities²⁸³ as well as private businesses comprise the licensees for these services. All governmental entities with populations of less than 50,000 fall within the definition of a small entity.²⁸⁴

IV. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements:

126. With certain exceptions, the Commission's Schedule of Regulatory Fees applies to all Commission licensees and regulatees. Most licensees will be required to count the number of licenses or call signs authorized, complete and submit an FCC Form 159 Remittance Advice, and pay a regulatory fee based on the number of licenses or call signs.²⁸⁵ Interstate telephone service providers must compute their annual regulatory fee based on their interstate and international end-user revenue using information they already supply to the Commission in compliance with the Form 499-A, Telecommunications Reporting Worksheet, and they must complete and submit the FCC Form 159. Compliance with the fee schedule will require some licensees to tabulate the number of units (*e.g.*, cellular telephones, pagers, cable TV subscribers) they have in service, and complete and submit an FCC Form 159. Licensees ordinarily will keep a list of the number of units they have in service as part of their normal business practices. No additional outside professional skills are required to complete the FCC Form 159, and it

²⁸² With the exception of the special emergency service, these services are governed by Subpart B of part 90 of the Commission's Rules, 47 C.F.R. §§ 90.15-90.27. The police service includes approximately 27,000 licensees that serve state, county, and municipal enforcement through telephony (voice), telegraphy (code) and teletype and facsimile (printed material). The fire radio service includes approximately 23,000 licensees comprised of private volunteer or professional fire companies as well as units under governmental control. The local government service that is presently comprised of approximately 41,000 licensees that are state, county, or municipal entities that use the radio for official purposes not covered by other public safety services. There are approximately 7,000 licensees within the forestry service which is comprised of licensees from state departments of conservation and private forest organizations who set up communications networks among fire lookout towers and ground crews. The approximately 9,000 state and local governments are licensed to highway maintenance service provide emergency and routine communications to aid other public safety services to keep main roads safe for vehicular traffic. The approximately 1,000 licensees in the Emergency Medical Radio Service ("EMRS") use the 39 channels allocated to this service for emergency medical service communications related to the delivery of emergency medical treatment. 47 C.F.R. §§ 90.15-90.27. The approximately 20,000 licensees in the special emergency service include medical services, rescue organizations, veterinarians, handicapped persons, disaster relief organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities, and emergency repair of public communications facilities. 47 C.F.R. §§ 90.33-90.55.

²⁸³ 47 C.F.R. § 1.1162.

²⁸⁴ 5 U.S.C. § 601(5).

²⁸⁵ See 47 C.F.R. § 1.1162 for the general exemptions from regulatory fees. *E.g.*, Amateur radio licensees (except applicants for vanity call signs) and operators in other non-licensed services (*e.g.*, Personal Radio, part 15, ship and aircraft). Governments and non-profit (exempt under section 501(c) of the Internal Revenue Code) entities are exempt from payment of regulatory fees and need not submit payment. Non-commercial educational broadcast licensees are exempt from regulatory fees as are licensees of auxiliary broadcast services such as low power auxiliary stations, television auxiliary service stations, remote pickup stations and aural broadcast auxiliary stations where such licenses are used in conjunction with commonly owned non-commercial educational stations. Emergency Alert System licenses for auxiliary service facilities are also exempt as are instructional television fixed service licensees. Regulatory fees are automatically waived for the licensee of any translator station that: (1) is not licensed to, in whole or in part, and does not have common ownership with, the licensee of a commercial broadcast station; (2) does not derive income from advertising; and (3) is dependent on subscriptions or contributions from members of the community served for support. Receive only earth station permittees are exempt from payment of regulatory fees. A regulatee will be relieved of its fee payment requirement if its total fee due, including all categories of fees for which payment is due by the entity, amounts to less than \$10.

can be completed by the employees responsible for an entity's business records.

127. Each licensee must submit the FCC Form 159 to the Commission's lockbox bank after computing the number of units subject to the fee. Licensees may also file electronically to minimize the burden of submitting multiple copies of the FCC Form 159. Applicants who pay small fees in advance and provide fee information as part of their application must use FCC Form 159.

128. Licensees and regulatees are advised that failure to submit the required regulatory fee in a timely manner will subject the licensee or regulatee to a late payment penalty of 25 percent in addition to the required fee.²⁸⁶ If payment is not received, new or pending applications may be dismissed, and existing authorizations may be subject to rescission.²⁸⁷ Further, in accordance with the DCIA, federal agencies may bar a person or entity from obtaining a federal loan or loan insurance guarantee if that person or entity fails to pay a delinquent debt owed to any federal agency.²⁸⁸ Nonpayment of regulatory fees is a debt owed the United States pursuant to 31 U.S.C. 3711 *et seq.*, and the DCIA. Appropriate enforcement measures as well as administrative and judicial remedies, may be exercised by the Commission. Debts owed to the Commission may result in a person or entity being denied a federal loan or loan guarantee pending before another federal agency until such obligations are paid.²⁸⁹

129. The Commission's rules currently provide for relief in exceptional circumstances. Persons or entities may request a waiver, reduction or deferment of payment of the regulatory fee.²⁹⁰ However, timely submission of the required regulatory fee must accompany requests for waivers or reductions. This will avoid any late payment penalty if the request is denied. The fee will be refunded if the request is granted. In exceptional and compelling instances (where payment of the regulatory fee along with the waiver or reduction request could result in reduction of service to a community or other financial hardship to the licensee), the Commission will defer payment in response to a request filed with the appropriate supporting documentation.

V. Steps Taken to Minimize Significant Economic Impact on Small Entities, and Significant Alternatives Considered:

130. The RFA requires an agency to describe any significant alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives: (1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance or reporting requirements under the rule for small entities; (3) the use of performance, rather than design, standards; and (4) an exemption from coverage of the rule, or any part thereof, for small entities.²⁹¹ In the *NPRM*, we have sought comment on alternatives that might simplify our fee procedures or otherwise benefit filers, including small entities, while remaining consistent with our statutory responsibilities in this proceeding.

131. Several categories of licensees and regulatees are exempt from payment of regulatory fees. Also, waiver procedures provide regulatees, including small entity regulatees, relief in exceptional circumstances.

²⁸⁶ 47 C.F.R. § 1.1164.

²⁸⁷ 47 C.F.R. § 1.1164(c).

²⁸⁸ Public Law 104-134, 110 Stat. 1321 (1996).

²⁸⁹ 31 U.S.C. § 7701(c)(2)(B).

²⁹⁰ 47 C.F.R. § 1.1166.

²⁹¹ 5 U.S.C. § 603.

VI. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules:

132. None.

Attachment B

Sources of Payment Unit Estimates for FY 2008

In order to calculate individual service fees for FY 2008, we adjusted FY 2007 payment units for each service to more accurately reflect expected FY 2008 payment liabilities. We obtained our updated estimates through a variety of means. For example, we used Commission licensee data bases, actual prior year payment records and industry and trade association projections when available. The databases we consulted include our Universal Licensing System ("ULS"), International Bureau Filing System ("IBFS"), Consolidated Database System ("CDBS") and Cable Operations and Licensing System ("COALS"), as well as reports generated within the Commission such as the Wireline Competition Bureau's *Trends in Telephone Service* and the Wireless Telecommunications Bureau's *Numbering Resource Utilization Forecast*.

We tried to obtain verification for these estimates from multiple sources and, in all cases; we compared FY 2008 estimates with actual FY 2007 payment units to ensure that our revised estimates were reasonable. Where appropriate, we adjusted and/or rounded our final estimates to take into consideration the fact that certain variables that impact on the number of payment units cannot yet be estimated exactly. These include an unknown number of waivers and/or exemptions that may occur in FY 2008 and the fact that, in many services, the number of actual licensees or station operators fluctuates from time to time due to economic, technical, or other reasons. When we note, for example, that our estimated FY 2008 payment units are based on FY 2007 actual payment units, it does not necessarily mean that our FY 2008 projection is exactly the same number as FY 2007. We have either rounded the FY 2008 number or adjusted it slightly to account for these variables.

FEE CATEGORY	SOURCES OF PAYMENT UNIT ESTIMATES
Land Mobile (All), Microwave, 218-219 MHz, Marine (Ship & Coast), Aviation (Aircraft & Ground), GMRS, Amateur Vanity Call Signs, Domestic Public Fixed	Based on Wireless Telecommunications Bureau ("WTB") projections of new applications and renewals taking into consideration existing Commission licensee data bases. Aviation (Aircraft) and Marine (Ship) estimates have been adjusted to take into consideration the licensing of portions of these services on a voluntary basis.
CMRS Cellular/Mobile Services	Based on WTB projection reports, and FY 07 payment data.
CMRS Messaging Services	Based on WTB reports, and FY 07 payment data.
AM/FM Radio Stations	Based on CDBS data, adjusted for exemptions, and actual FY 2007 payment units.
UHF/VHF Television Stations	Based on CDBS data, adjusted for exemptions, and actual FY 2007 payment units.
AM/FM/TV Construction Permits	Based on CDBS data, adjusted for exemptions, and actual FY 2007 payment units.
LPTV, Translators and Boosters, Class A Television	Based on CDBS data, adjusted for exemptions, and actual FY 2007 payment units.
Broadcast Auxiliaries	Based on actual FY 2007 payment units.
BRS (formerly MDS/MMDS)	Based on WTB reports and actual FY 2007 payment units.
Cable Television Relay Service	Based on data from Media Bureau's COALS database and actual

("CARS") Stations	FY 2007 payment units.
Cable Television System Subscribers	Based on publicly available data sources for estimated subscriber counts and actual FY 2007 payment units.
Interstate Telecommunication Service Providers	Based on FCC Form 499-Q data for the four quarters of calendar year 2007, the Wireline Competition Bureau projected the amount of calendar year 2007 revenue that will be reported on 2008 FCC Form 499-A worksheets in April, 2008.
Earth Stations	Based on International Bureau ("IB") licensing data and actual FY 2007 payment units.
Space Stations (GSOs & NGSOs)	Based on IB data reports and actual FY 2007 payment units.
International Bearer Circuits	Based on IB reports and actual FY 2007 payment units.
International HF Broadcast Stations, International Public Fixed Radio Service	Based on IB reports and actual FY 2007 payment units.

Attachment C

Calculation of FY2008 Revenue Requirements and Pro-Rata Fees

Regulatory fees for the categories shaded in gray are collected by the Commission in advance to cover the term of the license and are submitted along with the application at the time the application is filed.

Fee Category	FY 2008 Payment Units	Years	FY 2007 Revenue Estimate	Pro-Rated FY 2008 Revenue Requirement*	Computed New FY 2008 Regulatory Fee	Rounded New FY 2008 Regulatory Fee	Expected FY 2008 Revenue
PLMRS (Exclusive Use)	1,150	10	437,500	469,918	41	40	430,000
PLMRS (Shared use)	11,500	10	2,325,000	2,497,208	22	20	2,300,000
Microwave 218-219 MHz (Formerly IVDS)	4,900	10	1,740,000	1,868,231	38	40	1,900,000
Marine (Ship)	8,400	10	800,000	859,278	10	10	840,000
GMRS	14,000	5	400,000	429,639	6	5	390,000
Aviation (Aircraft)	7,500	10	440,000	472,603	6	5	430,000
Marine (Coast)	310	10	108,000	116,002	37	35	108,500
Aviation (Ground)	1,700	10	165,000	177,226	10	10	170,000
Amateur Vanity Call Signs	15,000	10	171,990	184,794	123	125	184,500
AM Class A	65	1	210,800	227,451	3,499	3,500	227,500
AM Class B	1,564	1	2,546,375	2,742,431	1,753	1,750	2,737,000
AM Class C	935	1	890,150	965,321	1,032	1,025	958,375
AM Class D	1,706	1	2,983,750	3,240,539	1,899	1,900	3,241,400
FM Classes A, B1 & C3	3,040	1	6,281,025	6,800,861	2,237	2,225	6,764,000
FM Classes B, C, C0, C1 & C2	3,043	1	7,655,100	8,273,911	2,719	2,725	8,292,175
AM Construction Permits	73	1	26,000	32,850	450	450	32,850
FM Construction Permits ¹	257	1	117,875	154,200	600	600	154,200
Satellite TV	127	1	137,500	147,961	1,165	1,175	149,225
Satellite TV Construction Permit	3	1	1,650	1,789	596	595	1,785
VHF Markets	43	1	2,764,900	2,983,938	69,394	69,400	2,984,200

Fee Category	FY 2008 Payment Units	Years	FY 2007 Revenue Estimate	Pro-Rated FY 2008 Revenue Require- ment*	Computed New FY 2008 Regulatory Fee	Rounded New FY 2008 Regula- tory Fee	Expected FY 2008 Revenue
1-10							
VHF Markets 11-25	60	1	2,827,350	3,051,067	50,851	50,850	3,051,000
VHF Markets 26-50	74	1	2,392,775	2,581,765	34,889	34,900	2,582,600
VHF Markets 51-100	118	1	2,300,000	2,480,776	21,024	21,025	2,480,950
VHF Remaining Markets	195	1	1,014,750	1,093,312	5,607	5,600	1,092,000
VHF Construction Permits	4	1	15,375	22,400	5,600	5,600	22,400
UHF Markets 1-10	90	1	1,788,150	1,931,149	21,457	21,450	1,930,500
UHF Markets 11-25	78	1	1,478,200	1,596,290	20,465	20,475	1,597,050
UHF Markets 26-50	116	1	1,242,000	1,342,573	11,574	11,575	1,342,700
UHF Markets 51-100	167	1	1,058,400	1,141,878	6,838	6,850	1,143,950
UHF Remaining Markets	186	1	320,250	347,204	1,867	1,875	348,750
UHF Construction Permits ¹	20	1	38,500	37,500	1,875	1,875	37,500
Broadcast Auxiliaries	27,600	1	270,000	251,048	9	10	276,000
LPTV/Trans- lators/Boosters/ Class A TV	3,500	1	1,173,000	1,274,067	364	365	1,277,500
CARS Stations	750	1	144,300	155,598	207	205	153,750
Cable TV Systems	64,800,000	1	48,375,000	52,061,017	0.80341	0.80	51,840,000
Interstate Tele- communication Service Providers	\$46,300,000,000	1	135,660,000	146,636,961	0.00316710	0.00317	146,771,000
CMRS Mobile Services (Cellular/Public Mobile)	255,000,000	1	41,220,000	43,917,284	0.1722	0.170	43,350,000
CMRS Messag. Services	7,000,000	1	600,000	560,000	0.080	0.080	560,000

Fee Category	FY 2008 Payment Units	Years	FY 2007 Revenue Estimate	Pro-Rated FY 2008 Revenue Require- ment*	Computed New FY 2008 Regulatory Fee	Rounded New FY 2008 Regula- tory Fee	Expected FY 2008 Revenue
BRS ²	1,700	1	422,500	501,500	295	295	501,500
LMDS	335	1	133,250	98,825	295	295	98,825
International Bearer Circuits	7,500,000	1	7,560,000	8,149,636	1.087	1.09	8,175,000
International Public Fixed	1	1	1,875	2,014	2,014	2,025	2,025
Earth Stations	4,000	1	721,500	786,409	197	195	780,000
International HF Broadcast	5	1	3,975	4,288	858	860	4,300
Space Stations (Geostationary)	85	1	9,391,200	10,140,209	119,297	119,300	10,140,500
Space Stations (Non- Geostationary)	6	1	698,850	754,556	125,759	125,750	754,500
***** Total Estimated Revenue to be Collected			291,055,465	313,567,960			312,606,810
***** Total Revenue Requirement			290,295,160	312,000,000			312,000,000
Difference			760,305	1,567,960			606,810

¹ The AM and FM Construction Permit revenues and the VHF and UHF Construction Permit revenues were adjusted to set the regulatory fee to an amount no higher than the lowest licensed fee for that class of service. The reductions in the AM and FM Construction Permit revenues are offset by increases in the revenue totals for AM and FM radio stations. Similarly, reductions in the VHF and UHF Construction Permit revenues are offset by increases in the revenue totals for VHF and UHF television stations, respectively.

² MDS/MMDS category was renamed Broadband Radio Service (BRS). *See Amendment of Parts 1, 21, 73, 74 and 101 of the Commission's Rules to Facilitate the Provision of Fixed and Mobile Broadband Access, Educational and Other Advanced Services in the 2150-2162 and 2500-2690 MHz Bands, Report & Order and Further Notice of Proposed Rulemaking, 19 FCC Rcd 14165, 14169, ¶ 6 (2004).*

³ Beginning in FY 2008, regulatory fees for IVoIP will be included as part of the Interstate Telecommunications Service Provider (ITSP) fee, and these fees will be collected at the same time as ITSP fees are collected.

Attachment D

Proposed FY 2008 Schedule of Regulatory Fees

Regulatory fees for the categories shaded in gray are collected by the Commission in advance to cover the term of the license and are submitted along with the application at the time the application is filed.

Fee Category	Annual Regulatory Fee (U.S. \$'s)
PLMRS (per license) (Exclusive Use) (47 CFR part 90)	40
Microwave (per license) (47 CFR part 101)	40
218-219 MHz (Formerly Interactive Video Data Service) (per license) (47 CFR part 27)	60
Marine (Ship) (per station) (47 CFR part 80)	10
Marine (Coast) (per license) (47 CFR part 80)	15
General Mobile Radio Service (per license) (47 CFR part 95)	20
Rural Radio (47 CFR part 22) (previously listed under the Land Mobile category)	20
PLMRS (Shared Use) (per license) (47 CFR part 90)	20
Aviation (Aircraft) (per station) (47 CFR part 87)	6
Aviation (Ground) (per license) (47 CFR part 87)	10
Amateur Yacht Call Signs (per call sign) (47 CFR part 97)	10
CMRS Mobile/Cellular Services (per unit) (47 CFR parts 20, 22, 24, 27, 80 and 90)	.17
CMRS Messaging Services (per unit) (47 CFR parts 20, 22, 24 and 90)	.08
Broadband Radio Service (formerly MMDS/ MDS) (per license) (47 CFR part 21)	295
Local Multipoint Distribution Service (per call sign) (47 CFR, part 101)	295
AM Radio Construction Permits	450
FM Radio Construction Permits	600
TV (47 CFR part 73) VHF Commercial	
Markets 1-10	69,400
Markets 11-25	50,850
Markets 26-50	34,900
Markets 51-100	21,025
Remaining Markets	5,600
Construction Permits	5,600

Fee Category	Annual Regulatory Fee (U.S. \$'s)
TV (47 CFR part 73) UHF Commercial	
Markets 1-10	21,450
Markets 11-25	20,475
Markets 26-50	11,575
Markets 51-100	6,850
Remaining Markets	1,875
Construction Permits	1,875
Satellite Television Stations (All Markets)	1,175
Construction Permits – Satellite Television Stations	595
Low Power TV, Class A TV, TV/FM Translators & Boosters (47 CFR part 74)	365
Broadcast Auxiliaries (47 CFR part 74)	10
CARS (47 CFR part 78)	205
Cable Television Systems (per subscriber) (47 CFR part 76)	.80
Interstate Telecommunication Service Providers (per revenue dollar)	.00317
Earth Stations (47 CFR part 25)	195
Space Stations (per operational station in geostationary orbit) (47 CFR part 25) also includes DBS Service (per operational station) (47 CFR part 100)	119,300
Space Stations (per operational system in non-geostationary orbit) (47 CFR part 25)	125,750
International Bearer Circuits (per active 64KB circuit)	1.09
International Public Fixed (per call sign) (47 CFR part 23)	2,025
International (HF) Broadcast (47 CFR part 73)	860

FY 2008 SCHEDULE OF REGULATORY FEES (continued)

FY 2008 RADIO STATION REGULATORY FEES						
Population Served	AM Class A	AM Class B	AM Class C	AM Class D	FM Classes A, B1 & C3	FM Classes B, C, C0, C1 & C2
<=25,000	\$650	\$500	\$450	\$525	\$600	\$775
25,001 – 75,000	\$1,325	\$1,025	\$650	\$775	\$1,225	\$1,375
75,001 – 150,000	\$1,975	\$1,275	\$875	\$1,300	\$1,675	\$2,550
150,001 – 500,000	\$2,975	\$2,175	\$1,325	\$1,550	\$2,600	\$3,325
500,001 – 1,200,000	\$4,300	\$3,325	\$2,200	\$2,575	\$4,125	\$4,900
1,200,001 – 3,000,00	\$6,600	\$5,100	\$3,300	\$4,125	\$6,700	\$7,850
>3,000,000	\$7,925	\$6,125	\$4,175	\$5,150	\$8,550	\$10,200

Attachment E**Factors, Measurements, and Calculations that go into Determining Station Signal Contours and Associated Population Coverages****AM Stations**

For stations with nondirectional daytime antennas, the theoretical radiation was used at all azimuths. For stations with directional daytime antennas, specific information on each day tower, including field ratio, phasing, spacing and orientation was retrieved, as well as the theoretical pattern root-mean-square of the radiation in all directions in the horizontal plane ("RMS") figure milliVolt per meter (mV/m) @ 1 km) for the antenna system. The standard, or modified standard if pertinent, horizontal plane radiation pattern was calculated using techniques and methods specified in §§73.150 and 73.152 of the Commission's rules.²⁹² Radiation values were calculated for each of 360 radials around the transmitter site. Next, estimated soil conductivity data was retrieved from a database representing the information in FCC Figure R3²⁹³. Using the calculated horizontal radiation values, and the retrieved soil conductivity data, the distance to the principal community (5 mV/m) contour was predicted for each of the 360 radials. The resulting distance to principal community contours were used to form a geographical polygon. Population counting was accomplished by determining which 2000 block centroids were contained in the polygon. (A block centroid is the center point of a small area containing population as computed by the U.S. Census Bureau.) The sum of the population figures for all enclosed blocks represents the total population for the predicted principal community coverage area.

FM Stations

The greater of the horizontal or vertical effective radiated power ("ERP") (kW) and respective height above average terrain ("HAAT") (m) combination was used. Where the antenna height above mean sea level ("HAMSL") was available, it was used in lieu of the average HAAT figure to calculate specific HAAT figures for each of 360 radials under study. Any available directional pattern information was applied as well, to produce a radial-specific ERP figure. The HAAT and ERP figures were used in conjunction with the Field Strength (50-50) propagation curves specified in 47 C.F.R. § 73.313 of the Commission's rules to predict the distance to the principal community (70 dBu (decibel above 1 microVolt per meter) or 3.17 mV/m) contour for each of the 360 radials.²⁹⁴ The resulting distance to principal community contours were used to form a geographical polygon. Population counting was accomplished by determining which 2000 block centroids were contained in the polygon. The sum of the population figures for all enclosed blocks represents the total population for the predicted principal community coverage area.

²⁹² 47 C.F.R. §§ 73.150 and 73.152.

²⁹³ See *Map of Estimated Effective Ground Conductivity in the United States*, 47 C.F.R. § 73.190 Figure R3.

²⁹⁴ 47 C.F.R. § 73.313.

Attachment F

FY 2007 Schedule of Regulatory Fees

Fee Category	Annual Regulatory Fee (U.S. \$'s)
PLMRS (per license) (Exclusive Use) (47 CFR part 90)	35
Microwave (per license) (47 CFR part 101)	40
218-219 MHz (Formerly Interactive Video Data Service) (per license) (47 CFR part 95)	55
Marine (Ship) (per station) (47 CFR part 80)	10
Marine (Coast) (per license) (47 CFR part 80)	30
General Mobile Radio Service (per license) (47 CFR part 95)	5
Rural Radio (47 CFR part 22) (previously listed under the Land Mobile category)	15
PLMRS (Shared Use) (per license) (47 CFR part 90)	15
Aviation (Aircraft) (per station) (47 CFR part 87)	5
Aviation (Ground) (per license) (47 CFR part 87)	10
Amateur Vanity Call Signs (per call sign) (47 CFR part 97)	1.17
CMRS Mobile/Cellular Services (per unit) (47 CFR parts 20, 22, 24, 27, 80 and 90)	.18
CMRS Messaging Services (per unit) (47 CFR parts 20, 22, 24 and 90)	.08
Broadband Radio Service (formerly MMDS/ MDS) (per license sign) (47 CFR part 21)	325
Local Multipoint Distribution Service (per call sign) (47 CFR, part 101)	325
AM Radio Construction Permits	400
FM Radio Construction Permits	575
TV (47 CFR part 73) VHF Commercial	
Markets 1-10	64,300
Markets 11-25	46,350
Markets 26-50	31,075
Markets 51-100	20,000
Remaining Markets	5,125
Construction Permits	5,125
TV (47 CFR part 73) UHF Commercial	
Markets 1-10	19,650

Fee Category	Annual Regulatory Fee (U.S. \$'s)
Markets 11-25	19,450
Markets 26-50	10,800
Markets 51-100	6,300
Remaining Markets	1,750
Construction Permits	1,750
Satellite Television Stations (All Markets)	1,100
Construction Permits – Satellite Television Stations	550
Low Power TV, TV/FM Translators & Boosters (47 CFR part 74)	345
Broadcast Auxiliary (47 CFR part 74)	10
CARS (47 CFR part 78)	185
Cable Television Systems (per subscriber) (47 CFR part 76)	.75
Interstate Telecommunication Service Providers (per revenue dollar)	.00266
Earth Stations (47 CFR part 25)	185
Space Stations (per operational station in geostationary orbit) (47 CFR part 25) also includes Direct Broadcast Satellite Service (per operational station) (47 CFR part 100)	109,200
Space Stations (per operational system in non-geostationary orbit) (47 CFR part 25)	116,475
International Bearer Circuits (per active 64KB circuit)	1.05
International Public Fixed (per call sign) (47 CFR part 23)	1,875
International (HF) Broadcast (47 CFR part 73)	795

FY 2007 SCHEDULE OF REGULATORY FEES (continued)

FY 2007 RADIO STATION REGULATORY FEES						
Population Served	AM Class A	AM Class B	AM Class C	AM Class D	FM Classes A, B1 & C3	FM Classes B, C, C0, C1 & C2
<=25,000	\$625	\$475	\$400	\$475	\$575	\$725
25,001 – 75,000	\$1,225	\$925	\$600	\$725	\$1,150	\$1,250
75,001 – 150,000	\$1,825	\$1,150	\$800	\$1,200	\$1,600	\$2,300
150,001 – 500,000	\$2,750	\$1,950	\$1,200	\$1,425	\$2,475	\$3,000
500,001 – 1,200,000	\$3,950	\$2,975	\$2,000	\$2,375	\$3,900	\$4,400
1,200,001 – 3,000,00	\$6,075	\$4,575	\$3,000	\$3,800	\$6,350	\$7,025
>3,000,000	\$7,275	\$5,475	\$3,800	\$4,750	\$8,075	\$9,125