

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 21

[MM Docket No. 94-131 and PP Docket No. 93-253, FCC 95-230]

### Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service, Including Electronic Filing and Competitive Bidding

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** This Report and Order adopts a licensing plan under which we will allot Multipoint Distribution Service (MDS) authorizations by geographic areas, through a simultaneous multiple round bidding process. The Report and Order also adopts a variety of measures to streamline the application and implementation processes. It authorizes the voluntary use of electronic filing for new MDS applications, as well as electronic fee payments. It institutes computerized interference studies utilizing new data elements to be included in a revised MDS application form. It also makes clear that interference disputes are to be resolved, in the first instance, through private negotiations, with the FCC to serve only as a last resort. These procedures are designed to expedite processing and facilitate development of wireless cable, an industry that delivers video programming to subscribers using MDS and Instructional Television Fixed Service (ITFS) channels. This proceeding is intended to expedite more service to the public and enhance opportunities for wireless cable to reach its potential as a competitor to wired cable.

**EFFECTIVE DATE:** September 15, 1995.

**FOR FURTHER INFORMATION CONTACT:** Sharon Bertelsen at (202) 416-0892 or Jerianne Timmerman at (202) 416-0881, Video Services Division, Mass Media Bureau.

#### SUPPLEMENTARY INFORMATION:

#### Paperwork Reduction Act

The following collection of information has been submitted to the Office of Management and Budget for review under Section 3504(h) of the Paperwork Reduction Act. Copies of the submission may be purchased from the Commission's copy contractor, International Transcription Service, 2100 M Street, N.W., Suite 140, Washington, D.C. 20037, (202) 857-3800. Persons wishing to comment on

this information collection should direct their comments to Timothy Fain, (202) 395-3561, Office of Management and Budget, Room 10102 NEOB, Washington, D.C. 20503. A copy of any comments should also be sent to the Federal Communications Commission, Office of Managing Director, Washington, D.C. 20554. For further information contact Judy Boley, Federal Communications Commission, (202) 418-0210.

**OMB Numbers:** None. This Report and Order adopts a new application form, FCC Form 304, to be used for new MDS facilities, and several new rules and amended rules. There is also a new FCC Form 304-A and FCC Form 175-M.

**Titles:** Form 304: Application for a Multipoint Distribution Service Authorization. Form 304-A: Certification of Completion of Construction for a Multipoint Distribution Service. Form 175-M: Application to Participate in an FCC MDS Auction. 47 CFR 21.930 (Five-year Build-out Requirements), 21.931 (Partitioning of BTAs), 21.934 (Assignment or Transfer of Control of BTA Authorizations), 21.937 (Negotiated Interference Protections), 21.956 (Filing of Long-form Applications or Statements of Intention) and 21.960 (Designated Entity Provisions for MDS).

**Action:** New Collections.

**Respondents:** Businesses or other for-profit, small businesses or organizations.

**Frequency of Response:** On occasion reporting requirements.

**Estimated Annual Response:** Form 304: 300 responses, 55 hours per response; Form 304-A: 100 responses, .5 hours per response; Form 175-M: 1600 responses, .48 hours per response; Section 21.930: These filings will not occur until FY 2001, 750 responses, 1 hour per response; Section 21.931: 150 responses, 6 hours per response; Section 21.934: 200 responses, 1 hour per response; Section 21.937: 75 responses, 30 hours per response; Section 21.956: 200 responses, 3 hours per response; Section 21.960: 550 responses, 2 hours per response.

**Needs and Uses:** FCC Form 304 will be used to ensure that the respondent is qualified to become a Commission licensee. FCC Form 304-A will be used to certify that the facilities as authorized have been completed and that the station is ready to provide service to the public. FCC Form 175-M will be used to determine whether the applicant is legally, technically and otherwise qualified to participate in an MDS auction. Section 21.930 will be used to

determine whether the BTA holder has met its construction requirements and to ensure that service is promptly delivered to the public. Sections 21.931 and 21.937 will ensure that the interference protection rules are complied with. Section 21.934 is used to determine whether there has been unjust enrichment to the party selling the station. Section 21.956 will be used by the staff to determine whether to grant a BTA authorization. Section 21.960 will prevent abuse of the special measures offered to MDS auction winners claiming designated entity status.

A summary of the Report and Order follows. The complete text is available for inspection and copying during normal business hours in the MDS public reference room, Room 207, at the Federal Communications Commission, 2033 M Street, N.W., Washington, D.C., and it may be purchased from the Commission's copy contractor, International Transcription Service, Inc., 2100 M Street, N.W., Suite 140, Washington, D.C. 20037, (202) 857-3800. (Action by the Commission: Chairman Hundt dissenting in part and issuing a statement; Commissioners Quello and Barrett issuing separate statements; and Commission Ness dissenting in part and issuing a statement.)

1. By this action, we adopt rules to facilitate the development and rapid deployment of wireless cable services.<sup>1</sup> As a result of our actions in prior proceedings, wireless cable operators that use spectrum in the Multipoint Distribution Service (MDS), often supplemented with leased channels from the Instructional Television Fixed Service (ITFS), have begun to provide a competitive alternative to wired cable and other multichannel video programming distributors.<sup>2</sup> The rules we now adopt will accelerate that process by setting streamlined measures to distribute unused MDS spectrum through competitive bidding and by establishing a protected service area for MDS stations that is large enough to allow operators flexibility they need to design viable and competitive wireless cable systems. Adoption of these rules will enable the Commission to lift the

<sup>1</sup> Wireless cable programming to subscribers resembles cable television, but instead of coaxial cable, wireless cable uses microwave channels. Our use of the term "wireless cable" does not imply that it constitutes cable television for statutory or regulatory purposes.

<sup>2</sup> Unless otherwise indicated, "MDS" includes single channel Multipoint Distribution Service (MDS) and Multichannel Multipoint Distribution Service (MMDS) applications and authorizations collectively.

current freeze on filing new MDS applications.<sup>3</sup>

2. Specifically, we adopt in this order a licensing plan under which we will allot, through a simultaneous multiple round bidding process, one MDS authorization for each of the 487 Basic Trading Areas (BTAs) and six additional BTA-like geographic areas.<sup>4</sup> A BTA authorization holder will be able to construct facilities to provide wireless cable service over any usable MDS channels within the BTA, and will have preferred rights to the available ITFS frequencies and ITFS lease agreements within the BTA. A channel is usable if the proposed station design is in compliance with the Commission's interference standards.

3. Under the new rules, the signals of a BTA authorization holder cannot interfere with those of any other BTA authorization holder. Recognizing, however, that BTA lines do not always track desired service areas, the rules permit BTA authorization holders to negotiate interference protection rights. In addition, the rules we adopt require BTA authorization holders to honor the protected service areas of incumbent MDS operators within their BTAs. In a companion order, also adopted today, the Commission expanded the protected service areas of existing MDS stations.<sup>5</sup> These various licensees and applicants that are authorized or proposed on or before the effective date of this Report and Order, including those stations that are subsequently modified, renewed or reinstated, are referred to throughout this Report and Order as "authorized or previously proposed facilities" or "incumbents." In order to facilitate the development of successful wireless cable systems, the rules permit BTA authorization holders to assign or transfer their entire BTAs, or partitioned portions of it, to incumbents or other parties. (Unserved areas may be included as long as the assignment or transfer takes place within the five-year build-out period that the rules impose.) Because the BTA authorization holder may be an incumbent, the rules permit

the aggregation of existing and new MDS and ITFS channels within a BTA.

4. The Report and Order also adopts a variety of measures to streamline the application and implementation processes. It authorizes, for example, the voluntary use of electronic filing for new MDS applications, as well as electronic fee payments. It institutes computerized interference studies utilizing new data elements to be included in a revised MDS application form. It also makes clear that interference disputes are to be resolved, in the first instance, through private negotiations, with the Commission to serve only as a last resort.

5. We understand that the wireless cable industry has made tremendous progress toward the transition to digital transmission.<sup>6</sup> The rules we adopt today will facilitate that transition.

6. Background. In 1983, to satisfy a growing demand for the delivery of video entertainment programming to subscribers and to provide competition to wired cable systems, the Commission reallocated eight of the then twenty-eight ITFS channels for MDS use, and authorized ITFS licensees to lease the excess capacity on their systems to wireless cable operators.<sup>7</sup> That action created wireless cable as a multichannel video distribution medium, and in 1991, the Commission made more channels available for wireless cable services.<sup>8</sup> Today, there are a maximum of thirty-three microwave channels used for wireless cable in each market. These include thirteen MDS channels (Channels 1, 2 or 2A, E1-E4, F1-F4 and H1-H3) and the excess capacity on up to twenty ITFS channels (Channels A1-A4, B1-B4, C1-C4, D1-D4 and G1-G4).<sup>9</sup>

<sup>6</sup> See, e.g., The Wireless Cable Association International, Selected Papers from the First Annual Wireless Cable Technical Symposium (February 4-6, 1995).

<sup>7</sup> Report and Order in Gen. Docket No. 80-112 and CC Docket No. 80-116, 94 FCC 2d 1203 (1983), 48 Fed. Reg. 33,873 (July 26, 1983). Therein, the Commission also grandfathered interference protection to existing ITFS applicants, permittees or licensees on these eight E and F channels, resulting in twenty-eight ITFS channels in some locales.

<sup>8</sup> The Commission reallocated the H group channels from the Operational Fixed Service to MDS and made MDS operators eligible for authorization on vacant ITFS channels with specified restrictions. Second Report and Order in Gen. Docket No. 90-54, 6 FCC Rcd 6792, 6793-94, 6801-06 (1991), 56 Fed. Reg. 57,808 (Nov. 14, 1991), recon. denied, 7 FCC Rcd 5648 (1992). Last year, the Commission consolidated processing of MDS and ITFS applications into one organization. Amendment of Parts 0 and 1 of the Communication's Rules to Reflect a Reorganization of Multipoint and Multichannel Multipoint Distribution Services, 9 FCC Rcd 3661 (1994), 59 Fed. Reg. 38,374 (July 28, 1994).

<sup>9</sup> MDS channel 2A is only 4 MHz wide and lacks sufficient bandwidth to transmit a standard television signal. Grandfathered ITFS stations on

7. Wireless cable is now similar to wired cable television in the type of programming it provides, but differs from cable in how the programming is transmitted to subscribers. Generally, a wireless cable system may be described as a microwave station transmitting on a combination of MDS and ITFS channels to numerous receivers with antennas, such as single family residences, apartment complexes, hotels, educational institutions, business entities and governmental offices. The range of the transmission depends upon the transmitter power, the type of receiving antenna and the existence of a line-of-sight path between the transmitter or signal booster and the receiving antenna.

8. Over the past few years, the wireless cable industry has experienced substantial growth and has emerged as an effective competitor to wired cable in many locations.<sup>10</sup> This rapid growth is due, in part, to program access provisions and changes in other regulations that have increased access to financing. MDS is a heavily encumbered service. Most of the thirteen MDS channels have already been authorized in the largest metropolitan areas, especially for locations in the eastern half of the country. Thus far, MDS has developed almost entirely in large and medium-sized cities, though MDS systems also serve many smaller communities in the western states. In addition to the approximately 170 operating wireless cable systems, many conditional licenses have been issued to entities that, presumably, are in various stages of constructing their systems. Finally, the MDS landscape includes MDS systems proposed in applications now being processed at the Commission.

## A. Filing Procedures and Service Rules

9. Proposals. On December 1, 1994, the Commission released a Notice of Proposed Rulemaking in this proceeding which solicited comment on proposals that would modify our MDS filing procedures and use competitive bidding to select from among mutually exclusive

the eight E and F channels also lease excess capacity to wireless cable operators.

<sup>10</sup> See Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming, 9 FCC Rcd 7442, 7482-88 (1994), 59 Fed. Reg. 64,657 (Dec. 15, 1994). The Commission is required to file such reports pursuant to the Cable Television Consumer Protection and Competition Act of 1992, Pub. L. No. 102-385, § 628(g), 106 Stat. 1460 (amending the Communications Act of 1934), codified at 47 U.S.C. § 548(g). The Commission recently adopted a Notice of Inquiry to obtain information needed to prepare the annual assessment that will be released in 1995, FCC 95-186 (released May 24, 1995), 60 Fed. Reg. 29,533 (June 5, 1995).

<sup>3</sup> The Commission imposed a freeze on the filing of applications for new MDS stations in Notice of Proposed Rulemaking in PR Docket No. 92-80, 7 FCC Rcd 3266 (1992), 57 Fed. Reg. 24,006 (June 5, 1992).

<sup>4</sup> Rand McNally defined 487 BTAs in the 1992 Commercial Atlas & Marketing Guide. Since Rand McNally did not include a few areas, we will add them to the list as BTA-like geographic areas, bringing the total to 493 authorizations to be auctioned. See *infra* at ¶ 26.

<sup>5</sup> Second Order on Reconsideration in Gen. Docket Nos. 90-54 and 80-113, FCC 95-231 (released June 21, 1995) (Second Order on Reconsideration).

applicants.<sup>11</sup> In the Notice, the Commission proposed that applicants file short-form applications for established geographic service areas to identify mutually exclusive applicants for competitive bidding purposes and that the successful bidders file long-form applications. Notice at 7669–71. The Notice suggested the use of predetermined geographic areas, such as Metropolitan Statistical Areas (MSA) and Rural Service Areas (RSA) or Areas of Dominant Influence (ADI).<sup>12</sup> This proposal envisioned that we would release a public notice announcing auctions by geographic area, specifying the filing period for short-form applications (FCC Form 175)<sup>13</sup> and the applicable bidding procedures. Mutually exclusive applicants would bid for all usable MDS channels in that area as a package and the auction winner would be permitted to file long-form applications for conditional licenses to operate stations anywhere throughout the service area provided the specific engineering design of their MDS stations meets the Commission's interference protection standards with respect to all authorized or previously proposed MDS and ITFS facilities. Long-form applications accepted for filing would be proposed for grant by a Commission public notice, announcing that the applications are accepted for filing and opening a thirty-day period for filing petitions to deny. See 47 U.S.C. § 309(b); 47 CFR 21.30. The Notice observed that these filing procedures would enable operators to

amass MDS channels, would avoid the lengthy delay associated with licensing stations site-by-site and therefore would allow operators to enhance their services more rapidly. The Notice asked commenters to determine which type of geographic areas would be most suitable for MDS and to address the definition of protected service area. In particular, we requested comment on whether the current definition of an MDS station's protected service area would be appropriate,<sup>14</sup> or whether the boundary of the geographic area designed for auction purposes should become the protected service area. We also asked commenters to discuss the interference standards for service to the areas adjacent to the boundaries between geographic areas. Although the Notice identified this approach of licensing MDS channels as the preferred approach, we also invited comment on alternative licensing procedures.

10. The Notice suggested an alternative approach that would limit applications to predetermined sites where there are vacant E, F or H channels. Notice at 7671–72. Under this approach, the Commission would identify such sites based upon the location of an already authorized E, F or H channel. The Commission would issue multiple public notices specifying the filing period and applicants would file a short-form application to identify mutually exclusive situations for purposes of competitive bidding. The auction winner would be required to file a long-form application containing a complete engineering proposal and specifying a compatible station design with the Commission's interference protection standards to all previously proposed or authorized MDS and ITFS facilities.

11. Under another alternative presented in the Notice, the Commission would periodically open national filing windows, with no geographic restrictions on filing for available MDS channels. Notice at 7672–73. Pursuant to this proposal, we would release a public notice announcing the filing window for available channels. This proposal would initially require a long-form application, containing the applicant's complete technical proposal, to determine mutual exclusivity before competitive bidding procedures are implemented. The Notice pointed out that this approach would likely result in a larger number of mutually exclusive applications and

increase the possibility of "daisy-chains" (interlinking application proposals at different locations), which would require a more complicated and time consuming competitive bidding process, including subsequent rounds of auctions to resolve all mutual exclusivities in a daisy-chain. We invited commenters favoring a national window approach to recommend ways to resolve the daisy-chains that might arise under this proposal.

12. As an option to the national filing window approach, the Notice discussed limiting eligibility to file in the first window to existing licensees and system operators who, at the time the application is filed, are operating with a certain minimum number of channels. Notice at 7673. In many situations the acquisition of a small number of additional channels may be essential for launching a whole new wireless cable system in a given area. This approach would allow existing wireless cable operators to accumulate the critical mass of channels necessary to operate competitive wireless cable systems. We asked commenters favoring this option to suggest eligibility requirements to govern the filing of applications in this first window.

13. Resolution. After careful consideration of the merits of the various proposals we raised in the Notice, we continue to prefer a filing approach where applicants file short-form applications and auction winners file long-form applications. We have decided that BTAs are the most appropriate geographic area for MDS. The boundaries of each geographic area, with the exceptions of channels obtained through leases with ITFS licensees, will become the protected service area for the auction winner. The auction winners will be issued authorizations for specific geographic areas and will be permitted to operate one or more MDS transmitting stations and signal boosters anywhere inside the service area, provided the specific engineering design meets the Commission's interference protection standards to all authorized or previously proposed MDS and ITFS facilities, and complies with the limits we establish for signal strength along the perimeter of the geographic area. See *infra* at ¶¶ 38–41. Following the auction, there would be a five year build-out period in which an authorization holder can expand service or initiate new service within their area without competing applications. The authorization holder will also be permitted to partition its area along established geopolitical boundaries and enter into contracts with eligible parties, allowing such parties to

<sup>11</sup> Notice of Proposed Rulemaking in MM Docket No. 94–131 and PP Docket No. 93–253, 9 FCC Rcd 7665 (1994), 59 Fed. Reg. 63,743 (Dec. 9, 1994) (Notice). The only aspect of the Notice which applied to ITFS was the electronic filing proposal. In a separate proceeding, the Commission recently adopted improvements to the ITFS licensing process, including a window filing procedure. Report and Order, Amendment of Part 74 of the Commission's Rules With Respect to the Instructional Television Fixed Service, MM Docket No. 93–24, 10 FCC Rcd 2907 (1995), 60 Fed. Reg. 20,241 (Apr. 25, 1995).

<sup>12</sup> MSAs and RSAs are standard geographic areas used by the Commission for administrative convenience in licensing cellular radio systems. The Commission has also used MSAs since 1983 for making mutually exclusive determinations for MDS applications filed for the E or F channels under 47 C.F.R. § 21.901(d)(5). ADIs are standard geographic areas that were developed by Arbitron Ratings Company. Each county in the United States is placed within one of 209 ADIs, the lowest numbered ADI having the highest population.

<sup>13</sup> FCC Form 175 contains the applicant's name, the markets in which the applicant wishes to bid, the persons authorized to make or withdraw a bid, whether the applicant is qualified as a designated entity under 47 C.F.R. § 1.2110, certifications that the applicant is legally, technically, financially and otherwise qualified, and identification of all parties involved in agreements, or certification that no agreements exist, relating to the authorizations being auctioned or the bidding process.

<sup>14</sup> 47 C.F.R. § 21.902. In another order, also adopted today, the Commission amends 47 C.F.R. § 21.902, to expand the protected service area for authorized or previously proposed MDS facilities. Second Order on Reconsideration at ¶¶ 2–31.

file long-form applications for usable MDS channels within that partitioned area. See *infra* ¶¶34–35. This will permit broad participation from entities of all sizes. This framework provides the most efficient system of disseminating MDS licenses because service areas are easily identified and authorizations are promptly granted with minimal administrative or judicial delays. This approach will also provide operators sufficient flexibility to design systems that satisfy consumer demand.

14. We emphasize that there is no perfect or simple filing approach to adopt at this time for new MDS authorizations given the history of the service, the characteristics of the technologies involved, the implementation of competitive bidding procedures, and our goal to rapidly enhance wireless cable systems as viable competitors in the multichannel video marketplace. We also reiterate that MDS is a heavily encumbered service. Although conditional licenses in some markets for one or more channels have been forfeited for failure to comply with express conditions or to timely construct, in a majority of the markets only small portions are unserved and few channels are available. Of the thirteen MDS channels, it is possible that no channel remains available for prospective bidders for as many as 59 of the cities of the top 100 ranked television markets. There are possibly two or less channel available in as many as 90 percent of these market cities. Moreover, the fixed 35-mile protected service areas of MDS incumbents, adopted today in a separate proceeding, will occupy substantial portions of most BTAs and typically cross BTA boundaries, especially in the eastern half of the country where BTAs are relatively geographically smaller. By enabling incumbents to continue providing interference-free service to subscribers within the expanded 35-mile areas, it is likely that in a substantial number of BTAs, it may be difficult, if not impossible, for an auction winner to locate a station anywhere in the BTA to provide both interference-free service and the necessary interference protection to protected areas of incumbents; unless either the auction winner is the incumbent, negotiates an interference agreement with the incumbent or would acquire the authorization of the incumbent.<sup>15</sup> We emphasize that

prospective bidders must carefully ascertain the extent of incumbent operations and authorized but unconstructed facilities in any BTAs prior to bidding. Further, where there remains outstanding at the time of auction a pending application, petition for reconsideration, reinstatement request or application for review affecting any BTA, winning bidders would acquire any authorization conditioned upon the outcome of Commission actions on such applications or pleadings. Prospective bidders must consider the total impact of incumbents in their valuation of the auction areas for competitive bidding purposes.

15. With regard to the definition of the service area to be authorized for MDS, we conclude that issuing authorizations by Basic Trading Areas (BTA) reflects the best balance of competing considerations. We considered several service area options including Metropolitan Statistical Areas (MSA) and Rural Service Areas (RSA),<sup>16</sup> the television Areas of Dominant Influence (ADI) and the analytically similar Designated Market Areas (DMA),<sup>17</sup> Basic Trading Areas (BTA) and a combination of service areas that vary in size. The record reflects that because many MSAs are much smaller than actual service areas existing today, wireless cable stations licensed to different entities in adjacent MSAs would have great difficulty providing service to their MSA without causing harmful interference to systems in adjacent areas. In some cases, operators who designed their systems to maximize population, are serving subscribers located beyond the MSA in which the transmission facilities are located. Furthermore, the record indicates that the use of MSAs and RSAs would result in unnecessary fragmentation of natural markets and in order to protect the boundaries of adjacent MSAs and RSAs, in many cases, stations would have to operate at extremely low levels of power. While simultaneous multiple round bidding would permit the consolidation of interdependent MSAs and RSAs, and licensees could acquire additional markets after auctions

through the assignment and transfer process, we believe that these options may result in unproductive regulatory and transaction costs for the Commission and applicants. We believe that the use of larger service areas would alleviate these problems and would reduce the need for and cost of interference coordination between neighboring licensees.

16. ADIs and DMAs, on the other hand, tend to be much larger than the area in which reliable MDS service is available using today's technology. One commenter indicates that ADIs tend to be over seven times the size of actual wireless cable protected service areas (of 710 square miles) and therefore concludes that ADIs are the least appropriate service area for MDS. It explains that ADIs are designed for television advertising measurement purposes and unlike wireless cable, the signal of television stations and hence the size of ADIs are attributed to cable carriage of television signals. Furthermore, the cost of acquiring an ADI authorization through competitive bidding, building systems and marketing services in the larger ADIs may unnecessarily restrict entry to a small number of applicants. BTAs offer a compromise in size that may best approximate MDS service areas. Although varying in geographic shape and size, BTAs are bigger than MSAs generally since they often include the MSA and surrounding counties, thus mitigating harmful interference among adjacent areas. BTAs offer sufficiently large service areas to allow applicants flexibility in designing a system to maximize population coverage and take advantage of economies of scale necessary to support a successful operation. Yet BTAs are generally smaller than ADIs, making the initial cost of acquiring the authorization through competitive bidding lower, and therefore providing greater opportunity for participation by small businesses, female and minority entrepreneurs and rural telephone companies. The use of BTAs combined with geographic partitioning will encourage further participation by a wide variety of applicants. See 47 U.S.C. 307(j)(4)(C). Finally, BTAs provide a manageable number of discrete filing areas for competitive bidding purposes.

17. We recognize that the majority of the commenting parties express support for the national filing window approach. We believe, however, that using national filing windows would most likely result in more of the very substantial processing and administrative delays that have long plagued the development of the wireless

<sup>15</sup> In assessing MDS channel availability, we assumed that each authorized or previously proposed MDS station has a protected service area of 35 miles, i.e., the expanded service area adopted today in a related order. Second Order on Reconsideration.

<sup>16</sup> MSAs and RSAs are used by the Commission in licensing cellular radio systems. All of the 306 MSAs and 428 RSAs and the counties they comprise are listed in Public Notice, Report No. CL-92-40, "Common Carrier Public Mobile Services Information, Cellular MSA/RSA Markets and Counties," 7 FCC Rcd 742 (1992). See also 47 CFR 22.909.

<sup>17</sup> DMAs are standard geographic areas developed by A.C. Neilsen Company in which each county in the continental United States is placed within one of the 211 DMAs, the lowest numbered DMA having the highest population.

cable service. Given the history of the service, we believe such delays are inherent in site-specific licensing, which would require analysis of long-form applications containing the applicant's complete engineering proposal before the competitive bidding process begins. Since the national filing window approach would likely result in a larger number of mutually exclusive applications and daisy-chains, implementation would likely require significant Commission resources and a substantial amount of time to conduct the multi-part auctions (to resolve the daisy-chains) recommended by some commenters or otherwise complete the competitive bidding process. We acknowledge the concerns of some commenters that the licensing approach should afford MDS licensees flexibility to locate systems wherever necessary to maximize coverage. The record reflects that the success of the wireless cable industry thus far has been based upon negotiated agreements with neighboring system operators and strong partnerships with ITFS licensees. The filing system and procedures we adopt herein are expected to facilitate such negotiations and afford wireless cable operators the flexibility to improve existing systems, introduce new systems and implement digital technologies.

18. Indeed, the record indicates that geographic licensing may be the most efficient method to these ends in a digital environment, toward which the wireless cable industry is moving. The nature of digital transmissions will allow more flexibility to tailor signal coverage to geographic boundaries using multiple transmitting facilities. We believe that our rules will facilitate the transition to digital transmissions. If modification of our rules become necessary, we will act promptly to ensure that our rules in no way impede the digital future.

19. In response to the concern about the protected service areas for MDS (BTAs) and ITFS being different, we must emphasize that the two services have differing purposes and authorization procedures. One is intended primarily to provide educational and cultural development to students enrolled in accredited schools and the authorization is issued to the best qualified applicant, while the other is commercial in nature and is subject to competitive bidding. Furthermore, unlike MDS stations, the protection afforded to ITFS operators is based upon receive sites and protected service area is defined in 47 CFR 74.903. Pursuant to this rule, the protected service area associated with the lease of excess channel capacity will also

expand to a circle, 35 miles in radius, centered about the transmitter site of the ITFS stations. We note, however, that in a recent proceeding we adopted a 35-mile protection distance for ITFS receivers, a protection distance that is compatible with many BTAs,<sup>18</sup> and with the 35-mile protected service area for MDS stations which are authorized or previously proposed that we have separately adopted today. Second Order on Reconsideration.

20. For the reasons stated above, we believe that licensing by geographic areas is the best approach for issuing MDS authorizations. We decide not to adopt the approach presented in the Notice limiting applications to predetermined sites identified by the Commission based upon the locations of already authorized E, F or H channels where there are usable channels. We agree with the commenters that this approach is inflexible. An approach in which the Commission identifies the specific site sacrifices the business judgment of the operators when they are in the best position to consider market forces. Further, where there is more than one site, the Commission would have to establish criteria for choosing among the available locations. In addition, where identified sites are unavailable to the highest bidders, the Commission would have to process modification applications, which would actually decrease overall processing efficiency and would delay service to the public.

21. We decline to adopt a preference for existing licensees and system operators because we believe that, rather than place restrictions on eligibility to participate based upon an applicant having access to a minimum number of channels, it is in the public interest to encourage participation from a wide variety of applicants. Indeed, a new entrant into the wireless cable industry may place a higher value on the spectrum than an incumbent licensee or system operator in a given area. While we recognize that in some areas, the existing licensee or operator may be in the best position to immediately introduce competition to wired cable, we further believe that a new entrant with sufficient resources will be able to accumulate a sufficient critical mass of channels to launch a system in a market through the competitive bidding process and through the assignment or transfer of previously authorized channels. Thus, market forces will lead to the

accumulation of channels into one operating system.

#### 1. Service Areas

22. We therefore will award MDS authorizations for entire BTA service areas under competitive bidding procedures. BTAs were designed by Rand McNally to represent the natural flow of commerce, comprising areas within which consumers have a community of interest. Like the other types of predetermined geographical areas, BTAs vary in size and shape. Typically, a BTA includes a population center(s) (city or large town) and the surrounding rural area. BTA boundaries are based on county lines because most statistical information relevant to marketing is published in terms of counties. The specific boundaries were drawn after a study of several factors, such as physiography, population distribution, economic activities, newspaper distribution and transportation facilities.<sup>19</sup>

23. We note that Rand McNally & Company is the copyright owner of the Basic Trading Area and Major Trading Area Listings, which list the counties contained in each BTA, as embodied in Rand McNally's Trading Area System Diskette and geographically represented in the map contained in Rand McNally's Commercial Atlas & Marketing Guide. Rand McNally has licensed the use of its copyrighted MTA/BTA listings and maps for certain services such as Personal Communications Services (PCS), 800 MHz Specialized Mobile Radio Services (SMR) and Local Multipoint Distribution Services (LMDS). Rand McNally had also reached an agreement in principle with the American Mobile Telecommunications Association (AMTA) for a blanket copyright license for the conditional use of the copyrighted material in the 900 MHz SMR service. These agreements authorize the conditional use of Rand McNally's copyrighted material in connection with these particular services, require interested persons using the material to include a legend on reproductions (as specified in the license agreement) indicating Rand McNally's ownership, and provide for a payment of a license fee to Rand McNally.

24. Currently, MDS is not covered by any blanket copyright license agreement. While current and prospective MDS licensees and other parties interested in using the copyrighted materials may negotiate

<sup>18</sup> Report and Order in MM Docket No. 93-24, 10 FCC Rcd 2907, 2917, 60 Fed. Reg. 20,241 (Apr. 25, 1995).

<sup>19</sup> See Rand McNally 1992 Commercial Atlas & Marketing Guide at 39.

their own licensing arrangement with Rand McNally, as in other services, we encourage interested parties and Rand McNally to explore the possibility of entering into blanket license agreements similar to those noted above to cover MDS. In any event, we note further that an MDS BTA authorization grantee who does not obtain a copyright license (either through a blanket license agreement or some other arrangement) from Rand McNally for use of the copyrighted material may not rely on grant of a BTA-based authorization from the Commission as a defense to any claim of copyright infringement brought by Rand McNally against such grantee. The MTA/BTA Listings, the MTA/BTA Map and the license agreements noted above are available for public inspection at the MDS public reference room, Room 207, 2033 M Street, N.W., Washington, D.C.

25. The Commission will consider awarding the 487 BTA authorizations in the United States, with the following additions to be authorized as BTA-like areas: American Samoa, Guam, Northern Mariana Islands, San Juan, Puerto Rico, Mayaguez/Aguadilla-Ponce, Puerto Rico, and the United States Virgin Islands. Thus, a total of 493 authorizations will encompass all land areas within the United States and related territory. We reiterate that, based on its geographic size, and the extent of encumbrances, it may not be possible in a particular BTA to design and select a station site for any MDS station without negotiating an agreement with one or more affected, previously authorized or proposed, cochannel or adjacent channel MDS or ITFS stations. However, we are going to hold auctions initially for all BTAs for which mutually exclusive, short-form applications are filed. The Commission will announce the time and place of the auction and the applicable bidding procedures by a future public notice. Applicants wishing to participate in the auction process will file a short-form application indicating each BTA service area for which they desire to bid. To determine eligibility to apply for a BTA service area, we will apply the same general eligibility requirements for an MDS authorization.<sup>20</sup> There is no restriction on the number of BTA service areas for which any entity may apply or on the number of BTA authorizations awarded to one entity. Incumbent MDS licensees, conditional licensees and applicants

and new entrants will be eligible. Accordingly, prospective bidders will be able to aggregate adjacent BTAs to utilize economies of scale that currently benefit wired cable competitors. Selection from among the mutually exclusive applicants will be determined through a simultaneous multiple round bidding process. The auction winner for each BTA service area, if qualified, will be awarded a BTA authorization. The protected service area lies within the geographic boundary of that BTA, except as excluded by any 35-mile circle protected service areas of previously authorized or proposed MDS stations and except for channels related to ITFS lease agreements.

## 2. Rights and Responsibilities of BTA Authorization Holder

26. The following paragraphs describe the service rules regarding the rights and responsibilities of the holder of a BTA authorization, the duration of those rights and how an event will alter the boundaries of a protected MDS service area. For purposes of clarity, the chronology of the events would occur as follows: (1) the 35-mile protected service areas of incumbents will become fixed in place upon the effective date of the Second Order on Reconsideration; (2) issuance of public notices announcing auctions by geographic area, and specifying the filing periods for short-form applications and upfront payments; (3) issuance of a public notice identifying all applicants determined to be qualified to bid (i.e., submitted acceptable short-form applications and sufficient upfront payments); (4) competitive bidding rounds; (5) after bidding has ended, the Commission would declare bidding closed and would notify the auction winners, who would then have five business days to make down payments and thirty business days to file at least one long-form application;<sup>21</sup> (6) following review of the long-form applications, the Commission would issue a public notice identifying those accepted and opening a thirty-day period for filing petitions to deny; and (7) if no petitions to deny are filed or if they are dismissed or denied, the Commission would issue a public notice stating that the BTA authorization and the MDS station license are ready to be

issued. Assuming that the auction winner made full payment of its winning bid within five business days of this public notice, the Commission would grant one or more conditional station licenses for individual stations within the auction winner's BTA service area and issue the BTA authorization for the entire BTA service area.

27. Description of Authorization. The holder of a BTA authorization may file one or more long-form applications seeking authority to construct stations anywhere inside their BTA on usable MDS channels, provided the specific engineering design meets the Commission's interference protection standards to all authorized or previously proposed MDS and ITFS facilities, and complies with the prescribed signal strength limits at the BTA boundary, i.e., at all points along the perimeter of the BTA. A separate conditional station license will be awarded for each single channel or channel group at each site location.<sup>22</sup> For example, separate licenses will be issued for the E Group, F Group and each of the three H Channels. In this Report and Order, the initial license for the BTA service area will be referred to as a "BTA authorization" and individual channels will be separately licensed. Thus, we will distinguish between three different types of authorizations for MDS facilities: (1) a "BTA authorization" awarded to an auction winner of a particular BTA following the requisite long-form application or statement of intention and requisite payment, (2) a "station license for each individual station within the BTA" service area held by an auction winner, and (3) a "station license" for an MDS facility authorized or previously proposed under the rules predating the effective date of this Report and Order. Accordingly, under the Commission's rules, as amended herein, the holder of a BTA authorization would file a long-form application for each usable single channel or channel group at each transmitter site within the auction winner's BTA service area, and will have a later opportunity to file amendments to correct any defects in the application. The construction period specified in each conditional station license granted for the individual

<sup>22</sup> This in no way should be interpreted to reflect on other services where we are eliminating site licensing. See Further Notice of Proposed Rule Making in PR Docket No. 93-144 and PP Docket No. 93-253, FCC 94-271 (released Nov. 4, 1994), 59 FR 60111 (Nov. 22, 1994); Second Report and Order and Second Further Notice of Proposed Rule Making in PR Docket No. 89-553, PP Docket No. 93-253, and GN Docket No. 93-252, FCC 95-159 (released April 17, 1995), 60 FR 21987 (May 4, 1995).

<sup>20</sup> See 47 CFR 21.4, 21.17, 21.900, 21.912. Because we are amending our rules to implement competitive bidding, our rules regarding random selection and comparative consideration would not apply to applications for new stations filed after the lifting of the freeze. See 47 CFR 21.31, 21.914.

<sup>21</sup> If the BTA is so heavily encumbered that the winning bidder is unable to file a long-form application for a station within the BTA while protecting incumbents from harmful interference, the winning bidder must file a statement of intention of use of the BTA, accompanied by a current License Qualification Report (FCC Form 430), before the Commission issues the BTA authorization. See *infra* at ¶¶ 118-120.

stations within the auction winner's BTA service area will be the five year build-out date which runs from the grant date of the first conditional license within the auction winner's BTA (granted the same date as the BTA authorization). When the portion of the system represented by a particular long-form application is constructed and ready to begin operation, the holder of the BTA authorization will file a corresponding certification of completion of construction. The license term for those stations will be the same ten-year term as MDS stations licensed prior to the adoption of this Report and Order. See 47 CFR 21.45. The ten-year term for the new licenses will commence on the date the Commission declares bidding in the MDS auction to be closed. The holder of a BTA authorization has a protected service area that is coterminous with the boundaries of their BTA service area, subject to exclusion of the protected service areas and/or locations of authorized or previously proposed MDS and ITFS facilities, as further discussed *infra* in ¶ 42. Individual station licenses that are a part of a BTA service area will not have a uniquely associated protected service area. The common protected service area of all individual stations within the BTA authorization will be the boundary of that BTA.

28. We emphasize that the actual service areas can be tailored through voluntary agreements among the affected parties. Although our rules indicate that the holders of BTA authorizations must locate all transmitter sites within the boundaries of the BTA and may not cause interference in adjacent BTAs, the interference rights may be modified through negotiation and written agreements. The MDS station facilities within the auction winner's BTA may be expanded or modified throughout the BTA service area so long as the system continues to be in compliance with our technical rules and protects incumbent MDS and ITFS facilities. The facilities may be expanded beyond the BTA or into the protected service area of an incumbent with an agreement from the entity that controls the adjacent BTA or the incumbent protected 35-mile circular area.

29. Consistent with our goal of establishing filing procedures and policies that will encourage the accumulation of a full complement of channels necessary for a viable MDS system, only the BTA authorization holder will be qualified to submit any new application for MDS use of available ITFS frequencies within the BTA in accordance with 47 CFR

74.990(a), and the ITFS application procedures of § 74.991. ITFS station licensees and prospective ITFS applicants that seek to construct and operate new ITFS facilities located within a BTA and that choose to lease excess channel capacity will be free to negotiate with any potential lessee, including the holder of the BTA. In furtherance of our goal of accumulating a full complement of channels, however, the holder of the BTA will be afforded the right to match the final offer of any proposed lessee. Should the holder of the BTA decline to exercise such right, then the ITFS applicant can enter into a lease arrangement with any operator it so chooses. This is not intended to interfere with present contractual rights that are in effect or renewal of those rights. In the case where a BTA authorization holder is the licensee of ITFS channels, the associated protected service area will be the entire BTA, and interference protection will be governed in the manner for protecting BTA service on MDS channels. However, in the case where a BTA authorization holder leases excess channel capacity from an ITFS licensee, the protected area will be a 35-mile circle centered around the particular ITFS station in the BTA that leases the channels. We will afford this area the same protection generally afforded under our ITFS rules. BTA authorization holders in adjacent BTAs must protect points on the 35-mile circle using cochannel and adjacent channel desired-to-undesired signal strength ratios of 45 dB and 0 dB, respectively. A special case will occur whenever BTA authorization holders in adjacent BTAs both lease the same ITFS channel group, such that the 35-mile protected circle of each extends into the BTA of the other. In this regard, we will expect the respective ITFS entities and BTA holders to reach an agreement concerning interference protection near their common boundary. Moreover, a BTA authorization holder will not be required to protect that portion of the 35-mile circle associated with the other authorization holder that falls on his or her side of the boundary. We believe that this approach will promote our policy objectives for this service and will similarly have only a positive effect on the continued successful development of ITFS with the ever expanding financial support for that service provided by wireless cable operators.

30. The available MDS spectrum within a BTA authorization will increase if the unconstructed facilities or unused channels held by an MDS

incumbent with transmitter site locations within a particular BTA are forfeited or if previously proposed conditional licenses or modifications are not granted. The holders of the BTA authorizations obtain contingent rights to this spectrum when they receive their authorizations, so that the forfeited channels will revert and become part of the BTA authorization up to the boundary of the BTA. The holder of the BTA authorization may subsequently file long-form applications for the forfeited channels, provided the specific station design meets the Commission's interference protection standards. Such a policy provides an incentive for the holders of BTA authorizations to find and document such warehousing violations, resulting in efficient use of fallow spectrum. In addition, authorization rights may be revoked or terminated because of gross misconduct, misrepresentation or bad faith by an applicant. Other events may also change the protected service area, such as the end of the five year build-out period, an assignment or transfer or partitioning of the BTA. These events are discussed in detail below.

31. Five Year Build-out Period. The build-out period in which the holder of a BTA authorization is permitted to expand service or initiate new service within their BTA service area will be five years. Specifically, we will provide the BTA authorization holder five years from the grant date of the initial BTA authorization to construct and operate the system. The purpose of this requirement is to ensure that service is promptly delivered to the public. See 47 U.S.C. 309(j)(4)(B). This five year build-out period is not extended by the grant of subsequent authorizations, such as the grant of a long-form or modification application for an individual station within the BTA service area. We will require the holder of a BTA authorization to submit a showing to the Commission five years after the BTA authorization was issued demonstrating that it is providing a signal level sufficient to provide adequate service to approximately two-thirds of the population of the area within its control in the licensed BTA. The holder of the BTA authorization must submit maps and other supporting documents showing compliance with this construction requirement. The Commission, in evaluating the showing, may consider line-of-sight obstructions and the ability to provide service without causing harmful interference to other MDS or ITFS facilities. If the holder of the BTA fails to cover any of the BTA, it will forfeit the authorization



and it will be ineligible to regain it. If the Commission determines that there are usable channels in an unserved or underserved area of the BTA, the Commission would partition the area along geopolitical boundaries and issue a public notice establishing the reauction of the partitioned area. This public notice would announce the auction or auctions by geographic area, specifying the filing period for short-form applications and the applicable bidding procedures. The holder of the BTA will forfeit the partitioned service area and will be ineligible to bid on it. We believe that this coverage policy is reasonable and will result in the channels being made available to applicants who will provide service to the public. We further believe that this will deter the warehousing of channels and ensure that the spectrum is being effectively utilized for MDS.

32. Assignment or Transfer of Control. The holders of BTA authorizations and MDS incumbents may negotiate mergers, buyouts, channel swaps, channel splits or make similar arrangements on a voluntary basis, pursuant to the general assignment and transfer provisions of 47 CFR 21.38. Both parties are generally permitted to buy from and sell authorizations to each other and to third parties, with few limitations.

33. Additional spectrum may be acquired by the holder of a BTA authorization through buyouts of incumbent licensees within their authorized BTA service area. As is the case with ITFS licensees, wireless cable operators may also acquire spectrum through leasing agreements with incumbents. In this case, the protected service area of the acquired station will extend to the BTA boundary or the existing 35-mile protected circular area (from the incumbent), whichever is larger. The holder of the BTA authorization may assign or transfer control of its entire BTA, which will include all authorized stations, subject to the unjust enrichment provisions for designated entities. See *infra* at ¶¶ 147.152. Such an assignment or transfer of an entire BTA may also include unserved areas so long as the five year build-out period has not expired. If a BTA authorization is assigned or transferred, the new holder of the BTA authorization is held to the original build-out period. The holder of the BTA authorization may also partition portions of the BTA along geopolitical boundaries under our partitioning rules, discussed below, and contract with eligible parties, allowing such parties to file long-form applications for the usable MDS

channels within that area. We believe that allowing the partitioning of portions of the BTA service area will encourage provision of service to rural areas, which will promote the most efficient use of the spectrum. See 47 U.S.C. 309(j)(3)(A) (instructing the Commission to promote the development and rapid deployment of new technologies, products, and services for the benefit of the public, including those residing in rural areas).

34. Partitioning. During the five year build-out period, we will permit the holder of a BTA authorization to partition portions of its BTA authorization and enter into contracts with eligible parties, allow such parties to file long-form applications for the usable MDS channels within that partitioned area. The BTA may be partitioned along geopolitical boundaries, and the Commission may grant such applications, provided they are in compliance with the rules. Also, a holder of a BTA authorization will be permitted to add to its service area by acquiring a partitioned service area from the holder of an adjacent BTA. Following grant of such an application, the authorization will be referred to as "partitioned service area." The holder of a partitioned service area would, in effect, then hold something similar to a BTA authorization for the partitioned area. The protected service area will become or expand to the boundaries partitioned along the designated geopolitical boundaries and the same technical rules will apply, including the limiting signal strength at the boundaries of the partitioned area. Accordingly, the construction period for the partitioned service area will be the remaining portion of the five year build-out and at the end of this five year period, the holder of the partitioned service area must demonstrate that it is providing substantial service to the partitioned area. Once construction is complete, the license term will run ten years from the date the Commission declared bidding in the MDS auction to be closed.

35. We believe that allowing holders of the BTA authorizations to partition will facilitate the provision of service to small markets and rural areas, some of which currently have no source of multichannel video programming. Partitioning will also promote the most efficient use of the spectrum and encourage participation by a wide variety of entities, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women. See 47 U.S.C. 309(j) (3)(B), (3)(D) and (4)(C).

36. Technical Rights and Responsibilities. In determining interference protection standards and other technical provisions under this new approach to MDS authorization of service, our objectives are two-fold: (1) to provide maximum flexibility to allow both new BTA authorization holders and current MDS licensees, conditional licensees, and applicants to develop and expand service in the most rapid and economically feasible manner, and (2) to assure that the introduction of new MDS service will not result in objectionable interference to the services of incumbent stations and will minimize insofar as possible the extent of potential interference within BTA service areas. These objectives and the provisions herein take into account the extent to which the current service has been built around successful negotiations among neighboring operators and/or licensees, as well as prospective operators and licensees. We fully expect this spirit of cooperation and accommodation to continue and, while we will adopt interference protection provisions for BTA and incumbent service, we will allow and indeed encourage the holders of BTA authorizations and incumbents to work out mutually agreeable interference concerns with other potentially affected parties whenever possible.

37. As a result of this Report and Order and a separate MDS order we are adopting today, protected service areas for BTA authorization holders and MDS incumbents will be defined differently. Second Order on Reconsideration at ¶¶ 2-31. We believe this approach will best facilitate the full development of incumbent wireless cable systems, many of which already have secured the desired transmitting site, and serve subscribers within a metropolitan area from a single site. In addition, this approach may allow the rapid expansion of new MDS service into other unserved portions of BTAs. We adopt an idea contemplated in the Notice, that the perimeter of a predetermined geographic area (BTA) generally defines its protected area. The holders of BTA authorizations will not be permitted to cause interference within the boundaries of an adjacent BTA, without the consent of the affected authorization holder. When such interference occurs, an offending party will be expected to act promptly to eliminate any unwanted interference in another operator's BTA.

38. Interference among adjacent BTA operators will be partially controlled by establishing an allowable limit for a station's predicted signal strength at all points along a BTA boundary. The same



limiting signal strength will apply at the boundaries of every BTA, regardless of its size or shape. An exception to this limit would be justified where a single entity obtains authorization for adjacent BTAs. While we recognize that several commenting parties are concerned that an MDS signal simply does not stop at the area boundary, we believe the level of limiting signal strength given below, together with the multitude of available interferences abatement techniques, will facilitate control of interference between BTA authorization holders in adjoining BTAs. Interference levels to BTA holders from MDS incumbent stations will be partially governed by establishing the same maximum allowable signal strength along the boundary of incumbents' 35-mile circular areas, the expanded area provided in the Second Order on Reconsideration.

39. At first glance, it would appear that the approach to interference control between adjacent BTAs would be ineffective, given that the levels of desired (D) and undesired (U) could be the same at the common boundary between BTAs. The resulting desired-to-undesired signal strength ratio (D/U) of 0 dB falls well below the 45 dB standard now governing interference between MDS stations operating on the same channel. However, taking the signal suppressing effects of receiving antennas into account and further assuming that the desired and undesired signals are coming from opposite sides of the BTA boundary, the D/U ratio improves to as much as 25 dB. If we further expect that, in most cases, stations on opposite sides of the boundary would operate with different antenna polarizations, then the D/U ratio further improves to 45 dB. These numbers are based on the characteristics of the standard MDS receiving antenna found in 47 CFR 21.902(f).

Alternatively, station operators on opposite sides of a BTA boundary may design their facilities with agreements between affected parties to operate on a frequency offset basis, with a less restrictive D/U ratio of 28 dB necessary to prevent cochannel interference in this situation. Indeed, a host of interference abatement techniques could be employed to prevent interference near BTA boundaries. Admittedly, this approach relies more on operator interference agreements and the honoring of another's interference rights than it does on applying rigid interference standards in the processing of applications. However, if we were to mandate strict compliance with the 45 dB cochannel and 0 dB adjacent

channel D/U signal strength ratios (the current MDS interference standards) to protect BTA service at the BTA boundary, we believe there would be populated areas within a substantial number of BTAs that may never be served due to the irregular sizes and shapes of BTAs. Moreover, as we have indicated, given the nature and history of the service, as well as the likelihood that auction participants will be experienced in conducting negotiations, we believe that we can prevent unwanted interference by relying primarily on negotiated agreements and voluntary compliance with our interference right-of-ways, which we will enforce as necessary. Thus, we consider our limitation of signal strength at the BTA boundaries and incumbent service areas as a secondary means of interference protection.

40. Inasmuch as incumbent stations lie within BTAs and authorized BTA stations will not have their own protected service areas, interference from incumbent stations can only be governed by agreements between affected parties, and indirectly, by placing a limiting value on the strength of the signal at the boundary of incumbent MDS stations. A signal strength, regardless of its numerical value, will not by itself eliminate the potential for interference from incumbent stations. Terrain shielding and other abatement techniques will also be helpful in this regard; however, the most effective means of controlling interference will be the agreements between BTA authorization holders and incumbent MDS licensees, which, for example, may stipulate that an incumbent utilize a directional antenna pointed away from the affected BTA.

41. We have selected as the limiting signal strength a power flux density value of  $-73$  dBW/m<sup>2</sup>. This value corresponds to a received power level of approximately  $-83$  dBm (decibels above 1 watt) or  $-53$  dBm (decibels above 1 milliwatt), given a receiver antenna with a maximum gain of 20 dBi. A power flux density value is used because "free space" propagation is the model long used in the MDS service. This variable depends only on the level of power radiated from a transmitting antenna and the distance between the transmitting and receiving locations. The value of  $-73$  dBW/m<sup>2</sup> was selected because it is the "free space" value of power flux density achieved with an equivalent isotropically radiated power (EIRP) of 2,000 watts (the maximum allowable EIRP in the MDS service where omni-directional antennas are used) at a distance separation of 35 miles. This numerical value is stronger

than the power flux density achieved under standards used in the MDS service for many years, *i.e.*, a value of  $-75.6$  dBW/m<sup>2</sup> is achieved with 200 watts of EIRP at a distance of 15 miles. Moreover, based on the record in the Second Order on Reconsideration, it is clear that many wireless cable systems serve a substantial subscriber base at distances of 35 miles or even greater. Thus, we conclude that the selection of this value of limiting signal strength will generally enable service over unobstructed signal propagation paths at the 35-mile boundary of an incumbent's transmitting facilities. The ability to achieve this signal level at a BTA boundary will vary considerably, depending on the size of the BTA and the placement of a transmitting facility. Clearly, because of their large size, service of many BTAs will require multiple transmitting facilities.

42. In the Notice we stated our intention not to change the interference protection standards applied "at points along the service contours of protected facilities." Notice at 7674. Accordingly, BTA authorization holders will be required to design their transmitting facilities to protect points along the 35-mile circles and points within the protected service areas of incumbents' licensed stations, conditionally licensed stations, or previously proposed applications. Specifically, stations proposed in BTA long-form applications must meet the 45 dB and 0 dB cochannel and adjacent channel desired-to-undesired signal strength ratios at the boundary of each protected 35-mile circle. We will also continue to use these stricter protection standards within incumbents' protected service areas. Unlike BTA service, which does not yet exist, incumbent stations have an established subscriber base in many cities and rural areas throughout the country. Wireless cable systems were carefully crafted, both through engineering design, site location and negotiation among affected parties, and in partial reliance on the Commission's protection standards. To a considerable extent, these systems provide interference-free reception to subscribers, many out to distances beyond 35 miles. Because many wireless cable systems have been serving subscribers well beyond their current 710 square mile protected service area, we do not wish to disrupt existing service patterns which compete with wired cable systems.

43. The holders of BTA authorizations within 80 kilometers (50 miles) of the Canadian or Mexican borders, may only operate on MDS channels pursuant to the restrictions in international

agreements. Thus, applicants considering authorizations for these BTAs should consider the impact of the additional border requirements in their valuation of the service areas for competitive bidding purposes.

### 3. Treatment of Incumbents

44. As we have stated, a principal objective in this proceeding is to allow incumbents to continue existing operations without objectionable interference from new MDS operations and to allow them sufficient flexibility to modify their facilities to respond to market forces. Expansion of the protected service boundary to 35 miles will increase an incumbents' service area from 710 square miles to 3848 square miles, which will allow for the future orderly development of wireless cable systems, particularly as digital technology is introduced. Second Order on Reconsideration at ¶¶2-31.

45. Incumbents, unless they also control the adjacent BTA territory (either as BTA authorization holders or through interference agreements) will not be free to expand further their service area into the adjacent BTA. The manner we choose to prevent such occurrences is to define a limiting power flux density of  $-73 \text{ dBW/m}^2$ , which may not be exceeded at points along the 35-mile protected service area. Subject only to this limitation, incumbents will be free to file long-form applications at any time to modify their facilities or add facilities such as signal boosters. In a small number of cases involving directional antennas, an incumbent's power flux density may already exceed  $-73 \text{ dBW/m}^2$ , for signal paths in some directions at a distance of 35 miles. In such cases, we would not force the incumbent to reduce the signal strength to the allowable limit, nor would we allow the signal level to increase. Incumbents who propose to modify their stations must continue to seek prior Commission approval pursuant to 47 C.F.R. §§ 21.40 through 21.42, and include any agreements with the holder(s) of a BTA authorization(s). All other current rules continue to apply to MDS incumbents unless specifically amended.

46. Finally, since the incumbents' 35-mile protected circles will be embedded within one or more BTAs, to prevent additional encroachment into a BTA we must at some point fix the 35-mile circles around a permanent reference point, absent an interference agreement with a BTA authorization holder. Accordingly, on the effective date of the rules adopted in the Second Order on Reconsideration, we will permanently fix the location of the protected 35-mile

circles in the following manner. For incumbent licensees with no conditional licenses or pending applications, the "protected reference coordinates" will be those of the current site. Subsequent changes in site location would be permitted; however, the 35-mile circle would remain centered about the previous site coordinates. For incumbents having only a conditional license or a new station application pending before the effective date, the site coordinates specified for the conditional license or pending application will become the reference coordinates. In cases where an incumbent has two or more authorizations and/or pending applications on the effective date, the reference coordinates in each authorization and/or application will be provisionally treated as the permanent reference coordinates of the protected circle. Eventually, pending applications will be disposed of and conditional licenses will either become licenses or be forfeited for failure to construct.

### 4. Alternative Uses of MDS Frequencies

47. The principal use of MDS frequencies is wireless cable service. Under Section 21.903(a) of the Commission's rules, 47 C.F.R. § 21.903(a), MDS stations are "generally intended to provide one-way radio transmission (usually in an omnidirectional pattern) from a stationary transmitter to multiple receiving facilities located at fixed points." At the same time, our rules permit use of MDS frequencies for other kinds of services. Section 21.903(b), 47 C.F.R. § 21.903(b), states that "[u]nless otherwise directed or conditioned in the applicable instrument of authorization, Multipoint Distribution Service stations may render any kind of communications service consistent with the Commission's rules on a common carrier or on a non-common carrier basis \* \* \*." We wish to emphasize that nothing in this Report and Order precludes either new licensees or incumbents from using MDS frequencies for other kinds of services pursuant to 47 C.F.R. § 21.903(b). We note, however, that such applicants may need to apply for waivers of certain MDS technical rules, such as 47 C.F.R. §§ 21.903(a) and 21.906.

### B. Interference Criteria and Data Elements

48. Proposals. As a complement to the filing proposals and electronic procedures, the Notice proposed to adopt a technical equation as the basis for the "free space" interference protection calculations. The

Commission's MDS engineers currently utilize this formula and it is recognized by engineering consulting firms in the wireless cable industry:

The received signal power level  $(RSL)_{\text{dBW}}$  at the output of the FCC reference receiving antenna is obtained from the following:<sup>23</sup>

$$(RSL)_{\text{dBW}} = (EIRP)_{\text{dBW}} - (L_{\text{FS}})_{\text{dB}} + (G_{\text{AR}})_{\text{dB}}$$

where the free space loss  $(L_{\text{FS}})_{\text{dB}}$  is

$$(L_{\text{FS}})_{\text{dB}} = 20 \log (4\pi d/\lambda) \text{ dB}$$

In these equations,  $(RSL)_{\text{dBW}}$  is received power in decibels referenced to one watt,  $(EIRP)_{\text{dBW}}$  is equivalent isotropically radiated power in decibels above one watt,  $d$  is the distance of the signal path in meters,  $\lambda$  is the wavelength of the signal in meters, and  $G_{\text{AR}}$  is the gain of the reference receiving antenna, as obtained in 47 C.F.R.

§ 21.902(f)(3), Figure 1. The Notice proposed to formalize the above equations by adopting them as a rule provision as part of a plan to implement computerized interference studies. Additionally, the Notice stated that we will require proposed facilities to meet the 45 dB and 0 dB cochannel and adjacent channel desired-to-undesired signal strength ratios at points along the service contours of protected facilities which were authorized under the current interference standards. With regard to long-form applications, we proposed to retain the requirement in 47 C.F.R. § 21.902, that an applicant perform analyses of the potential for harmful interference and serve such interference studies upon the authorized or previously proposed station applicants, conditional licensees or licensees required to be studied, but we would not require the submission of a list of those served at the time the long-form application was filed. We explained that, on the revised long-form application form, the applicant would supply certain crucial data elements describing the station parameters, such as antenna polarization and the station EIRP, while the Commission staff would perform interference analyses using a computer program. The Notice stated that, although the submission of interference or other engineering analyses would not be required with the long-form application, we would require the applicant to make the records available for Commission inspection upon request. We also questioned in the Notice whether we should eliminate signal contour maps as a required part of the interference studies.

49. Pursuant to our streamlining effort, the Notice proposed to improve the current application form used for

<sup>23</sup> Leon W. Couch II, *Digital and Analog Communication Systems*, p. 384 (3rd ed. 1990).

new MDS stations, FCC Form 494,<sup>24</sup> by excluding certain data elements which have yielded information that is no longer necessary or of only marginal utility. Specifically, we proposed to eliminate queries regarding the antenna vertical sketch and the narrative description of why grant of the application would be in the public interest. We further proposed to exclude the following parameters of the transmission system: transmitter manufacturer and model number, transmitter output power, transmitting antenna gain and the specification of transmission line and other transmission losses. We observed that with regard to transmitters, we are only concerned that MDS licensees operate transmitters that are "type-accepted" by the Commission for use in this service. Accordingly, we proposed to eliminate the requirement that the applicant identify the transmitter make and model, and simply require that the conditional licensee certify that its transmitter is "type-accepted" in its certification of completion of construction, currently FCC Form 494A. The MDS rules now provide for a maximum EIRP, rather than a maximum value for transmitter output power. See 47 CFR 21.904. Thus, the Notice stated, so long as the EIRP remains within the limits of Section 21.904, it is not necessary to require applicants to specify the equipment parameters used to calculate EIRP. The Notice also proposed to allow changes to these transmission parameters without notification to the Commission, provided the resulting EIRP would not change. The station power to be specified on the application form would be the maximum EIRP in the horizontal plane, i.e., the EIRP at an angle of zero degrees in the vertical plane. We proposed to permit electrical beam tilting of antennas; however, in all cases, applicants would be required to specify the EIRP in the zero degree vertical (horizontal) plane. Where beam tilting is employed, the EIRP at the zero degree vertical angle will be less than the maximum EIRP at the tilt angle, due to the vertical suppression characteristic of the transmitting antenna. In most instances, this value of EIRP closely approximates the power radiated to the radio horizon which is most relevant to interference analysis. By proceeding in this manner, we would not need to

collect data on antenna vertical radiation patterns.

50. The Notice proposed to further modify the long-form application in an effort to make the form compatible with an electronic filing system. At the present time, we propose to use a new long-form application together with the current FCC Form 430, the Licensee Qualification Report. An appendix to the Notice listed data elements and other informational items for our proposed new electronic application form, including general, engineering and legal elements. For example, we proposed to retain engineering data elements necessary for analysis of interference or possible air safety hazards, such as transmitting antenna site coordinates, EIRP, antenna polarization, site elevation and antenna structure height above ground. Other data would be used to verify an applicant's compliance with a particular Commission rule, such as when antenna beam width is used to calculate the maximum allowable EIRP of a station using a directional transmitting antenna. We also proposed to retain applicant responses which demonstrate compliance with a particular statutory requirement, such as an environmental assessment.

51. In reference to applicants locating stations in areas where notification or coordination with Canada or Mexico is required by international agreement, the Notice indicated that these applicants would be required to submit the following additional technical data, which were not proposed as standard data elements in the electronic long-form application: transmitter output power, transmitting antenna gain and transmission line loss. In addition to the EIRP at a vertical angle of zero degrees, applicants in the border areas will be required to specify the maximum EIRP at the vertical angle corresponding to the beam tilt. The Notice explained that the additional data requirements could be submitted in a textual exhibit to the electronic application or a paper supplement.

52. Resolution. With some additional clarification, we will adopt the proposals raised in the Notice, including the free space equation and the proposed data elements for the long-form application. A draft long-form application, FCC Form 304, is attached to the Report and Order.<sup>25</sup> We will develop computer programs that will help to streamline the processing of the

long-form and modification applications of MDS incumbents and BTA authorization holders. A program is being designed that will perform cochannel and adjacent channel interference analysis at one degree intervals along the protected 35-mile circle of incumbents' authorized stations or protected station proposals. This program, as envisioned, will use the Commission's three-second terrain data base to check for unobstructed signal paths between the site of the station being studied and points along the incumbent's protected contour. For those radials on which line-of-sight conditions do not exist, either due to a terrain obstruction or the earth's curvature, the program will conclude that interference would not occur at that point. We note, following long-standing Commission practice, that all line-of-sight determinations will assume a receiver height of 30 feet and a standard 4/3 earth radius for determining the electrical horizon. Where line-of-sight conditions exist, the program would first determine the proposed station's EIRP in the pertinent direction, based on the EIRP and horizontal relative field strength tabulation given in the application. The received signal power level of the proposed station, the "undesired signal" (U), will then be calculated using the free space equation. The value of the receiver antenna gain in this calculation will depend on the angular relationship between the radial azimuth and the orientation of the receiving antenna. We will assume that the latter is pointed toward the station being received. The gain will also depend on whether the proposed station is cross polarized or co-polarized with respect to the protected station. The receiving antenna gain will be that of the reference receiving antenna found in Section 21.902(f)(3), Figure 1 of the Commission's rules. We here establish a fixed value for the "desired signal" level at the 35-mile boundary. Assuming a receiver antenna gain of 20 dB above an isotropic antenna, an EIRP of 2000 watts (33 dBW) and a frequency of 2638 MHz, the midpoint frequency between channels E1 and H3, the free space propagation equation gives a value of -82.9 dBW. Our computer program will therefore use a received power level ("D") of -83 dBW as the value of the desired signal strength. Finally, the program will compute the value of the desired-to-undesired signal strength ratio ("D/U"), which is logarithmic units is expressed as D - U. This value will be tested against the minimum standard of 45 dB.

<sup>24</sup> Since Form 494 is a multi-purpose form that is used for other services, to the extent that we are proposing changes, we intend to create a different form to be used for MDS.

<sup>25</sup> The Office of Management and Budget has not yet approved the FCC Form 304 pursuant to the Paperwork Reduction Act. A public notice will be issued when the new form has been approved and is available for use.

53. Another program is being designed that will analyze the impact of incumbents' modification applications. This program will analyze 360 radials spaced by one degree, first checking for unobstructed line-of-sight paths to the 35-mile boundary and, for clear paths, calculating the free space signal strength that would result from the modification and comparing it to the maximum allowable limit; that is, a power flux density value of  $-73 \text{ dBW/m}^2$ . To the extent that we are not constrained by licensing agreements with third parties and to the extent resources are available, we will make our computer programs available to the public. This will be announced in a subsequent public notice.

54. We emphasize that we will use computer models as application processing tools. Similar processing tools have been successfully used for Low Power Television Service with very few reported cases of interference to television reception, none of which occurred inside of a station's protected contour. The MDS interference standards should not be confused with the processing methods, which can only approximate the standard. For example, under the interference standards, incumbents' 35-mile areas are to be protected not only at points along the boundary, but also within the boundary.

55. Although, as applicable, we will require MDS applicants to prepare interference analyses or notification of application filings, and serve these on potentially affected parties, we will generally not require that such studies or a list of the parties served be included with applications. However, since electronic filing will be implemented in this service on a voluntary basis, we will allow applicants to submit interference studies with their applications on a voluntary basis. Applicants may also submit negotiated agreements of tailored interference protection or operation on the basis of frequency offset. Applicants may submit terrain shielding studies based on methods of their own choosing, including shadow maps. There are no universally accepted methods for terrain shielding studies given the widely varying characteristics of terrain features. Therefore, we believe it is appropriate to afford applicants the flexibility to select a terrain model suitable to the terrain being analyzed. Additionally, we are persuaded by the comments that interference studies should no longer be required to include contour maps. As Marshall points out, contour lines can be used in several ways and are most useful when drawn on a terrain shadow map, which is not

a required element in the application process. Applicants may continue to prepare interference studies with D/U contour lines at their discretion. Given the structure and processing tools associated with our new licensing approach for the MDS service, we will not prescribe how applicants' interference studies are to be conducted. Further, potentially affected parties who are served a study and disagree with its conclusions may file a petition to deny an application.

56. As contemplated in our Notice, we intended to streamline our application forms in accordance with our actions herein. We are, therefore, directing the staff to incorporate as appropriate those data elements previously listed in the Notice into a revised and reformatted long-form application for use in the future by MDS applicants seeking to construct new stations or to make changes in their authorized facilities.

### C. Electronic Filing and Electronic Fee Payments

57. Proposals. In the Notice we invited comment on the feasibility of utilizing mandatory electronic filing for new MDS applications, on whether ITFS applicants should be required to file applications for new stations electronically on a combined application form,<sup>26</sup> and on whether there should be a paper exception for those educators that are not financially supported by a wireless cable operator. Notice at 7676-77. The Notice suggested that communication links could be used to exchange application data between applicants and the Commission, thus minimizing the filing of paper with the Commission and allowing the Commission to process MDS and ITFS applications more efficiently. Pursuant to the proposal, an electronic form would be designed for personal computers using a Windows based environment, and consisting of a series of computer screens. One possible approach identified in the Notice involves the use of electronic mailboxes such as that of a Value Added Network (VAN). Applicants would transmit relevant data from their personal computer to a VAN electronic mailbox. The VAN would, in turn, convert the data into a format compatible with Commission files and download the

information to an electronic mailbox at the Commission. In the Notice, we recognized the possible limitations of this approach with respect to maps and other graphic representations. We envisioned that the public would have on-line viewing access to our data bases, perhaps through a third-party vendor in addition to access at the Commission's public reference room.

58. In the Notice, we also proposed expanding the acceptable methods of payment for application fee to include electronic payment under 47 C.F.R. § 1.1109.<sup>27</sup> We stated our intention of announcing the procedures for the electronic payment of fees in a public notice, pursuant to Section 1.1109(a)(1). We sought comment regarding a fee system where applicants use a unique fee payor number together with an appropriate service code and a suffix in cases where applicants file multiple applications, in order to link the fee payment with the electronically filed application.

59. Resolution. We will authorize voluntary electronic filing for new MDS applications. Use of an electronic filing system is not as essential under the filing approach we adopt today because we anticipate that fewer long-form applications will be filed. We also considered the burden on educators and determined that applications for new ITFS stations will not be included at this time. We appreciate the concerns expressed by commenters, including the cost to applicants of implementing and using electronic filing, data security and system reliability issues. We will take these concerns into account in deciding upon the software which will be used and the access method for electronic filing. We agree with commenters who encourage the Commission to evaluate carefully alternative electronic filing approaches and who suggest a transition period from paper filing to electronic filing. At the present time, we decline to accept the proposal put forth by Pepper regarding the establishment of a committee to recommend Commission-wide standards and procedures for all services, noting that the merits associated with the formation of such a committee would be outweighed by factors such as delayed decision making and implementation of electronic filing. Through subsequent public notices we will provide specific details concerning

<sup>1</sup> In 1992, Congress amended the Communications Act of 1934 to permit the electronic filing of license and construction permit applications. See Telecommunications Authorization Act of 1992, Pub. L. No. 102-538, § 204, 106 Stat. 3533, 3543, codified at 47 U.S.C. §§ 308(b) and 319(a). Such applications may be signed "in any manner or form, including by electronic means, as the Commission may prescribe by regulation." Id.

<sup>27</sup> The Commission recently amended 47 C.F.R. §§ 1.1108 and 1.1109 to permit the electronic filing of fee payments, initially on an experimental basis. Implementation of Section 9 of the Communications Act, Report and Order in MD Docket No. 94-19, FCC No. 94-140 (released June 8, 1994). 59 Fed. Reg. 30,984 (June 16, 1994) at ¶¶ 50-51.

the method for electronically filing MDS applications. We will also authorize electronic fee payment for MDS applications. Current methods of payment available under 47 CFR 1.1109 will continue to be accepted. As our resources permit, we will work toward improved viewing access to the data bases.

#### **D. Competitive Bidding Procedures**

##### *1. Competitive Bidding Background*

60. On August 10, 1993, the Omnibus Budget Reconciliation Act of 1993 (Budget Act) added a new section 309(j) to the Communications Act of 1934, as amended, 47 U.S.C. 151-611 (Communications Act). This amendment to the Communications Act gave the Commission express authority to employ competitive bidding procedures to choose from among mutually exclusive applications for certain initial licenses. The Commission adopted a Notice of Proposed Rule Making in the competitive bidding proceeding on September 23, 1993.<sup>28</sup> In it March 8, 1994 Second Report and Order,<sup>29</sup> the Commission established general rules and procedures and a broad menu of competitive bidding methods to be used for all auctionable services, including MDS. We indicated in the Second Report and Order that in subsequent Reports and Orders we would set forth specific competitive bidding rules that would be applicable to individual services. To date, the Commission has established competitive bidding rules specifically applicable to, and has conducted auctions for, narrowband Personal Communications Services (PCS),<sup>30</sup> the Interactive Video and Data Service (IVDS),<sup>31</sup> and broadband PCS.<sup>32</sup> This

<sup>28</sup> Notice of Proposed Rule Making in PP Docket No. 93-253, 8 FCC Rcd 7635 (1993), 58 Fed. Reg. 5389 (Oct. 15, 1993) (Competitive Bidding Notice).

<sup>29</sup> Second Report and Order in PP Docket No. 93-253, 9 FCC Rcd 2348 (1994), 59 Fed. Reg. 22980 (May 4, 1994) (Second Report and Order), recon. granted in part, Second Memorandum Opinion and Order, 9 FCC Rcd 7245 (1994), 59 Fed. Reg. 44272 (Aug. 26, 1994) (Second Memorandum Opinion and Order).

<sup>30</sup> Third Report and Order in PP Docket No. 93-253, 9 FCC Rcd 2941 (1994), 59 Fed. Reg. 26741 (May 24, 1994) (Third Report and Order), recon. granted in part, Third Memorandum Opinion and Order and Further Notice of Proposed Rule Making, 10 FCC Rcd 175 (1995), 59 Fed. Reg. 44059 (Aug. 26, 1994) (Third Memorandum Opinion and Order).

<sup>31</sup> Fourth Report and Order in PP Docket No. 93-253, 9 FCC Rcd 2330 (1994), 59 Fed. Reg. 24947 (May 13, 1994) (Fourth Report and Order), petition for recon. pending.

<sup>32</sup> Fifth Report and Order in PP Docket No. 93-253, 9 FCC Rcd 5532 (1994), 59 Fed. Reg. 37566 (July 22, 1994) (Fifth Report and Order), recon. granted in part, Fifth Memorandum Opinion and Order, 10 FCC Rcd 403 (1995), 59 Fed. Reg. 63210 (Dec. 7, 1994) (Fifth Memorandum Opinion and Order).

Report and Order establishes competitive bidding rules and procedures for MDS.

61. Given the interdependencies we believe exist between authorizations for certain BTA service areas and the declining cost of conducting simultaneous multiple round bidding, we choose this auction method for use in MDS. We also adapt the general procedures set forth in the Second Report and Order so as to be compatible with the application procedures established for MDS in this Report and Order. Finally, we set forth rules to deter possible abuses of the bidding and application procedures, and establish special provisions for small businesses, including those owned by minorities and women, to encourage their participation in the competitive bidding process and in the provision of MDS system offerings.

##### *2. Auction Eligibility*

62. The Commission has in the past employed a random selection process (i.e., a lottery) to select from among mutually exclusive MDS initial applications. See 47 CFR 1.824. However, Section 309(j) of the Communications Act, as amended, permits auctions were (1) mutually exclusive applications for initial licenses or construction permits are accepted for filing by the Commission; (2) the principal use of the spectrum will involve or is reasonably likely to involve the receipt by the licensee of compensation from subscribers in return for enabling those subscribers to receive or transmit communications signals; and (3) the objectives set forth in Section 309(j) would be promoted. In the Second Report and Order, we concluded that single and multichannel MDS as classes of services would satisfy the Section 309(j) criteria for auction ability, and, thus, new initial applications in MDS would be eligible for competitive bidding. Id. at 2359. The Second Report and Order did not, however, expressly resolve the question of the auction ability of mutually exclusive MDS station applications filed prior to July 26, 1993, the date specified in the Commission's auction authority in the 1993 Budget Act. Id. For the reasons set forth in Section 3 below, we now determine to lottery these previously filed MDS applications.

##### *3. Disposition of Previously Filed MDS Applications*

63. Before the Commission conducts competitive bidding for the BTA service areas applied for under the revised procedures set forth herein, we must first process the remaining acceptable,

mutually exclusive applications for MDS station licenses that were filed prior to July 26, 1993.<sup>33</sup> Under the procedures in effect prior to the enactment of competitive bidding authority in the 1993 Budget Act, these mutually exclusive MDS applications were to have been lotteried. In September 1993, the Commission tentatively concluded to lottery rather than auction pre-July 26, 1993 MDS applications. See Competitive Bidding Notice at 7661. In reaching this decision, the Commission first noted that these applications have already incurred substantial delays. The Commission then tentatively decided to eschew auctions in favor of lotteries for pending MDS applications to avoid "further delay" in granting MDS station licenses and providing service to the public during the time it would take for the Commission to promulgate competitive bidding rules. Id. Subsequently, in the Second Report and Order, the Commission concluded that new initial applications in MDS would be eligible for competitive bidding, but did not resolve the question of whether to employ lotteries or auctions to dispose of the previously filed MDS applications. Second Report and Order at 2359. Thus, due to processing delays and further delays resulting from the consideration of issues raised in the Budget Act regarding competitive bidding, this group of previously filed MDS applications, through no fault of the applicants themselves, has never been lotteried.

64. The 1993 Budget Act empowers the Commission to either auction or lottery these previously filed MDS applications.<sup>34</sup> Consistent with the statute, our tentative conclusion in the Competitive Bidding Notice, and Commission precedent,<sup>35</sup> we now exercise our discretion to lottery this group of remaining previously filed, mutually exclusive MDS applications. By employing lotteries for pre-July 26, 1993 MDS applications, and by holding auctions for initial applications accepted for filing after that date, we adopt a straightforward approach that is

<sup>33</sup> Once we complete our processing, we expect that this group of previously filed, acceptable MDS station applications will likely be quite small, consisting of approximately 100 mutually exclusive applications for five rural locations. The applications for these five locations have been pending since 1991.

<sup>34</sup> See 47 U.S.C. §§ 309 (i) & (j); Budget Act, Pub. L. No. 103-66, § 6002(e) (Special Rule), 107 Stat. 312, 397 (1993).

<sup>35</sup> See Memorandum Opinion and Order in PP Docket No. 93-253, 9 FCC Rcd 7387 (1994), 59 FR. 37 163 (July 21, 1994) (Cellular Unserved Order) (determining to lottery previously filed applications for cellular unserved areas).

easy to apply, fair to the applicants and serves the public interest.

#### 4. Competitive Bidding Design

65. In this Report and Order, we have attempted to design auction rules and procedures that are compatible with the unique characteristics of MDS and that meet the congressional objectives set forth in the Communications Act. See 47 U.S.C. 309(j)(3). We believe that these objectives are embodied in two basic Commission policy goals: promoting economic growth and enhancing access to telecommunications service offerings for consumers, producers and new entrants. Second Report and Order at 2349–2350. In the paragraphs below, we implement competitive bidding for MDS, pursuant to Section 309(j) of the Communication Act and based on the record in this proceeding. The methodology and procedures we will utilize in conducting MDS auctions are identified below, and additional details about specific competitive bidding procedures will be provided by public notice prior to the MDS auction.

66. General Competitive Bidding Designs. The Second Report and Order established the criteria to be considered in selecting the auction methodology for each auctionable service. We generally concluded that awarding licenses to those parties that value them most highly will best advance congressional policy goals. Id. at 2360. We also indicated that, because a bidder's ability to introduce valuable new services and to deploy them rapidly, intensively and efficiently increases the value of the license to that bidder, an auction design that awards licenses to those bidders who are willing to pay the highest bid tends to promote the development and deployment of new services and the efficient and intensive use of the spectrum. Id. at 2349–2350.

67. With regard to auction methodologies specifically, the Commission previously determined that: (1) licenses with strong interdependencies should be auctioned simultaneously;<sup>36</sup> (2) multiple round auctions, by providing bidders with information regarding other bidders' valuations of licenses, generally will yield more efficient allocations of licenses and higher revenues, especially where there is substantial uncertainty as to value; and (3) because they are relatively expensive to implement and

time-consuming, simultaneous and/or multiple round auctions become less cost-effective as the value of licenses decreases. Second Report and Order at 2360. We also found that simultaneous multiple round bidding facilitates the efficient aggregation of licenses across spectrum bands and geographic areas, and because of the superior information and flexibility this bidding methodology provides, is likely to yield greater revenues than other auction designs. Thus, we concluded in the Second Report and Order that the use of simultaneous multiple round bidding would generally be preferred. Id. at 2366.

68. We also recognized in the Second Report and Order that simultaneous multiple round bidding may appear more complex to bidders and could be more difficult and expensive to implement than other auction methods. Id. at 2364. We have, however, in the past year gained considerable experience in conducting simultaneous multiple round bidding. This competitive bidding method has been utilized in several narrowband and broadband PCS auctions,<sup>37</sup> and has proved to be an efficient and effective way to conduct spectrum auctions. In addition, the cost to the Commission of conducting simultaneous multiple round bidding has decreased considerably since the initial simultaneous auctions because the computer software used in these auctions has now been developed. We have also recently initiated procedures permitting remote bidding from personal computers throughout the country. Consequently, bidders may now participate in simultaneous multiple round auctions in a variety of ways—on site, by personal computer using remote bidding software, or via telephone.

69. MDS Competitive Bidding Design. Given our growing and successful experience with this auction design, we conclude that the generally favored method of simultaneous multiple round bidding is appropriate for MDS. We accordingly adopt this method to auction the BTA service areas.

70. In the Notice, we had tentatively concluded that simultaneous multiple round bidding was less appropriate for

MDS than other auction methods primarily because the “value of and interdependence between” the geographic service areas might not be “sufficiently high to justify the use” of the generally preferred auction method. Notice at 7678. After further consideration, and based upon our continuing successful experience with simultaneous multiple round bidding, we now conclude that simultaneous multiple round bidding is in fact appropriate for MDS.

71. With regard to the expected value of the BTA service areas at auction, we realize that some areas—particularly those with sparse populations—may be auctioned for relatively modest amounts. The value of any BTA service area at auction will, however, vary, depending in large part upon the population of and the amount of usable spectrum in that area. Heavily populated BTA service areas may therefore attract more substantial sums, depending on the availability of spectrum within such areas. Given the substantially decreased costs associated with implementing simultaneous multiple round bidding, we believe that BTA service area values are sufficient to justify the use of this auction method.

72. With regard to the question of interdependence, we believe that the BTA service area authorizations to be auctioned possess a degree of interdependence. As explained in the Notice, “[t]here appears to be some geographic interdependence due to coordination of interference at the borders.” Id. at 7678. Indeed, because we have selected a filing approach based on predetermined geographic areas, rather than a national filing window, we emphasize that authorizations for adjacent BTA service areas will be interdependent, as common ownership of such areas will reduce problems of controlling interference at the borders of the BTAs. See Second Report and Order at 2364. Interdependence between the BTA authorization may also arise from economies of scale achieved by wireless cable operators spreading of fixed costs over more units of output. See Second Report and Order at 2364. We accordingly conclude that there is some degree of interdependence between BTA authorizations and that this interdependence may be significant for geographically contiguous BTAs. Thus, the adoption of simultaneous multiple round bidding should result in the most efficient award of these BTA authorizations. See Second Report and Order at 2363. In particular, we believe that potential bidders that operate (or are planning to operate) MDS systems in

<sup>36</sup> Licenses are interdependent when the value of a license to the bidder depends on the other licenses that the bidder acquires. Second Report and Order at 2361. Licenses may be interdependent because they are substitutes or because they are complements. Id. at 2364.

<sup>37</sup> The Commission has also recently proposed to utilize simultaneous multiple round bidding for both the 800 and 900 MHz Specialized Mobile Radio services. Further Notice of Proposed Rule Making in PR Docket No. 93–144 and PP Docket No. 93–253, FCC 94–271 (released Nov. 4, 1994), 59 FR. 60111 (Nov. 22, 1994); Second Report and Order and Second Further Notice of Proposed Rulemaking in PR Docket No. 89–553, PP Docket No. 93–253, and GN Docket No. 93–252, FCC 95–159 (released April 17, 1995), 60 FR. 21987 (May 4, 1995).

geographically adjacent BTAs and/or in several regions of the country will be able to make more informed bidding decisions in a simultaneous auction where all BTA service areas may be bid upon at the same time.

73. In addition to issues of cost and interdependence, other considerations support the use of simultaneous multiple round bidding for MDS. Compared with other bidding mechanisms, including open outcry and sealed bidding, simultaneous multiple round bidding will generate the most information about the value of BTA service areas during the course of the auction. Thus, it is the most likely auction method to award BTA authorizations to the bidders who value them most highly. We also note that an auction method awarding BTA authorizations to the parties who value them most highly should result in the award of authorizations to bona fide wireless cable operators, rather than to speculators, because bona fide operators will likely value authorizations more highly than, and will therefore outbid, speculators, who may be reluctant to pay up front the amounts necessary to obtain authorizations through competitive bidding.<sup>38</sup> Moreover, given the uncertainty as to the value of the MDS spectrum, the information generated by simultaneous multiple round bidding should prove particularly valuable by giving bidders more flexibility to pursue back-up strategies. Because of the superior information and flexibility it provides, this auction method should also yield more revenue for the MDS spectrum than other auction designs, including open outcry.<sup>39</sup> Although the raising of revenue is not our dominant concern, we note that Congress directed the Commission, in designing auction methodologies, to promote "recovery for the public of a portion of the value of the public spectrum resource." 47 U.S.C. 309(j)(3)(C). Finally, the employment of simultaneous multiple round bidding for MDS, rather than

open outcry, will eliminate the need for the Commission to select the order in which the BTA service areas will be auctioned. See Second Report and Order at 2360, 2363, 2366.

74. The simultaneous multiple round auction design adopted herein also includes several features that should reduce the possible burdens on bidders. We expect, for example, to have bidding rounds of shorter duration than in other simultaneous multiple round auctions, such as broadband PCS. This measure should shorten the MDS auction substantially so that the length of the auction should not prove burdensome to bidders. In addition, the burden on bidders will be reduced by the variety of methods through which they may participate in the MDS simultaneous multiple round auction. Bidders will be able to submit bids on site, via personal computers using remote bidding software, or via telephone;<sup>40</sup> however, given the space limitations for on site bidding and the uncertainty as to the exact number of prospective bidders, the Commission reserves the right to have only remote bidding—by personal computer and by telephone—for the MDS auction. Thus, the expense to the bidders of participating in a simultaneous multiple round auction should be less than in an open outcry auction, where bidders (and/or their representative(s)) would need to travel to and remain in Washington, DC for the duration of the auction. Finally, the Commission will hold a seminar for prospective bidders to acquaint them with this bidding design and all alternative bid submission methods.

75. Given the numerous advantages of the generally preferred auction method of simultaneous multiple round bidding, we believe that this methodology will best serve for conducting MDS auctions. We note, however, that the presence of incumbents in the BTA service areas could affect the relative desirability and value of BTA authorizations in ways we do not anticipate. In the event that the filings of short-form applications indicate that the BTA authorizations have relatively little interdependence and lower than expected value, we delegate authority to the Mass Media Bureau and the Wireless Telecommunications Bureau to

reconsider the issue of whether another auction design would be more appropriate.

76. MDS Bidding Procedures. There will be one authorization offered in each BTA and the BTA authorizations will be awarded by simultaneous multiple round bidding. All BTA service areas will be auctioned at the same time. Bids will be accepted at the same time on all BTA service areas in each round of the auction. High bid amounts will be posted after the end of the bid submission period in each round of bidding. With modifications to take account of the unique characteristics of MDS and to reduce length, MDS auctions will follow the general bidding procedures we have used to date to conduct the narrowband and broadband PCS auctions.

77. In using simultaneous multiple round bidding to award the BTA authorizations, it is important to specify minimum bid increments. The bid increment is the amount or percentage by which the bid must be raised above the previous round's high bid in order to be accepted as a valid bid in the current bidding round. The application of a minimum bid increment speeds the progress of the auction and, along with activity and stopping rules, helps to ensure that the auction comes to closure within a reasonable period of time. Establishing an appropriate minimum bid increment is especially important in a simultaneous auction with a simultaneous stopping rule. In that case, all markets will remain open until there is no bidding on any market, and a delay in closing the bidding on one market will delay the closing of all markets. Second Report and Order at 2369.

78. Because we plan to use simultaneous multiple round bidding with a simultaneous stopping rule to award BTA authorizations, we believe that it is necessary to impose a minimum bid increment to ensure that the MDS auction conclude within a reasonable period of time. As we recognized in the Second Report and Order, it is important to establish the amount of the minimum bid increment as the greater of a percentage and fixed dollar amount. This will ensure a timely completion of the auction even if bidding begins at a very low dollar amount. *Id.* at 2369. Accordingly, we will impose a minimum bid increment of some percentage of the high bid from the previous round or a fixed dollar amount, whichever is greater, in MDS auctions where simultaneous multiple round bidding is used. We will announce by public notice prior to the

<sup>38</sup> Sealed bidding is not supported by the Commission for MDS, because this bidding method will generate no information about the value of the BTA service areas during the course of an auction, and thus may not award BTA authorizations to the parties who value them the most. See Second Report and Order at 2362.

<sup>39</sup> A simultaneous auction for MDS will tend to raise more revenue than a sequential oral auction for two reasons. First, it will increase the value of the BTA service areas by facilitating efficient aggregation. Second, because it will provide more information about the value of the BTA service areas, it will reduce the propensity of sophisticated bidders to bid cautiously to avoid the "winner's curse"—the tendency for the winner to be the bidder who most overestimates the value of the item up for bid.

<sup>40</sup> Telephonic bidding should, in particular, be a simple and inexpensive method for bidders to submit bids. If submitting bids by telephone, bidders may utilize the Internet to learn of the round-by-round results of the auction; on-line services such as Compuserve provide Internet access at low cost. Bidders may also, at negligible cost, utilize a bulletin board service, accessible by long distance telephone, from which auction results can be downloaded to a personal computer.



MDS auction the specific bid increment that generally will be utilized.

79. The Commission will also retain the flexibility to vary the minimum bid increment during the course of the MDS auction by announcement. We may, for example, begin the MDS auction with a sizable minimum bid increment and reduce the bid increment as the auction progresses. Starting with a sizable minimum bid increment will move the auction quickly at the beginning, when prices have limited informational content and there is little benefit to either bidders or the Commission of refined price movements, while allowing bidders to express small differences in valuation as the auction nears a close, increasing both efficiency and auction revenues. Small bid increments also reduce the chances of ties. Where a tie occurs, the high bidder will be determined by the order in which the bids were received by the Commission. See Second Report and Order at 2369. Adjustments in the bid increment may be based in part on the level of bidding activity.

80. To gain the full benefit of the information generated by a simultaneous multiple round auction, bidders will need some time between bidding rounds to evaluate back-up strategies and consult with their principals. Prior to the MDS auction, we will announce by public notice the duration of bidding rounds for the auction. We also reserve the discretion during the course of the auction to vary, by public notice or announcement, the duration of bidding rounds or the interval at which bids are accepted. We expect to allow more time for the initial rounds in the MDS auction, while bidders familiarize themselves with the bidding process, and then increase the frequency of rounds as the auction progresses. Thus, we should be able to move the auction toward closure in a reasonable period of time.<sup>41</sup>

81. To ensure that a simultaneous MDS auction with a simultaneous stopping rule closes within a reasonable period of time and to increase the information conveyed by bid prices during the auction, we believe that it is necessary to impose an activity rule to prevent bidders from waiting until the end of the auction before participating. Because simultaneous stopping rules generally keep all markets open for bidding as long as anyone wishes to bid,

they also create an incentive for bidders to hold back until prices approach equilibrium before making a bid. As noted in the Second Report and Order, this could lead to very long auctions. See *id.* at 2371. Delaying serious bidding until late in an auction also reduces the information content of prices during the course of the auction. Without an activity rule, bidders cannot know whether a low level of bidding on a particular market means that the market's price is near its final level or if instead many serious bidders are holding back and may bid up the price later in the auction. When bidding closes on a market-by-market basis, an activity rule is less important. This is because failure to bid on a given market in any round may result in loss of the opportunity to bid on that market, if that round turns out to be the last one for that market.

82. In the Second Report and Order, we adopted the three-stage Milgrom-Wilson activity rule as our preferred activity rule when a simultaneous stopping rule is used. *Id.* at 2372. See also Fifth Report and Order at 5553–5556. We plan to employ this activity rule in the MDS auction as well. Under the Milgrom-Wilson activity rule, bidders are required to declare their maximum eligibility in advance of the auction and make an upfront payment proportional to that eligibility level. In the PCS auctions, activity and eligibility are defined in terms of “MHz-pops.” See, e.g., Fifth Report and Order at 5553–5554. Specifically, the number of MHz-pops associated with a PCS license is calculated by multiplying the population of the license service area by the amount of spectrum authorized by the license. We chose MHz-pops because we anticipated that PCS license values would be closely related to the number of MHz-pops in the license service areas. This choice ensures that the measure of bidding activity used in the activity rule is highly correlated with license values. In the MDS auction, bidding activity and eligibility will be defined in terms of dollar values. The Commission will assign an “activity unit” value to each BTA service area for the purpose of measuring bidding activity and eligibility. Specifically, the activity unit value for a BTA service area will be equal to the upfront payment associated with that BTA service area. A bidder's maximum eligibility (which is also the bidder's eligibility for the first round of the auction) will be equal to its total upfront payments.<sup>42</sup> Because the upfront

payments will be related to the value of the BTA service areas (see *infra* ¶ 103), activity units will fulfill the same function that MHz-pops have fulfilled in the previous PCS auctions.

83. The Milgrom-Wilson activity rule provides a bidder's minimum activity level, measured as a fraction of eligibility in the current round, will increase during the auction. A bidder will be considered “active” on a BTA service area in the current round if it is either the higher bidder at the end of the bid withdrawal period in the previous round, or if it submits a bid in the current round which meets or exceeds the minimum valid bid (i.e., a bid that exceeds the high bid in the previous round by at least the minimum bid increment). A bidder's activity level in a round is the sum of the activity units associated with the BTA service areas on which the bidder is active.

84. The minimum required bidding activity levels for each stage of the MDS auction are as follows. In each round of Stage One of the auction, a bidder who wishes to maintain its current eligibility is required to be active on BTA service areas encompassing at least fifty percent of the activity units for which it is currently eligible. Failure to maintain the requisite activity level will result in a reduction in the amount of activity units associated with BTAs upon which a bidder will be eligible to be active in the next round of bidding (unless an activity rule waiver, as described below, is used). During the first stage, if activity is below the required minimum level, eligibility in the next round will be calculated by multiplying the current round activity by two (2/1). Eligibility for each applicant in the first round of Stage One is determined by the amount of the upfront payment received and the BTAs identified in the applicant's short-form application. In each round of Stage Two, a bidder who wishes to maintain its current eligibility is required to be active on BTA service areas encompassing at least eighty percent of the activity units for which it is eligible in that particular round. During the second stage, if activity is below the required minimum level, eligibility in the next round will be calculated by multiplying the current round activity by five-fourths (5/4). In each round of Stage Three, a bidder who wishes to maintain its current eligibility is required to be active on BTA service areas encompassing ninety-five percent of the activity units for which it is eligible in that particular round. In the

<sup>41</sup> Given our estimates of the value of the BTA service areas and the likely number of bidders, we expect to hold more frequent bidding rounds in the MDS auction than we have in certain other simultaneous multiple round actions, particularly broadband PCS. See Second Report and Order at 2368.

<sup>42</sup> As explained in ¶ 105, however, a small business bidder eligible for a reduction in its

upfront payment requirement will not have the number of its activity units decreased as a result of submitting a reduced upfront payment.

final stage, if activity in the current round is below ninety-five percent of current eligibility, eligibility in the next round will be calculated by multiplying the current round activity by twenty-nineteenths (20/19).

85. In the PCS auction, we specified transition guidelines for deciding when the auction would move from Stage One to Stage Two to Stage Three. Those guidelines are based on the "auction activity level," the sum of the MHz-pops of PCS licenses for which the high bid increased in the current round as a percentage of the total MHz-pops of all licenses offered in the auction. See, e.g., Fifth Report and Order at 5555. However, we also retained the discretion to move the PCS auctions from one stage to another at a rate different from that set out in the guidelines. See Fourth Memorandum Opinion and Order in PP Docket No. 93-253, 9 FCC Rcd 6858, 6860 (1994), 59 Fed. Reg. 53364 (Oct. 24, 1994).

86. For the MDS auction, we shall employ an analogous procedure. The "auction activity level" for a given round of the MDS auction will be defined as the sum of the activity units associated with the BTA service areas for which the high bid increases in that round, divided by the sum of activity units associated with all of the BTAs being auctioned. The following transition guidelines apply. The MDS auction will begin in Stage One and move from Stage One to Stage Two when the auction activity level is below ten percent for three consecutive rounds in Stage One. The auction will move from Stage Two to Stage Three when the auction activity level is below five percent for three consecutive rounds in Stage Two. In no case can the auction revert to an earlier stage. The Commission retains the discretion to determine and announce during the course of an MDS auction when, and if, to move from one auction stage to the next, based on a variety of measures of bidder activity, including, but not limited to, the auction activity level as defined above, the percentage of BTA service areas on which there are new bids, the percentage of activity units on which there are new bids, the number of new bids, and the percentage increase in revenue.

87. To avoid the consequences of clerical errors and to compensate for unusual circumstances that might delay a bidder's bid preparation or submission in a particular round, we will provide bidders with a limited number of waivers of the above-described activity rule. We believe that some waiver procedure is needed because the Commission does not wish to reduce a

bidder's eligibility due to an accidental act or circumstances not under the bidder's control. See Second Report and Order at 2372.

88. In MDS auctions, bidders will be provided five activity rule waivers that may be used in any round during the course of the auction. See Second Report and Order at 2373. If a bidder's activity level is below the required activity level, a waiver will automatically be applied. That is, if a bidder fails to submit a bid in a round, and its activity level from any standing high bids (high bids at the end of the bid withdrawal period in the previous round) falls below its required activity level, a waiver will be automatically applied. A waiver will preserve current eligibility in the next round. An activity rule waiver applies to an entire round of bidding and not to a particular BTA service area. Bidders will be afforded an opportunity to override the automatic waiver mechanism when they place a bid if they intentionally wish to reduce their bidding eligibility and do not want to use a waiver to retain their eligibility at its current level. See Fourth Memorandum Opinion and Order in PP Docket No. 93-253, 9 FCC Rcd 6858, 6861 (1994), 59 Fed. Reg. 53364 (Oct. 24, 1994). If a bidder overrides the automatic waiver mechanism, its eligibility will be permanently reduced (according to the formulas specified in ¶84), and it will not be permitted to regain its bidding eligibility from a previous round. An automatic waiver invoked in a round in which there are no new valid bids will not keep the auction open. Bidders will have the option of pro-actively entering an activity rule waiver during the bid submission period.<sup>43</sup> If a bidder submits a proactive waiver in a round in which no other bidding activity occurs, the auction will remain open.

89. The Commission retains the discretion to issue additional waivers during the course of an auction for circumstances beyond a bidder's control. We also retain the flexibility to adjust prior to an auction the number of waivers permitted, or to institute a rule that allows one waiver during a specified number of bidding rounds or during specified stages of the auction. See Second Report and Order at 2373. We will announce by public notice before the MDS auction the number of waivers that will be allowed in that particular auction.

90. As with other auctions, we reserve the right to impose for the MDS auction

<sup>43</sup> Thus, a "proactive" waiver, as distinguished from the automatic waiver described above, is one requested by the bidder.

an activity rule less complex than the Milgrom-Wilson rule. See Second Report and Order at 2372; Fifth Report and Order at 5556. We will announce by public notice before the MDS auction the activity rule that will be employed in that particular auction.

91. We noted in the Second Report and Order that, with multiple round auctions, a stopping rule must be established for determining when the auction is over. *Id.* at 2369. In an MDS simultaneous multiple round auction, bidding could close separately on individual BTA service areas, simultaneously on all BTA service areas, or a hybrid approach could be used. Under an individual approach, bidding would close on each BTA service area after one round passed in which no new acceptable bids were submitted for that particular service area. With a simultaneous stopping rule, bidding would remain open on all BTA service areas until there was no new acceptable bid on any service area. This approach would have the advantage of providing bidders full flexibility to bid for any BTA service area as more information became available during the course of the MDS auction, but it could lead to a very long auction, unless an activity rule were imposed. See *id.* at 2370. A hybrid approach would combine the individual and the simultaneous approaches.<sup>44</sup>

92. For MDS auctions, we intend to utilize a simultaneous stopping rule, as we have successfully used in previous simultaneous multiple round auctions. Bidding will accordingly remain open on all BTA service areas until bidding stops on every BTA service area. The auction will close after one round passes in which no new valid bids or proactive waivers are submitted. The Commission retains the discretion, however, to keep the MDS auction open even if no new valid bids and no proactive waivers are submitted. In the event that the Commission exercises this discretion, the effect will be the same as if a bidder had submitted a proactive waiver.<sup>45</sup> Since we are also imposing an activity rule (as discussed

<sup>44</sup> For example, in a hybrid approach, we could use a simultaneous stopping rule (along with an activity rule designed to expedite closure) for higher valued BTA service areas. For lower valued BTA service areas, where the loss from eliminating some back-up strategies would be less, bidding on BTAs could be allowed to close individually. See Second Report and Order at 2370.

<sup>45</sup> This will help ensure that the MDS auction is completed within a reasonable period of time, because it will enable the Commission to utilize larger bid increments, which speed the pace of the auction, without risking premature closing of the auction. See Memorandum Opinion and Order in PP Docket No. 93-253, 9 FCC Rcd 7684, 7685 (1994), 59 Fed. Reg. 64159 (Dec. 13, 1994).

above), we believe allowing simultaneous closing for all BTA service areas will afford bidders flexibility to pursue back-up strategies without running the risk that bidders will refrain from bidding until the final rounds. We also believe that a simultaneous stopping rule will best enable bidders to take account of any interdependencies that exist between BTA authorizations (especially authorizations for adjacent areas) and will allow bidders to make the most informed bidding decisions. Thus, simultaneously closing bidding on BTA service areas will most likely award licenses to the bidders who value them most highly. See Second Report and Order at 2370.

93. Additionally, the Commission may also declare at any time after forty rounds that the MDS auction will end after a specified number of additional rounds. If the Commission invokes this stopping rule, it will accept bids in the final round(s) only for BTA service areas on which the high bid increased in at least one of the proceeding three rounds. See Second Report and Order at 2370 n.106. Stopping the MDS auction after a specified number of additional rounds will ensure ultimate Commission control over the duration of the action. See *id.* Thus, the Commission will have the means to prevent bidders from continuing to bid on a few BTA service areas (or even a single service area) solely to delay the closing of bidding for all BTA service areas in an MDS auction with a simultaneous stopping rule. This will also ensure that the Commission can end the MDS auction if it determines that the benefits from ending the auction, and hence granting BTA authorizations more rapidly, exceed the possible efficiency loss from cutting off bidding on a few BTA service areas. If we exercise this option, we favor the use of three final rounds. Allowing more than one additional round provides some opportunity for counter-offers, thus reducing the risk that a BTA authorization will not be awarded to the party that values it most highly.

94. If this fail-safe mechanism is used in an MDS auction, there are two reasons not to take bids on BTA service areas on which there has been no recent bidding. First, the fact that bidding on an individual BTA service area may close will provide an additional incentive to bid actively and thus speed the conclusion of the MDS auction. If bids are accepted on all BTA service areas in the final round(s) there is less risk to a bidder in holding back. Second, closing bidding on BTA service areas for which activity has ceased ensures high bidders for those service areas that they

will not lose a BTA authorization without having an opportunity to make a counter-offer.<sup>46</sup> This reduces the uncertainty associated with aggregating BTA authorizations (such as those for adjacent BTAs) that may be worth more as a group than individually. If final bids are accepted on all BTA service areas, a high bidder on an aggregation of BTA service areas may unexpectedly lose a significant part of the aggregation and have no chance to regain it except in the post-auction market, where bargaining or other transaction costs may be high.

95. The Commission does not intend to exercise this option except in extreme circumstances, such as where the MDS auction is proceeding very slowly, there is minimal overall bidding activity, and it appears unlikely that the auction will close within a reasonable period of time. Before exercising this option, however, the Commission would first attempt to increase the pace of the auction by announcing that the auction will move into the next stage, where bidders would be required to maintain a higher level of bidding activity. Under these circumstances, the Commission may also first increase the number of bidding rounds per day and increase the amount of the minimum bid increments for those limited number of BTA service areas where there is still a high level of bidding activity.

96. Additionally, because of the large number of BTA service areas to be auctioned at once, we will retain the discretion either to use a hybrid stopping rule to allow bidding to close individually for these service areas if, as we gain more experience with auctions, we determine that simultaneous stopping rules are too complex to implement for very large numbers of service areas. The specific stopping rule for ending bidding on the BTA service areas will be announced by public notice prior to the MDS auction.

##### 5. Procedural and Payment Issues

97. Pre-Auction Application Procedures. The Second Report and Order established general rules and procedures for participating in auctions. Again, however, we noted that these might be modified on a service-specific basis. As described below, we have determined that we will follow for new

<sup>46</sup> Either the MDS auction will close only when bidding ceases on all BTA service areas, so the high bidder will have an opportunity to respond to any new bids, or the Commission will call for final bids but not accept new bids on BTA service areas on which there have been no new bids in the previous three rounds, so no other bidder will have the opportunity to outbid the high bidder in a final round.

MDS initial applications the procedural and payment rules established in the Second and Report and Order and set forth at 47 CFR Chapter I, Part 1, Subpart Q, with modifications to fit MDS. Certain procedural details will be supplied later by public notices. Our objective has been to design rules and procedures that will reduce administrative burdens and costs on bidders and the Commission, ensure that bidders and licensees are qualified and able to construct their systems, and minimize the potential for delay of service to the public. See 47 U.S.C. 309(j)(3)(A) (in designing auction rules, Commission should seek to promote development and rapid deployment of products and services for public benefit, without administrative or judicial delays).

98. Before an MDS auction, the Commission, or, pursuant to delegated authority, the Mass Media Bureau, in conjunction with the Wireless Telecommunications Bureau, will release public notices concerning the auction. The public notices will specify the BTA service areas to be auctioned, the filing deadline for short-form applications, and the time, place and method of competitive bidding to be used, as well as applicable bid submission and payment procedures.

99. Applicants will be required to submit short-form applications by the date specified by public notice. Applicants should file a short-form application identifying all BTA service areas specified by the public notice in which they are interested in bidding.<sup>47</sup> If the Commission receives only one application that is acceptable for filing for the same BTA service area and thus there is no mutual exclusivity,<sup>48</sup> the Commission will by public notice cancel the auction for this BTA service area and establish a date for the filing of either an initial long-form application for an MDS station license or, for a heavily encumbered BTA, a statement of intention with regard to the BTA.<sup>49</sup>

100. To encourage maximum bidder participation, we will provide applicants whose short-form applications are substantially complete, but which contain minor errors or defects, with an opportunity to correct

<sup>47</sup> As described in detail below, the short-form applications must also include an exhibit identifying any bidding consortia or other arrangements relating to the BTA service areas being auctioned. See *infra* ¶ 129.

<sup>48</sup> Absent mutually exclusive applications, the Commission is prohibited from conducting an auction. See 47 U.S.C. § 309(j)(1).

<sup>49</sup> See *infra* ¶¶ 116-120, for the procedures for filing either a long-form application for a station license or a statement of intention with regard to the BTA.

their applications prior to the auction. However, applicants will not be permitted to make any major modifications to their applications; for MDS, we classify all amendments to short-forms as major, except those to correct minor errors or defects, such as typographical errors, or those to reflect ownership changes or formation of bidding consortia specifically permitted under the anti-collusion rules set forth below. See *infra* ¶ 130. We note in particular that a change in control of an applicant or a change in the BTAs upon which an applicant wishes to bid will be regarded as a major amendment to the short-form application. In addition, applications that are not signed in any manner or form, including by electronic means, or that fail to make the requisite certifications will be dismissed and may not be resubmitted. See Second Report and Order at 2377; 47 CFR 1.2105(b).

101. After reviewing the short-form applications, the Commission will issue another public notice listing all applications containing minor defects, and applicants will be given an opportunity to cure and resubmit defective applications. On the date set for submission of corrected applications, applicants who on their own discover minor errors in their applications, such as typographical errors, also will be permitted to file corrected applications. Following a review of the corrected applications, the Commission will release another public notice announcing the names of all applicants whose applications have been accepted for filing. Applicants identified in this public notice will then be required to submit the full amount of their upfront payment. See Second Report and Order at 2377.

102. Upfront Payments. In the generic auction rules, we described five types of payments: upfront payments, down payments, final payments, bid withdrawal payments, and default and disqualification payments. Given the history of speculators filing MDS applications, we believe a substantial upfront payment is needed for MDS auctions to discourage speculative bidding and increase the likelihood of applicants who intend to provide service to the public obtaining the remaining available MDS channels. Requiring a substantial upfront payment provides some degree of assurance that only serious, qualified bidders will participate and serves as a deterrent to the filing of speculative applications, which may delay the provision of service to the public. The upfront payments will also provide the Commission with a source of funds to satisfy any bid withdrawal or default

and disqualification payments assessed. See Second Report and Order at 2378–2379. Therefore, we will require an upfront payment for the MDS auction.

103. We believe the upfront payment should bear a relation to the value of the BTA authorizations that a bidder hopes to be awarded. We accordingly delegate to the Mass Media Bureau and the Wireless Telecommunications Bureau the authority to determine an appropriate upfront payment for each BTA service area being auctioned, taking into account, at the Bureaus' discretion, such factors as the population and the approximate amount of usable spectrum in each BTA. Bearing in mind the uncertainties associated with valuing the BTA authorizations, we expect that the Bureaus will follow the guidelines laid out in the Second Report and Order and establish upfront payments equal to around five percent of the expected amounts of winning bids for the various BTA service areas. See *id.* at 2378–2379. In no event will the upfront payment for any BTA service area be less than \$2500, the minimum suggested in the Second Report and Order, and we retain the flexibility for the Bureaus to modify this minimum if we find that a higher amount would better deter speculative filings. *Id.* at 2379.

104. Prior to the MDS auction, the Mass Media Bureau, in conjunction with the Wireless Telecommunications Bureau, will public a public notice listing the upfront payment amounts corresponding to each BTA service area to be auctioned. The number of activity units associated with a BTA service area (see ¶ 82) equals the amount of the upfront payment for the BTA. A prospective bidder must submit an upfront payment equal to the largest combination of activity units on which the bidder anticipates being active in any single round. The combination of activity units on which a bidder is active in a round equals the sum of the activity units associated with the BTAs on which the bidder has submitted a bid, or on which the bidder is the standing high bidder. Although a bidder may file applications for every BTA service area being auctioned, the total upfront payment submitted by each applicant will determine the combinations of BTA service areas on which the applicant will actually be permitted to be active in any single round of bidding.<sup>50</sup>

<sup>50</sup> Consider, for example, an applicant that submits a \$100,000 total upfront payment. As explained above at ¶ 82, the maximum number of activity units for that applicant is 100,000. In any single round, the applicant could be active on two BTA service areas with 50,000 activity units each,

105. A prospective bidder in the MDS auction that claims status as a small business, as defined in ¶ 153, will be eligible for a twenty-five percent reduction in its upfront payment requirements. See *infra* ¶¶ 148–149 for a discussion of the reduced upfront payments measure. A small business eligible for this reduction in its upfront payment will not have the number of its activity units decreased as a result of its submitting a reduced upfront payment.<sup>51</sup>

106. Applicants identified by public notice as those whose applications have been accepted for filing will be required to submit their upfront payments to the Commission's lock-box bank by the date specified in the public notice, which generally will be no later than fourteen days before the scheduled auction. Upfront payments may be made by wire transfer or by cashier's check drawn in U.S. dollars from a financial institution whose deposits are insured by the Federal Deposit Insurance Corporation and must be made payable to the Federal Communications Commission. All payments, including upfront, down and final payments, should be accompanied by FCC Form 159 (remittance advice form). After the Commission receives from its lock-box bank the names of all applicants who have submitted timely upfront payments, the Commission will issue a public notice announcing the names of all applicants that have been determined to be qualified to bid in the MDS auction. Any applicant who fails to submit a sufficient upfront payment to qualify it to bid on any BTA service area being auctioned will not be identified on this public notice as a qualified bidder, will be prohibited from

on five BTAs with 20,000 activity units each, on ten BTAs with 10,000 activity units each, or on any combination of BTA service areas for which the sum of associated activity units totals 100,000 or less. As set forth above, a bidder is "active" on a BTA service area if it is either the high bidder on that BTA from the previous round (at the end of the bid withdrawal period), or if it submits a bid on that BTA in the current round which exceeds the previous round's high bid by at least the minimum bid increment. See *supra* ¶ 83. Thus, a bidder who begins the auction eligible to bid (based on the magnitude of its upfront payment) on BTA service areas associated with 100,000 activity units and who, in the first round, is the high bidder on a BTA service area associated with 50,000 activity units, may only, in the second round, submit new bids on a combination of BTAs associated with 50,000 or fewer activity units.

<sup>51</sup> For example, if a small business applicant is interested in bidding on a BTA with an upfront payment of \$100,000, it would be required, under the reduced upfront payment measure, to submit only \$75,000 to qualify to bid on that BTA. This applicant would still, however, receive 100,000 activity units—the number of activity units equivalent to the full upfront payment amount associated with that BTA.

bidding in the MDS auction, and its application will be dismissed. See Second Report and Order at 2377; 47 CFR 1.2106.

107. The upfront payments submitted by prospective bidders will later be counted toward the down payments that winning bidders must make. The upfront payments of bidders who are not the high bidder on any BTA service area will be refunded as soon as possible after the MDS auction. Prior to refunding the upfront payments of non-winning bidders, however, we will determine whether they are subject to withdrawal or default payments. In some circumstances, it may be appropriate to retain upfront payments until after the winning bidders have tendered their down payments because further rounds of competitive bidding may be held if down payments are not made. No interest will be paid on upfront payments. See Second Report and Order at 2380.

108. Down Payments and Full Payments. To provide further assurance that winning bidders will be able to pay the full amount of their bids, we decided generally in the Second Report and Order that each winning bidder must tender a down payment sufficient to bring the total deposit up to twenty percent of the winning bid. We believe a down payment requirement is appropriate for MDS. Accordingly, winning bidders will be required to supplement their upfront payments to bring their total deposit with the Commission up to at least twenty percent of the final payment due for the BTA authorization(s) won in the MDS auction. If the upfront payment already tendered amounts to twenty percent or more of the winning bid, no additional deposit will be required. To the extent that any upfront payment not only covers, but exceeds, the required down payment, the Commission will refund any excess amount after determining that no bid withdrawal payments are owed by the bidder. To simplify this process administratively, the Commission will not honor requests that this excess amount be retained and applied toward later payments or obligations. The down payment will be due within five business days after the winning bidders have been notified by the Commission, and may be made by cashier's check or by wire transfer to the Commission's lock-box bank. The down payment will be held by the Commission until the winning bidder has been issued its BTA authorization and has paid the remaining balance of its winning bid, or until the winning bidder is found unqualified to be a station license or has defaulted, in

which case it will be returned, less applicable default payments. During the period that deposits are held pending ultimate award of the BTA authorization, the interest that accrues, if any, will be retained by the government. See Second Report and Order at 2381–2382; 47 CFR 1.2107(b).

109. Based upon our experience in conducting spectrum auctions, we will require winning bidders to make full payment of the balance of their winning bids prior to the issuance of their BTA authorizations. Specifically, the Commission will, when a BTA authorization is ready to be issued, release a public notice stating that fact. The auction winner for that BTA will be required to make full payment of the balance of its winning bid within five business days following this public notice. The Commission will issue the BTA authorization to the auction winner within ten business days following notification of receipt of full payment. See Second Report and Order and Second Further Notice of Proposed Rulemaking in PR Docket No. 89–553, PP Docket No. 93–253, and GN Docket No. 93–252, FCC 95–159 (released April 17, 1995), 60 Fed. Reg. 21987 (May 4, 1995), at ¶ 109.

110. Auction winners that are small businesses eligible for installment financing will be subject to differing payment requirements, however. See *infra* ¶¶ 153–154 for discussion of small business eligibility. Specifically, a small business will be required to bring its total deposit with the Commission up to ten percent of its winning bid within five business days after having been notified by the Commission of its winning bidder status. An additional ten percent will be due within five business days following the public notice that its BTA authorization is ready to be issued. The Commission will then issue the BTA authorization to the small business within ten business days following notification of receipt of this additional ten percent payment.

111. Bid Withdrawal, Default and Disqualification Payments. In the Second Report and Order, we concluded that strong incentives are needed to ensure that potential bidders are financially and otherwise qualified to participate in auction proceedings, so as to avoid delays in the deployment of new services to the public. Id. at 2382. We accordingly stated that we will, in simultaneous multiple round auctions, impose a bid withdrawal payment requirement in instances where a high bid is withdrawn during the course of the auction and an additional default payment if a winning bid is withdrawn

after the auction has closed. Id. at 2373–2374.

112. In an MDS simultaneous multiple round auction, any bidder who withdraws a high bid during an auction before the Commission declares bidding closed will be required to reimburse the Commission in the amount of the difference between its high bid and the amount of the winning bid the next time the BTA service area is offered by the Commission, if this subsequent winning bid is lower than the withdrawn bid.<sup>52</sup> No withdrawal payment will be assessed if the subsequent winning bid exceeds the withdrawn bid. After bidding closes, a defaulting auction winner (*i.e.*, a winner who fails to remit the required down payment within the prescribed time, fails to submit a long-form application or statement of intention, fails to make full payment, or is otherwise disqualified) will be subject to an additional payment of three percent of the subsequent winning bid or three percent of the amount of the defaulting bid, whichever is less. See 47 CFR 1.2104(g) and 1.2109; Second Report and Order at 2373–2374. The additional three percent payment is designed to encourage bidders who wish to withdraw their bids to do so before bidding ceases. We will hold deposits made by defaulting or disqualified auction winners until full payment of these amounts. In rare cases in which it would be inequitable to retain a down payment, we will entertain requests for waiver of this provision. We believe that these payment requirements will discourage insincere bidding and default and ensure that bidders have adequate financing and that they meet all eligibility and qualification requirements.

113. In addition, “if a default or disqualification involves gross misconduct, misrepresentation or bad

<sup>52</sup> If a BTA service area is re-offered by auction, the “winning bid” refers to the high bid in the auction in which the service area is re-offered. If a BTA service area is re-offered in the same auction, the winning bid refers to the high bid amount, made subsequent to the withdrawal, in that auction. If the subsequent high bidder also withdraws its bid, that bidder will be required to pay an amount equal to the difference between its withdrawn bid and the amount of the subsequent winning bid the next time the BTA service area is offered by the Commission. If a BTA service area which is the subject of withdrawal or default is not re-auctioned, but is instead offered to the highest losing bidders in the initial auction, the “winning bid” refers to the bid of the highest bidder who accepts the offer. Losing bidders will not be required to accept the offer. We wish to encourage losing bidders in MDS simultaneous multiple round auctions to bid on other BTA service areas, and therefore we will not hold them to their losing bids on a service area for which a bidder has withdrawn a bid or on which a bidder has defaulted.

faith by an applicant, the Commission also may declare the applicant and its principals ineligible to bid in future auctions, and may take any other action that it may deem necessary, including institution of proceedings to revoke any existing licenses held by the applicant." Second Report and Order at 2383.

Parties who obtain their BTA authorizations through the auction process are put on notice that if their BTA authorizations are cancelled for any reason they will lose all monies paid to the Commission regarding those authorizations. This loss of monies paid is not intended as an exclusive remedy. Where such BTA holder's conduct so warrants, additional sanctions, including monetary fines and station license revocation, may be imposed.

114. In the event that an MDS auction winner defaults or is otherwise disqualified, the Commission must determine whether to hold a new auction or simply offer the BTA service area to the second-highest bidder. As we stated in the Second Report and Order, we believe that, as a general rule, when an auction winner defaults or is otherwise disqualified after having made the required down payment, the best course of action is to re-auction the BTA service area. *Id.* at 2383. Although we recognize that this may cause a brief delay in the initiation of service to the public, circumstances may change so significantly during the time between the original auction and the disqualification as to alter the value of the BTA service area to auction participants, as well as to parties who did not participate. In this situation, awarding BTA authorizations to the parties that value them most highly can best be assured through a re-auction. If, however, the default occurs within five business days after the bidding has closed, the Commission retains the discretion to offer the BTA service area to the second highest bidder at its final bid level, or if that bidder declines the offer, to offer the BTA service area to other bidders (in descending order of their bid amount) at the final bid levels. Moreover, if only a small number of relatively low value BTA service areas are to be re-auctioned and only a short time has passed since the initial auction, the Commission may choose to offer the BTA service areas to the highest losing bidders because the cost of holding another auction for MDS may exceed the benefits. *See id.*; 47 CFR 1.2109 (b) and (c).

115. If a new MDS auction becomes necessary because of default or disqualification more than five business days after bidding has ended, the Commission will afford new parties an

opportunity to file applications. One of our primary goals in conducting auctions is to assure that all serious interested bidders are in the pool of qualified bidders at any re-auction. We believe that allowing new applications will facilitate achieving this goal, and that the short delay that may result from allowing new applications in a re-auction is warranted. Indeed, if we were not to allow new applicants in a re-auction, interested parties might be forced into an after-market transaction to obtain the BTA authorizations, which would itself delay service to the public and may prevent the public from recovering a reasonable portion of the value of the spectrum resource. *See* Second Report and Order at 2384; 47 CFR 1.2109(c).

116. Post-Auction Application Procedures. Unlike other services where auction winners may file a single long-form application to obtain a single license for the entire geographic area auctioned, the winning bidder for each BTA service area will be required, in accordance with our existing rules, to submit separate long-form applications for each channel group and location within the BTA for which the bidder wants to obtain an MDS station license. The winning bidder for each BTA service area will therefore be required to submit a separate long-form application for each Channel E group, for each Channel F group, and for each Channel 1, 2 (or 2A), H1, H2, and H3 within the BTA for which the winning bidder wishes to receive a license.

117. The long-form application for the initial MDS station license within each BTA service area will be due from the winning bidder for that BTA within thirty business days after such bidder has been notified of its winning bidder status.<sup>53</sup> After the Commission receives the winning bidder's down payment and the long-form application for the initial MDS station license within the BTA, we will review the long-form application, which must include, among other items, a FCC Form 430 and exhibits concerning the winning bidder's involvement in bidding consortia and status as a designated

entity.<sup>54</sup> If the long-form application is found to be acceptable, the Commission will release a public notice announcing this fact, triggering the thirty day filing window for petitions to deny. If the Commission denies or dismisses all petitions to deny (if any are filed), and is otherwise satisfied that the applicant is qualified, the BTA authorization will be issued and the initial conditional MDS station license within the BTA service area of the auction winner will be granted, assuming that the auction winner (except for a small business making installment payments) has made full payment as set forth in ¶ 109. *See* Second Report and Order at 2383; 47 C.F.R. §§ 1.2107(c), 1.2108. Subsequent long-form applications for MDS station licenses within BTA service areas, which auction winners may submit at any time during the five year build-out period, will be reviewed by the Commission and granted in a similar manner, except, of course, that the winning bidders will need to make no further payments.

118. However, we realize that a number of BTA service areas may be so encumbered that the winning bidder for such a BTA may be unable to file a long-form application proposing another MDS station within the BTA while meeting the Commission's interference standards as to all previously authorized or proposed MDS and ITFS facilities. The winning bidder's objective in bidding on such a heavily encumbered BTA would likely be to purchase the previously authorized or proposed MDS stations within the BTA and to maintain full flexibility to make modifications. It also seems likely that a winning bidder for a heavily encumbered BTA may itself possess most or all of the previously authorized or proposed MDS stations within that BTA, and the bidder's goal in obtaining the authorization for the BTA in which it already had MDS stations would similarly be to preserve full flexibility to make modifications. The winning bidder for a BTA service area so heavily encumbered that it believes it cannot file an acceptable long-form application proposing an MDS station with average transmitted power within its BTA should follow the post-auction procedures set forth below.

119. After notification of its status as a winning bidder for a heavily encumbered BTA service area, the bidder must make its down payment within five business days in the normal manner. Within thirty business days after notification of its winning bidder

<sup>53</sup> We realize that other services have generally required the filing of long-form applications within ten days of notification of the winning bidders. However, given the need for MDS auction winners to protect all previously authorized or proposed MDS and ITFS facilities within their BTA service areas from harmful interference, we believe that such winning bidders will likely require a longer period of time to complete the requisite engineering studies and interference analyses before filing their initial long-form applications for MDS station licenses.

<sup>54</sup> The content of these exhibits is set forth in Section 21.956(b) of our amended rules.

status, the winning bidder must file with the Commission, in lieu of a long-form application for an MDS station license, a statement of intention with regard to the BTA service area, showing the encumbered nature of the BTA, identifying the incumbents, and describing in detail its plan for obtaining the previously authorized or proposed MDS stations within the BTA. We do not intend to force winning bidders to file long-form applications for MDS station licenses in BTAs so encumbered that the only proposed station to not cause harmful interference to incumbents would, for example, be a facility with a one watt transmitter and a highly directional antenna, serving no significant population. Winning bidders must, however, document in their statements of intention that additional MDS stations with average transmitted power could not be constructed in their BTAs without causing harmful interference to previously authorized or proposed MDS and ITFS facilities. If a winning bidder fails to file either this statement of intention or a long-form application within the thirty day period, it will be in default and will be subject to the appropriate default payments. The statement of intention should also include a FCC Form 430, a drug certification, and the same exhibits concerning the winning bidder's involvement in bidding consortia and status as a designated entity that must be attached to initial long-form applications. See *supra* ¶ 117.

120. The Commission will, following its review of the winning bidder's statement of intention, issue the BTA authorization to the winning bidder. Such issuance of the BTA authorization will, of course, be made only following full payment by the winning bidder as set forth in ¶ 109, except for a small business making installment payments. Parties wishing to comment on or oppose the issuance of a BTA authorization issued in connection with the filing of a statement of intention by a winning bidder must do so prior to the Commission's issuance of the BTA authorization.

121. Period of MDS Station Licenses. Under the Commission's rules, licenses for MDS stations are to be "issued for a period not to exceed 10 years." 47 CFR 21.45(a). "Unless otherwise specified by the Commission," the expiration of MDS station licenses as a class is, however, set on a single date (May 1) "in the year of expiration" (*i.e.*, the year which is ten years from the last expiration date of the class of MDS licenses, which was 1991). *Id.* Thus, the current term for all MDS station licenses as a class will expire on May 1, 2001,

regardless of when these licenses are awarded. Because MDS station licenses as a class are due to expire on this set date, an MDS licensee who receives its station license on, for example, May 1, 1996 would in effect have the license for only five years before the licensee must apply for renewal.

122. For the reasons set forth herein, we believe that MDS auction winners should not be subject to the fixed MDS station license renewal cycle which, under existing rules, will expire on May 1, 2001, only five years or so from the time that any auction winner could expect to receive its initial station license in its BTA service area. We believe all winning bidders in the MDS auction should be assured of receiving station licenses of a duration sufficient so that they may have a reasonable period of time to construct their systems and earn a return on the amounts they invested in acquiring the BTA authorizations and MDS station licenses by competitive bidding. In addition, we realize that bidders who must arrange financing will need to assure lenders that they will have possession of their MDS station licenses for a reasonably lengthy period of time. We therefore determine that all MDS station licenses granted in every BTA service area auctioned should be for a ten year period (the maximum specified in Section 21.45(a)) to run from the date that the Commission declares bidding in the MDS auction to be closed.

123. We conclude that awarding MDS station licenses with definite ten year terms, rather than much briefer, indeterminate terms dependent on when the license is granted, serves both prospective bidders and the Commission well. As described above, the set ten year period is of sufficient certainty and length to be fair to parties who must now pay considerable sums, and perhaps obtain outside financing, in order to acquire BTA authorizations and MDS station licenses. In addition, we note that granting MDS station licenses with set ten year terms will allow small businesses eligible for installment financing to make payments over a period comparable to the length of their initial station licenses. Furthermore, specifying that MDS licenses for stations located in BTA service areas acquired by competitive bidding will be for ten year terms dated from the close of bidding in the MDS auction, rather than from the actual date of issuance of each individual station license, will be administratively convenient for the Commission. Because all MDS station licenses granted within BTA service areas acquired by competitive bidding will expire on the same date, the

Commission will be able to easily process those licenses and to deal more expeditiously with their renewal. In accordance with Section 21.45(a), we hereby specify that all MDS station licenses granted in every BTA service area auctioned will have ten year terms from the date that the Commission declares bidding in the MDS auction closed.

#### 6. Regulatory Safeguards

124. Unjust Enrichment and Anti-Trafficking Provisions. Congress directed that we take steps to prevent unjust enrichment due to trafficking in licenses that were obtained through competitive bidding. See 47 U.S.C. 309(j)(4)(E). In Section 7 below, we adopt specific rules to prevent designated entities from taking advantage of special provisions for such entities by transferring control of their BTA authorizations immediately following the MDS auction. Moreover, the MDS rules already contain provisions to reduce trafficking. See 47 CFR 21.39 (generally prohibiting assignment or transfer of MDS conditional station licenses prior to completion of construction of facility). These existing anti-trafficking provisions will continue to apply to MDS conditional station licenses granted prior to the institution of competitive bidding procedures. Consistent with the Second Report and Order, however, the existing MDS-specific anti-trafficking provisions will not apply to BTA authorizations and MDS conditional station licenses granted within auctioned BTA service areas.

125. With regard to BTA authorizations obtained by auction outside of the designated entity context, an applicant seeking approval for an assignment or transfer of control of a BTA authorization within three years of receipt of such authorization by means of competitive bidding must, together with its assignment or transfer application, file with the Commission a statement indicating that its authorization was obtained through competitive bidding. Such applicant must also file with the Commission the associated contracts for sale, option agreements, management agreements, or other documents disclosing the total consideration received in return for the assignment or transfer of the authorization. We will give particular scrutiny to auction winners who have not yet begun commercial service within their BTA service areas and who seek approval for an assignment or transfer of control of their authorizations within three years after



the receipt of such authorizations, in order to determine if any unforeseen problems relating to unjust enrichment have arisen outside the designated entity context. See Second Report and Order at 2385-2386; 47 CFR 1.2111(a).

126. Construction Build-out Requirements. Congress has directed that the Commission, in implementing auction procedures, "include performance requirements, such as appropriate deadlines and penalties for performance failures, to ensure prompt delivery of service to rural areas, to prevent stockpiling or warehousing of spectrum by licensees or permittees, and to promote investment in and rapid deployment of new technologies and services." 47 U.S.C. 309(j)(4)(B). In the Second Report and Order, we decided that it was generally unnecessary to impose additional construction build-out or other performance requirements for auctionable services beyond those already provided in service rules. *Id.* at 2386. However, following a review of our existing MDS rules, we determined to alter the construction requirements that will be applicable to the holders of BTA authorizations obtained by competitive bidding.

127. Our current rules require the completion of construction of MDS stations within twelve months from the date of the conditional station license grant. 47 CFR 21.43. We will continue to apply this existing requirement to MDS conditional station licenses granted prior to the institution of competitive bidding procedures. We will not, however, apply this twelve month construction requirement to MDS conditional station licenses granted in the future in the BTA service areas of auction winners. Instead, we will require the holders of BTA authorizations to meet the five year build-out requirements set forth at ¶ 31.

128. We believe that this change in our construction requirements is necessitated by our decision to grant BTA-based authorizations to MDS auction winners. Our goal in imposing any construction or other performance requirement is to insure that each auction winner provides service throughout its BTA. We believe that the imposition of a general BTA-wide build-out requirement will better achieve this goal than our continued imposition of a twelve month construction requirement on each particular MDS facility within the BTA.

129. Rules Prohibiting Collusion. In the generic auction rules, we adopted special provisions to prevent collusive conduct in the context of competitive bidding. 47 CFR 1.2105(c). We indicated that such rules would serve the

objectives of the Budget Act by preventing parties, especially larger firms, from agreeing in advance to bidding strategies that might divide the market according to their strategic interests and to the disadvantage of other bidders. Such rules could also strengthen confidence in the bidding process. Second Report and Order at 2386. These rules apply to all auctionable services, including MDS. Applicants are required to identify in an exhibit to their short-form applications any parties with whom they have entered into any consortium arrangements, joint ventures, partnerships or other agreements or understandings which relate to the BTA service areas being auctioned. Applicants are also required to certify that they have not entered into any explicit or implicit agreements, arrangements or understandings with any parties, other than those identified, regarding the amount of their bid, bidding strategies or the particular BTA service areas on which they will or will not bid. See 47 CFR 1.2105(a)(2)(viii) and (ix). Except as otherwise provided in ¶ 130, after the short-form applications are filed and prior to the time the winning bidder has made its required down payment, all applicants are prohibited from cooperating, collaborating, discussing or disclosing in any manner the substance of their bids or bidding strategies, or discussing settlement agreements, with other applicants, unless such applicants are members of a bidding consortium or other joint bidding arrangement identified on the applicants' short-form application. See 47 CFR 1.2105(c)(1). Communications among applicants concerning matters unrelated to the MDS auction will, however, be permitted after the filing of short-form applications. See Fourth Memorandum Opinion and Order in PP Docket No. 93-253, 9 FCC Rcd 6858, 6869 (1994), 59 Fed. Reg. 53364 (Oct. 24, 1994).

130. Despite the restrictions set forth in ¶ 129, applicants may amend their short-form applications to reflect formation of bidding consortia or changes in ownership after the short-form application filing deadline has passed, provided such changes do not result in a change in control of the applicant, and provided that the parties forming consortia or entering into ownership agreements have not applied to bid on the same BTA service areas. In addition, after the filing of short-form applications, applicants may make agreements to bid jointly for BTA service areas, provided the parties to the agreement have not applied for the same

BTA service areas. A holder of a non-controlling attributable interest in an entity submitting a short-form application may also, following the filing of the short-form application and under certain conditions specified in 47 CFR 1.2105(c)(4), acquire an ownership interest in, form a consortium with, or enter into a joint bidding arrangement with, other applicants for the same BTA service areas. To reflect these changes in ownership or in the membership of consortia or joint bidding arrangements, applicants must amend their short-form applications by submitting a revised short-form, filed within two business days of any such change; such modifications will not be considered major amendments of the applications. However, any amendment which results in the change of control of an applicant will be considered a major amendment of the short-form. See *supra* ¶ 100; 47 CFR 1.2105(c)(2), (3) and (4); Second Memorandum Opinion and Order at 7254; Memorandum Opinion and Order in PP Docket No. 93-253, 9 FCC Rcd 7684, 7688-7689 (1994), 59 Fed. Reg. 64159 (Dec. 13, 1994). Finally the winning bidder for each BTA service area must, as an exhibit to its initial long-form application or statement of intention, explain the terms and conditions and parties involved in any bidding consortia, joint venture, partnership or other agreement it had entered into relating to the competitive bidding process prior to the time bidding was completed. See 47 CFR 1.2107(d).

131. Where specific instances of collusion in the competitive bidding process are alleged, the Commission may conduct an investigation or refer such complaints to the United States Department of Justice for investigation. Bidders who are found to have violated the antitrust laws or the Commission's rules in connection with participation in the auction process may, among other remedies, be subject to the loss of their up front payment, down payment or their full bid amount, cancellation of their BTA authorizations, and may be prohibited from participating in future auctions. See Second Report and Order at 2388; 47 CFR 1.2109(c).

#### 7. Treatment of Designated Entities

132. General Considerations. Section 309(j) of the Communications Act provides that the Commission "ensure that small businesses, rural telephone companies, and businesses owned by members of minority groups and women are given the opportunity to participate in the provision of spectrum-based services." 47 U.S.C. 309(j)(4)(D). To achieve this congressional goal, the

statute directs the Commission to "consider the use of tax certificates, bidding preferences, and other procedures." *Id.* In addition, Section 309(j)(3)(B) instructs the Commission, in establishing eligibility criteria and bidding methodologies, to promote "economic opportunity and competition \* \* \* by disseminating licenses among a wide variety of applicants, including small businesses, rural telephone companies, and businesses owned by members of minority groups and women," which are collectively referred to as "designated entities." 47 U.S.C. 309(j)(3)(B); 47 CFR 1.2110. Section 309(j)(4)(A) further provides that to promote these objectives, the Commission shall consider alternative payment schedules, including lump sums or guaranteed installment payments. 47 U.S.C. 309(j)(4)(A).

133. In instructing the Commission to ensure the opportunity for designated entities to participate in auctions and spectrum-based services, Congress was aware of the problems that designated entities would have in competing against large, well-capitalized companies in auctions and the difficulties they encounter in accessing capital. For example, the legislative history accompanying our grant of auction authority states generally that the Commission's regulations "must promote economic opportunity and competition," and "[t]he Commission will realize these goals by avoiding excessive concentration of licenses and by disseminating licenses among a wide variety of applicants, including small businesses and businesses owned by members of minority groups and women. H.R. Rep. No. 111, 103d Cong., 1st Sess. 254 (1993) (House Report). The House Report states that the House Committee was concerned that, "unless the Commission is sensitive to the need to maintain opportunities for small businesses, competitive bidding could result in a significant increase in concentration in the telecommunications industries." *Id.* More specifically, the House Committee was concerned that the adoption of competitive bidding should not have the effect of "excluding small businesses from the Commission's licensing procedures," and anticipated that the Commission would adopt regulations to ensure that small businesses would "continue to have opportunities to become Commission licensees." *Id.* at 255.

134. Consistent with Congress' concern that auctions not operate to exclude small businesses, the provisions relating to installment payments in Section 309(j) were clearly intended to

assist small businesses. The House Report states that these provisions were drafted to "ensure that all small businesses will be covered by the Commission's regulations, including those owned by members of minority groups and women." *Id.* at 255. It also states that the provisions in Section 309(j)(4)(A) pertaining to installment payments were intended to promote economic opportunity by ensuring that competitive bidding does not inadvertently favor incumbents with "deep pockets" "over new companies or start-ups." *Id.*

135. Moreover, with regard to access to capital, Congress had made specific findings in the Small Business Credit and Business Opportunity Enhancement Act of 1992, that "small business concerns, which represent higher degrees of risk in financial markets than do large businesses, are experiencing increased difficulties in obtaining credit." Small Business Credit and Business Opportunity Enhancement Act of 1992, Pub. L. No. 102-366, § 331(a)(3), 106 Stat. 986, 1007 (1992). As a result of these difficulties, Congress resolved to consider carefully legislation and regulations "to ensure that small business concerns are not negatively impacted" and to give priority to passage of "legislation and regulations that enhance the viability of small business concerns." *Id.* at § 331(b)(2) & (3).

136. In our initial implementation of Section 309(j), the Commission established in the Second Report and Order eligibility criteria and general rules that would govern the special measures for small businesses, rural telephone companies, and businesses owned by minorities and women. We also identified several measures, including installment payments, bidding credits and spectrum set-asides, that we could choose from in formulating the rules for auctionable spectrum-based services. In addition, we established rules to prevent unjust enrichment by designated entities seeking to assign or transfer licenses obtained through use of one of these special measures. See Second Report and Order at 2388-2400.

137. In adopting provisions to provide designated entities opportunities in MDS, we note that, while Section 309(j) lists the various designated entities together, the statute does not indicate that each group must be afforded the same type of treatment. See *Competitive Bidding Notice* at 7646. We have consistently emphasized that the provisions applicable to particular designated entities would vary depending on the nature of each

individual service. In particular, we have evaluated the capital requirements, the nature of the expected pool of bidders, and other characteristics of each service to determine the appropriate measures to achieve the objectives of the auction statute. See Second Memorandum Opinion and Order at 7256; Fourth Report and Order at 2336.

138. With regard to MDS, we note that this service differs from the other services that have been auctioned to date in several important ways. First, unlike PCS and IVDS, wireless cable is a heavily encumbered service with many of the channels in most major markets already occupied. Given the limited amount of remaining usable spectrum and the need to protect incumbents from harmful interference, we anticipate that the BTA service areas will be auctioned for relatively modest amounts, particularly in comparison to the sums bid in the PCS auctions. Second, it is necessary for MDS channels within a geographic area to be aggregated under the control of a single wireless cable operator, to allow it to compete with wired cable television systems in the same area. Notice at 7667. Thus, our goal in this proceeding is not to set the stage for the development of an entirely new industry, such as PCS, but to allow the progression and rationalization of the existing wireless cable industry. Accordingly, we cannot adopt designated entity rules that would hinder the accumulation of MDS channels within BTAs by entities financially capable of operating wireless cable systems and providing competitive service to the public.

139. In this Report and Order we adopt specific designated entity measures appropriate for MDS, based on the record in this proceeding and on the unique characteristics of the service as identified above. Specifically, we have determined to make installment payments, reduced upfront payments and bidding credits available to small businesses, including those owned by minorities and women, and to small business consortia. We also adopt the unjust enrichment provisions set forth in the Second Report and Order applicable to installment payments and bidding credits. *Id.* at 2395; 47 CFR 1.2111(c) & (d). We decline to adopt spectrum set-asides. Such a measure is inappropriate for MDS, given the heavily encumbered nature of this

service and the lack of sizable, discrete blocks of spectrum to auction.<sup>55</sup>

140. Entities Eligible for Special Measures. Although we will offer installment financing, reduced upfront payments and bidding credits to small businesses, we have concluded that the provision of additional measures for rural telephone companies is unnecessary in the MDS auction. Congress intended by including rural telephone companies in the category of designated entities to ensure that rural consumers received the benefit of new technologies. See 47 U.S.C. 309(j)(3)(A); Fourth Report and Order at 2337 n.66. However, many rural consumers and residents of smaller communities already receive the benefit of wireless cable services. Numerous wireless cable operators focus on uncabled rural areas and small towns, and rural states, such as North and South Dakota, Oklahoma, and Nebraska, have among the highest numbers of operating and planned wireless cable systems. Moreover, given the anticipated modest auction prices of authorizations for sparsely populated rural BTAs, we do not believe that rural telephone companies will need either a special exemption from the MDS competitive bidding process or additional measures provided to them in order to compete in the auction process. Rural telephone companies will, of course, be eligible for the incentives provided to small businesses generally if they meet those eligibility requirements. This determination not to provide additional measures for rural telephone companies is consistent with the Commission's decisions in the PCS and IVDS auction rules.

141. In addition, we expect rural telephone companies to take advantage of the partitioning option described above at ¶¶ 34–35, so they will not have to bid on entire BTAs to obtain authorizations for the rural areas they are interested in serving. Thus, rural telephone companies should be able to obtain authorizations for partitioned BTAs by private negotiation and agreement with auction winners. Rural telephone companies could also form bidding consortia to participate in MDS auctions, and then partition the BTAs won among consortia participants. In our opinion, the offering of this broad partitioning option to all interested entities, including rural telephone companies, also serves to make the provision of additional measures for rural telephone companies unnecessary.

142. Although we will offer installment financing, reduced upfront payments and bidding credits to minority and women-owned small businesses, we have also for several reasons determined, in the absence of evidence in the record to the contrary, that the provision of special measures to minority and women-owned enterprises, regardless of size, is unnecessary. First, we note that installment financing, reduced upfront payments and bidding credits will not be limited to certain BTA service areas, but will be available to small businesses for every BTA service area to be auctioned. We believe that broadening the scope of opportunity for small businesses in this manner should also create substantial opportunity for minority and women-owned enterprises. Census data has shown that approximately ninety-nine percent of all women-owned and ninety-nine percent of all minority-owned businesses generate annual receipts of one million dollars or less.<sup>56</sup> Thus, we expect that virtually all minority and women-owned enterprises will be eligible for the special measures adopted herein for small businesses. Moreover, we note that we are permitting consortia of small businesses to utilize installment financing, reduced upfront payments and bidding credits, if each member of the consortia is individually eligible. Small minority and women-owned enterprises may therefore join together in consortia to participate in MDS auctions and still remain eligible for all special measures available to small businesses individually.

143. Second, we believe that small minority and women-owned entities, with the various incentives they will receive as small businesses, should be able to participate successfully in competitive bidding, given the anticipated relatively modest value of many of the BTA service areas to be auctioned. Due to the heavily encumbered nature of the wireless cable industry, the Commission has estimated that the amounts bid in the MDS auction will not approach the levels reached in earlier auctions, particularly PCS. Thus, additional incentives for minority and women-owned enterprises, regardless of their size, appear less necessary for MDS than for other auctionable services.

144. Moreover, we note that minority and women-owned entities may also, like rural telephone companies, take

advantage of the broad partitioning option set forth above at ¶¶ 34–35. Unlike other services that have limited the availability of partitioning to rural telephone companies, we are allowing any type of entity to negotiate with auction winners to obtain authorizations for partitioned BTAs. Thus, minority and women-owned entities that do not wish to bid on entire BTAs should be able to acquire authorizations for partitioned portions of those service areas.

145. This determination not to provide additional measures for minority and women-owned companies, regardless of their size, is consistent with the Commission's position in other auction rules. In the Fifth Report and Order, we specifically observed that, due to the expected high auction value of the PCS spectrum and the substantial build-out costs, it would be necessary to provide additional assistance to women and minority enterprises to ensure their opportunity to participate in broadband PCS than would be "necessary in other, less costly spectrum-based services." *Id.* at 5572–5573. We believe that the installment financing, reduced upfront payments and bidding credits available to all small businesses, along with the broad partitioning option, should be sufficient to give minority and women-owned entities the opportunity to participate in the "less costly" MDS auction.

146. Installment Payments. In this Report and Order, we approve installment financing for small businesses. Permitting a winning bidder to pay through installments is the equivalent of having the government extend credit to the bidder. With this installment financing option, a prospective bidder may not need to rely as heavily on private financing either before or after an auction. Given the difficulties experienced by small businesses in obtaining credit (*see supra* ¶ 135), this governmental extension of credit should be particularly valuable to small businesses that are winning bidders in spectrum auctions. Installment payments should therefore be both an effective method of promoting the participation of designated entities in the provision of spectrum-based services and a means of distributing licenses and services among geographic areas. Second Report and Order at 2389–2390. In the Second Report and Order, we determined that installment payments should be offered only to small businesses (including those owned by minorities and women), and then only in instances where use of the spectrum being auctioned was likely to match the business objectives of *bona*

<sup>55</sup> This decision is consistent with the Commission's previous determination that, due to the small amount of spectrum available, spectrum set-asides were not appropriate for IVDS. See Fourth Report and Order at 2336.

<sup>56</sup> See Women-Owned Businesses, WB 87–1, 1987 Economic Census, at 144, Table 8; Survey of Minority-Owned Business Enterprises, MB 87–4, 1987 Economic Census, at 81–82, Table 8.

*fide* small businesses. *Id.* at 2390. We also specifically noted that the legislative history of the Budget Act indicates that large enterprises with established revenue streams are not intended the beneficiaries of installment financing. *Id.* Given the considerable number of small enterprises currently involved in the wireless cable industry, we believe that MDS has offered, and will continue to offer, bona fide business opportunities to small enterprises.

147. We will therefore permit the use of installment payment plans in all MDS auctions, and follow the general procedures set forth in the Second Report and Order. The installment payment option will allow a small business to pay the full amount of its winning bid in installments (less the upfront payment and the down payment, half of which is due five business days after notification to the winning bidder and the other half five days after the public notice stating that the BTA authorization is ready for issuance). Only interest payments will be due for the first two years, with principal and interest both being amortized over the remaining years of the ten year period running from the date that the BTA authorization is issued. Also, interest charges will be fixed at the time of issuance of the BTA authorization at a rate equal to that of ten year U.S. Treasury notes, plus two and one half (2.5) percent. See Second Report and Order at 2390. Timely payments of all installments will be a condition of the issuance of the BTA authorization. Failure to make such timely payments on or before the date due is also grounds for cancellation of the BTA authorization, although limited grace periods for defaulting small businesses may be considered on a case-by-case basis. See *id.* at 2391. If a small business making installment payments seeks to assign or transfer its BTA authorization to a non-small business entity, we will require payment of any remaining unpaid principal balance, and of any unpaid interest accrued, as a condition of the assignment or transfer. See *id.* at 2395.

148. Reduced Upfront Payments. Upfront payment requirements are designed to ensure that bidders are qualified and serious and to provide the Commission with a source of funds in the event that it becomes necessary to assess default or bid withdrawal payments. See Second Report and Order at 2377-2379. Although the Commission has not chosen to create a general exception to our upfront payment requirements for designated entity applicants (see *id.* at 2380), we

have previously allowed designated entities to make reduced upfront payments. See, e.g., Fifth Report and Order at 5600. We believe that allowing small businesses to make reduced upfront payments should facilitate auction participation by capital-constrained wireless cable operators (see *infra* ¶ 153), and permit them to conserve resources for building out their systems after the MDS auction.

149. Specifically, we will for the MDS auction reduce the upfront payment requirement by twenty-five percent for small businesses and for small business consortia. See Fifth Report and Order at 5600 (reducing upfront payment for bidders in entrepreneurs' block PCS auction by twenty-five percent). As discussed in ¶ 104, prior to the MDS auction, the Mass Media Bureau, in conjunction with the Wireless Telecommunications Bureau, will publish a public notice listing the upfront payment amount corresponding to each BTA service area to be auctioned. A prospective bidder claiming eligibility as a small business and wishing to bid on a particular BTA service area will thus be required to submit an upfront payment equal to seventy-five percent of the upfront payment specified in the public notice for that BTA. We believe that this reduction in the upfront payments for small businesses will properly permit wireless cable operators to conserve their capital for building out their systems and adding subscribers, while still serving to discourage insincere or speculative bidding.

150. Bidding Credits. Given the difficulties faced by small businesses in accessing capital (see *supra* ¶ 135), and based upon our expectations as to the numbers and types of bidders that will participate in the MDS auction, we conclude that a bidding credit is appropriate for small businesses in the MDS auction. A bidding credit, in effect, functions as a discount on the bid price a bidder will actually have to pay to obtain a BTA authorization and, thus, will address directly the financing obstacles encountered by small businesses. A bidding credit should accordingly "level the playing field" by helping small businesses, particularly incumbent wireless cable operators, to compete effectively in the MDS auction against larger enterprises, such as the large telecommunications carriers. We also believe the offering of a bidding credit may aid small businesses to more easily attract capital; specifically, outside investors may be more eager to invest in a small wireless cable operator if that operator will be benefited by a bidding credit in the MDS auction. For

these reasons, we believe that a bidding credit will have a significant positive effect on the ability of small businesses to participate successfully in an MDS auction.

151. We will offer a fifteen percent bidding credit to small businesses, and to consortia of small businesses, bidding on any of the BTA service areas available in the MDS auction. Given the encumbered nature of MDS and the presence of incumbents in most BTAs, it appears impractical to restrict the availability of bidding credits to certain channels or spectrum blocks. Additionally, we believe that we would greater opportunities for small businesses, including incumbent wireless cable operators, if we offer bidding credits on all BTA service areas. We feel that these bidding credits will help achieve the objectives of Congress by providing small businesses, including women-owned and minority-owned small businesses, with a meaningful opportunity to obtain BTA authorizations and to conserve scarce capital for building out their wireless cable systems after the auction. Although other services have provided larger bidding credits to certain designated entities, we believe that the fifteen percent credit is sufficient for MDS because, unlike these other services, we will offer this bidding credit on all authorizations to be awarded to small businesses.<sup>57</sup>

152. To prevent unjust enrichment by small businesses trafficking in BTA authorizations acquired through the use of bidding credits, we will require small businesses to reimburse the government, as set forth below, if BTA authorizations are transferred or assigned to entities that do not fulfill the small business eligibility requirements. See Second Report and Order at 2395. Small businesses seeking to transfer or assign a BTA authorization to an entity not meeting the definition of small business will be required to reimburse the government for the amount of the bidding credit, plus interest at the rate

<sup>57</sup> See, e.g., Third Report and Order at 2970 (providing twenty-five percent bidding credit on specified channels to certain designated entities in nationwide narrowband PCS auction); Third Memorandum Opinion and Order at 201 (providing forty percent bidding credit on specified channels to certain designated entities in regional narrowband PCS auction); Fourth Report and Order at 2337 (offering twenty-five percent bidding credit on one of two IVDS licenses available in each geographic license area). See also Second Report and Order and Second Further Notice of Proposed Rulemaking in PR Docket No. 89-553, PP Docket No. 93-253, and GN Docket No. 93-252, FCC 95-159 (released April 17, 1995), 60 FR 21987 (May 4, 1995), at ¶ 130 (proposing to provide ten percent bidding credit on all 900 MHz Specialized Mobile Radio channel blocks to be auctioned).

imposed for installment financing at the time the authorization was awarded, before transfer or assignment will be permitted. The amount of the required reimbursement will be reduced over time. A transfer or assignment in the first two years after issuance of the authorization will result in a reimbursement of one hundred percent of the value of the bidding credit; during year three, of seventy-five percent of the bidding credit; in year four, of fifty percent; in year five, of twenty-five percent; and thereafter, no reimbursement.

153. Eligibility for Installment Payments, Reduced Upfront Payment and Bidding Credits. In the Second Memorandum Opinion and Order, the Commission amended its generic auction rules to replace the small business definition used by the Small Business Administration (SBA) with a provision enabling the Commission to establish a small business definition in the context of each particular service, taking into consideration the characteristics and capital requirements of the particular service. See 47 CFR 1.2110(b)(1). We conclude that the definition adopted for the narrowband and broadband PCS is also appropriate for MDS. Under this approach, a small business is an entity that, together with its affiliates, has annual average gross revenues for the three preceding years not in excess of \$40 million. We will also allow consortia of small businesses, each member of which individually meets the \$40 million gross revenue standard, to qualify for installment payments, reduced upfront payments and bidding credits. See 47 CFR 1.2110(j). Consideration of the capital requirements of MDS has persuaded us to adopt this definition of small business. Wireless cable, although significantly less capital intensive than traditional coaxial cable, is not inexpensive. Tower and head end expenses may range from under \$1 million for a small rural system to \$2 to \$3 million per system in major markets, and the cost of adding each new subscriber has been estimated to be \$400 to \$600. Thus, even though the cost of acquiring BTA authorizations at auction are estimated to be relatively modest in comparison to other services, considerable capital is nonetheless required to construct a competitive wireless cable system. Moreover, the wireless cable industry has historically had difficulty in obtaining financing, and the future success of wireless cable

is crucially dependent upon its ability to obtain additional financing.<sup>58</sup>

154. Given the capital requirements of the wireless cable industry and its past difficulties in attracting capital, we believe that the \$40 million gross revenue standard is appropriate for MDS. If the Commission were to adopt a significantly lower standard for the definition of small business, we would exclude companies with the financial wherewithal to operate wireless cable systems competitive with cable television from eligibility for installment payments, reduced upfront payments and bidding credits. See Second Memorandum Opinion and Order at 7268. We also believe that the standard SBA definition of small business—an entity with no more than \$6 million net worth and no more than \$2 million in annual profits—is similarly overly restrictive,<sup>59</sup> and we accordingly decline to adopt such definition of small business for MDS. We therefore conclude that the \$40 million gross revenue standard utilized by other services is appropriate, as it would not exclude enterprises in need of special incentives to compete successfully in the wireless cable industry, but would not provide such incentives to larger telecommunications enterprises with well-established revenue streams and easier access to capital.

155. Records Maintenance and Audits. All holders of BTA authorizations acquired by auction that claim designated entity status will be required to maintain, at their principal place of business or with their designated agent, and updated documentary file of ownership and revenue information necessary to establish their status. Holders of BTA authorizations or their successors in interest must maintain such files for a ten year period running from the date that their BTA authorizations are issued. The files must be made available to the Commission upon request.

156. BTA authorization holders claiming eligibility under designated entity provisions will be subject to audits by the Commission, using in-house or contract resources. Selection for an audit may be random, on-information, or on the basis of other factors. Consent to such audits is part of

the certification included in the short-form application. Such consent will include consent to the audit of the holders' books, documents and other material (including accounting procedures and practices), regardless of form or type, sufficient to confirm that such holders' representations are, and remain, accurate. Such consent will also include inspection at all reasonable times of the facilities, or parts thereof, engaged in providing and transacting business or keeping records regarding licensed MDS offerings, and will also include consent to the interviewing of principals, employees, customers, and suppliers of the BTA authorization holders.

157. We believe that the above records maintenance and audit provisions are necessary to prevent abuse of the special measures offered to those MDS auction winners claiming designated entity status. These provisions requiring the retention of records should not prove overly burdensome, and they will help to ensure that only entities eligible under the auction rules will be able to take advantage of the designated entity measures.

158. Accordingly, it is ordered that, pursuant to the authority of Sections 4(i) and (j), 301, 303(f), 303(g), 303(h), 303(j), 303(r), 307(c), 308(b), 309(j) and 403 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 154(j), 301, 303(f), 303(g), 303(h), 303(j), 303(r), 307(c), 308(b), 309(j), and 403, this Report and Order is adopted, and Part 21 of the Commission's Rules are amended as set forth herein.

159. It is further ordered that the rule amendments set forth herein will become effective September 15, 1995.

160. It is further ordered that, upon approval by the Office of Management and Budget, FCC Form 304 will supersede FCC Form 494.

#### List of Subjects in 47 CFR Part 21

Communications common carriers, Reporting and recordkeeping requirements, Television.

Federal Communications Commission.

**William F. Caton,**

*Acting Secretary.*

#### Amendatory Text

Part 21 of Chapter I of Title 47 of the Code of Federal Regulations is amended as follows:

#### PART 21—DOMESTIC PUBLIC FIXED RADIO SERVICES

1. The authority citation for Part 21 continues to read as follows:

**Authority:** Secs. 1, 2, 4, 201–205, 208, 215, 218, 303, 307, 313, 314, 403, 404, 410, 602;

<sup>58</sup> See Gerard Klauer Mattison & Co., Inc., *The Wireless Cable Industry: Summary of 1994 and Outlook for 1995* (Dec. 22, 1994) at 2; Dillon Read & Co. Inc., *The Wireless Cable Industry* (Aug. 22, 1994) at 10; Gerard Klauer Mattison & Co., Inc., *The Wireless Cable Industry* (Jan. 21, 1993) at 4.

<sup>59</sup> See Second Memorandum Opinion and Order at 7268; Third Memorandum Opinion and Order at 195; Fifth Report and Order at 5606–5608.

48 Stat. 1064, 1066, 1070-1073, 1076, 1077, 1080, 1082, 1083, 1087, 1094, 1098, 1102, as amended; 47 U.S.C. 151, 154, 201-205, 208, 215, 218, 303, 307, 313, 314, 403, 602; 47 U.S.C. 552, 554.

## **§ 21.2 [Amended]**

2. In § 21.2, the following definitions are added in alphabetical order to read as follows:

### **§ 21.2 Definitions.**

\* \* \* \* \*

*Basic Trading Area (BTA).* The geographic areas by which the Multipoint Distribution Service is licensed. BTA boundaries are based on the Rand McNally 1992 Commercial Atlas and Marketing Guide, 123rd Edition, pp. 36-39, and include six additional BTA-like areas as specified in § 21.924(b).

*BTA authorization holder.* The individual or entity authorized by the Commission to provide Multipoint Distribution Service to the population of a BTA.

*BTA service area.* The area within the boundaries of a BTA to which a BTA authorization holder may provide Multipoint Distribution Service. This area excludes the protected service areas of incumbent MDS stations and the registered receive sites of previously authorized and proposed ITFS stations.

\* \* \* \* \*

*Incumbent.* An MDS station that was authorized or proposed before September 15, 1995, including those stations that are subsequently modified, renewed or reinstated.

\* \* \* \* \*

*Partitioned service area authorization holder.* The individual or entity authorized by the Commission to provide Multipoint Distribution Service to the population of a partitioned service area.

*Partitioned service area (PSA).* The area within the coterminous boundaries of one or more counties or other geopolitical subdivisions, drawn from a BTA, to which an authorization holder may provide Multipoint Distribution Service or the area remaining in a BTA upon partitioning any portion of that BTA. This area excludes the protected service areas of incumbent MDS stations and the registered receive sites of previously authorized and proposed ITFS stations.

\* \* \* \* \*

3. Section 21.7 is amended by revising the first sentence of the section to read as follows:

### **§ 21.7 Standard application form for domestic public fixed radio service licenses.**

Except for the Multipoint Distribution Service, FCC Form 494 ("Application for a New and Modified Microwave Radio Station License Under Part 21") shall be submitted and a license granted for each station prior to commencement of any proposed station construction. \* \* \*

## **§ 21.13 [Amended]**

4. Section 21.13 is amended by revising paragraphs (a)(4) and (b) introductory text to read as follows:

### **§ 21.13 General application requirements.**

(a) \* \* \*

(4) Except for applications in the Multipoint Distribution Service filed on or after September 15, 1995, state specifically the reasons why a grant of the proposal would serve the public interest, convenience, and necessity.

\* \* \* \* \*

(b) Applications in the Multipoint Distribution Service, the Digital Electronic Message Service (DEMS) and the Point-to-Point Microwave Service shall not cross-reference previously filed material. Applications other than for the Multipoint Distribution Service, DEMS and Point-to-Point Microwave Services may cross-reference previously filed material where documents, exhibits or the lengthy showings already on file with the Commission contain information which is required by an application form and may specifically refer to such information, if:

\* \* \* \* \*

## **§ 21.15 [Amended]**

5. Section 21.15 is amended by revising the first sentence of paragraph (a)(1) and by revising paragraphs (a)(3), (c), (e), introductory text and (g) to read as follows:

### **§ 21.15 Technical content of applications.**

\* \* \* \* \*

(a) (1) Except in the case of applicants for Multipoint Distribution Service, applicants proposing a new station location (including receive-only stations and passive repeaters) must indicate whether the station site is owned. \* \* \*

\* \* \* \* \*

(3) Except for BTA and PSA authorization holders, Multipoint Distribution Service applicants proposing a new station location must certify the proposed station site will be available to the applicant for timely construction of the facilities during the initial construction period.

\* \* \* \* \*

(c) Each application involving a new or modified antenna supporting structure or passive facility, the addition or removal of an antenna, or the repositioning of an authorized antenna for a station or receive-only facility (except receive-only facilities in Multipoint Distribution Service and the Digital Electronic Message Service) must be accompanied by a vertical profile sketch of the total structure depicting its structural nature and clearly indicating the ground elevation (above sea level) at the structure site, the overall height of the structure above ground (including obstruction lights when required, lightning rods, etc. and, if mounted on a building, its overall height above the building. The proposed antenna on the structure must be clearly identified and its height above-ground (measured to the center of radiation) clearly indicated. Alternatively, applicants in the Multipoint Distribution Service who filed applications on or after September 15, 1995 may provide this information in the MDS long-form application.

\* \* \* \* \*

(e) Except for applicants in the Multipoint Distribution Service who filed applications on or after September 15, 1995, an applicant proposing construction of one or more new stations or modification of existing stations where substantial changes in the operation or maintenance procedures are involved must submit a showing of the general maintenance procedures involved to insure the rendition of good public communications service. The showing should include but need not be limited to the following.

\* \* \* \* \*

(g) Except for applications in the Multipoint Distribution Service filed on or after September 15, 1995, each application in the Point-to-Point Radio, Local Television Transmission and Digital Electronic Message Service (excluding user stations) proposing a new or replacement antenna (excluding omni-directional antennas) shall include an antenna radiation pattern showing the antenna power gain distribution in the horizontal plane expressed in decibels, unless such pattern is known to be on file with the Commission in which case the applicant may reference in its application the FCC-ID number that indicates that the pattern is on file with the Commission, Multipoint Distribution Service applicants who filed applications on or after September 15, 1995 must provide related information in completing an MDS long-form application.

\* \* \* \* \*

**§ 21.27 [Amended]**

6. In § 21.27 paragraphs (a)(7) and (8) are added to read as follows:

**§ 21.27 Public notice period.**

(a) \* \* \*

(7) The BTAs designated for licensing through the competitive bidding process and the filing date for short-form applications for those areas;

(8) the auction winners in the competitive bidding process;

\* \* \* \* \*

7. Section 21.35 is amended by revising paragraph (a) introductory text to read as follows:

**§ 21.35 Comparative evaluation of mutually exclusive applications.**

(a) In order to expedite action on mutually exclusive applications in services under this rules part where the competitive bidding process or random selection process do not apply, the applicants may request the Commission to consider their applications without a formal hearing in accordance with the summary procedure outlined in paragraph (b) in this section if:

\* \* \* \* \*

**§ 21.41 [Amended]**

8. In § 21.41, paragraph (b)(7) is added to read as follows:

**§ 21.41 Special processing of applications for minor facility modifications.**

\* \* \* \* \*

(b) \* \* \*

(7) In the Multipoint Distribution Service, the modified facility would not produce a power flux density that exceeds—73 dBW/m<sup>2</sup>, pursuant to §§ 21.902 and 21.939 of this subpart, at locations on the boundaries of protected service areas to which there is an unobstructed signal path.

\* \* \* \* \*

**§ 21.42 [Amended]**

9. Section 21.42 is amended by revising paragraphs (a), (b)(3), (c)(3)(ii) and (d), and by adding paragraphs (b)(4) and (c)(3)(iii) to read as follows:

**§ 21.42 Certain modifications not requiring prior authorization.**

(a) Equipment in an authorized radio station may be replaced without prior authorization or notification if:

(1) The replacement equipment is identical (i.e., same manufacturer and model number) with the replacement equipment;

(2) For the Multipoint Distribution Service, the replacement transmitter, transmitting antenna, transmission line loss and/or devices between the transmitter and antenna, or

combinations of the above, do not change the EIRP of a station in any direction.

(b) \* \* \*

(3) The Commission is notified of changes made to facilities by the submission of a completed FCC Form 494, or for the Multipoint Distribution Service, and MDS long-form application, as applicable, within thirty days after the changes are made.

(4) In the Multipoint Distribution Service, the modified facility would not produce a power flux density at the protected service area boundary that exceeds—73 dBW/m<sup>2</sup>, pursuant to §§ 21.902 and 21.939 of this subpart.

(c) \* \* \*

(3) \* \* \*

(i) \* \* \*

(ii) For Digital Electronic Message Service, the new antenna conforms with § 21.906 and the gain of the new antenna does not exceed that of the previously authorized antenna by more than one dB in any direction.

(iii) For the Multipoint Distribution Service, the new antenna conforms with § 21.906 and the EIRP resulting from the new antenna does not exceed that resulting from the previously authorized antenna by more than one dB in any direction.

\* \* \* \* \*

(d) Licensees may be correct erroneous information on a license which does not involve a major change (i.e., a change that would be classified as a major amendment as defined § 21.23) without obtaining prior Commission approval by filing a completed FCC Form 494, or for the Multipoint Distribution Service licensees, by filing the MDS long-form application.

**§ 21.43 [Amended]**

10. Section 21.43 is amended by revising the first sentence of paragraph (a) to read as follows:

**§ 21.43 Period of Construction; certification of completion of construction.**

(a) Except for Multipoint Distribution Service Station licenses granted to BTA and PSA authorization holders, each license for a radio station for the services included in this Part shall specify as a condition therein the period during which construction of facilities will be completed and the station made ready for operation. \* \* \*

\* \* \* \* \*

**§ 21.44 [Amended]**

11. Section 21.44 is amended by revising paragraph (a)(1) to read as follows:

**§ 21.44 Forfeiture and termination of station authorization.**

(a) \* \* \*

(1) The expiration of the construction period specified therein, where applicable, or after such additional time as may be authorized by the Commission, unless within 5 days after that date certification of completion of construction has been filed with the Commission pursuant to § 21.43;

\* \* \* \* \*

**§ 21.900 [Amended]**

12. Section 21.900 is amended by revising the concluding text to read as follows:

**§ 21.900 Eligibility.**

\* \* \* \* \*

(c) \* \* \*

The applicant shall state whether or not service will be provided on a common carrier or non common carrier basis. In addition, a common carrier applicant shall state whether there is any affiliation or relationship to any intended or likely subscriber or program originator.

**§ 21.901 [Amended]**

13. Section 21.901 is amended by revising the first sentence of paragraph (d)(5) and by revising paragraph (d)(7) to read as follows:

**§ 21.901 Frequencies.**

\* \* \* \* \*

(d) \* \* \*

\* \* \* \* \*

(5) Notwithstanding the provision of § 21.31(a) all applications, except for those filed on or after September 15, 1995, that propose to locate transmission facilities within or within 24.1 kilometers (15 miles) of the border of a Standard Metropolitan Statistical Area (SMSA) will be considered together. \* \* \*

\* \* \* \* \*

(7) All applications for frequencies in this band, except for those filed on or after September 15, 1995, must contain a showing of how interference with the operation of adjacent channels will be avoided and what steps the applicant has taken to comply with § 21.902(a) of this part.

\* \* \* \* \*

**§ 21.902 [Amended]**

14. Section 21.902 is amended by revising paragraphs (a), (b) introductory text, (b)(1), (b)(3), (b)(4), (c) introductory text, (c)(1), (c)(1)(i), (c)(2), (c)(3), (d), (f) introductory text, (g) and (h), by removing paragraph (c)(5), and by adding paragraphs (b)(5), (b)(6), (f)(4), (f)(5), (f)(6), and (f)(7), and by amending



paragraphs (f)(1) and (f)(2) by revising the second sentence to read as follows:

**§ 21.902 Frequency 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.

\* \* \* \* \*

(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 station that transmit, or may transmit, signals for standard television reception.

(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 station that transmits, or may transmit, signals for standard television reception.

(5) (i) Engineer the station to limit the calculated free space power flux density to  $-73$  dBW/m<sup>2</sup> 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. (c) The following interference studies must be prepared, must be available to the Commission upon request, and may be submitted as part of any application:

(1) An analysis of the potential for harmful interference within the 56.33 km (35 mile) protected service areas of any authorized or previously proposed incumbent station:

(i) if the coordinates of the applicant's proposed transmitter are within 160.94 km (100 miles) of the center coordinates of any authorized or previously proposed incumbent station with protected service area of 56.33 km (35 miles) as specified in § 21.902(d); or

\* \* \* \* \*

(2) Applicants may design interference studies in any manner that demonstrates the avoidance of harmful interference, as defined in this subpart.

(i) In lieu of interference studies, applicants may submit in accordance with § 21.938 a written statement of no objection to the operation of the MDS station.

(ii) The Commission may direct applicants to submit interference studies of a specific nature.

(3) Except for new stations proposed in applications filed after September 15, 1995, in the case of a proposal to operate a non-colocated station within the protected service area of an authorized, or previously proposed, adjacent channel station, an analysis that identifies the areas within the protected service areas of both the authorized or previously proposed adjacent channel station and the proposed station that cannot be protected as specified in § 21.902(b)(4) and an explanation of why the proposed station cannot be colocated with the existing or previously proposed station.

\* \* \* \* \*

(d) (1) Subject to the limitations contained in paragraph (e) of this section, each MDS station licensee shall be protected from harmful electrical interference, as determined by the theoretical calculations, for a protected service area of which the boundary will be 56.3255 kilometers (35 miles) from the transmitter site.

(2) As of September 15, 1995, the location of these protected service area boundaries shall become fixed. The center of the circular area shall be the geographic latitude and longitude of the transmitting antenna site specified in station authorizations or previously proposed applications filed at the Commission before September 15, 1995. Subsequent transmitter site changes will not change the location of the 56.3255

kilometers (35 mile) protected service area boundaries.

\* \* \* \* \*

(f) In addressing potential harmful interference in this service, the following definitions, procedures and other criteria shall apply:

(1) \* \* \* Harmful interference will be considered present when a free space calculation for an unobstructed signal path determines that this ratio is less than 45 dB.

(2) \* \* \* Harmful interference will be considered present when a free space calculation for an unobstructed signal path determines that this ratio is less than 0 dB. \* \* \*

\* \* \* \* \*

(4) For purposes of this section, the received signal power level (RSL)<sub>dBW</sub> at the output of the FCC reference receiving antenna is obtained from the following formulas (or an equivalent adaptation):

$(RSL)_{dBW} = (EIRP)_{dBW} - (L_{FS})_{dB} + (G_{AR})_{dB}$   
where the free space loss ( $L_{FS}$ ) is  $(L_{FS})_{dB} = 20 \log (4\pi d/\lambda)$  dB

in which the parameters are defined as follows:

(RSL)<sub>dBW</sub> is the received power in decibels referenced to one watt.

(EIRP)<sub>dBW</sub> is the equivalent isotropically radiated power in decibels above one watt.

d is the distance of the signal path in meters.

$\lambda$  is the wavelength of the signal in meters.

$G_{AR}$  is the dB gain of the reference receiving antenna above an isotropic antenna (obtained from Figure 1 of this section.)

(5) A determination of signal path conditions shall use a 9.1 meters (30 feet) receiving antenna height, the transmitting antenna height, terrain elevation, and assume 4/3 earth radius propagation conditions.

(6) An application will not be accepted for filing if cochannel or adjacent channel interference is predicted at the boundary of the 56.33 km (35 mile) protected service area of an authorized or previously proposed incumbent station based on the following criteria:

(i) interference calculations shall be made only for directions where there is an unobstructed signal path from the site of a proposed station to the boundary of any protected area.

(ii) calculations of received power levels in units of dBW from the proposed station will be made at one degree intervals around the protected service area.

(iii) the assumed value of the desired signal level at the boundary of an

incumbent station shall be  $-83$  dBW, which is the calculated received power in free space at a distance of 56.33 km (35 miles), given at EIRP of 2000 watts and a receiver antenna gain of 20 dBi.

(iv) harmful interference will be considered to occur at locations along the boundary wherever the ratio between the desired signal level of  $-83$  dBW and the received power from a proposed cochannel or adjacent channel station is less than 45 dB or 0 dB for cochannel or adjacent channel proposals, respectively.

(7) Alternatively, MDS applications will be accepted on the basis of an executed written interference agreement between potentially affected parties filed in accordance with § 21.938.

(g)(1) All interference studies submitted pursuant to paragraph (c) of this section must be served on all licensees, conditional licensees, and applicants for the stations required to be studied by this section. This service must include a copy of the FCC application and occur on or before the date the application is filed with the Commission.

(2) MDS licensees, conditional licensees and applicants of facilities with 56.33 km (35 mile) protected service areas shall notify in writing the holders of authorizations for adjoining BTAs or PSAs of application filings for modified station licenses, provided the proposed facility would produce an unobstructed signal path to any location within the adjoining BTA or PSA. This service must include a copy of the FCC application and occur on or before the date the application is filed with the Commission.

(h) For purposes of § 21.31(a), an MDS application, except for those applications filed on or after September 15, 1995, filed for a facility that would cause harmful electrical interference within the protected service area of any authorized or previously proposed station will be presumed to be mutually exclusive with the application for such authorized or previously proposed station.

\* \* \* \* \*

#### § 21.904 [Amended]

15. Section 21.904 is amended by revising paragraph (c) to read as follows:

#### § 21.904 Transmitter power.

\* \* \* \* \*

(c) An increase in station transmitter power, above currently-authorized or previously proposed values, to the maximum values provided in paragraphs (a) and (b) of this section, may be authorized, if the requested power increase would not cause

harmful interference to any authorized or previously proposed co-channel or adjacent-channel station with a transmitter site within 80.5 kilometers (50 miles) of the applicant's transmitter site, or if an applicant demonstrates that:

(1) A station, that must be protected from interference, potentially could suffer interference that would be eliminated by increasing the power of the interfered-with station; and

(2) The applicant requesting authorization of a power increase agrees to pay all expenses associated with the increase in power to the interfered-with station.

\* \* \* \* \*

#### § 21.913 [Amended]

16. Section 21.913 is amended by revising paragraphs (b), (c), (d), (e) and (g)(8) to read as follows:

#### § 21.913 Signal booster stations.

\* \* \* \* \*

(b) In addition to the other application requirements of this part, each application for a signal booster station that would retransmit an MDS signal must certify that the proposed booster station site is within the protected service area, as defined in §§ 21.902(d) and 21.933, of the MDS station.

(c) In addition to the other application requirements of this part, each application for a signal booster station that would retransmit an MDS signal must state in the application that it has prepared a study which demonstrates that the power flux density at the edge of the MDS protected service area does not exceed  $-73.0$  dBW/m<sup>2</sup> at locations for which there is an unobstructed signal path to the boundary.

(d) In addition to the other application requirements of this part, each application for a signal booster station must state in the application that it has prepared a study which demonstrates that the proposed booster station will cause no harmful interference to co-channel and adjacent-channel existing or previously-proposed ITFS and MDS stations with transmitters within 80.5 kilometers (50 miles) of the proposed booster station's transmitter site.

(e) In addition to the other application requirements of this part, each application must include a written consent statement of the licensee of each MDS, ITFS, and OFS station whose signal is retransmitted.

\* \* \* \* \*

(g) \* \* \*

\* \* \* \* \*

(8) The power flux density at the edge of the MDS station's protected service

area does not exceed  $-73.0$  dBW/m<sup>2</sup>, if the signal of an MDS station is repeated;

\* \* \* \* \*

17. Sections 21.921 through 21.939 are added, Sections 21.940 through 21.949 are reserved, and Sections 21.950 through 21.961 are added to read as follows: Subpart K—Multipoint Distribution Service

\* \* \* \* \*

Sec.

- 21.921 Basis and purpose for electronic filing and competitive bidding process.
- 21.922 Authorized frequencies.
- 21.923 Eligibility.
- 21.924 Service areas.
- 21.925 Applications for BTA authorizations and MDS station licenses.
- 21.926 Amendments to long-form applications.
- 21.927 Sole bidding applicants.
- 21.928 Acceptability of short- and long-form applications.
- 21.929 Authorization period for station licenses.
- 21.930 Five-year build-out requirements.
- 21.931 Partitioned service areas (PSAs).
- 21.932 Forfeiture of incumbent MDS station licenses.
- 21.933 Protected service areas.
- 21.934 Assignment or transfer of control of BTA authorizations.
- 21.935 Assignment or transfer of control of station licenses within a BTA.
- 21.936 Cancellation of authorization.
- 21.937 Negotiated interference protection.
- 21.938 BTA and PSA technical and interference provisions.
- 21.939 Harmful interference abatement.
- 21.940 through 21.949 [Reserved.]
- 21.950 MDS subject to competitive bidding.
- 21.951 MDS competitive bidding procedures.
- 21.952 Bidding application procedures.
- 21.953 Prohibition of collusion.
- 21.954 Submission of upfront payments.
- 21.955 Submission of down payments.
- 21.956 Filing of long-form applications or statements of intention.
- 21.957 Petitions to deny against long-form applications; comments on statements of intention.
- 21.958 Full payment and issuance of BTA authorizations.
- 21.959 Withdrawal, default and disqualification.
- 21.960 Designated entity provisions for MDS.
- 21.961 Definitions applicable to designated entity provisions.

#### § 21.921 Basis and purpose for electronic filing and competitive bidding process.

(a) Basis. The rules for competitive bidding procedures for the Multipoint Distribution Service (MDS) in this part are promulgated under the provisions of the Communications Act of 1934, as amended, which vests authority in the Federal Communications Commission to regulate radio transmission and to issue licenses for radio stations, and § 309(j) of the Act, which vests authority

in the Commission to conduct competitive bidding.

(b) Purpose. This part states the conditions under which portions of the radio spectrum are made available and licensed for Multipoint Distribution Service via the competitive bidding procedures.

(c) Scope. The rules in this part apply only to authorizations and station licenses granted under the competitive bidding procedures of this section. This subpart contains some of the procedures and requirements for the issuance of authorizations to construct and operate multipoint distribution services. One also should consult Part 1, Subpart Q of the Commission's rules, §§ 21.1 through 21.406 and 21.900 through 21.920 of this Part, and other Commission rules of importance with respect to the licensing and operation of MDS stations.

#### § 21.922 Authorized frequencies.

The frequencies in the MDS service through the competitive bidding process are in the frequency allocations table of § 21.901 of this Part.

#### § 21.923 Eligibility.

Any individual or entity, other than those precluded by §§ 21.4 and 21.912 of this Part, is eligible to receive a Basic Trading Area (BTA) authorization and a station license for each individual MDS station within the BTA. There is no restriction on the number of BTA authorizations or MDS station licenses, including multiple cochannel station licenses, sought by or awarded to a qualified individual or entity.

#### § 21.924 Service areas.

(a) MDS service areas are regional Basic Trading Areas (BTAs) which are based on the Rand McNally 1992 Commercial Atlas & Marketing Guide, 123rd Edition, at pages 38–39. The BTA Map is available for public inspection at the public reference room, Multipoint Distribution Service, Video Services Division, Mass Media Bureau, Room 207, 2033 M Street, NW., Washington, DC.

(b) The following additions will be available for licensing separately as BTA-like areas: American Samoa; Guam; Northern Mariana Islands; San Juan, Puerto Rico; Mayagüez/Aguadilla-Ponce, Puerto Rico; and the United States Virgin Islands.

(c) The area within the boundaries of a BTA to which a BTA authorization holder may provide Multipoint Distribution Service excludes the protected service areas of any incumbent MDS stations and the registered receive sites of previously authorized or proposed ITFS stations.

#### § 21.925 Applications for BTA authorizations and MDS station licenses.

(a) (1) An applicant must file a short-form application and, when necessary, the short-form application supplement, identifying each BTA service authorization sought.

(2) For purposes of conducting competitive bidding procedures, short-form applications are considered to be mutually exclusive with each other if they were filed for, and specified the same, BTA service area.

(b) Separate long-form applications must be filed for each individual MDS station license sought within its the protected service area of a BTA or PSA, including:

(1) an application for each E-channel group, F-channel group, and single H, 1, and 2A channel station license sought;

(2) an application for authority to operate at an MDS station in the area vacated by an MDS station incumbent that has forfeited its station license; and

(3) an application for each ITFS-channel group station license sought in accordance with §§ 74.990 and 74.991.

(c) The Commission shall grant BTA authorizations to auction winners as set forth in § 21.958.

(d) No long-form application filed by the BTA authorization holder will be accepted prior to completion of the competitive bidding process and no long-form application will be granted until expiration of the 30-day petition to deny period following the public notice listing of the application as being accepted for filing.

(e) Applicants may use the electronic filing procedures to file both the Multipoint Distribution Service short-form and long-form applications with the Commission.

#### § 21.926 Amendments to long-form applications.

(a) A Multipoint Distribution Service long-form application may be amended as a matter of right up to the date of the public notice announcing the application has been accepted for filing provided that:

(1) the proposed amendments do not amount to more than a *pro forma* change of ownership and control;

(2) the Commission has not otherwise forbidden the amendment of pending applications.

(b) Requests to amend a long-form application placed on public notice as being accepted for filing may be granted only if a written petition demonstrating good cause is submitted and properly served on the parties of record.

#### § 21.927 Sole bidding applicants.

Where the deadline for filing MDS short-form applications has expired and

a particular BTA service area has been specified in a single short-form application only, the applicant shall be named the auction winner for that BTA authorization.

#### § 21.928 Acceptability of short- and long-form applications.

The acceptability of short- and long-form applications will be determined according to the requirements of §§ 21.13, 21.15, 21.20, 21.21 and 21.952.

#### § 21.929 Authorization period for station licenses.

Notwithstanding § 21.45, each new MDS station licensed within a BTA or PSA will be granted for a term of ten years, terminating ten years from the date the Commission declared bidding closed in the MDS auction.

#### § 21.930 Five-year build-out requirements.

(a) (1) A BTA authorization holder has a five-year build-out period, beginning on the date of the grant of the BTA authorization and terminating on the 5th year anniversary of the grant of the authorization, within which it may develop and expand MDS station operations within its service area.

(2) This period is not extended by the grant of subsequent authorizations (*i.e.*, grant of a station license or modification).

(3) Timely certifications of completion of construction for each MDS station within a BTA or partitioned service area must be filed upon completion of construction of a station.

(b) Each BTA authorization holder has the exclusive right to build, develop, expand and operate MDS stations within its BTA service area during the five-year build-out period. The Commission will not accept competing applications for MDS station licenses within the BTA service area during this period.

(c) (1) Within five years of the grant of a BTA authorization, the authorization holder must construct MDS stations to provide signals pursuant to § 21.907 that are capable of reaching at least two-thirds of the population of the applicable service area, excluding the populations within protected service areas of incumbent stations.

(2) Sixty days prior to the end of the five-year build out period, the BTA authorization holder must file with the Commission proof that demonstrates the holder has met the requirements of § 21.930(c)(1). The most recent census figures available from the U.S. Department of Commerce, Bureau of Census prior to the expiration of the

authorization holder's five-year build-out period will be used to determine compliance with population-based requirements. In no event shall census figures gathered prior to 1990 be used.

(d)(1) If the Commission finds that the BTA authorization holder has demonstrated that it has met the requirements of § 21.930(c)(1), the Commission will issue a declaration that the holder has met such requirements.

(2) If the Commission finds that the BTA authorization holder has not provided a signal as required in § 21.930(c)(1), the Commission shall partition from the BTA any unserved area, using county lines as a guide, and shall re-authorize service to the unserved area pursuant to the MDS competitive bidding procedures of this subpart. Applications for such unserved areas are not acceptable for filing until a filing date is announced through a public notice.

(i) The competitive bidding procedures set forth in §§ 21.950 to 21.961 shall be followed by applicants seeking authority to provide MDS service to the unserved partitioned area.

(ii) The BTA authorization holder originally authorized to provide service is ineligible to participate in the competitive bidding process for the unserved areas partitioned from its BTA.

#### **§ 21.931 Partitioned service areas (PSAs).**

(a) (1) The holder of a BTA authorization may enter into contracts with eligible parties to partition any portion of its service area according to county boundaries, or according to other geopolitical subdivision boundaries, or multiple contiguous counties or geopolitical subdivisions within the BTA service area.

(2) (i) Partitioning contracts must be filed with the Commission within 30 days of the date that such agreements are reached.

(ii) The contracts must include descriptions of the areas being partitioned and include any documentation necessary to convey to the Commission the precise boundaries of the partitioned area.

(3) Parties to partitioning contracts must file concurrently with such contracts one of the following, where appropriate:

(i) an MDS long-form application for authority to operate a new MDS station within the PSA;

(ii) applications for assignment or transfer of existing stations with the PSA; or

(iii) a statement of intention as defined in § 21.956(a) along with a completed FCC Form 430.

(b) The eligibility requirements applicable to BTA authorization holders also apply to those individuals and entities seeking PSA authorizations.

(c) Any individual or entity acquiring the rights to a partitioned area of a BTA also acquires the rights to any previously authorized individual stations located within the partitioned area that were held by the previous authorization holder, provided that grantable applications for assignment and transfer of control, FCC Forms 702 and 704, are filed for existing stations and that acceptable amendments to pending long-form applications are filed. Pending long-form applications filed by the previous authorization holder for transmitter sites within the PSA may also be dismissed without prejudice at the applicant's request.

(d) Authorizations for PSAs will be issued in accordance with § 21.958; however, when individual stations within an PSA are assigned along with the partitioned area, the authorization will be granted concurrently with the grant of the applications for assignment and transfer of the existing stations.

(e) Subsequent to issuance of the authorization for a PSA, the partitioned area will be treated as a separate protected service area.

(f) (1) When any area within a BTA becomes a PSA, the remaining counties and other geopolitical subdivisions within that BTA will also be subsequently treated and classified as a PSA(s).

(2) At the time a BTA is partitioned, the Commission shall cancel the BTA authorization initially issued and issue a PSA authorization to the former BTA authorization holder.

(g) The duties and responsibilities imposed upon BTA authorization holders in this part and throughout the Commission's rules, such as § 21.930(c)(1), apply to the holders of PSA authorizations.

(h) The build-out period for PSAs voluntarily partitioned shall be the remainder of the five-year build-out period applicable to the BTA or PSA from which the PSA was drawn. For PSA authorizations issued pursuant to § 21.930(d)(2) and the competitive bidding process, the build-out period is five years, beginning on the date of the grant of the PSA authorization. The requirements of § 21.930(c)(1) also apply to the holders of authorizations for PSAs.

#### **§ 21.932 Forfeiture of incumbent MDS station licenses.**

(a) If the license for an incumbent MDS station is forfeited, absent the filing and grant of a petition for reinstatement pursuant to § 21.44(b), the 56.33 km (35 mile) protected service area of the incumbent station shall dissolve and the protected service area shall become part of the BTA or PSA surrounding it.

(b) If upon forfeiture the protected service area of a forfeited license extends across the boundaries of more than one BTA or PSA, the portions of the protected service area of the incumbent station shall merge with the overlapping BTAs or PSAs.

(c) The holder of the authorization for the BTA or PSA with which the service area of the forfeited incumbent station has merged has the exclusive right to file a long-form application to operate a station within the merged area and may modify the locations of its stations to serve the forfeited area.

#### **§ 21.933 Protected service areas.**

(a) The stations licensed to the holder of a BTA authorization shall have a protected service area that is coterminous with the boundaries of that BTA, subject to the exclusion of the 56.33 km (35 mile) protected service area of incumbent MDS stations and the registered sites of previously proposed and authorized ITFS facilities within that BTA.

(b) The stations licensed to the holder of a PSA authorization shall have a protected service area that is coterminous with the boundaries of the counties or other geopolitical subdivisions comprising the PSA, subject to the exclusion of the 56.33 km (35 mile) protected service area of incumbent MDS stations and the registered receive sites of previously proposed and authorized ITFS facilities within that PSA.

#### **§ 21.934 Assignment or transfer of control of BTA authorizations.**

(a) (1) A BTA or PSA authorization holder seeking approval for a transfer of control or assignment of its authorization within three years of receiving such authorization through a competitive bidding procedure must, together with its application for transfer of control or assignment, file with the Commission a statement indicating that its authorization was obtained through competitive bidding.

(2) Such applicant must also file with the Commission the associated contracts for sale, option agreements, management agreements, or other documents disclosing the total consideration that the applicant would

receive in return for the transfer or assignment of its authorization. This information should include not only a monetary price, but also any future, contingent, in-kind, or other consideration (e.g., management or consulting contracts either with or without an option to purchase; below market financing).

(b) Transfers of control or assignments of BTA or PSA authorizations are subject to the limitations of §§ 21.4, 21.900 and 21.912 of this subpart.

(c) The anti-trafficking provision of § 21.39 does not apply to the assignment or transfer of control of a BTA or PSA authorization, which was granted pursuant to the Commission's competitive bidding procedures.

#### **§ 21.935 Assignment or transfer of control of station licenses within a BTA.**

Licenses for individual stations within a BTA or PSA area issued to authorization holders may not be transferred or assigned unless they are acquired as part of a PSA.

#### **§ 21.936 Cancellation of authorization.**

(a) The Commission may revoke or cancel a BTA or PSA authorization for gross misconduct, misrepresentation or bad faith on the part of the authorization holder.

(b) Cancellation of a BTA or PSA authorization shall result in termination of any rights the authorization holder holds in individual proposed or authorized stations within the BTA or PSA.

#### **§ 21.937 Negotiated interference protection.**

(a) The level of acceptable electromagnetic interference that occurs at or within the boundaries of BTAs, PSAs, or an incumbent MDS station's 56.33 km (35 mile) protected service area can be negotiated and established by an agreement between the appropriate parties, provided that:

(1) the parties to such an agreement file with the Commission a written statement of no objection, acknowledging that the parties have agreed to accept a level of interference that does not meet the protection standards set forth in §§ 21.902 or 21.938 of the Commission's rules;

(2) the statement bears the signatures of all parties to the agreement, or the signatures of their representative agents; and

(3) the statement is filed with the Commission within 30 days of its ratification or file in conjunction with an application with which the agreement is associated, whichever is earliest.

#### **§ 21.938 BTA and PSA technical and interference provisions.**

(a) BTA or PSA authorization holders are expected to cooperate with one another by designing their stations in a manner that protects service in adjoining BTAs and PSAs including consideration of interference abatement techniques such as cross polarization, frequency offset, directional antennas, antenna beam tilt, EIRP decrease, reduction of antenna height, and terrain shielding.

(b) Unless the affected parties have executed a written interference agreement in accordance with § 21.937, stations licensed to a BTA or PSA authorization holder must not cause harmful electromagnetic interference to the following:

(1) the protected service area of other authorization holders in adjoining BTAs or PSAs.

(2) the 56.33 km (35 mile) protected service areas of authorized or previously proposed MDS stations (incumbents).

(3) registered receive sites and protected service areas of authorized or previously proposed stations in the Instructional Television Fixed Service pursuant to the manner in which interference is defined in § 74.903(a).

(c) Unless the affected parties have executed a written interference agreement in accordance with § 21.937, it shall be the responsibility of a BTA or PSA authorization holder to correct at its expense any condition of harmful electromagnetic interference caused to authorized MDS service at locations within other BTAs or PSAs or within the 56.33 km (35 mile) protected service areas of authorized or previously proposed MDS stations (incumbents).

(d) Unless specifically expected, BTA or PSA authorization holders are governed by the interference protection and other technical provisions applicable to the Multipoint Distribution Service.

(e) The calculated free space power flux density from a station may not exceed  $-73$  dBW/m<sup>2</sup> at locations on BTA or PSA boundaries for which there is an unobstructed signal path from the transmitting antenna to the boundary, unless the applicant has obtained the written consent of the authorization holder for the adjoining BTA or PSA.

(f) (1) Authorization holders for BTAs or PSAs must notify authorization holders of adjoining areas of their application filings for new or modified stations; provided the proposed facility would produce an unobstructed signal path anywhere within the adjoining BTA or PSA.

(2) This service of written notification must include a copy of the FCC

application and occur on or before the date the application is filed with the Commission.

(3) With regard to incumbent MDS stations, authorization holders for BTAs or PSAs must comply with the requirements of § 21.902.

(g) Where a PSA adjoins a BTA and both authorizations are held by the same individual or entity, the PSA shall be considered an extension of the protected service area of the BTA regarding the interference protection, limiting signal strength, and notification provisions of this section.

#### **§ 21.939 Harmful interference abatement.**

In the event harmful interference occurs or appears to occur, after notice and an opportunity for a hearing, Commission staff may require any Multipoint Distribution Service conditional licensee or licensee to:

(a) modify the station to use cross polarization, frequency offset techniques, directional antenna, antenna beam tilt, or

(b) order an equivalent isotropically radiated power decrease, a reduction of transmitting antenna height, a change of antenna location, a change of antenna radiation pattern, or a reduction in aural signal power.

#### **§§ 21.940 through 21.949 [Reserved]**

#### **§ 21.950 MDS subject to competitive bidding.**

Mutually exclusive MDS initial applications are subject to competitive bidding. The general procedures set forth in 47 C.F.R. Chapter I, Part 1, Subpart Q are applicable to competitive bidding proceedings used to select among mutually exclusive MDS applicants, unless otherwise provided in 47 C.F.R. Chapter I, Part 21, Subpart K.

#### **§ 21.951 MDS competitive bidding procedures.**

(a) The following competitive bidding procedures will generally be used in MDS auctions. Additional, specific procedures may be set forth by public notice. The Commission may also design and test alternative procedures. See 47 C.F.R. §§ 1.2103 and 1.2104.

(1) Competitive bidding design. Simultaneous multiple round bidding will be used in MDS auctions, unless the Commission specifies by public notice the use of sequential oral (open outcry) bidding or sealed bidding (either sequential or simultaneous). Combinatorial bidding may also be used with any type of auction design.

(2) Competitive bidding mechanisms. The Commission may utilize the following mechanisms in MDS auctions:

(i) Sequencing. The Commission will establish and may vary the sequence in which the BTA service areas will be auctioned.

(ii) Grouping. In the event the Commission uses either a simultaneous multiple round competitive bidding design or combinational bidding, the Commission will determine which BTA service areas will be auctioned simultaneously or in combination.

(iii) Reservation price. The Commission may establish a reservation price, either disclosed or undisclosed, below which a BTA service area subject to auction will not be awarded.

(iv) Minimum bid increments. The Commission will, by announcement before or during an MDS auction, require minimum bid increments in dollar or percentage terms.

(v) Stopping rules. The Commission will establish stopping rules before or during multiple round MDS auctions in order to terminate an auction within a reasonable time.

(vi) Activity Rules. The Commission will establish activity rules which require a minimum amount of bidding activity. In the event that the Commission establishes an activity rule in connection with a simultaneous multiple round auction, the Commission will allow bidders to request and to receive automatically waivers of such rule, the number of which will be determined by the Commission.

(vii) Suggested minimum bid. The Commission may establish suggested minimum bids on each BTA service area subject to auction. Bids below the suggested minimum bid would count as activity under the activity rule only if no bids at or above the suggested minimum bid are received.

(b) Identities of bidders. The Commission will generally release information concerning the identities of bidders before each auction but may choose, on an auction-by-auction basis, to withhold the identity of the bidders associated with bidder identification numbers. The Commission will announce by public notice before the MDS auction where the bidders' identities will be revealed.

(c) Commission control of auction. The Commission may delay, suspend, or cancel an MDS auction in the event of a natural disaster, technical obstacle, evidence of security breach, unlawful bidding activity, administrative necessity, or for any other reason that affects the fair and efficient conduct of the competitive bidding. The Commission also has the authority, at its sole discretion, to resume the competitive bidding starting from the

beginning of the current or some previous round or cancel the competitive bidding in its entirety.

#### **§ 21.952 Bidding application procedures.**

(a) Short-form applications. To participate in MDS auctions, all applicants must submit short-form applications, along with all required certifications and exhibits specified by such forms, pursuant to the provisions of § 1.2105(a) and any Commission public notices. See 47 CFR 1.2105(a).

(b) Filing of short-form applications. Prior to any MDS auction, the Commission will issue a public notice announcing the availability of BTA service areas and, in the event that mutually exclusive short-form applications (as defined by § 21.925(a)(2)) are filed, the date of the auction for those BTA service areas. This public notice also will specify the date on or before which applicants intending to participate in an MDS auction must file their short-form applications in order to be eligible for that auction, and it will contain information necessary for completion of the application as well as other important information such as the material which must accompany the forms, any filing fee that must accompany the application or any upfront payment that will need to be submitted, and the location where the application must be filed.

(c) Modification and dismissal of short-form applications.

(1) Any short-form application that is not signed in some manner or form, including by electronic means, and does not contain all requisite certifications is unacceptable for filing and cannot be corrected subsequent to any applicable filing deadline. Such short-form application will be dismissed with prejudice.

(2) The Commission will provide bidders a limited opportunity to cure certain defects specified herein and to resubmit an amended short-form application. For MDS, we classify all amendments to a short-form application as major, except those to correct minor errors or defects, such as typographical errors, or those to reflect ownership changes or formation of bidding consortia or joint bidding arrangements specifically permitted under § 21.953. A short-form application may be modified to make minor amendments. However, applicants who fail to correct defects in their short-form applications in a timely manner as specified by public notice will have their applications dismissed with no opportunity for resubmission.

(3) A short-form application will be considered to be a newly filed

application if it is amended by a major amendment and may not be resubmitted after applicable filing deadlines.

#### **§ 21.953 Prohibition of collusion.**

(a) Except as provided in paragraphs (b), (c) and (d) of this section, after the filing of short-form applications, all applicants in an MDS auction are prohibited from cooperating, collaborating, discussing or disclosing in any manner the substance of their bids or bidding strategies, or discussing or negotiating settlement agreements, with other applicants until after the winning bidder makes the required down payment, unless such applicants are members of a bidding consortium or other joint bidding arrangement identified on the applicant's short-form application. Communications among applicants concerning matters unrelated to the MDS auction will be permitted after the filing of short-form applications.

(b) Applicants may modify their short-form applications to reflect formation of consortia or changes in ownership at any time before or during an auction, provided such changes do not result in a change in control of the applicant, and provided that the parties forming consortia or entering into ownership agreements have not applied for the same BTA service area.

(c) After the filing of short-form applications, applicants may make agreements to bid jointly for BTA service areas, provided the parties to the agreement have not applied for the same service areas.

(d) After the filing of short-form applications, a holder of a non-controlling attributable interest in an entity submitting a short-form application may, under the circumstances specified in § 1.2105(c)(4), acquire an ownership interest in, form a consortium with, or enter into a joint bidding arrangement with, other applicants for the same BTA service areas. See 47 CFR 1.2105(c)(4).

(e) To reflect the changes in ownership or in the membership of consortia or joint bidding arrangements specified in paragraphs (b), (c) and (d) of this section, applicants must amend their short-form applications by submitting a revised short-form application, filed within two business days of any such change; such modifications will not be considered major amendments of the applications within the meaning of § 21.952(c)(2). However, any amendment which results in the change of control of an applicant will be considered a major amendment of the short-form.

(f) For purposes of this section, the terms "applicant" and "bids or bidding strategies" are defined as set forth in 47 CFR 1.2105(c)(5).

**§ 21.954 Submission of up front payments.**

(a) The Commission will require applicants to submit an upfront payment prior to the MDS auction. The amount of the upfront payment for each BTA service area being auctioned and the procedures for submitting it will be set forth in a public notice. Upfront payments may be made by wire transfer or by cashier's check drawn in U.S. dollars from a financial institution whose deposits are insured by the Federal Deposit Insurance Corporation and must be made payable to the Federal Communications Commission. No interest will be paid on upfront payments.

(b) For MDS auctions, the Commission will require each applicant to submit an upfront payment equal to the largest combination of activity units (as defined in the Commission's activity rules established pursuant to § 21.951(a)(2)(vi)) associated with the BTAs on which the applicant anticipates being active in any single round or bidding. Applicants who are small businesses eligible for reduced upfront payments will be required to submit an upfront payment amount in accordance with § 21.960(c). If an upfront payment is not in compliance with the Commission's rules, or if insufficient funds are tendered to constitute a valid upfront payment, the applicant shall have a limited opportunity to correct its submission to bring it up to the minimum valid upfront payment prior to the auction. An applicant who fails to submit a sufficient upfront payment to qualify it to bid on any BTA service area being auctioned will be ineligible to bid, its application will be dismissed, and any upfront payment it has made will be returned.

(c) The upfront payment(s) of a bidder will be credited toward any down payment required for the BTA service areas on which the bidder is the winning bidder. Where the upfront payment amount exceeds the required down payment of a winning bidder, the Commission may refund the excess amount after determining that no bid withdrawal payments are owned by that bidder. In the event a payment is assessed pursuant to § 21.959(a) for bid withdrawal or default, upfront payments or down payments on deposit with the Commission will be used to satisfy the bid withdrawal or default payment before being applied toward

any additional payment obligations that the winning bidder may have.

**§ 21.955 Submission of down payments**

(a) After bidding has ended on all BTA service areas, the Commission will identify and notify the winning bidders and declare the bidding closed in the MDS auction. Within five (5) business days after being notified that it is a winning bidder on a particular BTA service area(s), a winning bidder must submit to the Commission's lockbox bank such additional funds as are necessary to bring its total deposits (upfront payment plus down payment) up to twenty (20) percent of its winning bid(s). This down payment may be made by wire transfer or by cashier's check in U.S. dollars from a financial institution whose deposits are insured by the Federal Deposit Insurance Corporation and must be made payable to the Federal Communications Commission.

(b) Winning bidders who are small businesses eligible for installment payments under § 21.960(b) are only required to bring their total deposits up to ten (10) percent of their winning bids. Such small businesses must pay the remainder of the twenty (20) percent down payment within five (5) business days following release of the public notice stating that their BTA authorizations are ready to be issued.

(c) Down payments will be held by the Commission until the winning bidder has been issued its BTA authorization and has paid the remaining balance of its winning bid, in which case it will not be returned, or until the winning bidder is found unqualified to be a station licensee or has defaulted, in which case it will be returned, less applicable default payments. No interest will be paid on any down payment.

**§ 21.956 Filing of long-form applications or statements of intention.**

(a) (1) Within 30 days of being notified of its status as a winning bidder, each winning bidder for a BTA service area will be required to submit either:

(i) an initial long-form application for an MDS station license, along with any required exhibits; or

(ii) a statement of intention with regard to the BTA service area, along with any required exhibits, showing the encumbered nature of the BTA, identifying all previously authorized or proposed MDS and ITFS facilities, and describing in detail the winning bidder's plan for obtaining the previously authorized and/or proposed MDS stations within the BTA.

(2) A winning bidder that fails to submit either the initial long-form application or statement of intention as required under this section, and fails to establish good cause for any late-filed application or statement, shall be deemed to have defaulted and will be subject to the payments set forth in § 21.959(a).

(b) Each initial long-form application for an MDS station license within an auction winner's BTA service area, and each statement of intention with regard to an auction winner's BTA service area, must also include the following:

(1) FCC Form 430;

(2) an exhibit detailing the terms and conditions and parties involved in any bidding consortia, joint venture, partnership or other agreement or arrangement the winning bidder had entered into relating to the competitive bidding process prior to the time bidding was completed (see 47 CFR 1.207(d));

(3) an exhibit complying with 47 CFR §§ 1.2110(i) and 21.960(e), if the winning bidder submitting the long-form application or statement of intention claims status as a designated entity. (c) Subsequent long-form applications for additional MDS station licenses within the BTA service areas of winning bidders may be submitted at any time during the five year build-out period and need not contain the exhibits specified in paragraph (b)(2) through (3) of this section.

**§ 21.957 Petitions to deny against long-form applications; comments on statements of intention.**

(a) Within thirty (30) days after the Commission gives public notice that a long-form application for an MDS station license submitted by a winning bidder within its BTA service area has been accepted for filing, petitions to deny that application may be filed. Any such petitions and oppositions thereto must comply with the requirements of §§ 47 CFR 1.2108 and 21.30.

(b) Parties wishing to comment on or oppose the issuance of a BTA authorization issued in connection with the filing of a statement of intention by a winning bidder must do so prior to the Commission's issuance of the BTA authorization.

**§ 21.958 Full payment and issuance of BTA authorizations.**

Each winning bidder, except for small businesses eligible for installment payments under § 21.960(b), must pay the balance of its winning bid for its BTA service area(s) in a lump sum within five (5) business days following the release of the public notice stating



that the BTA authorization(s) is ready to be issued. A winning bidder who submitted a long-form application for an MDS station license within its BTA service area pursuant to § 21.956(a) will receive its BTA authorization concurrent with the grant of its MDS conditional station license within its BTA service area. A winning bidder who submitted a statement of intention with regard to its BTA service area pursuant to § 21.956(a) will receive its BTA authorization following the Commission's review of its statement of intention. The Commission will issue a BTA authorization to a winning bidder within ten (10) business days following notification of receipt of full payment of the amount of the winning bid.

**§ 21.959 Withdrawal, default and disqualification.**

(a) When the Commission conducts an MDS simultaneous multiple round auction, the Commission will impose additional payment requirements on bidders who withdraw high bids during the course of an auction, who default on down or full payments due after an auction closes, or who are disqualified. The withdrawal and default payments set forth below will be deducted from any upfront payments or down payments that the withdrawing, defaulting or disqualified bidder has deposited with the Commission.

(1) Bid withdrawal prior to close of auction. A bidder who withdraws a high bid during the course of an auction will be subject to a payment equal to the difference between the amount bid and the amount of the winning bid the next time the license is offered by the Commission. No withdrawal payment will be assessed if the subsequent winning bid exceeds the withdrawn bid.

(2) Default or disqualification after close of auction. If a winning bidder defaults or is disqualified after the close of such an auction, the defaulting bidder will be subject to the payment in paragraph (1) above, plus an additional payment equal to three (3) percent of the subsequent winning bid. If the subsequent winning bid exceeds the defaulting bidder's bid amount, the three percent payment will be calculated based on the defaulting bidder's bid amount.

(b) If the Commission were to conduct a sequential oral (open outcry) auction or sealed bid auction for MDS, the Commission may modify the payments set forth in paragraph (a) of this section to be paid in the event of bid withdrawal, default or disqualification; provided, however, that such payments shall not exceed the payments specified in paragraph (a) of this section.

(1) In the case of sealed bidding:

(i) If a bid is withdrawn before the Commission releases the initial public notice announcing the winning bidder(s), no bid withdrawal payment will be assessed.

(ii) If a bid is withdrawn after the Commission release the initial public notice announcing the winning bidder(s), the bid withdrawal payment will be equal to the difference between the high bid amount and the amount of the next highest bid. Losing bidders will only be subject to this bid withdrawal payment for a period of thirty (30) days after the Commission release the initial public notice announcing the winning bidders.

(2) In the case of oral sequential (open outcry) bidding:

(i) If a bid is withdrawn before the bidder has declared the bidding to be closed for the BTA service area bid on, no bid withdrawal payment will be assessed.

(ii) If a bid is withdrawn after the Commission has declared the bidding to be closed for the BTA service area bid on, the bid withdrawal payment of paragraphs (a)(1) and (2) of this section will apply.

(c) If a winning bidder withdraws its bid after the Commission has declared competitive bidding closed or fails to remit the required down payment within five (5) business days after the Commission has declared competitive bidding closed, the bidder will be deemed to have defaulted, its application will be dismissed, and it will be liable for the default payment specified in paragraph (a)(2) of this section. In such event, the Commission may either re-auction the BTA service area to existing or new applicants or offer it to the other highest bidders (in descending order) at their final bids.

(d) A winning bidder who is found unqualified to be an MDS station licensee, fails to remit the balance of its winning bid in a timely manner, or defaults or is disqualified for any reason after having made the required down payment, will be deemed to have defaulted and will be liable for the payment set forth in paragraph (a)(2) of this section. In such event, the Commission will generally conduct another auction for the BTA service area, affording new parties an opportunity to file applications for such service area.

(e) Bidders who are found to have violated the antitrust laws or the Commission's rules in connection with their participation in the MDS competitive bidding process may be subject, in addition to any other applicable sanctions, to loss of their

upfront payment, down payment or full bid amount, and may be prohibited from participating in future auctions.

**§ 21.960 Designated entity provisions for MDS.**

(a) Designated entities. As specified in this section, designated entities that are winning bidders for BTA service areas are eligible for special incentives in the auction process. See 47 CFR 1.2110.

(b) Installment payments. Small businesses and small business consortia may elect to pay the full amount of their winning bids for BTA service areas in installments over a ten (10) year period running from the date that their BTA authorizations are issued.

(1) Each eligible winning bidder paying for its BTA authorization(s) on an installment basis must deposit by wire transfer or cashier's check in the manner specified in § 21.955 sufficient additional funds as are necessary to bring its total deposits to ten (10) percent of its winning bid(s) within five (5) business days after the Commission has declared it the winning bidder and closed the bidding. Failure to remit the required payment will make the bidder liable for the payments set forth in § 21.959(a)(2).

(2) Within five (5) business days following release of the public notice stating that the BTA authorization of a winning bidder eligible for installment payments is ready to be issued, the winning bidder shall pay another ten (10) percent of its winning bid, thereby commencing the eligible bidder's installment payment plan. The Commission will issue the BTA authorization to the eligible winning bidder within ten (10) business days following notification of receipt of this additional ten (10) percent payment. Failure to remit the required payment will make the bidder liable for the payments set forth in § 21.959(a)(2).

(3) Upon issuance of a BTA authorization to a winning bidder eligible for installment payments, the Commission will notify such eligible BTA authorization holder of the terms of its installment payment plan. For MDS, such installment payment plans will:

(i) impose interest based on the rate of ten (10) year U.S. Treasury obligations at the time of issuance of the BTA authorization, plus two and one half (2.5) percent;

(ii) allow installment payments for a ten (10) year period running from the date that the BTA authorization is issued;

(iii) begin with interest-only payments for the first two (2) years; and

(iv) amortize principal and interest over the remaining years of the ten (10) year period running from the date that the BTA authorization is issued.

(4) A BTA authorization issued to an eligible winning bidder that elects installment payments shall be conditioned upon the full and timely performance of the BTA authorization holder's payment obligations under the installment plan.

(i) If an eligible holder making installment payments is more than ninety (90) days delinquent in any payment, it shall be in default.

(ii) Upon default or in anticipation of default of one or more installment payments, a holder may request that the Commission permit a three (3) to six (6) month grace period, during which no installment payments need be made. In considering whether to grant a request for a grace period, the Commission may consider, among other things, the holder's payment history, including whether the holder has defaulted before, how far into the payment period the default occurs, the reasons for default, whether the holder has met construction build-out requirements within its BTA service area, the holder's financial condition, and whether the holder is seeking an eligible buyer. If the Commission grants a request for a grace period, or otherwise approves a restructured payment schedule, interest will continue to accrue and will be amortized over the remaining years of the ten (10) year payment period.

(iii) Following expiration of any grace period without successful resumption of payment or upon denial of a grace period request, or upon default with no such request submitted, the BTA authorization will automatically cancel and the Commission will initiate debt collection procedures pursuant to Part 1, Subpart O of the Commission's rules.

(5) Unjust enrichment.

(i) If an eligible BTA authorization holder that utilizes installment financing under this subsection seeks to assign or transfer control of its BTA authorization to an entity not meeting the eligibility standards for installment payments, the holder must make full payment of the remaining unpaid principal and any unpaid interest accrued through the date of assignment or transfer as a condition of approval.

(ii) If a BTA authorization holder that utilizes installment financing under this subsection seeks to make any change in ownership structure that would result in the holder losing eligibility for installment payments, the holder shall first seek Commission approval and must make full payment of the remaining unpaid principal and any

unpaid interest accrued through the date of the change in ownership structure as a condition of approval. Increases in gross revenues that result from revenues from operations, business development or expanded service shall not be considered changes in ownership structure under this paragraph.

(c) Reduced upfront payments. A prospective bidder that qualifies as a small business, or as a small business consortia, is eligible for a twenty-five (25) percent reduction in the amount of the upfront payment required by § 21.954. To be eligible to bid on a particular BTA, a small business will be required to submit an upfront payment equal to seventy-five (75) percent of the upfront payment amount specified for that BTA in the public notice listing the upfront payment amounts corresponding to each BTA service area being auctioned.

(d) Bidding credits. A winning bidder that qualifies as a small business, or as a small business consortia, may use a bidding credit of fifteen (15) percent to lower the cost of its winning bid on any of the BTA authorizations awarded in the MDS auction.

(1) Unjust enrichment.

(i) If a BTA authorization holder that utilizes a bidding credit under this subsection seeks to assign or transfer control of its BTA authorization to an entity not meeting the eligibility standards for bidding credits, the authorization holder must reimburse the government for the amount of the bidding credit, plus interest at the rate imposed for installment financing at the time the authorization was awarded, before assignment or transfer will be permitted. The amount of the required reimbursement will be reduced over time. An assignment or transfer in the first two years after issuance of the BTA authorization will result in a reimbursement of one hundred (100) percent of the value of the bidding credit; during year three, of seventy-five (75) percent of the bidding credit; in year four, of fifty (50) percent; in year five, twenty-five (25) percent; and thereafter, no reimbursement.

(ii) If a BTA authorization holder that utilizes a bidding credit under this subsection seeks to make any change in ownership structure that would result in the holder losing eligibility for bidding credits, the holder shall first seek Commission approval and must reimburse the government for the amount of the bidding credit, plus interest at the rate imposed for installment financing at the time the authorization was awarded, as a condition of approval. The amount of the required reimbursement will be

reduced over time. Such a change in ownership structure in the first two years after issuance of the BTA authorization will result in the reimbursement of one hundred (100) percent of the value of the bidding credit; during year three, of seventy-five (75) percent of the bidding credit; in year four, of fifty (50) percent; in year five, twenty-five (25) percent; and thereafter, no reimbursement. Increases in gross revenues that result from revenues from operations, business development or expanded service shall not be considered changes in ownership structure under this paragraph.

(e) Short-form application certification; Long-form application or statement of intention disclosure. An MDS applicant claiming designated entity status shall certify on its short-form application that it is eligible for the incentives claimed. A designated entity that is a winning bidder for a BTA service area(s) shall, in addition to information required by § 21.956(b), file an exhibit to either its initial long-form application for an MDS station license, or to its statement of intention with regard to the BTA, which discloses the gross revenues for each of the past three years of the winning bidder and its affiliates. This exhibit shall describe how the winning bidder claiming status as a designated entity satisfies the designated entity eligibility requirements, and must list and summarize all agreements that affect designated entity status, such as partnership agreements, shareholder agreements, management agreements and other agreements, including oral agreements, which establish that the designated entity will have both *de facto* and *de jure* control of the entity. See 47 CFR 1.2110(i).

(f) Records maintenance. All holders of BTA authorizations acquired by auction that claim designated entity status shall maintain, at their principal place of business or with their designated agent, an updated documentary file of ownership and revenue information necessary to establish their status. Holders of BTA authorizations or their successors in interest shall maintain such files for a ten (10) year period running from the date that their BTA authorizations are issued. The files must be made available to the Commission upon request.

(g) Audits. BTA authorization holders claiming eligibility under designated entity provisions shall be subject to audits by the Commission, using in-house or contract resources. Selection for an audit may be random, on information, or on the basis of other factors. Consent to such audits is part of

the certification included in the short-form application. Such consent shall include consent to the audit of the holders' books, documents and other material (including accounting procedures and practices), regardless of form or type, sufficient to confirm that such holders' representations are, and remain, accurate. Such consent shall also include inspection at all reasonable times of the facilities, or parts thereof, engaged in providing and transacting business or keeping records regarding licensed MDS offerings, and shall also include consent to the interviewing of principals, employees, customers, and suppliers of the BTA authorization holders.

**§ 21.961 Definitions applicable to designated entity provisions.**

(a) Scope. The definitions in this section apply to § 21.960, unless otherwise specified in that section.

(b) Small business; consortium of small businesses

(1) A small business is an entity that together with its affiliates has average annual gross revenues that are not more than \$40 million for the preceding three calendar years.

(2) Attribution and aggregation of gross revenues

(i) Except as specified in paragraph

(b)(2)(ii) of this section, the gross revenues of the applicant (or BTA authorization holder) and its affiliates shall be considered on a cumulative basis and aggregated for purposes of determining whether the applicant (or holder) is a small business.

(ii) Where an applicant (or BTA authorization holder) is a consortium of small businesses, the gross revenues of each small business shall not be aggregated.

(3) A small business consortium is a conglomerate organization formed as a joint venture between mutually-independent business firms, each of which individually satisfies the definition of a small business.

(c) Gross revenues shall mean all income received by an entity, whether earned or passive, before any deductions are made for costs of doing business (e.g., cost of goods sold), as evidenced by audited financial statements for the preceding relevant number of calendar years, or, if audited financial statements were not prepared on a calendar-year basis, for the preceding relevant number of fiscal years. If an entity was not in existence for all or part of the relevant period, gross revenues shall be evidenced by the audited financial statements of the entity's predecessor-in-interest or, if there is no identifiable predecessor-in-interest, unaudited financial statements certified by the applicant as accurate.

(d) The definition of an affiliate of an applicant is set forth in 47 CFR 1.2110(b)(4).

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