Auction Notice and Filing Requirements for 168 Local Multipoint Distribution Service Licenses Scheduled for April 27, 1999

Minimum Opening Bids and Other Procedural Issues

Report No. AUC-98-23-B (Auction No. 23)

1. INTRODUCTION

This Public Notice announces the procedures and minimum opening bids for the upcoming Local Multipoint Distribution Service ("LMDS") auction. On November 6, 1998, the Wireless Telecommunications Bureau ("Bureau") released a Public Notice, seeking comment on the establishment of reserve prices or minimum opening bids for the LMDS auction, in accordance with the Balanced Budget Act of 1997. In addition, the Bureau sought comment on a number of...
procedures to be used in the LMDS auction. The Bureau received two comments and no replies in response to the *LMDS Public Notice.*

**The LMDS Licenses to Be Auctioned:**

The licenses available in this auction are licenses for which there was no winning bidder in the original LMDS auction that closed on March 25, 1998, or are licenses on which the winning bidder defaulted. Two blocks of spectrum are allocated for LMDS systems:

1. **Block A (1,150 MHz)**
   - 27,500 - 28,350 MHz and 29,100 - 29,250 MHz
   - and 31,075 - 31,225 MHz

2. **Block B (150 MHz)**
   - 31,000 - 31,075 MHz and 31,225 - 31,300 MHz

One license will be awarded for each of these spectrum blocks in each of 122 Block A Basic Trading Areas (BTAs) and 46 Block B BTAs designated for LMDS. These licenses are listed in

---

See *LMDS Public Notice* at 3.

Comments were filed on November 30, 1998, by the Wireless Communications Association International, Inc. ("WCA") and by ABS LMDS Venture, Catfish Communications, L.L.C., ENMR Telephone Cooperative, Inc., and SKSW LMDS Venture, filing jointly (collectively "ABS et al").

See *LMDS Auction Closes: Winning Bidders in the Auction of 986 Local Multipoint Distribution Service (LMDS) Licenses, Public Notice, DA 98-572 (March 26, 1998).* ("LMDS Closing Public Notice"). The three licensees in default include Baker Creek Communications, L.P., New Wave Networks, L.L.C., and Pinpoint Communications, Inc. See Attachment A, where the licenses in question are identified (note that Baker Creek defaulted only on selected licenses, and not its entire license inventory). Licenses B038-B, B144-B, B254-B, B371-B, B372-B, and B392-B are the subject of a pending waiver request filed by New Wave Networks, L.L.C. (See New Wave Networks, L.L.C, Request for Waiver of Rule Sections 101.1105(b) and 1.2109(a)-(c), filed August 13, 1998; Supplement filed September 2, 1998; Second Supplement filed September 9, 1998; Third Supplement filed December 9, 1998.) Licenses B185-B, B270-A, and B270-B are the subject of a pending Petition for Reconsideration filed by Pinpoint Communications, Inc. (See Pinpoint Communications, Application for Local Multipoint Distribution Service Licenses to Serve BTA 185, Hastings, Nebraska and BTA 270, McCook, Nebraska, Petition for Reconsideration, filed October 23, 1998.) See also Attachment A.

Operations to take place in the 29,100 - 29,250 MHz band are governed by 47 C.F.R. §§ 101.103(g) and (h), 101.113(c), 101.133(d), and 101.147(t), which are the provisions designed to facilitate the sharing of this spectrum by LMDS, GSO/FSS gateways, and MSS feeder link licensees. These provisions allow only hub-to-subscribers transmissions by LMDS licensees in this band.

Rand McNally is the copyright owner of the Major Trading Area (MTA) and Basic Trading Area (BTA) Listings, which list the BTAs contained in each MTA and the counties within each BTA, as embodied in Rand McNally's Trading Area System MTA/BTA Diskette, and geographically represented in the map contained in Rand McNally's Commercial Atlas & Marketing Guide. The conditional use of Rand McNally copyrighted material by interested persons is authorized under a blanket license agreement dated February 10, 1994, and covers use by LMDS applicants. This agreement requires authorized users of the material to include a legend on
Attachment A to this Public Notice. The BTA licenses designated for the LMDS auction comprise various portions of the following areas: (1) continental United States and (2) Puerto Rico. Thus, there are a total of 168 LMDS licenses to be auctioned.

**Auction Date:** The auction will begin on April 27, 1999. The initial schedule for bidding will be announced by public notice at least one week before the start of the auction. Unless otherwise announced, bidding will be conducted on each business day until bidding has stopped on all licenses.

**Auction Title:** The Local Multipoint Distribution Service - Auction No. 23.

**Bidding Methodology:** Simultaneous multiple round bidding. Bidding will be permitted only from remote locations, either electronically (by computer) or telephonically.

**Pre-Auction Deadlines:**

- Auction Seminar ........................ March 10, 1999
- Short Form Application (FCC Form 175) March 29, 1999; 5:30 p.m. ET
- Upfront Payments (via wire transfer) .... April 12, 1999; 6:00 p.m. ET
- Orders for Remote Bidding Software .... April 13, 1999; 5:30 p.m. ET
- Mock Auction ............................ April 22, 1999

**Telephone Contacts:**

- Auctions Hotline ....................... (888) CALL-FCC ((888) 225-5322), press Option #2 or (717) 338-2888 (direct dial)

  (For Bidder Information Packages, General Auction Information, and Seminar Registration. Hours of service: 8 a.m. - 5:30 p.m. ET.)

- FCC Technical Support Hotline ........ (202) 414-1250 (voice), (202) 414-1255 (TTY)

  (For technical assistance with installing or using FCC software. Hours of service: 8 a.m. - 6 p.m. ET, Monday - Friday; 9 a.m. - 5 p.m. ET, weekend of March 27-28.)
List of Attachments:

- Attachment A Summary of LMDS Licenses to be Auctioned, Upfront Payments, Minimum Opening Bids
- Attachment B . . . . . Guidelines for Completion of FCC Forms 175 and 159, and Exhibits
- Attachment C . . . . . Electronic Filing and Review of FCC Form 175
- Attachment D . . . . . Summary Listing of Documents from the Commission and the Wireless Telecommunications Bureau Addressing Application . . . of the Anti-Collusion Rules
- Attachment E . . . . . Existing 28 GHz Licensee and 31 GHz Licensee
- Attachment F . . . . . Location of NGSO-MSS Feeder Link Earth Stations in the 29.1 29.25 GHz Band
- Attachment G Auction Seminar Registration Form
- Attachment H Exponential Smoothing Formula and Example

Background: In 1997, the Commission established rules to create and govern the licensing and operations for Local Multipoint Distribution Service (LMDS), a fixed, broadband, point-to-multipoint microwave service. The technology developed for use in the LMDS frequency band provides very high subscriber capacity for two-way video telecommunications. The Commission also established rules for the distribution of LMDS licenses by means of competitive bidding. The initial auction for LMDS licenses began on February 18, 1998 and closed on March 25, 1998, with 104 bidders winning 864 of the 986 available licenses.

Incumbent Licensees: Although LMDS operations are permitted in the 31,000 - 31,075 MHz and 31,225 - 31,300 MHz bands, incumbent city licensees and private business users operating in
these two segments are entitled to protection against harmful interference from any LMDS operation in these blocks. LMDS service providers will be entitled to interference protection from any other presently-authorized primary users in the 31,075 - 31,225 MHz bands. More detailed information is provided in Attachment E.

Block A of the New York BTA is encumbered by a pre-existing licensee in the New York Primary Metropolitan Statistical Area. The incumbent licensee, Winstar Wireless Fiber Corp., is entitled to interference protection. See Attachment E.

Reminder to potential Non-geostationary Mobile Satellite Service applicants/licensees:
Section 101.103(h) of the Commission's Rules requires that no more than 15 days after the release of this Public Notice, NGSO-MSS feeder link earth station complex applicants/licensees planning to operate in the 29,100-29,250 MHz band pursuant to Section 25.257 of the rules, file with the Commission a set of geographical coordinates consistent with Rule Section 101.103(h)(2). This information should be directed to the attention of:

Ronald Quirk
Federal Communications Commission
Wireless Telecommunications Bureau
1919 M Street, NW
Room 8102
Washington, D.C.  20554

Other Proceedings: Currently pending before the Bureau are several Petitions for Reconsideration in the matter of Requests for Waiver of Section 101.1003(a) of the Commission's Rules Establishing Eligibility Restrictions on Incumbent LECs and Cable Operators in the Local Multipoint Distribution Service. (See Order, 13 FCC Rcd 18694 (1998)).

Due Diligence: Potential bidders are reminded that several NGSO-MSS feeder link Earth stations are located in the 29.1-29.5 GHz band. These are identified in Attachment F.

Potential bidders should be aware that certain licenses designated for Auction No. 23 are subject to a waiver request and petition for reconsideration that are pending before the Commission.11 We note that resolution of these matters could have an impact on the availability of licenses for this auction. In addition, while the Commission will continue to act on pending requests and petitions, some of these matters may not be resolved before the auction. In the event that changes in the license inventory for Auction Event No. 23 occur before the auction, the Commission will make an announcement by Public Notice.

Licensing information is contained in the Commission's licensing database, which is available for inspection in the Wireless Telecommunications Bureau's Public Reference Rooms,
located at 2025 M Street, N.W., Room 5608, Washington, D.C. 20554, and 1270 Fairfield Road, Gettysburg, PA 17325. In a future public notice, the Bureau will provide the new location for inspecting the Commission's licensing database in the Portals building.

In addition, potential bidders may search for information regarding LMDS licensees on the World Wide Web at http://www.fcc.gov/wtb. In particular, information can be accessed by downloading databases by selecting "WTB Database Files" (which can be accessed at http://www.fcc.gov/wtb/databases.html), or searching on-line by selecting "Search WTB Databases" (http://gullfoss.fcc.gov:8080/cgi-bin/ws.exe/beta/genmen/index.hts). Any telephone inquires regarding accessing this data should be directed to the Technical Support Hotline at (202) 414-1250 (voice) or (202) 414-1255 (text telephone (TTY)).

The Commission makes no representations or guarantees regarding the accuracy or completeness of information that has been provided by incumbent licensees and incorporated into the database. Potential bidders are strongly encouraged to physically inspect any sites located in or near the geographic area for which they plan to bid.

Participation: Those wishing to participate in the auction must:

- Submit a short form application (FCC Form 175) by March 29, 1999.
- Submit a sufficient upfront payment and an FCC Remittance Advice Form (FCC Form 159) by April 12, 1999.
- Comply with all provisions outlined in this Public Notice.

Prohibition of Collusion: To ensure the competitiveness of the auction process, the Commission's Rules prohibit applicants for the same geographic license area from communicating with each other during the auction about bids, bidding strategies, or settlements. This prohibition begins with the filing of short-form applications, and ends on the down payment due date. Bidders competing for the same license(s) are encouraged not to use the same individual as an authorized bidder. A violation of the anti-collusion rule could occur if an individual acts as the authorized bidder for two or more competing applicants, and conveys information concerning the substance of bids or bidding strategies between the bidders he/she is authorized to represent in the auction. Also, if the authorized bidders are different individuals employed by the same organization (e.g., law firm or consulting firm), a violation could similarly occur. At a minimum, in such a case, applicants should certify on their applications that precautionary steps have been taken to prevent communication between authorized bidders and that applicants and their bidding agents will comply with the anti-collusion rule. The Bureau, however, cautions that merely filing a certifying statement as part of an application will not outweigh specific evidence that

collusive behavior has occurred nor will it preclude the initiation of an investigation when warranted. In the LMDS auction, for example, the rule would apply to any applicants bidding for the same BTA. Therefore, applicants that apply to bid for “all markets” would be precluded from communicating with all other applicants after filing the FCC Form 175. However, applicants may enter into bidding agreements before filing their FCC Form 175 short-form applications, as long as they disclose the existence of the agreement(s) in their Form 175 short-form applications. By signing their FCC Form 175 short form applications, applicants are certifying their compliance with Section 1.2105(c). In addition, Section 1.65 of the Commission's Rules requires an applicant to maintain the accuracy and completeness of information furnished in its pending application and to notify the Commission within 30 days of any substantial change that may be of decisional significance to that application. Thus, Section 1.65 requires an auction applicant to notify the Commission of any violation of the anti-collusion rules upon learning of such violation. Bidders are therefore required to make such notification to the Commission immediately upon discovery.

**Bidder Information Package:** No separate bidder information package will be published for this auction. However, some Commission Orders relevant to LMDS are contained in the Bidder Information Package for Auction Event No. 17, the first LMDS auction. Prospective bidders are advised not to rely upon information contained in the Bidder Information Package, other than the rulemaking Orders contained in Tab E, as it is outdated. In addition, the Commission and Bureau have released Orders concerning LMDS since the publication of the Bidder Information Package (see next section). The Commission has a limited number of Auction Event No. 17 Bidder Information Packages available. A copy may be requested by contacting the Auction Hotline at (888) CALL-FCC ((888) 225-5322) and pressing Option 2 at the prompt. An electronic version of the Auction Event No. 17 Bidder Information Package can be accessed via the Commission website at www.fcc.gov/wtb/auctions.

**Relevant Authority:** Prospective bidders must familiarize themselves thoroughly with the Commission’s Rules relating to LMDS, contained in Title 47, Part 101 of the Code of Federal Regulations, and those relating to application and auction procedures, contained in Title 47, Part 1 of the Code of Federal Regulations.

Prospective bidders must also be thoroughly familiar with the procedures, terms and conditions (collectively, "Terms") contained in the *Second Report and Order* in PP Docket No. 93-253, 9 FCC Rcd 2348 (1994); the *Second Memorandum Opinion and Order* in PP Docket No. 93-253, 9 FCC Rcd 7245 (1994); the Erratum to the *Second Memorandum Opinion and Order* in PP Docket No. 93-253, 9 FCC Rcd 7245 (1994).

---


*See 47 C.F.R. § 1.2105(c).*

*See 47 C.F.R. § 1.65.*
The terms contained in the Commission's Rules, relevant orders, public notices and bidder information package are not negotiable. The Commission may amend or supplement the information contained in our public notices or the bidder information package at any time, and will issue public notices to convey any new or supplemental information to bidders. It is the responsibility of all prospective bidders to remain current with all Commission Rules and with all public notices pertaining to this auction. Copies of most Commission documents, including public notices, can be retrieved from the FCC Internet node via anonymous ftp @ftp.fcc.gov or the FCC World Wide Web site at http://www.fcc.gov/wtb/auctions. Additionally, documents may be obtained for a fee by calling the Commission's copy contractor, International Transcription Service, Inc. (ITS), at (202) 857-3800. When ordering documents from ITS, please provide the appropriate FCC number (e.g., FCC 97-323 for the Second Order on Reconsideration).

**Bidder Alerts:** All applicants must certify on their FCC Form 175 applications under penalty of perjury that they are legally, technically, financially and otherwise qualified to hold a license, and not in default on any payment for Commission licenses (including down payments) or delinquent on any non-tax debt owed to any Federal agency. Prospective bidders are reminded that submission of a false certification to the Commission is a serious matter that may result in severe penalties, including monetary forfeitures, license revocations, exclusion from participation in future auctions, and/or criminal prosecution.

The FCC makes no representations or warranties about the use of this spectrum for particular services. Applicants should be aware that an FCC auction represents an opportunity to become an FCC licensee in this service, subject to certain conditions and regulations. An FCC auction does not constitute an endorsement by the FCC of any particular services, technologies or products, nor does an FCC license constitute a guarantee of business success. Applicants should perform their individual due diligence before proceeding as they would with any new business venture.

As is the case with many business investment opportunities, some unscrupulous entrepreneurs may attempt to use the LMDS auction to deceive and defraud unsuspecting investors. Common warning signals of fraud include the following:

- The first contact is a "cold call" from a telemarketer, or is made in response to an inquiry prompted by a radio or television infomercial.
The offering materials used to invest in the venture appear to be targeted at IRA funds, for example by including all documents and papers needed for the transfer of funds maintained in IRA accounts.

The amount of the minimum investment is less than $25,000.

The sales representative makes verbal representations that: (a) the Internal Revenue Service ("IRS"), Federal Trade Commission ("FTC"), Securities and Exchange Commission ("SEC"), FCC, or other government agency has approved the investment; (b) the investment is not subject to state or federal securities laws; or (c) the investment will yield unrealistically high short-term profits. In addition, the offering materials often include copies of actual FCC releases, or quotes from FCC personnel, giving the appearance of FCC knowledge or approval of the solicitation.

Information about deceptive telemarketing investment schemes is available from the FTC at (202) 326-2222 and from the SEC at (202) 942-7040. Complaints about specific deceptive telemarketing investment schemes should be directed to the FTC, the SEC, or the National Fraud Information Center at (800) 876-7060. Consumers who have concerns about specific LMDS proposals may also call the FCC National Call Center at (888) CALL-FCC ((888) 225-5322).

2. BIDDER ELIGIBILITY AND SMALL BUSINESS PROVISIONS

A. General Eligibility Criteria

As described above, this auction offers one license in each of 122 Block A Basic Trading Areas (BTAs) and 46 Block B BTAs designated for LMDS. For LMDS, the Commission adopted small business provisions to promote and facilitate the participation of small businesses in the LMDS auction and in the provision of this and other commercial mobile radio services. General eligibility to provide LMDS service, subject to certain restrictions outlined below, is afforded to entities that are not precluded under 47 C.F.R. §§ 101.7, 101.1001, and 101.1003.
(1) Eligibility Restrictions

(a) 1,150 megahertz licenses

ILECs and cable television companies are subject to certain restrictions on their eligibility to own an attributable interest in the 1,150 megahertz LMDS license in their authorized or franchised service areas ("in-region"). An incumbent is defined as "in-region" if its authorized service area represents 10 percent or more of the population of the BTA. A 20 percent or greater ownership level constitutes an attributable interest in a license. ILECs and cable companies are permitted to participate fully in the auction of the 1,150 megahertz LMDS licenses, but are required to divest any overlapping interests within 90 days if they win a license at the auction. The eligibility restrictions terminate on the third anniversary of the effective date of the LMDS rules. These restrictions may be extended beyond the three-year period, if, upon a review at the end of this period, the Commission determines that sufficient competition has not developed. The Commission may waive the restriction in individual cases upon a showing of good cause.

(b) 150 megahertz licenses

All entities that meet the Commission's general eligibility criteria, including ILECs and cable television companies, are eligible to own attributable interests in the 150 megahertz license in any BTA.

(2) Determination of Revenues

For purposes of determining which entities qualify as very small businesses, small businesses, or entrepreneurs, the Commission will consider the gross revenues of the applicant, its controlling principals, and the affiliates of the applicant. Therefore, the gross revenues of all of the above entities must be disclosed separately and in the aggregate as Exhibit C to an applicant's FCC Form 175. The Commission does not impose specific equity requirements on controlling principals. Once principals or entities with a controlling interest are determined, only the revenues of those principals or entities will be counted in determining small business eligibility. The term "control" includes both de facto and de jure control of the applicant. Typically, de jure control is evidenced by ownership of at least 50.1 percent of an entity's voting stock. De facto control is determined on a case-by-case basis. The following are some common indicia of control:

- the entity constitutes or appoints more than 50 percent of the board of directors or management committee;
- the entity has authority to appoint, promote, demote, and fire senior executives that control the day-to-day activities of the licensee; or

For further guidance on the issue of control, see the Commission's affiliation rule at 47 C.F.R. § 1.2110(b)(4). See also Ellis Thompson Corp., 76 Rad. Reg. 2d (P & F) 1125, 1127-28 (1994), in which the Commission identified the following factors used to determine control of a business: (1) use of facilities and equipment; (2) control of day-to-day operations; (3) control of policy decisions; (4) personnel responsibilities; (5) control of financial obligations; and (6) receipt of monies and profits; Intermountain Microwave, 24 Rad. Reg. (P & F) 983 (1963).
the entity plays an integral role in management decisions.

(3) Entrepreneur or Very Small or Small Business Consortia

A consortium of entrepreneurs, small businesses, or very small businesses is a conglomerate organization formed as a joint venture between or among mutually independent business firms, each of which individually satisfies the definition of entrepreneur or very small or small business in Section 101.1112(b), (c), or (d). Thus, each consortium member must disclose its gross revenues along with those of its affiliates, controlling principals, and controlling principals' affiliates. We note that although the gross revenues of the consortium members will not be aggregated for purposes of determining eligibility for very small or small business credits, this information must be provided to ensure that each individual consortium member qualifies for any bidding credit awarded to the consortium.

(4) Application Showing

Applicants should note that they will be required to file supporting documentation as Exhibit C to their FCC Form 175 short form applications to establish that they satisfy the eligibility requirements to qualify as an entrepreneur or a very small business or small business (or consortiums of entrepreneurs, very small, or small businesses) for this auction. Specifically, for the LMDS auction, applicants applying to bid as entrepreneurs, very small, or small businesses (or consortiums of entrepreneurs, very small, or small businesses) will be required to file as Exhibit C to their FCC Form 175 short form applications, all information required under Sections 1.2105(a) and Section 1.2112(a). In addition, these applicants must disclose, separately and in the aggregate, the gross revenues for the preceding three years of each of the following: (1) the applicant; (2) the applicant's affiliates; (3) the applicant's controlling principals; and (4) the affiliates of the applicant's controlling principals. Certification that the average gross revenues for the preceding three years do not exceed the applicable limit is not sufficient. A statement of the total gross revenues for the preceding three years is also insufficient. The applicant must provide separately for itself, its affiliates, and its controlling principals, a schedule of gross revenues for each of the preceding three years, as well as a statement of total average gross revenues for the three-year period. If the applicant is applying as a consortium of very small or small businesses, this information must be provided for each consortium member.

B. Bidding Credits

Applicants that qualify under the definitions of entrepreneur, very small business, and small business (or consortia of entrepreneurs, very small, or small businesses) (including calculation of average gross revenues) as are set forth in 47 C.F.R. § 101.1112, are eligible for a bidding credit that represents the amount by which a bidder’s winning bids are discounted. The size of an LMDS bidding credit depends on the average gross revenues for the preceding three years of the bidder and its controlling principals and affiliates:

- A bidder with average gross revenues of not more than $15 million for the preceding three years receives a 45 percent discount on its winning bids for LMDS licenses;

- A bidder with average gross revenues of more than $15 million but not more than $40 million for the preceding three years receives a 35 percent discount on its winning bids for LMDS licenses.

- A bidder with average gross revenues of more than $40 million but not more than $75 million for the preceding three years receives a 25 percent discount on its winning bids for LMDS licenses.

Bidding credits are not cumulative: qualifying applicants receive either the 25 percent, the 35 percent bidding credit, or the 45 percent bidding credit but not all three or any combination thereof.

LMDS bidders should note that unjust enrichment provisions apply to winning bidders that use bidding credits and subsequently assign or transfer control of their licenses to an entity not qualifying for the same level of bidding credit. Finally, LMDS bidders should also note that there are no installment payment plans in the LMDS auction.

---


Id.
3. PRE-AUCTION PROCEDURES

A. Short-Form Application (FCC Form 175) -- Due March 29, 1999

In order to be eligible to bid in this auction, applicants must first submit an FCC Form 175 application. This application must be received at the Commission by 5:30 p.m. ET on March 29, 1999. Late applications will not be accepted.

There is no application fee required when filing an FCC Form 175. However, to be eligible to bid, an applicant must submit an upfront payment. See 3.C, infra.

(1) Electronic Filing

Applicants must file their FCC Form 175 applications electronically. Applications may generally be filed at any time from March 5, 1999 until 5:30 p.m. ET on March 29, 1999. Applicants are strongly encouraged to file early, and applicants are responsible for allowing adequate time for filing their applications. Applicants may update or amend their electronic applications multiple times until the filing deadline on March 29, 1999. Applicants must press the "Submit Form 175" button on the "Submit" page of the electronic form to successfully submit their FCC Forms 175. Information about installing and running the FCC Form 175 application software is included in Attachment C. Technical support is available at (202) 414-1250 (voice) or (202) 414-1255 (text telephone (TTY)); the hours of service are 8 a.m. - 6 p.m. ET, Monday - Friday, and 9 a.m. - 5 p.m. ET, the weekend of March 27-28, 1999.

(2) Completion of the FCC Form 175

Applicants should carefully review 47 C.F.R. § 1.2105, and must complete all items on the FCC Form 175 (and Form 175-S, if applicable). Instructions for completing the FCC Form 175 are in Attachment B of this Public Notice.

(3) Electronic Review of FCC Form 175

The FCC Form 175 review software may be used to review and print applicants' FCC Form 175 information. Applicants may also view other applicants' completed FCC Form 175s after the filing deadline has passed and the FCC has issued a public notice explaining the status of the applications. For this reason, it is important that applicants do not include their Taxpayer Identification Numbers (TINs) on any Exhibits to their FCC Form 175 applications. There is a fee of $2.30 per minute for accessing this system. See Attachment C for details.

B. Application Processing and Minor Corrections

As of January 1, 1999, all short-form applications must be filed electronically. See 47 C.F.R. § 1.2105(a).
After the deadline for filing the FCC Form 175 applications has passed, the FCC will process all timely submitted applications to determine which are acceptable for filing, and subsequently will issue a public notice identifying: (1) those applications accepted for filing (including FCC account numbers and the licenses for which they applied); (2) those applications rejected; and (3) those applications which have minor defects that may be corrected, and the deadline for filing such corrected applications.

As described more fully in the Commission’s Rules, after the March 29, 1999, short form filing deadline, applicants may make only minor corrections to their FCC Form 175 applications. Applicants will not be permitted to make major modifications to their applications (e.g., change their license selections, change the certifying official or change control of the applicant). See 47 C.F.R. § 1.2105.

C. Upfront Payments -- Due April 12, 1999

In order to be eligible to bid in the auction, applicants must submit an upfront payment accompanied by an FCC Remittance Advice Form (FCC Form 159). After completing the FCC Form 175, filers will have access to an electronic version of the FCC Form 159. If filing the Form 159 manually, the July 1997 version must be used. Earlier versions of this form will not be accepted. All upfront payments must be received at Mellon Bank in Pittsburgh, PA, by 6:00 p.m. ET on April 12, 1999.

Please note that:

- All payments must be made in U.S. dollars.
- All payments must be made by wire transfer.
- Upfront payments for Auction No. 23 go to a lockbox number different from the ones used in previous FCC auctions, and different from the lockbox number to be used for post-auction payments.
- Failure to deliver the upfront payment by the April 12, 1999 deadline will result in dismissal of the application and disqualification from participation in the auction.

(1) Making Auction Payments by Wire Transfer

Wire transfer payments must be received by 6:00 p.m. ET on April 12, 1999. To avoid untimely payments, applicants should discuss arrangements (including bank closing schedules) with their banker several days before they plan to make the wire transfer, and allow sufficient time for the transfer to be initiated and completed before the deadline. Applicants will need the following information:

ABA Routing Number: 043000261
Receiving Bank: Mellon Pittsburgh
BNF: FCC/AC 910-0180
NOTE: The BNF and Lockbox number are specific to the upfront payments for this auction; do not use BNF or Lockbox numbers from previous auctions.

Applicants must fax a completed FCC Form 159 to Mellon Bank at (412) 236-5702 at least one hour before placing the order for the wire transfer (but on the same business day). On the cover sheet of the fax, write "Wire Transfer - Auction Payment for Auction Event No. 23." Bidders may confirm receipt of their upfront payment at Mellon Bank by contacting their sending financial institution.

(2) FCC Form 159

Each upfront payment must be accompanied by a completed FCC Remittance Advice Form (FCC Form 159). Proper completion of FCC Form 159 is critical to ensuring correct credit of upfront payments. Detailed instructions for completion of FCC Form 159 are included in Attachment B to this Public Notice.

(3) Amount of Upfront Payment

In the Part 1 Order, Memorandum Opinion and Order, and Notice of Proposed Rule Making, the Commission delegated to the Bureau the authority and discretion to determine an appropriate upfront payment for each license being auctioned. In the LMDS Public Notice, the Bureau proposed upfront payments for the LMDS auction. Specifically, the Bureau proposed the following upfront payments for Auction No. 23:

(1) Block A $0.06 * Pops (rounded up to the next dollar)
(2) Block B $0.03 * Pops (rounded up to the next dollar)

WCA expresses some concern that the proposed upfront payments "may be so liberal that [they do] little to screen out potential bidders who will be unable to meet payment obligations" should they place high bids in the auction. However, WCA generally believes that the proposals

---


See LMDS Public Notice at 5-6.

WCA Comments at 2-3.
We will adopt the proposed upfront payments for the LMDS auction. We do not share WCA’s concern that these upfront payments are too low, and thus invite defaults. We believe that the default payment rule is sufficient to deter high bidders from not meeting their payment obligations. The adopted upfront payment amounts have been calculated for each license and are listed in Attachment A. These amounts represent the deposits required to qualify to bid on the LMDS licenses in Auction No. 23. We find that amounts higher than these might serve as a barrier to participation in the auction, and that upfront payments lower than these might encourage frivolous auction participation and insincere bidding.

Please note that upfront payments are not attributed to specific licenses, but instead will be translated to bidding units to define a bidder's maximum bidding eligibility. For Auction No. 23, the amount of the upfront payment will be translated into bidding units on a one-to-one basis, e.g., a $25,000 upfront payment provides the bidder with 25,000 bidding units. The total upfront payment defines the maximum amount of bidding units on which the applicant will be permitted to bid (including standing high bids) in any single round of bidding. Thus, an applicant does not have to make an upfront payment to cover all licenses for which the applicant has selected on FCC Form 175, but rather to cover the maximum number of bidding units that are associated with licenses on which the bidder wishes to place bids and hold high bids at any given time.

In order to be able to place a bid on a license, in addition to having specified that license on the FCC Form 175, a bidder must have an eligibility level that meets or exceeds the number of bidding units assigned to that license. At a minimum, an applicant's total upfront payment must be enough to establish eligibility to bid on at least one of the licenses applied for on the FCC Form 175, or else the applicant will not be eligible to participate in the auction.

In calculating the upfront payment amount, an applicant should determine the maximum number of bidding units it may wish to bid on in any single round, and submit an upfront payment covering that number of bidding units. **Bidders should check their calculations carefully as there is no provision for increasing a bidder's maximum eligibility after the upfront payment deadline.**

**NOTE:** An applicant may, on its FCC Form 175, apply for every license being offered, but its actual bidding in any round will be limited by the bidding units reflected in its upfront payment.

**4) Applicant's Wire Transfer Information for Purposes of Refunds**

Because experience with prior auctions has shown that in most cases wire transfers provide quicker and more efficient refunds than paper checks, the Commission will use wire transfers for all Auction No. 23 refunds. To avoid delays in processing refunds, applicants should include wire transfer instructions with any refund request they file; they may also provide this

WCA Comments at 3.
information in advance by faxing it to the FCC Billings and Collections Branch, ATTN: Linwood Jenkins or Geoffrey Idika, at (202) 418-2843. **Please include the following information:**

- Name of Bank
- ABA Number
- Account Number to Credit
- Correspondent Bank (if applicable)
- ABA Number
- Account Number
- Contact and Phone Number

(Applicants should also note that implementation of the Debt Collection Improvement Act of 1996 requires the FCC to obtain a Taxpayer Identification Number (TIN) before it can disburse refunds.) Eligibility for refunds is discussed in 5.D., *infra.*

**D. Auction Registration**

Approximately ten days before the auction, the FCC will issue a public notice announcing all qualified bidders for the auction. Qualified bidders are those applicants whose FCC Form 175 applications have been accepted for filing and that have timely submitted upfront payments sufficient to make them eligible to bid on at least one of the licenses for which they applied.

All qualified bidders are automatically registered for the auction. Registration materials will be distributed prior to the auction by two separate overnight mailings, each containing part of the confidential identification codes required to place bids. **These mailings will be sent only to the contact person at the applicant address listed in the FCC Form 175.**

Applicants that do not receive both registration mailings will not be able to submit bids. Therefore, any qualified applicant that has not received both mailings by **noon on Wednesday, April 21, 1999** should contact the Auctions Hotline at (717) 338-2888. Receipt of both registration mailings is critical to participating in the auction and each applicant is responsible for ensuring it has received all of the registration material.

**Qualified bidders should note that lost login codes, passwords or bidder identification numbers can be replaced only by appearing in person at the FCC Auction Headquarters located at 2 Massachusetts Avenue, N.E., Washington, D.C. 20002. Only an authorized representative or certifying official, as designated on an applicant's FCC Form 175, may appear in person with two forms of identification (one of which must be a photo identification) in order to receive replacement codes.**

**E. Remote Electronic Bidding Software**

Qualified bidders are allowed to bid electronically or telephonically. Those choosing to bid electronically must purchase remote electronic bidding software for $175.00 by **April 13, 1999.** (Auction software is tailored to a specific auction, so software from prior auctions will not work for Auction No. 23.) A software order form is included in this public notice. If bidding telephonically, the appropriate phone number will be supplied in the second Federal Express
mailing of confidential login codes.

F. Auction Seminar

On March 10, 1999, the FCC will sponsor a seminar for the LMDS auction at the Park Hyatt Washington Hotel, located at 1201 24th Street, N.W., Washington, D.C. The seminar will provide attendees with information about pre-auction procedures, conduct of the auction, FCC remote bidding software, and the LMDS service and auction rules. The seminar will also provide a unique opportunity for prospective bidders to ask questions of FCC staff.

To register, complete the registration form included with this Public Notice and submit it by March 8, 1999. Registrations are accepted on a first-come, first-served basis.

G. Mock Auction

All applicants whose FCC Form 175 and 175-S have been accepted for filing will be eligible to participate in a mock auction on April 22, 1999. The mock auction will enable applicants to become familiar with the electronic software prior to the auction. Free demonstration software will be available for use in the mock auction. Participation by all bidders is strongly recommended. Details will be announced by public notice.

4. AUCTION EVENT

The first round of the auction will begin on April 27, 1999. The initial round schedule will be announced in a Public Notice listing the qualified bidders, to be released approximately 10 days before the start of the auction.

A. Auction Structure

(1) Simultaneous Multiple Round Auction

In the LMDS Public Notice, we proposed to award the 168 licenses in LMDS in a single, simultaneous multiple round auction. Neither commenter specifically addressed this issue, although WCA generally supported all proposals in the LMDS Public Notice. We conclude that the 168 LMDS licenses will be awarded through a single, simultaneous multiple round auction. Unless otherwise announced, bids will be accepted on all licenses in each round of the auction. This approach, we believe, allows bidders to take advantage of any synergies that exist among licenses and is most administratively efficient.

(2) Maximum Eligibility and Activity Rules

LMDS Public Notice at 5.

WCA Comments at 3.
In the *LMDS Public Notice*, we proposed that the amount of the upfront payment submitted by a bidder would determine the initial maximum eligibility (as measured in bidding units) for each bidder.\(^{27}\) We received no comments on this issue.

For the LMDS auction we will adopt this proposal. The amount of the upfront payment submitted by a bidder determines the initial maximum eligibility (in bidding units) for each bidder. Note again that upfront payments are not attributed to specific licenses, but instead will be translated into bidding units to define a bidder's initial maximum eligibility. The total upfront payment defines the maximum number of bidding units on which the applicant will initially be permitted to bid. As there is no provision for increasing a bidder's maximum eligibility during the course of an auction (as described under "Auction Stages" as set forth in Part 4.A.(4)), prospective bidders are cautioned to calculate their upfront payments carefully.

In order to ensure that the auction closes within a reasonable period of time, an activity rule requires bidders to bid actively throughout the auction, rather than wait until the end before participating. Bidders are required to be active on a specific percentage of their maximum eligibility during each round of the auction.

A bidder is considered active on a license in the current round if it is either the high bidder at the end of the previous bidding round and does not withdraw the high bid in the current round, or if it submits an acceptable bid in the current round (see "Minimum Accepted Bids" in Part 4.B.(3), *infra*). A bidder's activity level in a round is the sum of the bidding units associated with licenses on which the bidder is active. The minimum required activity level is expressed as a percentage of the bidder's maximum bidding eligibility, and increases as the auction progresses. Because these procedures have proven successful in maintaining the pace of previous auctions as set forth under "Auction Stages" in Part 4.A.(4) and "Stage Transitions" in Part 4.A.(5), *infra*, we adopt them for the LMDS auction.

### (3) Activity Rule Waivers and Reducing Eligibility

In the *LMDS Public Notice*, we proposed that each bidder in the auction would be provided five activity rule waivers that may be used in any round during the course of the auction.\(^{28}\)

Based upon our experience in previous auctions, we adopt our proposal and each bidder will be provided five activity rule waivers that may be used in any round during the course of the auction. Use of an activity rule waiver preserves the bidder's current bidding eligibility despite the bidder's activity in the current round being below the required minimum level. An activity rule waiver applies to an entire round of bidding and not to a particular license.

The FCC auction system assumes that bidders with insufficient activity would prefer to use an activity rule waiver (if available) rather than lose bidding eligibility. Therefore, the system will automatically apply a waiver (known as an "automatic waiver") at the end of any round where

\[\text{LMDS Public Notice at 5.}\]

\[\text{LMDS Public Notice at 8.}\]
a bidder's activity level is below the minimum required unless: (1) there are no activity rule waivers available; or (2) the bidder overrides the automatic application of a waiver by reducing eligibility, thereby meeting the minimum requirements.

A bidder with insufficient activity that wants to reduce its bidding eligibility rather than use an activity rule waiver must affirmatively override the automatic waiver mechanism during the round by using the reduce eligibility function in the software. In this case, the bidder's eligibility is permanently reduced to bring the bidder into compliance with the activity rules as described in "Auction Stages" (see Part 4.A.(4) discussion below). Once eligibility has been reduced, a bidder will not be permitted to regain its lost bidding eligibility.

Finally, a bidder may proactively use an activity rule waiver as a means to keep the auction open without placing a bid. If a bidder submits a proactive waiver (using the proactive waiver function in the bidding software) during a round in which no bids are submitted, the auction will remain open and the bidder's eligibility will be preserved. An automatic waiver invoked in a round in which there are no new valid bids or withdrawals will not keep the auction open.

(4) Auction Stages

In the LMDS Public Notice, we proposed to conduct the auction in stages and employ an activity rule. We further proposed that, in each round of Stage One, a bidder desiring to maintain its current eligibility would be required to be active on licenses encompassing at least 80 percent of its current bidding eligibility. In each round of Stage Two, a bidder desiring to maintain its current eligibility would be required to be active on at least 90 percent of its current bidding eligibility. Finally, we proposed that a bidder in Stage Three, in order to maintain eligibility, would be required to be active on 98 percent of its current bidding eligibility. We received no comment on these proposals.

We conclude that the auction will be composed of three stages, which are each defined by an increasing activity rule. We will adopt our proposals for the activity rules. These are the same rules we will employ for the upcoming LMS auction. Below are the activity levels for each stage of the auction. The FCC reserves the discretion to further alter the activity percentages before and/or during the auction.

Stage One: In each round of the first stage of the auction, a bidder desiring to maintain its current eligibility is required to be active on licenses encompassing at least 80 percent of its current bidding eligibility. Failure to maintain the requisite activity level will result in a reduction in the bidder's bidding eligibility in the next round of bidding (unless an activity rule waiver is used). During Stage One, reduced eligibility for the next round will be calculated by multiplying the current round activity by five-fourths (5/4).

Stage Two: In each round of the second stage, a bidder desiring to maintain its current eligibility is required to be active on licenses encompassing at least 90 percent of its current bidding eligibility. Failure to maintain the requisite activity level will result in a reduction in the bidder's bidding eligibility in the next round of bidding (unless an activity rule waiver is used). During Stage Two, reduced eligibility for the next round will be calculated by multiplying the current round activity by five-fourths (5/4).

Stage Three: In each round of the third stage, a bidder desiring to maintain its current eligibility is required to be active on licenses encompassing at least 98 percent of its current bidding eligibility. Failure to maintain the requisite activity level will result in a reduction in the bidder's bidding eligibility in the next round of bidding (unless an activity rule waiver is used). During Stage Three, reduced eligibility for the next round will be calculated by multiplying the current round activity by five-fourths (5/4).

Id. at 6.

eligibility is required to be active on 90 percent of its current bidding eligibility. During Stage Two, reduced eligibility for the next round will be calculated by multiplying the current round activity by ten-ninths (10/9).

**Stage Three:** In each round of the third stage, a bidder desiring to maintain its current eligibility is required to be active on 98 percent of its current bidding eligibility. In this final stage, reduced eligibility for the next round will be calculated by multiplying the current round activity by fifty-fortyninths (50/49).

**CAUTION:** Since activity requirements increase in each auction stage, bidders must carefully check their current activity during the bidding period of the first round following a stage transition. This is especially critical for bidders that have standing high bids and do not plan to submit new bids. In past auctions, some bidders have inadvertently lost bidding eligibility or used an activity rule waiver because they did not reverify their activity status at stage transitions. Bidders may check their activity against the required minimum activity level by using the bidding software's bidding module.

Because the foregoing procedures have proven successful in maintaining proper pace in previous auctions, we adopt them for the LMDS auction.

(5) **Stage Transitions**

In the LMDS Public Notice, we proposed that the auction would advance to the next stage (i.e., from Stage One to Stage Two, and from Stage Two to Stage Three) when the auction activity level, as measured by the percentage of bidding units receiving new high bids, is below 10 percent for three consecutive rounds of bidding in each Stage. However, we further proposed that the Bureau would retain the discretion to change stages unilaterally by announcement during the auction. This determination, we proposed, would be based on a variety of measures of bidder activity, including, but not limited to, the auction activity level, the percentages of licenses (as measured in bidding units) on which there are new bids, the number of new bids, and the percentage increase in revenue.\(^{31}\) We received no comments on this subject.

We adopt our proposal. Thus, the auction will start in Stage One. Under the FCC's general guidelines it will advance to the next stage (i.e., from Stage One to Stage Two, and from Stage Two to Stage Three) when, in each of three consecutive rounds of bidding, the high bid has increased on 10 percent or less of the licenses being auctioned (as measured in bidding units). However, the Bureau will retain the discretion to regulate the pace of the auction by announcement. This determination will be based on a variety of measures of bidder activity, including, but not limited to, the auction activity level, the percentages of licenses (as measured in bidding units) on which there are new bids, the number of new bids, and the percentage increase in revenue. We believe that these stage transition rules, having proven successful in prior auctions, are appropriate for use in the LMDS auction.

(6) **Auction Stopping Rules**

---

LMDS Public Notice at 6.
For the LMDS auction, the Bureau proposed to employ a simultaneous stopping rule.\textsuperscript{32} The Bureau has discretion "to establish stopping rules before or during multiple round auctions in order to terminate the auction within a reasonable time."\textsuperscript{33} A simultaneous stopping rule means that all licenses remain open until the first round in which no new acceptable bids, proactive waivers or withdrawals are received. After the first such round, bidding would close simultaneously on all licenses. Thus, unless circumstances dictate otherwise, bidding would remain open on all licenses until bidding stops on every license.

We also sought comment on a modified simultaneous stopping rule. Under this stopping rule approach, we would close the auction for all licenses after the first round in which no bidder submits a proactive waiver, a withdrawal, or a new bid on any license on which it is not the standing high bidder. Thus, absent any other bidding activity, a bidder placing a new bid on a license for which it is the standing high bidder would not keep the auction open under this modified stopping rule. The Bureau also sought comment on whether this modified stopping rule should be used unilaterally or only in stage three of the auction. We proposed that the Bureau retain the discretion to keep an auction open even if no new acceptable bids or proactive waivers are submitted and no previous high bids are withdrawn. In addition, we proposed that the Bureau reserve the right to declare that the auction will end after a specified number of additional rounds ("special stopping rule"). If the Bureau invokes this special stopping rule, it will accept bids in the final round(s) only for licenses on which the high bid increased in at least one of the preceding specified number of rounds. We proposed to exercise this option only in circumstances such as where the auction is proceeding very slowly, where there is minimal overall bidding activity or where it appears likely that the auction will not close within a reasonable period of time.\textsuperscript{34} We received no comments on these particular issues.

We adopt our proposals concerning the stopping rule. Thus, bidding will remain open on all licenses until bidding stops on every license. The auction will close for all licenses when one round passes during which no bidder submits a new acceptable bid on any license, applies a proactive waiver, or withdraws a previous high bid. In addition, however, the Bureau retains the discretion to close the auction for all licenses after the first round in which no bidder submits a proactive waiver, a withdrawal, or a new bid on any license on which it is not the standing high bidder. Thus, absent any other bidding activity, a bidder placing a new bid on a license for which it is the standing high bidder would not keep the auction open under this stopping rule procedure. We will notify bidders in advance of implementing any change to our simultaneous stopping rule.

The Bureau retains the discretion, however, to keep an auction open even if no new acceptable bids or proactive waivers are submitted, and no previous high bids are withdrawn. In this event, the effect will be the same as if a bidder had submitted a proactive waiver. Thus, the activity rule will apply as usual, and a bidder with insufficient activity will either lose bidding eligibility or use an activity rule waiver (if it has any left).

Further, in its discretion, the Bureau reserves the right to declare that the auction will end

\textit{LMDS Public Notice} at 9.

47 C.F.R. § 1.2104(e).

\textit{LMDS Public Notice} at 9.

22
after a specified number of additional rounds ("special stopping rule"). If the FCC invokes this special stopping rule, it will accept bids in the final round(s) only for licenses on which the high bid increased in at least one of the preceding specified number of rounds. The FCC intends to exercise this option only in extreme circumstances, such as where the auction is proceeding very slowly, where there is minimal overall bidding activity, or where it appears likely that the auction will not close within a reasonable period of time. Before exercising this option, the FCC is likely to attempt to increase the pace of the auction by, for example, moving the auction into the next stage (where bidders would be required to maintain a higher level of bidding activity), increasing the number of bidding rounds per day, and/or increasing the amount of the minimum bid increments for the limited number of licenses where there is still a high level of bidding activity.

Adoption of these rules, we believe, is most appropriate for the LMDS auction because our experience in prior auctions demonstrates that the simultaneous stopping rule balanced the interests of administrative efficiency and maximum bidder participation. The substitutability between and among licenses in different geographic areas and the importance of preserving the ability of bidders to pursue backup strategies support the use of a simultaneous stopping rule.

(7) Auction Delay, Suspension, or Cancellation

In the LMDS Public Notice, we proposed that, by public notice or by announcement during the auction, the Bureau may delay, suspend, or cancel the auction in the event of natural disaster, technical obstacle, evidence of an auction security breach, unlawful bidding activity, administrative or weather necessity, or for any other reason that affects the fair and competitive conduct of competitive bidding. We received no comments on this proposal.

Because this approach has proven effective in resolving exigent circumstances in previous auctions, we will adopt our proposed auction cancellation rules. By public notice or by announcement during the auction, the Bureau may delay, suspend or cancel the auction in the event of natural disaster, technical obstacle, evidence of an auction security breach, unlawful bidding activity, administrative or weather necessity, or for any other reason that affects the fair and competitive conduct of competitive bidding. In such cases, the Bureau, in its sole discretion, may elect to: resume the auction starting from the beginning of the current round; resume the auction starting from some previous round; or cancel the auction in its entirety. Network interruption may cause the Bureau to delay or suspend the auction. We emphasize that exercise of this authority is solely within the discretion of the Bureau, and its use is not intended to be a substitute for situations in which bidders may wish to apply their activity rule waivers.

B. Bidding Procedures

(1) Round Structure

The initial bidding schedule will be announced by public notice at least one week before the start of the auction, and will be included in the registration mailings. The round structure for each bidding round contains a single bidding round followed by the release of the round results.
The FCC has discretion to change the bidding schedule in order to foster an auction pace that reasonably balances speed with the bidders' need to study round results and adjust their bidding strategies. The FCC may increase or decrease the amount of time for the bidding rounds and review periods, or the number of rounds per day, depending upon the bidding activity level and other factors.
(2) Reserve Price or Minimum Opening Bid

a. Background

The Balanced Budget Act of 1997 calls upon the Commission to prescribe methods by which a reasonable reserve price will be required or a minimum opening bid established when FCC licenses are subject to auction (i.e., because they are mutually exclusive), unless the Commission determines that a reserve price or minimum opening bid is not in the public interest. Consistent with this mandate, the Commission has directed the Wireless Telecommunications Bureau ("Bureau") to seek comment on the use of a minimum opening bid and/or reserve price prior to the start of each auction. The Bureau was directed to seek comment on the methodology to be employed in establishing each of these mechanisms. Among other factors, the Bureau should consider the amount of spectrum being auctioned, levels of incumbency, the availability of technology to provide service, the size of the geographic service areas, the extent of interference with other spectrum bands, and any other relevant factors that could have an impact on valuation of the spectrum being auctioned. The Commission concluded that the Bureau should have the discretion to employ either or both of these mechanisms for future auctions.

In the LMDS Public Notice, the Bureau proposed to establish minimum opening bids for the LMDS auction and to retain discretion to lower the minimum opening bids. Specifically, for Auction No. 23, the Commission proposed the following license-by-license formulas for calculating minimum opening bids, based on the population ("pops") of the BTA:

(1) Block A $0.06 * Pops (rounded up to the next dollar)

(2) Block B $0.03 * Pops (rounded up to the next dollar)

In the alternative, the Bureau sought comment on whether, consistent with the Balanced Budget Act, the public interest would be served by having no minimum opening bid or reserve price.

b. Discussion

---

Budget Act, see supra note 2.


Id.

Id.

LMDS Public Notice at 4.

Id.
The commenters differ in their analysis of the proposed minimum opening bids. WCA believes that the Commission should maximize the likelihood that this second LMDS auction distribute all remaining LMDS licenses and that the proposals will achieve this goal. WCA asserts that licenses in rural areas require a high per-capita cost for build-out that may yield valuations below the minimum opening bids proposed in the *LMDS Public Notice*. WCA urges the Commission to reduce the minimum opening bids early in the auction for licenses that attract no bids.

ABS *et al* are bidders who withdrew from the prior LMDS auction (Auction Event No. 17). They claim that no one placed subsequent bids for licenses on which they withdrew bids, thus leaving them liable for withdrawal payments that cannot be fully determined until a reauction. ABS *et al* allege that because the proposed minimum opening bids are less than they were for Auction Event No. 17, they are exposed to the probability of large withdrawal payments. ABS *et al* say that the *LMDS Public Notice* failed properly to take into account its licenses, because they were neither licenses that "received no bids" nor subject to default; rather, their licenses constitute a third category (withdrawn bid licenses). ABS *et al* claim that the discrepancy between the minimum opening bids in the previous LMDS auction and those proposed for this auction is inappropriate because (a) the Commission has not provided a reasoned justification, and (b) a value has already been established for these licenses (*i.e.*, the withdrawn bid and/or the second highest bid prior to withdrawal) that is higher than the proposed minimum opening bids.

ABS *et al* claim that when deciding to withdraw bids or stay in the auction, they assumed

---

WCA comments at 1-2.

_Id_. at 2.

_Id_.

A bidder who withdraws a bid during the auction is subject to a payment equal to the difference between the amount of the withdrawn bid and the amount of the winning bid the next time the license is offered by the Commission. *See* 47 C.F.R. § 1.2104(g).

ABS *et al* use a chart to illustrate the difference between the first auction minimum opening bids and the present auction minimum opening bids. (ABS *et al* at 3-4). ABS *et al* believe that the consequence of lower minimum opening bids is that months could pass in this auction before prices reach levels comparable to the withdrawn bids.

_Id_. at 2.

As an example, ABS *et al* note that the proposed minimum opening bid for the Salina, Kansas license is less than 1 percent of the value of the second highest bid for that license. (ABS at 4-5). ABS *et al* believe that such a starting point for bidding will lead to a protracted auction. However, only 50 rounds of bidding (or two weeks with five rounds per day, using a 10 percent bidding increment) would have to elapse for the price of the Salina, Kansas license to reach the level of the previous high bid in Auction Event No. 17. (See Section 4.B.(3) for bid increment discussion).
that the same minimum opening bids would be used in a reauction. They assert that changing the minimum opening bids "unfairly penalizes auction participants who relied on the constancy of the FCC's rules." ABS et al request that for their 13 licenses that are subject to withdrawal payments, the original minimum opening bids be used for the reauction. However, ABS et al are not opposed to reducing the minimum opening bids for these licenses during the auction if the Bureau sees fit.

We will adopt the minimum opening bids proposed for each of the licenses in the LMDS auction, which are reducible at the discretion of the Bureau. Congress has enacted a presumption that unless the Commission determines otherwise, minimum opening bids or reserve prices are in the public interest. Based on our experience in using minimum opening bids in the 800 MHz SMR, VHF Public Coast, and first LMDS auctions, we believe that minimum opening bids speed the course of the auction and ensure that valuable assets are not sold for nominal prices, without unduly interfering with the efficient assignment of licenses. Accordingly, we will use the following formulae for calculating minimum opening bids:

(1) Block A $0.06 \times \text{Pops (rounded up to the next dollar)}

(2) Block B $0.03 \times \text{Pops (rounded up to the next dollar)}

We conclude that the adopted formulae presented here best meet the objectives of our auction authority in establishing reasonable minimum opening bids. We have noted in the past that the reserve price and minimum opening bid provision is not a requirement to maximize auction revenue but rather a protection against assigning licenses at unacceptably low prices and that we must balance the revenue raising objective against our other public interest objectives in setting the minimum bid level. We further believe that when conducting second auctions for particular licenses, the public interest is best served by setting minimum opening bids that will maximize the likelihood that all licenses are distributed. We do not grant ABS et al's request to

---

ABS et al at 5.

Id.

ABS et al at 6.

Id. at 6.

Section 3002(F) of the Budget Act directs the Commission to "prescribe methods by which a reasonable reserve price will be required, or a minimum bid established, to obtain any license or permit being assigned pursuant to the competitive bidding, unless the Commission determines that such a reserve price or minimum bid is not in the public interest."


See Auction of 800 MHz SMR Upper 10 MHz Band, Minimum Opening Bids or Reserve Prices, DA 97-2147, Order, 12 FCC Rcd 16354, 16358 (1997).
use the minimum opening bids from Auction Event No. 17 for their 13 licenses. We do not believe that their arguments are persuasive. Minimum opening bids cannot reflect the amount of the bid withdrawal payment for which a winning bidder may ultimately be liable. The Commission has never indicated that it would use the same minimum opening bids for subsequent auctions of any given licenses. Each auction event is unique and the Commission establishes minimum opening bids and other auction procedures that are most appropriate for the given circumstances. Using the original minimum opening bids for licenses that were subject to bid withdrawal is impractical. For the sake of auction integrity and fairness, minimum opening bids must be set in a manner that is consistent across licenses. The commenters’ proposal, if implemented, could result in similar licenses having very different valuations at the start of the auction. ABS et al err in claiming that the value of the licenses they withdrew from is demonstrated by the second highest bid. If that were true, another bidder would have claimed the license. Furthermore, ABS et al recognize that minimum opening bids might have to be reduced during the course of the auction. This illustrates that they are aware of the potential for wide variations in withdrawal payments, and that is a risk all bidders assume when they withdraw bids.

Minimum opening bids are reducible at the discretion of the Bureau. This will allow the Bureau flexibility to adjust the minimum opening bids if circumstances warrant. We emphasize, however, that such discretion will be exercised, if at all, sparingly and early in the auction, i.e., before bidders lose all waivers and begin to lose substantial eligibility. During the course of the auction, the Bureau will not entertain any bidder requests to reduce the minimum opening bid on specific licenses.

(3) Minimum Accepted Bids

In the LMDS Public Notice, we proposed to use a smoothing methodology to calculate minimum bid increments. We further proposed to retain the discretion to change the minimum bid increment if circumstances so dictate. We received no comments on this particular issue.

Because these techniques have proven effective in prior auctions, we adopt our proposal for the LMDS auction. Once there is a standing high bid on a license, a bid increment will be applied to that license to establish a minimum acceptable bid for the following round. The formula used to calculate this increment is included as Attachment H. This methodology is designed to vary the increment for a given license between a maximum and minimum value based on the bidding activity on that license. A similar methodology was used in previous auctions, including the original LMDS auction and the 220 MHz auction.

We adopt our proposal of initial values for the maximum of 0.2 or 20% of the license value, and a minimum of 0.1 or 10% of the license value. The Bureau retains the discretion to

LMDS Public Notice at 6.

Id. at 7.


change the minimum bid increment if it determines that circumstances so dictate, such as raising the minimum increment toward the end of the auction to enable bids to reach their final values more quickly. The Bureau will do so by announcement in the Automated Auction System. Under its discretion the Bureau may also implement an absolute dollar floor for the bid increment to further facilitate a timely close of the auction. The Bureau may also use its discretion to adjust the minimum bid increment without prior notice if circumstances warrant. As an alternative approach, the Bureau may, in its discretion, adjust the minimum bid increment gradually over a number of rounds as opposed to single large changes in the minimum bid increment (e.g., by raising the increment floor by one percent every round over the course of ten rounds). The Bureau also retains the discretion to use alternate methodologies for the LMDS auction if circumstances warrant.

(4) High Bids

Each bid will be date- and time-stamped when it is entered into the FCC computer system. In the event of tie bids, the Commission will identify the high bidder on the basis of the order in which bids are received by the Commission, starting with the earliest bid. The bidding software allows bidders to make multiple submissions in a round. As each bid is individually date and time-stamped according to when it was submitted, bids submitted by a bidder earlier in a round will have an earlier date- and time-stamp than bids submitted later in a round.

(5) Bidding

During a bidding round, a bidder may submit bids for as many licenses as it wishes, subject to its eligibility, as well as withdraw high bids from previous bidding rounds, remove bids placed in the same bidding round, or permanently reduce eligibility. Bidders also have the option of making multiple submissions and withdrawals in each bidding round. If a bidder submits multiple bids for a single license in the same round, the system takes the last bid entered as that bidder's bid for the round, and the date- and time-stamp of that bid reflects the latest time the bid was submitted.

Please note that all bidding will take place either through the automated bidding software or by telephonic bidding. (Telephonic bid assistants are required to use a script when handling bids placed by telephone. Telephonic bidders are therefore reminded to allow sufficient time to bid, by placing their calls well in advance of the close of a round, because four to five minutes are necessary to complete a bid submission.) There will be no on-site bidding during Auction No. 23.

A bidder's ability to bid on specific licenses in the first round of the auction is determined by two factors: (1) the licenses applied for on FCC Form 175; and (2) the upfront payment amount deposited. The bid submission screens will be tailored for each bidder to include only those licenses for which the bidder applied on its FCC Form 175. A bidder also has the option to further tailor its bid submission screens to call up specified groups of licenses.

The bidding software requires each bidder to login to the FCC auction system during the bidding round using the FCC account number, bidder identification number, and the confidential security codes provided in the registration materials. Bidders are strongly encouraged to
download and print bid confirmations after they submit their bids.

The bid entry screen of the Automated Auction System software for the LMDS auction allows bidders to place multiple increment bids which will let bidders increase high bids from one to nine bid increments. A single bid increment is defined as the difference between the standing high bid and the minimum acceptable bid for a license.

To place a bid on a license, the bidder must enter a whole number between 1 and 9 in the bid increment multiplier (Bid Mult) field. This value will determine the amount of the bid (Amount Bid) by multiplying the bid increment multiplier by the bid increment and adding the result to the high bid amount according to the following formula:

\[ \text{Amount Bid} = \text{High Bid} + (\text{Bid Mult} \times \text{Bid Increment}) \]

Thus, bidders may place a bid that exceeds the standing high bid by between one and nine times the bid increment. For example, to bid the minimum acceptable bid, which is equal to one bid increment, a bidder will enter "1" in the bid increment multiplier column and press submit.

For any license on which the FCC is designated as the high bidder (i.e., a license that has not yet received a bid in the auction or where the high bid was withdrawn and a new bid has not yet been placed), bidders will be limited to bidding only the minimum acceptable bid. In both of these cases no increment exists for the licenses, and bidders should enter "1" in the Bid Mult field. Note that in this case, any whole number between 1 and 9 entered in the multiplier column will result in a bid value at the minimum acceptable bid amount. Finally, bidders are cautioned in entering numbers in the Bid Mult field because, as explained in the following section, a high bidder that withdraws its standing high bid from a previous round, even if mistakenly or erroneously made, is subject to bid withdrawal payments.

(6) Bid Removal and Bid Withdrawal

In the LMDS Public Notice, we proposed bid removal and bid withdrawal rules. With respect to bid withdrawals, we proposed limiting each bidder to withdrawals in no more than two rounds during the course of the auction. The two rounds in which withdrawals are utilized, we proposed, would be at the bidder's discretion. We received no comments on this proposal.

a. Procedures

Before the close of a bidding round, a bidder has the option of removing any bids placed in that round. By using the "remove bid" function in the software, a bidder may effectively "unsubmit" any bid placed within that round. A bidder removing a bid placed in the same round is not subject to withdrawal payments. Removing a bid will affect a bidder's activity for the round in which it is removed. This procedure, about which we received no comments, will enhance bidder flexibility and, we believe, may serve to expedite the course of the auction. Therefore, we will adopt these procedures for the LMDS auction.

See LMDS Public Notice at 8.
Once a round closes, a bidder may no longer remove a bid. However, in the next round, a bidder may withdraw standing high bids from previous rounds using the "withdraw bid" function (assuming that the bidder has not exhausted its withdrawal allowance). A high bidder that withdraws its standing high bid from a previous round is subject to the bid withdrawal payments specified in 47 C.F.R. §§ 1.2104(g) and 1.2109. The procedure for withdrawing a bid and receiving a withdrawal confirmation is essentially the same as the bidding procedure described in "High Bids," Part 4.B.(4).

In previous auctions, we have detected bidder conduct that, arguably, may have constituted strategic bidding through the use of bid withdrawals. While we continue to recognize the important role that bid withdrawals play in an auction, i.e., reducing risk associated with efforts to secure various geographic area licenses in combination, we conclude that, for the LMDS auction, adoption of a limit on their use to two rounds is the most appropriate outcome. By doing so we believe we strike a reasonable compromise that will allow bidders to use withdrawals. Our decision on this issue is based upon our experience in prior auctions, particularly the PCS D, E and F block auction, 800 MHz SMR auction, and first LMDS auction, and is in no way a reflection of our view regarding the likelihood of any speculation or "gaming" in this LMDS auction.

The Bureau will therefore limit the number of rounds in which bidders may place withdrawals to two rounds. These rounds will be at the bidder's discretion and there will be no limit on the number of bids that may be withdrawn in either of these rounds. Withdrawals will still be subject to the bid withdrawal payments specified in 47 C.F.R. §§ 1.2104(g), and 1.2109. Bidders should note that abuse of the Commission's bid withdrawal procedures could result in the denial of the ability to bid on a market.

If a high bid is withdrawn, the license will be offered in the next round at the second highest bid price, which may be less than, or equal to, in the case of tie bids, the amount of the withdrawn bid, without any bid increment. The FCC will serve as a "place holder" on the license until a new acceptable bid is submitted on that license.

b. Calculation

Generally, a bidder that withdraws a standing high bid during the course of an auction will be subject to a payment equal to the lower of: (1) the difference between the net withdrawn bid and the subsequent net winning bid; or (2) the difference between the gross withdrawn bid and the subsequent gross winning bid for that license. See 47 C.F.R. §§ 1.2104(g), and 1.2109. No withdrawal payment will be assessed if the subsequent winning bid exceeds the withdrawn bid.

(7) Round Results

The bids placed during a round are not published until the conclusion of that bidding period. After a round closes, the FCC will compile reports of all bids placed, bids withdrawn, current high bids, new minimum accepted bids, and bidder eligibility status (bidding eligibility and activity rule waivers), and post the reports for public access.
Reports reflecting bidders' identities and bidder identification numbers for Auction No. 23 will be available before and during the auction. Thus, bidders will know in advance of this auction the identities of the bidders against which they are bidding.

(8) Auction Announcements

The FCC will use auction announcements to announce items such as schedule changes and stage transitions. All FCC auction announcements will be available on the FCC remote electronic bidding system, as well as the Internet and the FCC Bulletin Board System.

(9) Other Matters

As noted in 3.B., after the short-form filing deadline, applicants may make only minor changes to their FCC Form 175 applications. For example, permissible minor changes include deletion and addition of authorized bidders (to a maximum of three) and revision of exhibits. Filers must make these changes on-line, and submit a letter to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, 2025 M Street, N.W., Room 5202, Washington, D.C. 20554 (and mail a separate copy to Arthur Lechtman, Auctions and Industry Analysis Division), briefly summarizing the changes. Questions about other changes should be directed to Arthur Lechtman of the FCC Auctions and Industry Analysis Division at (202) 418-0660.
5. POST-AUCTION PROCEDURES

A. Down Payments and Withdrown Bid Payments

After bidding has ended, the Commission will issue a public notice declaring the auction closed, identifying the winning bids and bidders for each license, and listing withdrawn bid payments due.

Within ten business days after release of the auction closing notice, each winning bidder must submit sufficient funds (in addition to its upfront payment) to bring its total amount of money on deposit with the Government to 20 percent of its net winning bids (actual bids less any applicable bidding credits). See 47 C.F.R. § 1.2107(b). In addition, by the same deadline all bidders must pay any withdrawn bid amounts due under 47 C.F.R. § 1.2104(g), as discussed in "Bid Removal and Bid Withdrawal," Part 4.B.(6). (Upfront payments are applied first to satisfy any withdrawn bid liability, before being applied toward down payments.)

B. Long-Form Application

Within ten business days after release of the auction closing notice, winning bidders must electronically submit a properly completed long-form application and required exhibits for each LMDS license won through the auction. Winning bidders that are small businesses or very small businesses must include an exhibit demonstrating their eligibility for bidding credits. See 47 C.F.R. § 1.2112(b). Further filing instructions will be provided to auction winners at the close of the auction.

C. Default and Disqualification

Any high bidder that defaults or is disqualified after the close of the auction (i.e., fails to remit the required down payment within the prescribed period of time, fails to submit a timely long-form application, fails to make full payment, or is otherwise disqualified) will be subject to the payments described in 47 C.F.R. § 1.2104(g)(2). In such event the Commission may re-auction the license or offer it to the next highest bidders (in descending order) at their final bids. See 47 C.F.R. § 1.2109(b) and (c). In addition, if a default or disqualification involves gross misconduct, misrepresentation, or bad faith by an applicant, the Commission may declare the applicant and its principals ineligible to bid in future auctions, and may take any other action that it deems necessary, including institution of proceedings to revoke any existing licenses held by the applicant. See 47 C.F.R. § 1.2109(d).

D. Refund of Remaining Upfront Payment Balance

All applicants that submitted upfront payments but were not winning bidders for a LMDS license may be entitled to a refund of their remaining upfront payment balance after the conclusion of the auction. No refund will be made unless there are excess funds on deposit from that applicant after any applicable bid withdrawal payments have been paid.

Bidders that drop out of the auction completely may be eligible for a refund of their upfront payments before the close of the auction. However, bidders that reduce their eligibility
and remain in the auction are not eligible for partial refunds of upfront payments until the close of the auction. Qualified bidders that have exhausted all of their activity rule waivers, have no remaining bidding eligibility, and have not withdrawn a high bid during the auction must submit a written refund request which includes wire transfer instructions, a Taxpayer Identification Number ("TIN"), and a copy of their bidding eligibility screen print, to:

Federal Communications Commission  
Billings and Collections Branch  
Attn: Regina Dorsey or Linwood Jenkins  
445 12th Street, S.W., Room 1-A824  
Washington, D.C. 20554

Bidders can also fax their request to the Billings and Collections Branch at (202) 418-2843. Once the request has been approved, a refund will be sent to the address provided on the FCC Form 159.

NOTE: Refund processing generally takes up to two weeks to complete. Bidders with questions about refunds should contact Linwood Jenkins or Geoffrey Idika at (202) 418-1995.

Media Contact: Meribeth McCarrick at (202) 418-0654  
Auctions and Industry Analysis Division: Kathryn Garland, Operations at (717) 338-2801; Tim Salmon, Auctions Analysis; and Arthur Lechtman, Legal Branch at (202) 418-0660.  
Public Safety and Private Wireless Division: Ronald Quirk or Cathy Fox at (202) 418-0680.

- FCC -
<table>
<thead>
<tr>
<th>MTA</th>
<th>BTA</th>
<th>Description</th>
<th>License Number</th>
<th>Population (1990 Census)</th>
<th>Upfront Payment ($0.06*Pops)</th>
<th>Minimum Opening Bid ($0.06*Pops)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTA024</td>
<td>BTA002</td>
<td>Aberdeen, WA</td>
<td>LDBTA002A</td>
<td>83,057</td>
<td>$4,984</td>
<td>$4,984</td>
</tr>
<tr>
<td>MTA011</td>
<td>BTA006</td>
<td>Albany-Tifton, GA</td>
<td>LDBTA006A</td>
<td>324,899</td>
<td>$19,494</td>
<td>$19,494</td>
</tr>
<tr>
<td>MTA006</td>
<td>BTA016</td>
<td>Anderson, SC</td>
<td>LDBTA016A</td>
<td>305,120</td>
<td>$18,308</td>
<td>$18,308</td>
</tr>
<tr>
<td>MTA029</td>
<td>BTA017</td>
<td>Anniston, AL</td>
<td>LDBTA017A</td>
<td>161,897</td>
<td>$9,714</td>
<td>$9,714</td>
</tr>
<tr>
<td>MTA006</td>
<td>BTA020</td>
<td>Asheville-Hendersonville, NC</td>
<td>LDBTA020A</td>
<td>510,055</td>
<td>$30,604</td>
<td>$30,604</td>
</tr>
<tr>
<td>MTA018</td>
<td>BTA035</td>
<td>Beckley, WV</td>
<td>LDBTA035A</td>
<td>167,112</td>
<td>$10,027</td>
<td>$10,027</td>
</tr>
<tr>
<td>MTA024</td>
<td>BTA036</td>
<td>Bellingham, WA</td>
<td>LDBTA036A</td>
<td>127,780</td>
<td>$7,667</td>
<td>$7,667</td>
</tr>
<tr>
<td>MTA018</td>
<td>BTA048</td>
<td>Bluefield, WV</td>
<td>LDBTA048A</td>
<td>184,020</td>
<td>$11,042</td>
<td>$11,042</td>
</tr>
<tr>
<td>MTA028</td>
<td>BTA049</td>
<td>Blytheville, AR</td>
<td>LDBTA049A</td>
<td>79,446</td>
<td>$4,767</td>
<td>$4,767</td>
</tr>
<tr>
<td>MTA026</td>
<td>BTA052</td>
<td>Bowling Green-Gladesville, KY</td>
<td>LDBTA052A</td>
<td>222,748</td>
<td>$13,365</td>
<td>$13,365</td>
</tr>
<tr>
<td>MTA012</td>
<td>BTA054</td>
<td>Brainerd, MN</td>
<td>LDBTA054A</td>
<td>78,465</td>
<td>$4,708</td>
<td>$4,708</td>
</tr>
<tr>
<td>MTA032</td>
<td>BTA061</td>
<td>Burlington, IA</td>
<td>LDBTA061A</td>
<td>137,543</td>
<td>$8,253</td>
<td>$8,253</td>
</tr>
<tr>
<td>MTA006</td>
<td>BTA062</td>
<td>Burlington, NC</td>
<td>LDBTA062A</td>
<td>108,213</td>
<td>$6,493</td>
<td>$6,493</td>
</tr>
<tr>
<td>MTA001</td>
<td>BTA063</td>
<td>Burlington, VT</td>
<td>LDBTA063A</td>
<td>369,128</td>
<td>$22,148</td>
<td>$22,148</td>
</tr>
<tr>
<td>MTA019</td>
<td>BTA066</td>
<td>Cape Girardeau-Sikeston, MO</td>
<td>LDBTA066A</td>
<td>181,795</td>
<td>$10,908</td>
<td>$10,908</td>
</tr>
<tr>
<td>MTA003</td>
<td>BTA071</td>
<td>Champaign-Urbana, IL</td>
<td>LDBTA071A</td>
<td>222,312</td>
<td>$13,339</td>
<td>$13,339</td>
</tr>
<tr>
<td>MTA021</td>
<td>BTA082</td>
<td>Clarksburg-Elkins, WV</td>
<td>LDBTA082A</td>
<td>190,498</td>
<td>$11,430</td>
<td>$11,430</td>
</tr>
<tr>
<td>MTA032</td>
<td>BTA086</td>
<td>Clinton, IA-Stirling, IL</td>
<td>LDBTA086A</td>
<td>147,981</td>
<td>$8,879</td>
<td>$8,879</td>
</tr>
<tr>
<td>MTA019</td>
<td>BTA090</td>
<td>Columbia, MO</td>
<td>LDBTA090A</td>
<td>190,536</td>
<td>$11,433</td>
<td>$11,433</td>
</tr>
<tr>
<td>MTA011</td>
<td>BTA092</td>
<td>Columbus, GA</td>
<td>LDBTA092A</td>
<td>342,333</td>
<td>$20,540</td>
<td>$20,540</td>
</tr>
<tr>
<td>MTA031</td>
<td>BTA093</td>
<td>Columbus, IN</td>
<td>LDBTA093A</td>
<td>139,128</td>
<td>$8,348</td>
<td>$8,348</td>
</tr>
<tr>
<td>MTA010</td>
<td>BTA100</td>
<td>Cumberland, MD</td>
<td>LDBTA100A</td>
<td>156,707</td>
<td>$9,403</td>
<td>$9,403</td>
</tr>
<tr>
<td>MTA003</td>
<td>BTA103</td>
<td>Danville, IL</td>
<td>LDBTA103A</td>
<td>114,241</td>
<td>$6,855</td>
<td>$6,855</td>
</tr>
<tr>
<td>MTA032</td>
<td>BTA105</td>
<td>Davenport, IA-Moline, IL</td>
<td>LDBTA105A</td>
<td>419,650</td>
<td>$25,179</td>
<td>$25,179</td>
</tr>
<tr>
<td>MTA029</td>
<td>BTA115</td>
<td>Dothan-Enterprise, AL</td>
<td>LDBTA115A</td>
<td>210,225</td>
<td>$12,614</td>
<td>$12,614</td>
</tr>
<tr>
<td>MTA021</td>
<td>BTA117</td>
<td>Du Bois-Clearfield, PA</td>
<td>LDBTA117A</td>
<td>124,180</td>
<td>$7,451</td>
<td>$7,451</td>
</tr>
<tr>
<td>MTA032</td>
<td>BTA118</td>
<td>Dubuque, IA</td>
<td>LDBTA118A</td>
<td>176,542</td>
<td>$10,593</td>
<td>$10,593</td>
</tr>
<tr>
<td>MTA012</td>
<td>BTA119</td>
<td>Duluth, MN</td>
<td>LDBTA119A</td>
<td>400,771</td>
<td>$24,047</td>
<td>$24,047</td>
</tr>
<tr>
<td>MTA028</td>
<td>BTA120</td>
<td>Dyersburg-Union City, TN</td>
<td>LDBTA120A</td>
<td>113,943</td>
<td>$6,837</td>
<td>$6,837</td>
</tr>
<tr>
<td>MTA033</td>
<td>BTA121</td>
<td>Eagle Pass-Del Rio, TX</td>
<td>LDBTA121A</td>
<td>100,813</td>
<td>$6,049</td>
<td>$6,049</td>
</tr>
<tr>
<td>MTA016</td>
<td>BTA122</td>
<td>East Liverpool-Salem, OH</td>
<td>LDBTA122A</td>
<td>108,276</td>
<td>$6,497</td>
<td>$6,497</td>
</tr>
<tr>
<td>MTA012</td>
<td>BTA123</td>
<td>Eau Claire, WI</td>
<td>LDBTA123A</td>
<td>180,559</td>
<td>$10,834</td>
<td>$10,834</td>
</tr>
<tr>
<td>MTA002</td>
<td>BTA124</td>
<td>El Centro-Calexico, CA</td>
<td>LDBTA124A</td>
<td>109,303</td>
<td>$6,559</td>
<td>$6,559</td>
</tr>
<tr>
<td>MTA016</td>
<td>BTA131</td>
<td>Erie, PA</td>
<td>LDBTA131A</td>
<td>275,572</td>
<td>$16,535</td>
<td>$16,535</td>
</tr>
<tr>
<td>MTA004</td>
<td>BTA134</td>
<td>Eureka, CA</td>
<td>LDBTA134A</td>
<td>142,578</td>
<td>$8,555</td>
<td>$8,555</td>
</tr>
<tr>
<td>MTA040</td>
<td>BTA140</td>
<td>Fayetteville-Springdale-Rogers, AR</td>
<td>LDBTA140A</td>
<td>222,526</td>
<td>$13,352</td>
<td>$13,352</td>
</tr>
<tr>
<td>MTA006</td>
<td>BTA141</td>
<td>Fayetteville-Lumberton, NC</td>
<td>LDBTA141A</td>
<td>571,328</td>
<td>$34,280</td>
<td>$34,280</td>
</tr>
<tr>
<td>MTA029</td>
<td>BTA146</td>
<td>Florence, AL</td>
<td>LDBTA146A</td>
<td>173,057</td>
<td>$10,385</td>
<td>$10,385</td>
</tr>
<tr>
<td>MTA006</td>
<td>BTA147</td>
<td>Florence, SC</td>
<td>LDBTA147A</td>
<td>233,808</td>
<td>$14,353</td>
<td>$14,353</td>
</tr>
<tr>
<td>MTA040</td>
<td>BTA153</td>
<td>Ft. Smith, AR</td>
<td>LDBTA153A</td>
<td>282,187</td>
<td>$16,932</td>
<td>$16,932</td>
</tr>
<tr>
<td>MTA010</td>
<td>BTA156</td>
<td>Fredericksburg, VA</td>
<td>LDBTA156A</td>
<td>124,564</td>
<td>$7,480</td>
<td>$7,480</td>
</tr>
<tr>
<td>MTA029</td>
<td>BTA158</td>
<td>Gadsden, AL</td>
<td>LDBTA158A</td>
<td>174,034</td>
<td>$10,443</td>
<td>$10,443</td>
</tr>
<tr>
<td>MTA011</td>
<td>BTA160</td>
<td>Gainesville, GA</td>
<td>LDBTA160A***</td>
<td>170,365</td>
<td>$10,222</td>
<td>$10,222</td>
</tr>
<tr>
<td>MTA003</td>
<td>BTA161</td>
<td>Galesburg, IL</td>
<td>LDBTA161A***</td>
<td>75,574</td>
<td>$4,535</td>
<td>$4,535</td>
</tr>
<tr>
<td>MTA039</td>
<td>BTA162</td>
<td>Gallup, NM</td>
<td>LDBTA162A</td>
<td>122,277</td>
<td>$7,337</td>
<td>$7,337</td>
</tr>
<tr>
<td>MTA001</td>
<td>BTA164</td>
<td>Glens Falls, NY</td>
<td>LDBTA164A</td>
<td>118,539</td>
<td>$7,113</td>
<td>$7,113</td>
</tr>
<tr>
<td>MTA006</td>
<td>BTA165</td>
<td>Goldsboro-Kinston, NC</td>
<td>LDBTA165A</td>
<td>217,319</td>
<td>$13,040</td>
<td>$13,040</td>
</tr>
</tbody>
</table>

*Subject to a pending waiver request filed by New Wave Networks, L.L.C.

**Subject to a pending petition for reconsideration filed by Pinpoint Communications, Inc.

***Baker Creek Communications, L.P. defaulted on this license.
| MTA006 | BTA176 | Greenville-Washington, NC | LDBTA176A | 218,937 | $13,137 | $13,137 |
| MTA006 | BTA178 | Greenwood, SC | LDBTA178A*** | 68,435 | $4,107 | $4,107 |
| MTA017 | BTA195 | Houma-Thibodaux, LA | LDBTA195A | 263,681 | $15,821 | $15,821 |
| MTA008 | BTA201 | Hyannis, MA | LDBTA201A | 204,256 | $12,256 | $12,256 |
| MTA203 | BTA217 | Jonesboro-Paragould, AR | LDBTA217A | 149,955 | $9,298 | $9,298 |
| MTA021 | BTA218 | Johnstown, PA | LDBTA218A | 241,247 | $14,475 | $14,475 |
| MTA032 | BTA233 | Kokomo-Logansport, IN | LDBTA233A | 194,834 | $11,563 | $11,563 |
| MTA020 | BTA234 | La Crosse, WI-Winona, MN | LDBTA234A | 265,210 | $16,012 | $16,012 |
| MTA003 | BTA250 | La Salle-Peru-Ottawa-Streator, IL | LDBTA250A | 122,988 | $7,380 | $7,380 |
| MTA035 | BTA255 | Lafayette, IN | LDBTA255A*** | 104,942 | $6,297 | $6,297 |
| MTA008 | BTA279 | Muncie, IN | LDBTA279A | 82,386 | $5,171 | $5,171 |
| MTA019 | BTA311 | Meadville, PA | LDBTA311A | 154,955 | $9,298 | $9,298 |
| MTA021 | BTA313 | Michigan City-La Porte, IN | LDBTA313A | 204,256 | $12,256 | $12,256 |
| MTA003 | BTA317 | Middleboro-Harlan, KY | LDBTA317A | 122,988 | $7,380 | $7,380 |
| MTA005 | BTA323 | New Bern, NC | LDBTA323A | 82,386 | $5,171 | $5,171 |
| MTA008 | BTA328 | New Castle, PA | LDBTA328A | 154,955 | $9,298 | $9,298 |
| MTA001 | BTA330 | New London-Norwich, CT | LDBTA330A | 218,937 | $13,137 | $13,137 |
| MTA021 | BTA342 | New London-Norwich, CT | LDBTA342A | 218,937 | $13,137 | $13,137 |
| MTA003 | BTA345 | New London-Norwich, CT | LDBTA345A | 218,937 | $13,137 | $13,137 |
| MTA035 | BTA348 | New London-Norwich, CT | LDBTA348A | 218,937 | $13,137 | $13,137 |
| MTA003 | BTA351 | New London-Norwich, CT | LDBTA351A | 218,937 | $13,137 | $13,137 |
| MTA008 | BTA354 | New London-Norwich, CT | LDBTA354A | 218,937 | $13,137 | $13,137 |
| MTA003 | BTA357 | New London-Norwich, CT | LDBTA357A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA360 | New London-Norwich, CT | LDBTA360A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA363 | New London-Norwich, CT | LDBTA363A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA366 | New London-Norwich, CT | LDBTA366A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA369 | New London-Norwich, CT | LDBTA369A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA372 | New London-Norwich, CT | LDBTA372A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA375 | New London-Norwich, CT | LDBTA375A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA378 | New London-Norwich, CT | LDBTA378A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA381 | New London-Norwich, CT | LDBTA381A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA384 | New London-Norwich, CT | LDBTA384A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA387 | New London-Norwich, CT | LDBTA387A | 218,937 | $13,137 | $13,137 |
| MTA005 | BTA390 | New London-Norwich, CT | LDBTA390A | 218,937 | $13,137 | $13,137 |

*Subject to a pending waiver request filed by New Wave Networks, L.L.C.

**Subject to a pending petition for reconsideration filed by Pinpoint Communications, Inc.

***Baker Creek Communications, L.P. defaulted on this license.
<table>
<thead>
<tr>
<th>MTA</th>
<th>BTA</th>
<th>City, State</th>
<th>LDBTA</th>
<th>A Block</th>
<th>B Block</th>
<th>C Block</th>
<th>D Block</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTA046</td>
<td>BTA396</td>
<td>Salina, KS</td>
<td>LDBTA396A</td>
<td>143,408</td>
<td>$8,605</td>
<td>$8,605</td>
<td></td>
</tr>
<tr>
<td>MTA034</td>
<td>BTA414</td>
<td>Sedalia, MO</td>
<td>LDBTA414A</td>
<td>79,705</td>
<td>$4,783</td>
<td>$4,783</td>
<td></td>
</tr>
<tr>
<td>MTA016</td>
<td>BTA416</td>
<td>Sharon, PA</td>
<td>LDBTA416A</td>
<td>121,003</td>
<td>$7,261</td>
<td>$7,261</td>
<td></td>
</tr>
<tr>
<td>MTA003</td>
<td>BTA426</td>
<td>Springfield, IL</td>
<td>LDBTA426A</td>
<td>254,696</td>
<td>$15,282</td>
<td>$15,282</td>
<td></td>
</tr>
<tr>
<td>MTA023</td>
<td>BTA430</td>
<td>Staunton-Waynesboro, VA</td>
<td>LDBTA430A</td>
<td>100,322</td>
<td>$6,020</td>
<td>$6,020</td>
<td></td>
</tr>
<tr>
<td>MTA031</td>
<td>BTA442</td>
<td>Terre Haute, IN</td>
<td>LDBTA442A</td>
<td>236,968</td>
<td>$14,219</td>
<td>$14,219</td>
<td></td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA446</td>
<td>Traverse City, MI</td>
<td>LDBTA446A</td>
<td>204,600</td>
<td>$12,276</td>
<td>$12,276</td>
<td></td>
</tr>
<tr>
<td>MTA028</td>
<td>BTA449</td>
<td>Tupelo-Corinth, MS</td>
<td>LDBTA449A</td>
<td>291,701</td>
<td>$17,503</td>
<td>$17,503</td>
<td></td>
</tr>
<tr>
<td>MTA001</td>
<td>BTA453</td>
<td>Utica-Rome, NY</td>
<td>LDBTA453A</td>
<td>316,633</td>
<td>$18,998</td>
<td>$18,998</td>
<td></td>
</tr>
<tr>
<td>MTA037</td>
<td>BTA454</td>
<td>Valdosta, GA</td>
<td>LDBTA454A</td>
<td>139,226</td>
<td>$8,354</td>
<td>$8,354</td>
<td></td>
</tr>
<tr>
<td>MTA014</td>
<td>BTA456</td>
<td>Victoria, TX</td>
<td>LDBTA456A</td>
<td>149,963</td>
<td>$8,998</td>
<td>$8,998</td>
<td></td>
</tr>
<tr>
<td>MTA001</td>
<td>BTA463</td>
<td>Watertown, NY</td>
<td>LDBTA463A</td>
<td>296,253</td>
<td>$17,776</td>
<td>$17,776</td>
<td></td>
</tr>
<tr>
<td>MTA019</td>
<td>BTA470</td>
<td>West Plains, MO</td>
<td>LDBTA470A</td>
<td>67,165</td>
<td>$4,030</td>
<td>$4,030</td>
<td></td>
</tr>
<tr>
<td>MTA018</td>
<td>BTA474</td>
<td>Williamson, WV-Pikeville, KY</td>
<td>LDBTA474A</td>
<td>185,682</td>
<td>$11,141</td>
<td>$11,141</td>
<td></td>
</tr>
<tr>
<td>MTA006</td>
<td>BTA478</td>
<td>Wilmington, NC</td>
<td>LDBTA478A</td>
<td>249,711</td>
<td>$14,983</td>
<td>$14,983</td>
<td></td>
</tr>
<tr>
<td>MTA027</td>
<td>BTA486</td>
<td>Yuma, AZ</td>
<td>LDBTA486A</td>
<td>106,895</td>
<td>$6,414</td>
<td>$6,414</td>
<td></td>
</tr>
<tr>
<td>MTA025</td>
<td>BTA488</td>
<td>San Juan, PR</td>
<td>LDBTA488A</td>
<td>2,170,246</td>
<td>$130,215</td>
<td>$130,215</td>
<td></td>
</tr>
<tr>
<td>MTA025</td>
<td>BTA489</td>
<td>Mayaguez-Aguadilla-Ponce, PR</td>
<td>LDBTA489A</td>
<td>1,351,600</td>
<td>$81,096</td>
<td>$81,096</td>
<td></td>
</tr>
</tbody>
</table>

**A Block Totals**

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A Block</td>
<td>26,057,363</td>
<td>$1,563,497</td>
<td>$1,563,497</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Subject to a pending waiver request filed by New Wave Networks, L.L.C.*

**Subject to a pending petition for reconsideration filed by Pinpoint Communications, Inc.*

***Baker Creek Communications, L.P. defaulted on this license.*
## Attachment A

### B Block Licenses

<table>
<thead>
<tr>
<th>MTA</th>
<th>BTA</th>
<th>Description</th>
<th>License Number</th>
<th>Population (1990)</th>
<th>Upfront Payment ($0.03*Pops)</th>
<th>Minimum Opening Bid ($0.03*Pops)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MTA005</td>
<td>BTA005</td>
<td>Adrian, MI</td>
<td>LDBTA005B***</td>
<td>91,476</td>
<td>$2,745</td>
<td>$2,745</td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA011</td>
<td>Alpena, MI</td>
<td>LDBTA011B***</td>
<td>63,429</td>
<td>$1,903</td>
<td>$1,903</td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA033</td>
<td>Battle Creek, MI</td>
<td>LDBTA033B***</td>
<td>227,541</td>
<td>$6,827</td>
<td>$6,827</td>
</tr>
<tr>
<td><strong>MTA030</strong></td>
<td><strong>BTA038</strong></td>
<td>Bend, OR</td>
<td>LDBTA038B*</td>
<td><strong>102,745</strong></td>
<td><strong>$3,083</strong></td>
<td><strong>$3,083</strong></td>
</tr>
<tr>
<td>MTA003</td>
<td>BTA039</td>
<td>Benton Harbor, MI</td>
<td>LDBTA039B***</td>
<td>161,378</td>
<td>$4,842</td>
<td>$4,842</td>
</tr>
<tr>
<td>MTA003</td>
<td>BTA046</td>
<td>Bloomington, IL</td>
<td>LDBTA046B***</td>
<td>215,795</td>
<td>$6,474</td>
<td>$6,474</td>
</tr>
<tr>
<td>MTA019</td>
<td>BTA066</td>
<td>Cape Girardeau-Sikeston, MO</td>
<td>LDBTA066B***</td>
<td>181,795</td>
<td>$5,454</td>
<td>$5,454</td>
</tr>
<tr>
<td>MTA019</td>
<td>BTA067</td>
<td>Carbondale-Marion, IL</td>
<td>LDBTA067B***</td>
<td>209,497</td>
<td>$6,285</td>
<td>$6,285</td>
</tr>
<tr>
<td>MTA032</td>
<td>BTA070</td>
<td>Cedar Rapids, IA</td>
<td>LDBTA070B***</td>
<td>260,686</td>
<td>$7,821</td>
<td>$7,821</td>
</tr>
<tr>
<td>MTA032</td>
<td>BTA086</td>
<td>Clinton, IA-Sterling, IL</td>
<td>LDBTA086B***</td>
<td>147,981</td>
<td>$4,440</td>
<td>$4,440</td>
</tr>
<tr>
<td>MTA019</td>
<td>BTA090</td>
<td>Columbia, MO</td>
<td>LDBTA090B***</td>
<td>190,536</td>
<td>$5,717</td>
<td>$5,717</td>
</tr>
<tr>
<td>MTA030</td>
<td>BTA097</td>
<td>Coos Bay-North Bend, OR</td>
<td>LDBTA097B</td>
<td>79,600</td>
<td>$2,388</td>
<td>$2,388</td>
</tr>
<tr>
<td>MTA003</td>
<td>BTA109</td>
<td>Decatur-Effingham, IL</td>
<td>LDBTA109B***</td>
<td>247,608</td>
<td>$7,429</td>
<td>$7,429</td>
</tr>
<tr>
<td>MTA004</td>
<td>BTA134</td>
<td>Eureka, CA</td>
<td>LDBTA134B</td>
<td>142,578</td>
<td>$4,278</td>
<td>$4,278</td>
</tr>
<tr>
<td>MTA012</td>
<td>BTA142</td>
<td>Fergus Falls, MN</td>
<td>LDBTA142B***</td>
<td>120,167</td>
<td>$3,606</td>
<td>$3,606</td>
</tr>
<tr>
<td><strong>MTA027</strong></td>
<td><strong>BTA144</strong></td>
<td>Flagstaff, AZ</td>
<td>LDBTA144B*</td>
<td><strong>96,591</strong></td>
<td><strong>$2,898</strong></td>
<td><strong>$2,898</strong></td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA145</td>
<td>Flint, MI</td>
<td>LDBTA145B***</td>
<td>500,229</td>
<td>$15,007</td>
<td>$15,007</td>
</tr>
<tr>
<td>MTA039</td>
<td>BTA162</td>
<td>Gallup, NM</td>
<td>LDBTA162B</td>
<td>122,277</td>
<td>$3,669</td>
<td>$3,669</td>
</tr>
<tr>
<td>MTA046</td>
<td>BTA163</td>
<td>Garden City, KS</td>
<td>LDBTA163B</td>
<td>65,059</td>
<td>$1,952</td>
<td>$1,952</td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA169</td>
<td>Grand Rapids, MI</td>
<td>LDBTA169B***</td>
<td>916,060</td>
<td>$27,482</td>
<td>$27,482</td>
</tr>
<tr>
<td><strong>MTA045</strong></td>
<td><strong>BTA185</strong></td>
<td>Hastings, NE</td>
<td>LDBTA185B**</td>
<td><strong>72,833</strong></td>
<td><strong>$2,185</strong></td>
<td><strong>$2,185</strong></td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA209</td>
<td>Jackson, MI</td>
<td>LDBTA209B***</td>
<td>193,187</td>
<td>$5,796</td>
<td>$5,796</td>
</tr>
<tr>
<td>MTA019</td>
<td>BTA217</td>
<td>Jefferson City, MO</td>
<td>LDBTA217B***</td>
<td>141,404</td>
<td>$4,243</td>
<td>$4,243</td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA223</td>
<td>Kalamazoo, MI</td>
<td>LDBTA223B</td>
<td>352,384</td>
<td>$10,572</td>
<td>$10,572</td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA241</td>
<td>Lansing, MI</td>
<td>LDBTA241B***</td>
<td>489,698</td>
<td>$14,691</td>
<td>$14,691</td>
</tr>
<tr>
<td>MTA039</td>
<td>BTA244</td>
<td>Las Cruces, NM</td>
<td>LDBTA244B</td>
<td>197,166</td>
<td>$5,915</td>
<td>$5,915</td>
</tr>
<tr>
<td><strong>MTA047</strong></td>
<td><strong>BTA254</strong></td>
<td>Lihue, HI</td>
<td>LDBTA254B*</td>
<td><strong>51,177</strong></td>
<td><strong>$1,536</strong></td>
<td><strong>$1,536</strong></td>
</tr>
<tr>
<td><strong>MTA045</strong></td>
<td><strong>BTA270</strong></td>
<td>McCook, NE</td>
<td>LDBTA270B**</td>
<td><strong>36,618</strong></td>
<td><strong>$1,099</strong></td>
<td><strong>$1,099</strong></td>
</tr>
<tr>
<td>MTA012</td>
<td>BTA277</td>
<td>Mankato-Fairmont, MN</td>
<td>LDBTA277B***</td>
<td>245,144</td>
<td>$7,355</td>
<td>$7,355</td>
</tr>
<tr>
<td>MTA004</td>
<td>BTA303</td>
<td>Modesto, CA</td>
<td>LDBTA303B</td>
<td>418,978</td>
<td>$12,570</td>
<td>$12,570</td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA307</td>
<td>Mt. Pleasant, MI</td>
<td>LDBTA307B***</td>
<td>118,558</td>
<td>$3,557</td>
<td>$3,557</td>
</tr>
<tr>
<td>MTA019</td>
<td>BTA308</td>
<td>Mt. Vernon-Centralia, IL</td>
<td>LDBTA308B***</td>
<td>119,286</td>
<td>$3,579</td>
<td>$3,579</td>
</tr>
<tr>
<td>MTA005</td>
<td>BTA310</td>
<td>Muskegon, MI</td>
<td>LDBTA310B***</td>
<td>206,974</td>
<td>$6,210</td>
<td>$6,210</td>
</tr>
<tr>
<td>MTA003</td>
<td>BTA344</td>
<td>Peoria, IL</td>
<td>LDBTA344B</td>
<td>455,643</td>
<td>$13,670</td>
<td>$13,670</td>
</tr>
<tr>
<td>MTA019</td>
<td>BTA355</td>
<td>Poplar Bluff, MO</td>
<td>LDBTA355B*</td>
<td>148,240</td>
<td>$4,448</td>
<td>$4,448</td>
</tr>
<tr>
<td>MTA024</td>
<td>BTA356</td>
<td>Port Angeles, WA</td>
<td>LDBTA356B</td>
<td>76,610</td>
<td>$2,299</td>
<td>$2,299</td>
</tr>
<tr>
<td>MTA008</td>
<td>BTA363</td>
<td>Presque Isle, ME</td>
<td>LDBTA363B</td>
<td>86,936</td>
<td>$2,609</td>
<td>$2,609</td>
</tr>
<tr>
<td><strong>MTA004</strong></td>
<td><strong>BTA371</strong></td>
<td>Redding, CA</td>
<td>LDBTA371B*</td>
<td><strong>253,255</strong></td>
<td><strong>$7,598</strong></td>
<td><strong>$7,598</strong></td>
</tr>
<tr>
<td><strong>MTA004</strong></td>
<td><strong>BTA372</strong></td>
<td>Reno, NV</td>
<td>LDBTA372B*</td>
<td><strong>439,279</strong></td>
<td><strong>$13,179</strong></td>
<td><strong>$13,179</strong></td>
</tr>
<tr>
<td>MTA012</td>
<td>BTA378</td>
<td>Rochester-Austin-Albert Lea, MN</td>
<td>LDBTA378B***</td>
<td>233,167</td>
<td>$6,996</td>
<td>$6,996</td>
</tr>
<tr>
<td>MTA001</td>
<td>BTA383</td>
<td>Rolla, MO</td>
<td>LDBTA383B***</td>
<td>98,233</td>
<td>$2,947</td>
<td>$2,947</td>
</tr>
<tr>
<td><strong>MTA036</strong></td>
<td><strong>BTA392</strong></td>
<td>St. George, UT</td>
<td>LDBTA392B*</td>
<td><strong>83,263</strong></td>
<td><strong>$2,498</strong></td>
<td><strong>$2,498</strong></td>
</tr>
<tr>
<td>MTA034</td>
<td>BTA414</td>
<td>Sedalia, MO</td>
<td>LDBTA414B***</td>
<td>79,705</td>
<td>$2,392</td>
<td>$2,392</td>
</tr>
<tr>
<td>MTA003</td>
<td>BTA426</td>
<td>Springfield, IL</td>
<td>LDBTA426B***</td>
<td>254,698</td>
<td>$7,641</td>
<td>$7,641</td>
</tr>
<tr>
<td>MTA032</td>
<td>BTA462</td>
<td>Waterloo-Cedar Falls, IA</td>
<td>LDBTA462B***</td>
<td>261,009</td>
<td>$7,831</td>
<td>$7,831</td>
</tr>
<tr>
<td><strong>MTA019</strong></td>
<td><strong>BTA470</strong></td>
<td>West Plains, MO</td>
<td>LDBTA470B***</td>
<td><strong>67,165</strong></td>
<td><strong>$2,015</strong></td>
<td><strong>$2,015</strong></td>
</tr>
</tbody>
</table>

**B Block Totals**

|                  | 9,323,636 | $279,731 | $279,731 |

**Totals**

|                  | 35,380,999 | $1,843,228 | $1,843,228 |

---

*Subject to a pending waiver request filed by New Wave Networks, L.L.C.

**Subject to a pending petition for reconsideration filed by Pinpoint Communications, Inc.

***Baker Creek Communications, L.P. defaulted on this license.
ATTACHMENT B

GUIDELINES FOR COMPLETION
OF FCC FORM 175 AND EXHIBITS

A. FCC Form 175

Because of the significance of the FCC Form 175 application to the auction, bidders should especially note the following:

**Items 2-5:** Give a street address (not a Post Office box number) for the applicant, suitable for mail or private parcel delivery. The FCC will send all registration materials and other written communications to the applicant at this address.

**Item 8:** Applicants must indicate their legal classification. The FCC Form 175 requires the applicant to classify itself as an individual, joint venture, partnership, trust, corporation, consortium, association, limited liability company (LLC) or government entity.

**Item 10:** Be advised that this is the sole opportunity applicants have to elect small business status and bidding credit level (if applicable), and there is no opportunity to change the election once the short-form filing deadline passes. Applicants are also requested to indicate their status as a rural telephone company, minority-owned business and/or women-owned business, so that the FCC can monitor its performance in promoting economic opportunities for these designated entities.

- Very small business, small business, or entrepreneur applicants should enter the applicable bidding credit in Item 10. Applicants should be aware that this is the sole opportunity that they will have to elect the appropriate bidding credit.

**Item 11 (License Selection):** Applicants should identify all licenses on which they want to be eligible to bid in the auction. Be advised that there is no opportunity to change this list once the short-form filing deadline passes. The FCC auction system will not accept bids on licenses for which an applicant has not applied on its FCC Form 175.

**Item 12:** Applicants must list the name(s) of the person(s) (no more than three) authorized to represent them at the auction. Only those individuals listed on the FCC Form 175 will be authorized to place or withdraw bids for the applicant during the auction. **Note:** Applicants may only share a common authorized bidder(s) if each applicant has selected separate markets. See 47 C.F.R. § 1.2105(c).

**Certifications:** Applicants should carefully read the list of certifications on the FCC Form 175. These certifications help to ensure a fair and competitive auction and require, among other things, disclosure to the Commission of certain information on applicant ownership and
agreements or arrangements concerning the auction. Submission of an FCC Form 175 application constitutes a representation by the certifying official that he or she is an authorized representative of the applicant, has read the form's instructions and certifications, and that the contents of the application and its attachments are true and correct. Submission of a false certification to the Commission may result in penalties, including monetary forfeitures, license forfeitures, ineligibility to participate in future auctions, and/or criminal prosecution.

Contact person: If the Commission wishes to communicate with the applicant by telephone or fax, those communications will be directed to the contact person identified on the FCC Form 175. Space is provided for a telephone number, fax number, and e-mail address. All written communication and registration information will be directed to the applicant's contact person at the address specified on the FCC Form 175. Applicants must provide a street address; no P.O. Box addresses may be used.

Completeness: Applicants must submit all information required by the FCC Form 175 and by applicable rules, including a certifying signature on manual filings. Failure to submit required information by the resubmission date will result in dismissal of the application and inability to participate in the auction. See 47 C.F.R. § 1.2105(b).

NOTE: Applicants must press the "Submit Form 175" button on the "Submit" page to successfully submit their FCC Form 175.

Continuing Accuracy: Each applicant is responsible for the continuing accuracy and completeness of information furnished in the FCC Form 175 and its exhibits. See 47 C.F.R. § 1.65. It is the FCC's position that during the conduct of an auction, thirty business days from a reportable change is a reasonable period of time. Applicants are reminded that Certification 6 on the FCC Form 175 includes consent to be audited.

B. Exhibits and Attachments

In addition to the FCC Form 175 itself, applicants must submit additional information required by the FCC's rules. Although the FCC does not require a particular format for this information, it has developed the following guidelines that will facilitate the processing of short-form applications. The FCC encourages applicants to submit this information using the following format.

When electronically uploading attachments in the FCC Form 175 Submission, applicants may use a variety of file formats including Word, Wordperfect, Adobe PDF, Excel, Lotus, and ASCII text and should verify that the files contain all exhibit information. Graphics file uploads (e.g., .bmp, .tiff, .jpg) are not supported, and graphics images should not be imported into any word processing files that are uploaded.

If you find that an attachment has not converted properly to Adobe PDF format, take the following steps:

1) Delete the failed attachment.
2) Simplify the formatting of the file. For example, if using a Table structure in a WordPerfect document, remove the Table structure leaving the contents of the table, re-save the document.
3) Re-upload the attachment.

NOTE: Applicants should not list their TIN numbers on any Exhibits to their FCC Form 175s.

Exhibit A -- Applicant Identity and Ownership Information: 47 C.F.R. § 1.2105(a)(2)(ii) requires each applicant to fully disclose the real party or parties-in-interest in an exhibit to its FCC Form 175 application. Each member of an applicant applying to bid as an entrepreneur, very small or small business consortium must provide this information. The following information is required:

1. General Information

<table>
<thead>
<tr>
<th>Applicant Status</th>
<th>Required Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Partnership</td>
<td>Name, citizenship, and address of all partners, and the share or interest participation of each partner</td>
</tr>
<tr>
<td>Limited Partnership</td>
<td>Name, citizenship, and address of each limited partner whose interest in the applicant is equal to or greater than 10 percent (as calculated according to the percentage of equity paid in and the percentage of distribution of profits and losses) Corporation Corporate name and address; and name, title, and citizenship of a responsible officer or director</td>
</tr>
<tr>
<td>Limited Liability Corporation</td>
<td>Corporate name and address; and name, address, and citizenship of all members</td>
</tr>
<tr>
<td>Trust</td>
<td>Name, citizenship, and address of trustee</td>
</tr>
<tr>
<td>None of the above</td>
<td>Name, citizenship, title or other relation to the applicant, and address of a principal or other responsible person</td>
</tr>
</tbody>
</table>

2. Ownership Information

<table>
<thead>
<tr>
<th>Applicant Status</th>
<th>Required Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>All applicants</td>
<td>Name, citizenship, and address of all controlling principals of the applicant as defined in Section 2.A.(2) of this Public Notice. (See also LMDS Second R&amp;O at ¶ 352.)</td>
</tr>
</tbody>
</table>
All applicants Name, citizenship, and address of all parties holding 10 percent or more of each class of stock, warrants, options or debt securities and the amount and percentage held

All applicants Name of all parties holding a 10 percent or greater interest in the applicant and the specific amount held

All applicants List of any FCC-licensed entity or applicant for an FCC license, in which
   a. the applicant;
   b. any party with a 10 percent or greater interest in the applicant; or
   c. a controlling principal (as defined in Section 2.A.(2) of this Public Notice. (See also LMDS Second R&O at ¶ 352.)) of the applicant owns a 10 percent or greater interest or 10 percent or more of any class of stock, warrants, options or debt securities. This list must include a description of each such entities' principal business and a description of each such entities' relationship to the applicant.

Example of a. The applicant owns 10 percent of Company A (an FCC-licensed entity or an applicant for an FCC license). The applicant must list Company A on its Form 175 Exhibit A and provide the required information.

Example of b. Company A owns 10 percent of the applicant and 10 percent of Company B (an FCC-licensed entity or an applicant for an FCC license). The applicant must list both Company A and Company B on its Form 175 Exhibit A and provide the required information.

Example of c. A owns 55% of the applicant and owns 10 percent of Company B (an FCC-licensed entity or an applicant for an FCC license). The applicant must list both A and Company B on its Form 175 Exhibit A and provide the required information.

All applicants List of all parties holding indirect ownership interests in the applicant as determined by successive multiplication of the ownership percentages in each link of the vertical ownership chain, that equals 10 percent or more of the applicant, except that if the ownership percentage for any link in the chain exceeds 50 percent or represents actual control, it shall be reported as if it were a 100 percent interest.

Example. A owns 10% of Company B, which owns 60% of Company C, which owns 25% of the applicant. Company
B's interest in the applicant would be 25% (the same as Company C's interest since Company B's interest in Company C exceeds 50%), and A's interest in the applicant would be 2.5% (0.1 * 0.25). Under the 10% attribution benchmark, Company B's interest in the applicant must be reported on the applicant's FCC Form 175 Exhibit A, while A's interest in the applicant need not be reported. However, if A owned 40% of Company B in the above example, then A's interest in the applicant would be 10% (0.4 * 0.25), and the applicant would need to report it on the applicant's FCC Form 175 Exhibit A.

**Exhibit B -- Agreements with Other Parties/Joint Bidding Arrangements:** Applicants must attach an exhibit identifying all parties with which they have entered into any agreements, arrangements or understandings which relate in any way to the licenses being auctioned, including any relating to the post-auction market structure. See 47 C.F.R. § 1.2105(a)(2)(viii).

Be aware that pursuant to Certification (4) on the FCC Form 175, the applicant certifies that it will not enter into any explicit or implicit agreements or understandings of any kind with parties not identified in the application regarding bid amounts, bidding strategies, or the particular licenses the applicant will or will not bid. See 47 C.F.R. § 1.2105(a)(2)(ix). To prevent collusion, the Commission's Rules generally prohibit communication among applicants for the same license areas between the initial short-form applications filing deadline and the down payment on licenses won, when such communications concern bids, bidding strategies, or settlements. 47 C.F.R. § 1.2105(c).

**Exhibit C -- Status as an Entrepreneur, Very Small Business, or Small Business:** Applicants claiming status as a very small business or small business must attach an exhibit providing the following information regarding this status.
<table>
<thead>
<tr>
<th>Entity</th>
<th>Required Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicant</td>
<td>Average gross revenues for the preceding three years set forth both separately (e.g., for each of the three preceding three years individually) and in the aggregate (for all of the preceding three years combined). Certification that the average gross revenues for the preceding three years do not exceed the required limit, or providing average gross revenues for the 3-year period without providing the gross revenues for each of the preceding three years, is insufficient.</td>
</tr>
<tr>
<td>Applicant's Affiliates</td>
<td>same information required as discussed above</td>
</tr>
<tr>
<td>see 47 CFR § 101.1112(h)</td>
<td></td>
</tr>
<tr>
<td>Applicant's Controlling Principals</td>
<td>same information required as discussed above</td>
</tr>
<tr>
<td>see Section 2.A.(2) of this Public Notice. (See also LMDS Second R&amp;O at ¶ 352.)</td>
<td></td>
</tr>
<tr>
<td>Example. The applicant had gross revenues of $500,000 in 1995, $1,000,000 in 1996, and $3,000,000 in 1997, with average gross revenues for that time period of $1,500,000. The applicant owns 60% of Company A, making Company A an affiliate of the applicant under Section 1.2110(b)(4)(i)(B), and Company B owns 52% of the applicant (making Company B a controlling principal of the applicant, as defined in Section 2.A.(2) of this Public Notice. (See also LMDS Second R&amp;O at ¶ 352.)). The applicant's Exhibit C would look like this:</td>
<td></td>
</tr>
<tr>
<td>Applicant Name</td>
<td></td>
</tr>
<tr>
<td>1996 gross revenues</td>
<td>$ 500,000</td>
</tr>
<tr>
<td>1997 gross revenues</td>
<td>$ 1,000,000</td>
</tr>
<tr>
<td>1998 gross revenues</td>
<td>$ 3,000,000</td>
</tr>
<tr>
<td>Average gross revenues for the preceding 3 years</td>
<td>$ 1,500,000</td>
</tr>
</tbody>
</table>
Company A (an affiliate of the applicant)

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Revenues</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td></td>
<td>$</td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td>$</td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td>$</td>
</tr>
</tbody>
</table>

Average gross revenues for the preceding 3 years $ enter amount

Company B (a controlling principal in the applicant)

<table>
<thead>
<tr>
<th>Year</th>
<th>Gross Revenues</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1996</td>
<td></td>
<td>$</td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td>$</td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td>$</td>
</tr>
</tbody>
</table>

Average gross revenues for the preceding 3 years $ enter amount

**TOTAL:** combined average gross revenues for the preceding three years of the applicant, the applicant’s affiliates and their controlling principals

**NOTE:** Each member of an applicant that is applying to bid as a consortium of entrepreneurs or small or very small businesses must provide this information and qualify for the claimed status.

**Exhibit D -- Information Requested of Designated Entities:** Applicants owned by minorities or women, as defined in 47 C.F.R. § 1.2110(b), or that are rural telephone companies, may attach an exhibit regarding this status. This information, in conjunction with the information in Item 10, will assist the Commission in monitoring the participation of these "designated entities" in its auctions.

**Exhibit E -- Miscellaneous Information:** Applicants wishing to submit additional information should include it in Exhibit E.

Applicants are reminded that all information required in connection with applications to participate in spectrum auctions is necessary to determine the applicants' qualifications, and as such will be available for public inspection. Required proprietary information may be redacted, or confidentiality may be requested, following the procedures set forth in 47 C.F.R. § 0.459. Such requests must be submitted in writing to Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission, 2025 M Street, N.W., Room 5202, Washington, D.C. 20554 (with a separate copy mailed to Arthur Lechtman, Legal Branch, Auctions and Industry Analysis Division), in which case the applicant must indicate in Exhibit E that it has filed a confidentiality request. Because the required information bears on applicants' qualifications, the FCC envisions that confidentiality requests will
not be routinely granted.

**Waivers:** Applicants requesting waiver of any rules must submit a statement of reasons sufficient to justify the waiver sought. See 47 CFR § 1.3.
AUCTION-SPECIFIC INSTRUCTIONS
FCC REMITTANCE ADVICE, FCC FORM 159

UPFRONT PAYMENTS

The following information supplements the standard instructions for FCC Form 159, and is provided to help ensure correct completion of FCC Form 159 for upfront payments for Local Multipoint Distribution Service (LMDS) reauction (Auction No. 23). Applicants need to complete FCC Form 159 carefully, since:

- Mistakes may affect their bidding eligibility; and
- Lack of consistency between information set forth in FCC Form 159, FCC Form 175, long-form application, and correspondence about an application may cause processing delays.

Therefore appropriate cross-references between the FCC Form 159 Remittance Advice and the FCC Form 175 Short Form Application are described below.

<table>
<thead>
<tr>
<th>Block Number</th>
<th>Required Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>LOCKBOX # - Enter &quot;358420&quot;</td>
</tr>
<tr>
<td>2</td>
<td>Payer Name - Enter the name of the person or company making the payment. If the applicant itself is the payer, this entry would be the same as FCC Form 175.</td>
</tr>
<tr>
<td>3</td>
<td>Total Amount Paid – Enter the amount of the upfront payment associated with the FCC Form 159.</td>
</tr>
<tr>
<td>4-8</td>
<td>Street Address, City, State, ZIP Code – Enter the street mailing address (not Post Office box number) where mail should be sent to the payer. If the applicant is the payer, these entries would be the same as FCC Form 175, blocks 2 through 5.</td>
</tr>
<tr>
<td>9</td>
<td>Daytime Telephone Number – Enter the telephone number of a person knowledgeable about this upfront payment.</td>
</tr>
<tr>
<td>10</td>
<td>Country Code - For addresses outside the United States, enter the appropriate postal country code (available from the Mailing Requirements Department of the U.S. Postal Service).</td>
</tr>
<tr>
<td>20A</td>
<td>Payment Type Code - Enter &quot;A23U&quot;</td>
</tr>
<tr>
<td>21A</td>
<td>Quantity – Enter the number &quot;1&quot;</td>
</tr>
</tbody>
</table>
22A  Amount Due – Enter the total upfront payment due.

23A  FCC Code 1 - Enter the number"23" (indicating Auction No. 23).

26  Applicant TIN - Same as FCC Form 175, block 7.

NOTES:  • Do not use Remittance Advice (Continuation Sheet), FCC Form 159-C, for upfront payments.

• If applicant is different from the payer, complete blocks 11 through 18 for the applicant, using the same information shown on FCC Form 175. Otherwise leave them blank.

• Since credit card payments will not be accepted for this auction, leave this area blank.
WINNING BIDDER REQUIREMENTS

AUCTION-SPECIFIC INSTRUCTIONS FOR FCC REMITTANCE ADVICE, FCC FORM 159:
DOWN PAYMENTS AND FINAL PAYMENTS

Specific information regarding down payments and final payments will be included in a post-auction Public Notice announcing the winning bidders.

POST-AUCTION LONG FORM FILING

Within 10 business days after release of the auction closing notice, winning bidders must electronically submit a properly completed long-form application and required exhibits for each LMDS license won through the auction. Further filing instructions will be provided to auction winners at the close of the auction.
ATTACHMENT C

A. ELECTRONIC FILING AND REVIEW OF THE FCC FORM 175

Applicants must submit their FCC Form 175 applications electronically using the Commission's remote access system. This system will generally be available 24 hours per day beginning March 5, 1999. FCC Form 175 applications must be submitted and confirmed by **5:30 p.m. ET on March 29, 1999.** Late applications or unconfirmed submissions of electronic data will not be accepted.

Applicants must press the **Submit Form 175** button on the **Submit** page to successfully submit their FCC Form 175. The electronic filing process consists of an initial filing period and a resubmission period to make minor corrections. During each filing period, submitted applications may be updated and amended multiple times until the filing deadline.

Applicants will need to meet the following minimum hardware and software requirements:

**Minimum Hardware Requirements**

- **CPU:** Intel Pentium
- **RAM:** 16 MB (more recommended if you have multiple applications open)
- **Modem:** v.32bis 14.4kbps Hayes compatible modem or faster (recommend at least 28.8kbps)
- **Monitor:** VGA or above
- **Mouse or other pointing device**

**Minimum Software Requirements**

- **Operating System:** Microsoft Windows 95/98
- **Dial-Up Networking feature included with Windows 95/98**
- **Web Browser:** Netscape Communicator 4.5 is recommended. However, you can also use Netscape Communicator 4.08, 4.07, 4.06, or 4.05 with JDK 1.1 (Internet web browser software). Note: To download Netscape Communicator 4.5 free of charge, access the Netscape download site at [http://home.netscape.com/download/](http://home.netscape.com/download/)
- **PDF Viewer:** Adobe Acrobat Reader 3.0 or higher (available at [http://www.adobe.com](http://www.adobe.com))
- **If you wish to use the download feature in the Form 175 Review, you will need a .tar file extraction utility, e.g., Winzip (available at [http://www.winzip.com](http://www.winzip.com)) or Pkzip for Windows**
Connecting to the FCC Network

To file or review applications electronically, you must first connect to the FCC Network using Dial-Up Networking.

Parties submitting FCC Form 175 applications will connect to a toll-free 800 number telephone service.

Similarly, parties reviewing FCC Form 175 applications will connect to a 900 number telephone service at a charge of $2.30 per minute. The first minute of connection time to the 900 number service will be at no charge.

Dial-Up Networking establishes a point-to-point connection from your PC to the FCC Network. This point-to-point connection is not routed through the Internet.

For instructions on how to connect to the FCC Network using Dial-Up Networking, see the Accessing the FCC Network Using Windows 95/98 section.

Submitting or Reviewing FCC Form 175 Applications

After you have connected to the FCC Network, start your Netscape Web browser. In your browser’s Location field, enter one of the following locations:

- For Form 175 Submit, enter http://wtbwww04.fcc.gov and then click **Form 175 Submit**
- For Form 175 Review, enter http://wtbwww03.fcc.gov and then click **Form 175 Review**

When uploading attachments in FCC Form 175 Submission, applicants may use a variety of file formats including Word, WordPerfect, Adobe PDF, Excel, Lotus, and ASCII text and should verify that the files contain all exhibit information. Graphics file uploads (e.g., .bmp, .tiff, .jpg) are not supported, and graphics images should not be imported into any word processing files that are uploaded.

After you upload an attachment, check to see if it converted properly by selecting the PDF filename in the rightmost column. If you are unable to read this file, please do the following:

Re-upload the attachment.

If the file still has not converted properly, then simplify the formatting of the file. For example, if using a Table structure in a WordPerfect document, remove the Table structure and leave the contents of the table, then re-upload the attachment.
After you have successfully re-uploaded an attachment, please delete the old, unreadable attachment files.

Applicants must press the **Submit Form 175** button on the *Submit* page to successfully submit their FCC Form 175. During each filing period, submitted applications may be updated and amended multiple times until the filing deadline.

When you have finished, exit your Web browser; then disconnect from the FCC Network.

**Help**

For technical assistance with installing or using FCC software, contact the FCC Technical Support Hotline at (202) 414-1250 (V) or (202) 414-1255 (TTY). The FCC Technical Support Hotline is generally available Monday through Friday, from 8 a.m. to 6 p.m. ET. *All calls to the FCC Technical Support Hotline are recorded.*
This attachment describes how to access the FCC Network from a system that is running the Microsoft Windows 95 or Microsoft Windows 98 operating system. This involves configuring dial-up network access and then performing the dial-up procedure.

**Conventions**

The instructions in this section use the following typographical conventions:

- **bold** Represents objects on the screen that you click with the mouse pointer, including buttons, Internet links, icons, tabs, menu items (e.g., *Cancel* button, *Auctions* link, *Save* option in the File menu).

- **italic** Represents field names or areas of a screen (e.g., *Applicant* field, *Selected Licenses* area of a screen).

- **bold italic** Represents characters that you must type exactly as they appear in the instructions. For example, if you are instructed to type `http://wtbwww03.fcc.gov`, you should type all of the characters shown in bold italic exactly as they are printed.

- **SMALL CAPS** Represents keys on the keyboard (e.g., `ENTER`, `CTRL`, `ESC`).

**Note:** Throughout these instructions, “enter” means to type the appropriate information and then press the ENTER key.

**Configuring Dial-Up Networking**

1. To start dial-up networking:
   a. Click the Windows 95/98 *Start* button.
   b. Click the *Programs* option to display the Programs menu.
   c. Click the *Accessories* option to display the Accessories menu.
   d. In Windows 95, click *Dial-Up Networking*.
      In Windows 98, click *Communications*, then *Dial-Up Networking*.

   If Dial-Up Networking is not an option on your Accessories menu, you should install it from your Windows 95/98 CD or diskettes.

2. When the Dial-Up Networking window appears, double-click the *Make New Connection* icon.

3. The Make New Connection window appears.
If you are connecting to submit FCC Form 175 applications, type **FCC Auctions 800#** in the field titled *Type a name for the computer you are dialing.*

If you are connecting to review FCC Form 175 applications or to use the FCC Remote Access System, type **FCC Auctions 900#** in the field titled *Type a name for the computer you are dialing.*

**Note:** If you connect to the FCC’s 900# telephone service, there is a charge of $2.30 per minute. The first minute of connection time to the 900 number service is at no charge.

4. In Windows 95, click the down arrow at the right of the *Select a modem* field and select your modem from the menu of available modems.

   In Windows 98, click the down arrow at the right of the *Select a device* field and select your modem from the menu of available devices.

   If your modem does not appear on this list, you must install your modem driver according to the modem manufacturer installation procedures, which are usually described in your modem’s user manual.

5. **Click the Next button.**

6. If you are connecting to submit FCC Form 175 applications, type **800** and **378-7435** in the *Area Code* and *Telephone Number* fields, respectively.

   If you are connecting to review FCC Form 175 applications or to use the FCC Remote Access System, type **900** and **555-5335** in the *Area Code* and *Telephone Number* fields, respectively.

7. Verify that the correct country is selected in the *Country code* field.

   If necessary, click the down arrow at the right of the *Country code* field and select the appropriate country from the menu of available countries.

8. **Click the Next button.**

9. **Click the Finish button.**

   An icon labeled either **FCC Auctions 800#** or **FCC Auctions 900#** appears in the Dial-Up Networking window.

10. Verify that properties are configured correctly before attempting a dial-up session. Put the mouse pointer on the FCC Auctions icon that you wish to configure and click the *right* mouse button to display a menu. Click **Properties** from the menu.

11. **Click the Configure button.** Click the **Options** tab at the top of the Properties window.
12. In the Connection control area of the Options tab, verify that neither option is selected. If either option is selected, click the check box at the left of the option to deselect it. Then click OK.

13. In Windows 95, click the Server Type... button.
   In Windows 98, click the Server Types tab at the top of the Properties window.

14. In the Advanced Options area, verify that only Enable software compression is selected. If it is not selected, click the check box at the left of the option to select it. If either of the other options is selected, click the check box to deselect it.

15. In the Allowed Network Protocols area, verify that only TCP/IP is selected.
    If it is not selected, click the check box at the left of the option to select it. If either of the other options is selected, click the check box to deselect it.

16. Click the TCP/IP Settings button and select Specify name server addresses.

17. Type 165.135.22.249 as the Primary DNS.

18. Click OK on the TCP/IP Settings window and the Server Type window.

19. a. Click the Windows 95/98 Start button, then click the Settings option to display the Settings menu.
    b. Click Control Panel and then double-click the Network icon.
    c. Highlight the TCP/IP Protocol and click Properties. If there are multiple TCP/IP protocols, highlight TCP/IP --> Dial-Up Adapter and click Properties.
    d. Click the DNS Configuration tab.
    e. Select Enable DNS. Type bidder in the Host box, type fcc.gov in the Domain box, then type 165.135.22.249 in the DNS Server Search Order box and click the Add button.
    f. Click OK on the TCP/IP Properties windows, then click OK on the Network windows.

If you are prompted to restart your computer, click Yes to restart, then begin the Dial-Up Procedure.

Dial-Up Procedure

1. If the Dial-Up Networking window is not currently open, do the following:
a. Click the Windows 95/98 Start button.
b. Click the Programs option to display the Programs menu.
c. Click the Accessories option to display the Accessories menu.
d. In Windows 95, click Dial-Up Networking
   In Windows 98, click Communications, then Dial-Up Networking.

The Dial-Up Networking window appears.

2. In the Dial-Up Networking window, double-click the FCC Auctions 800# or FCC Auctions 900# icon.

Note: If you connect to the FCC’s 900 number telephone service, there is a charge of $2.30 per minute. The first minute of connection time to the 900 number service is at no charge.

3. Click the Connect button on the window. Do not enter User name and Password.

The Connection window appears, indicating the status of your connection as your modem dials into the system. This window must remain running during your dial-up session. You may minimize the window, if you wish.

If your modem fails to establish a connection, please see the Troubleshooting section below.

4. Once the connection is established, open your Web browser.

5. In your browser’s Location field, enter the appropriate Universal Resource Locator (URL) as follows:
   
   * For FCC Form 175 Submit, enter http://wtbwww04.fcc.gov
   
   * For FCC Form 175 Review or the FCC Remote Access System, enter http://wtbwww03.fcc.gov

If nothing appears in your Web browser, please see the Troubleshooting section below.

6. When you have finished, exit the Web browser, then click the Disconnect button on the Connection window to end your dial-up session.

Troubleshooting

Following are problems you may encounter and possible solutions for resolving or isolating them.

Modem does not respond
1. Confirm that all physical connections for the modem are present.

   Confirm that the phone line is active by connecting it to a telephone and checking for a dial-tone.

3. If you are dialing the 900 number service, check for a 900 number telephone block. If the volume settings are low, the modem may be dialing but not connecting. Check for this by trying to connect to the 800 number, or by dialing the 900 number on that line using a telephone.

4. Confirm that the correct modem driver is installed for your modem.

   **Modem dials but does not connect**

   1. If you are dialing the 900 number service, check for a 900 number telephone block. Check for this by dialing the 800 number to see if you connect, or by dialing the 900 number on that line using a telephone.

   2. Confirm that the number the modem is dialing is correct.

   3. Confirm that the modem prefix, if any, is correct.

   **Modem dials and connects, but nothing appears when you enter the Location in the Web browser**

   Verify the Dial-Up Networking settings specified in the *Configuring Dial-Up Networking* section.

   2. Confirm that your Web browser is not using proxies.

   **Receive an Internal Server error in the Web browser**

   1. Confirm that the *Location* is correct.

   2. Confirm that *JavaScript* is enabled in your Web browser.

   **Help**

   For technical assistance with installing or using FCC software, contact the FCC Technical Support Hotline at (202) 414-1250 (V) or (202) 414-1255 (TTY). The FCC Technical Support Hotline is generally available Monday through Friday, from 8 a.m. to 6 p.m. ET. *All calls to the FCC Technical Support Hotline are recorded.*
The Local Multipoint Distribution Service (LMDS) Auction

Qualified bidders have the option to electronically participate in the auction bidding process by using the FCC Remote Bidding Software. Further, while bidders are free to copy the software for use by authorized bidders at different locations, the FCC auction system will accept electronic bids only from bidders who have purchased the software. (Since bidding software is tailored to a specific auction, software from prior auctions will not work for Auction 23.)

The price of the FCC Remote Bidding Software is **$175.00**, including a user manual and shipping. To order, complete the form below and return no later than 5:30 p.m. ET on **Tuesday, April 13, 1999**, to:

FCC Bidding Software, Auction No. 23  
Auction Operations Branch  
1270 Fairfield Rd.  
Gettysburg, PA 17325-7245  

FAX: 717-338-2850

For security purposes, software packages will be sent with other registration materials only to the contact person at the applicant address specified on the FCC Form 175. NO EXCEPTIONS.

Auction Applicant: ______________________________________________________

FCC Assigned Account No. _________________________

Phone: ________________

Fax: ____________________________

Fax Modem No. _________________________
Payment of **$175.00** US by:   _ check enclosed (payable to “FCC”)  

_ Visa  _ MasterCard  

Type:  _ 3.5 diskette  _ CD-Rom  

Credit card number _______________________________ Expiration date ____________  

Name on card ____________________________________________________________  

Authorized signature ________________________________ Date ____________
ATTACHMENT D

SUMMARY LISTING OF DOCUMENTS FROM THE COMMISSION AND THE WIRELESS TELECOMMUNICATIONS BUREAU ADDRESSING APPLICATION OF THE ANTI-COLLUSION RULES

All of the following documents can be found at an FCC web site: http://www.fcc.gov/wtb/auctions/collusio/collusio.html

**Commission Decisions:**


**Wireless Telecommunications Bureau Decisions:**

Amendment of Parts 21 and 74 of the Commission's Rules with Regard to Filing Procedures in the Multipoint Distribution Service and in the Instructional Television Fixed Service, *Order*, 11

In re Applications of GWI PCS, Inc. For Authority to Construct and Operate Broadband PCS Systems Operating on Frequency Block C, Memorandum Opinion and Order, 12 FCC Rcd. 6441 (Wireless Tel. Bur. 1997).


Public Notices:


Letters from the Office of General Counsel and the Wireless Telecommunications Bureau:

Letter to Gary M. Epstein and James H. Barker from William E. Kennard, General Counsel, Federal Communications Commission (released October 25, 1994).

Letter to Alan F. Ciamporcero from William E. Kennard, General Counsel, Federal Communications Commission (released October 25, 1996).


Letter to Elliott J. Greenwald from Christopher J. Wright, General Counsel, Federal
Communications Commission (released April 6, 1998).

**Civil Actions Initiated by U.S. Department of Justice:**


**Miscellaneous:**

Many of these documents can be retrieved from the FCC web site (http://www.fcc.gov/wtb/auctions/collusio/collusio.html), where documents may be located by using our search engine (select the link "search"). All of these documents can be ordered in hard copy from the Commission's contractor, International Transcription Service, Inc. at (202) 857-3800.

Documents retrieved from the FCC web site are available in more than one format: .pdf, .txt, and .wp. (The key to the extensions is the following: .pdf = Acrobat Reader, .txt = Text, and .wp = Word Perfect.) In order to review a document in its entirety, including footnotes, it is necessary to access the document in Word Perfect or Acrobat Reader.
ATTACHMENT E

EXISTING 28 GHZ LICENSEE AND 31 GHZ LICENSEES

Block A licenses are for 1,150 megahertz, consisting of 1,000 megahertz located in the 28 GHz band and 150 megahertz located in the center of the 300 megahertz segment of the 31 GHz band (31,075 - 31,225 MHz). There is one LMDS incumbent for block A in the New York Primary Metropolitan Statistical Area (PMSA). The counties comprising the New York PMSA are Bronx, Kings, New York, Putnam, Queens, Richmond, Rockland, and Westchester. The incumbent is subject to the Commission's Rules concerning LMDS and is entitled to interference protection from other LMDS licensees, including the eventual licensee for the remainder of the New York BTA, pursuant to those rules.

Block B licenses are for 150 megahertz, and are located entirely in the 31 GHz band. This 150 megahertz consists of two 75 megahertz segments located at each end of the 300 megahertz block (31,000 - 31,075 MHz and 31,225 - 31,300 MHz). LMDS service providers will be entitled to interference protection from any other presently-authorized primary users in the entire 31 GHz band. Although LMDS operations are permitted in the 31,000 - 31,075 and 31,225 - 31,300 MHz bands, incumbent governmental licensees and private business users operating in these two segments are entitled to protection against harmful interference from any LMDS operation in these blocks. Therefore, bidders should be aware that some BTAs have incumbent operations in the smaller 150 megahertz block that must be protected from harmful interference under the Commission's Rules.

Listed below are BTAs with incumbent licensees and the cities in which operations are authorized. Prospective bidders should not rely solely on this list, but should carefully review the Commission's databases and records before formulating bidding strategies. Records relating to these stations are available for public inspection during regular business hours in the FCC Public Reference Room at the Federal Communications Commission, 1270 Fairfield Road, Gettysburg, Pennsylvania.

<table>
<thead>
<tr>
<th>Market No.</th>
<th>Basic Trading Area</th>
<th>Cities with Authorized Operations</th>
<th>Licensees/Call Signs</th>
</tr>
</thead>
<tbody>
<tr>
<td>A001</td>
<td>New York, NY</td>
<td>NY PMSA</td>
<td>Winstar Wireless Fiber Corp./WLT379</td>
</tr>
<tr>
<td>B262</td>
<td>Los Angeles, CA</td>
<td>La Habra, CA</td>
<td>City of La Habra/WNTV232</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Montclair, CA</td>
<td>City of Montclair/WNTR498, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Palm Springs, CA</td>
<td>City of Palm Springs/WNTV245, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>San Bernardino, CA</td>
<td>City of San Bernardino/WNTR5881 County of San Bernardino/WNTU750</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Upland, CA</td>
<td>City of Upland/WNTT952</td>
</tr>
<tr>
<td>B245</td>
<td>Las Vegas, NV</td>
<td>Laughlin, NV</td>
<td>Budget Rental Car of Northern Arizona/WNTZ735</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bullhead City, AZ</td>
<td>Budget Rental Car of Northern Arizona/WNTZ734</td>
</tr>
<tr>
<td>B402</td>
<td>San Diego, CA</td>
<td>San Diego, CA</td>
<td>City of San Diego/WPJF232</td>
</tr>
<tr>
<td>Market No.</td>
<td>Basic Trading Area</td>
<td>Cities with Authorized Operations</td>
<td>Licensees/Call Signs</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------</td>
<td>-----------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>B404</td>
<td>San Francisco, CA</td>
<td>Daly City, CA</td>
<td>City of Daly City/WNTW384</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Menlo Park, CA</td>
<td>Venture Law Group/WPJF201, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Petaluma, CA</td>
<td>City of Petaluma/WNT654, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>San Francisco, CA</td>
<td>Academy of Art College/WPB264, etc.</td>
</tr>
<tr>
<td>B389</td>
<td>Sacramento, CA</td>
<td>Sacramento, CA</td>
<td>State of California/WNTY579</td>
</tr>
<tr>
<td>B434</td>
<td>Stockton, CA</td>
<td>Tracy, CA</td>
<td>City of Tracy/WNTW798</td>
</tr>
<tr>
<td>B074</td>
<td>Charlotte, NC</td>
<td>Charlotte, NC</td>
<td>City of Charlotte/WNTW392</td>
</tr>
<tr>
<td>B051</td>
<td>Boston, MA</td>
<td>Framingham, MA</td>
<td>Preseptive Bio Systems, Inc./WPJC807, etc.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Natick, MA</td>
<td>Natural Microsystems, Inc./WPJC925, etc.</td>
</tr>
<tr>
<td>B024</td>
<td>Atlanta, GA</td>
<td>Marietta, GA</td>
<td>County of Cobb/WPJ982</td>
</tr>
<tr>
<td>B297</td>
<td>Milwaukee, WI</td>
<td>Milwaukee, WI</td>
<td>Dept. of Transportation State of WI/WPJ491, etc.</td>
</tr>
<tr>
<td>B413</td>
<td>Seattle-Tacoma, WA</td>
<td>Burlington, WA</td>
<td>State of Washington/WNTR826</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seattle, WA</td>
<td>State of Washington/WNTS695, etc.</td>
</tr>
<tr>
<td>B347</td>
<td>Phoenix, AZ</td>
<td>Mesa, AZ</td>
<td>Lutheran Healthcare Network/WNTX926</td>
</tr>
<tr>
<td>B421</td>
<td>Sioux City, IA</td>
<td>Sioux City, IA</td>
<td>Nutra Flo ITI/WNTV448, etc.</td>
</tr>
<tr>
<td>Market No.</td>
<td>Basic Trading Area</td>
<td>Cities with Authorized Operations</td>
<td>Licensees/Call Signs</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------</td>
<td>-----------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>B445</td>
<td>Topeka, KS</td>
<td>Topeka, KS</td>
<td>City of Topeka/WNTW208</td>
</tr>
<tr>
<td>B202</td>
<td>Idaho Falls, ID</td>
<td>Idaho Falls, ID</td>
<td>City of Idaho Falls/WNTW717</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Gulf of Mexico</td>
<td>Chevron USA, Inc./WNTX932</td>
</tr>
</tbody>
</table>
### LOCATION OF NGSO-MSS FEEDER LINK
#### EARTH STATIONS IN THE 29.1 - 29.25 GHZ BAND

<table>
<thead>
<tr>
<th>COMPANY</th>
<th>MARKET NUMBER</th>
<th>LICENSE NUMBER</th>
<th>BASIC TRADING AREA NAME</th>
<th>GEOGRAPHIC COORDINATES Longitude/Latitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iridium</td>
<td>B347</td>
<td>LDB347A</td>
<td>Phoenix, AZ</td>
<td>33 20 32N/111 53 46W</td>
</tr>
<tr>
<td>Iridium</td>
<td>BBB</td>
<td>LDB226A</td>
<td>Kansas City, MO</td>
<td>39 05 59N/94 34 42W</td>
</tr>
<tr>
<td>Iridium</td>
<td>B368</td>
<td>LDB368A</td>
<td>Raleigh-Durham, NC</td>
<td>35 46 19N/78 38 20W</td>
</tr>
<tr>
<td>Iridium</td>
<td>B368</td>
<td>LDB368A</td>
<td>Raleigh-Durham, NC</td>
<td>35 59 38N/78 53 56W</td>
</tr>
<tr>
<td>Iridium</td>
<td>B192</td>
<td>LDB192A</td>
<td>Honolulu, HI</td>
<td>21 40 30N/158 01 58W</td>
</tr>
<tr>
<td>Iridium</td>
<td>B488</td>
<td>LDB488A</td>
<td>San Juan, PR</td>
<td>18 28 00N/66 07 00W</td>
</tr>
<tr>
<td>Iridium</td>
<td>B425</td>
<td>LDB425A</td>
<td>Spokane, WA</td>
<td>47 39 32N/117 25 30W</td>
</tr>
<tr>
<td>Iridium</td>
<td>B439</td>
<td>LDB439A</td>
<td>Tallahassee, FL</td>
<td>30 26 17N/84 16 51W</td>
</tr>
<tr>
<td>Iridium</td>
<td>B405</td>
<td>LDB405A</td>
<td>San Luis Obispo, CA</td>
<td>35 16 58N/120 39 31W</td>
</tr>
<tr>
<td>Iridium</td>
<td>B63</td>
<td>LDB063A</td>
<td>Burlington, VT</td>
<td>44 28 33N/73 12 45W</td>
</tr>
<tr>
<td>Iridium</td>
<td>B30</td>
<td>LDB030A</td>
<td>Bangor, ME</td>
<td>44 48 04N/68 46 42W</td>
</tr>
</tbody>
</table>
ATTACHMENT G

FCC AUCTION SEMINAR REGISTRATION FORM

The Local Multipoint Distribution Service (LMDS) Auction

The FCC will sponsor a one day seminar for the LMDS auction applicants. The seminar is free of charge and will provide information about pre-auction procedures, service and auction rules, conduct of the auction, and the FCC remote bidding software.

Space is limited. A maximum of two representatives from each company may attend on a reservation basis, first-come first-served until room capacity is filled. Additional seating may be available on a stand-by basis the day of the seminar. The seminar will be held:

Wednesday, March 10, 1999
Park Hyatt Washington
1201 24th Street, N.W.
Washington, DC 20037

Registration 9 a.m. - 10 a.m.
Seminar 10 a.m. - 4 p.m

If hotel accommodations are needed, reservations can be made by calling the hotel reservations at 202-789-1234. Specify that you are attending the FCC Auction Seminar.

****************************************
To register, complete the form below and return no later than Monday, March 8, 1999, by mail or fax to:

FCC Auction 23
Auctions Operations Branch
1270 Fairfield Road
Gettysburg, PA 17325-7245

FAX: 717-338-2850
Phone: 717-338-2888

I/We will attend the LMDS auction seminar on Wednesday, March 10, 1999

Name of attendee: _____________________________________________________
Name of attendee: _____________________________________________________
Company name: ______________________________________________________
Phone: __________________________   Fax: ______________________________
Attachment H

Bid Increments and Exponential Smoothing

Once there is a standing high bid on a license, there will be a bid increment associated with that bid indicating the minimum amount by which the bid on that license can be raised. For this auction, we will use a standard exponential smoothing methodology to calculate minimum bid increments. The Bureau retains the discretion to compute the minimum bid increment through other methodologies if it determines that circumstance so dictates.

The exponential smoothing formula calculates the bid increment for each license based on a weighted average of the activity received on each license in all previous rounds. This methodology will tailor the bid increment for each license based on activity, rather than setting a global increment for all licenses. For every license that receives a bid, the bid increment for the next round for that license will be established using the exponential smoothing formula.

The calculation of the percentage bid increment for each license in a given round is made at the end of the previous round. The computation is based on an activity index, which is calculated as the weighted average of the activity in that round and the activity index from the prior round. The activity index at the start of the auction (round 0) will be set at 0. The current activity index is equal to a weighting factor times the number of new bids received on the license in the most recent bidding round plus one minus the weighting factor times the activity index from the prior round. The activity index is then used to calculate a percentage increment by multiplying a minimum percentage increment by one plus the activity index with that result being subject to a maximum percentage increment. The Commission will initially set the weighting factor at 0.5, the minimum percentage increment at 0.1, and the maximum percentage increment at 0.2.

Equations

\[ A_i = (C \times B_i) + ( (1-C) \times A_{i-1}) \]

\[ I_{i+1} = \text{smaller of } ( (1 + A_i) \times N) \text{ and } M \]

where,
- \( A_i \) = activity index for the current round (round \( i \))
- \( C \) = activity weight factor
- \( B_i \) = number of bids in the current round (round \( i \))
- \( A_{i-1} \) = activity index from previous round (round \( i-1 \)), \( A_0 \) is 0
- \( I_{i+1} \) = percentage bid increment for the next round (round \( i+1 \))
- \( N \) = minimum percentage increment or bid increment floor
- \( M \) = maximum percentage increment or bid increment ceiling

Under the exponential smoothing methodology, once a bid has been received on a license, the minimum acceptable bid for that license in the following round will be the new high bid plus the dollar amount associated with the percentage increment (variable \( I_{i+1} \) from above times the high bid). This result will be rounded to the nearest thousand if it is over ten thousand or to the nearest hundred if it is under ten thousand.

Examples

License 1
\( C=0.5, N = 0.1, M = 0.2 \)
Round 1 (2 new bids, high bid = $1,000,000)
1. Calculation of percentage increment for round 2 using exponential smoothing:
   \[ A_1 = (0.5 \times 2) + (0.5 \times 0) = 1 \]
   The smaller of \[ I_1 = (1 + 1) \times 0.1 = 0.2 \] or 0.2 (the maximum percentage increment)
2. Minimum bid increment for round 2 using the percentage increment (\( I_1 \) from above)
   \[ 0.2 \times 1,000,000 = 200,000 \]
3. Minimum acceptable bid for round 2 = 1,200,000

Round 2 (3 new bids, high bid = 2,000,000)
1. Calculation of percentage increment for round 3 using exponential smoothing:
   \[ A_2 = (0.5 \times 3) + (0.5 \times 1) = 2 \]
   The smaller of \[ I_2 = (1 + 2) \times 0.1 = 0.3 \] or 0.2 (the maximum percentage increment)
2. Minimum bid increment for round 3 using the percentage increment (\( I_2 \) from above)
   \[ 0.2 \times 2,000,000 = 400,000 \]
3. Minimum acceptable bid for round 3 = 2,400,000

Round 3 (1 new bid, high bid = 2,400,000)
1. Calculation of percentage increment for round 4 using exponential smoothing:
   \[ A_3 = (0.5 \times 1) + (0.5 \times 2) = 1.5 \]
   The smaller of \[ I_3 = (1 + 1.5) \times 0.1 = 0.25 \] or 0.2 (the maximum percentage increment)
2. Minimum bid increment for round 4 using the percentage increment (\( I_3 \) from above)
   \[ 0.2 \times 2,400,000 = 480,000 \]
3. Minimum acceptable bid for round 4 = 2,880,000