



# PUBLIC NOTICE

FEDERAL COMMUNICATIONS COMMISSION  
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**DA 98-1879**  
September 23, 1998

## **AUCTION OF LOCATION AND MONITORING SERVICE LICENSES**

### **Auction Notice and Filing Requirements for 528 Multilateration Licenses Scheduled for December 15, 1998**

#### **Minimum Opening Bids and Other Procedural Issues**

**Report No. AUC-98-21-B (Auction No. 21)**

#### **1. INTRODUCTION**

This Public Notice announces the procedures and minimum opening bids for the upcoming Location and Monitoring Service ("LMS") auction. On August 13, 1998, the Wireless Telecommunications Bureau ("Bureau") released a Public Notice,<sup>1</sup> seeking comment on the establishment of reserve prices or minimum opening bids for the LMS auction, in accordance with the Balanced Budget Act of 1997.<sup>2</sup> In addition, the Bureau sought comment on a number of procedures to be used in the LMS auction.<sup>3</sup> The Bureau received two

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<sup>1</sup> See "Location and Monitoring Service Spectrum Auction Scheduled for December 15, 1998; Comment Sought on Reserve Prices or Minimum Opening Bids and Other Auction Procedural Issues," *Public Notice*, DA 98-1616 (rel. August 13, 1998) ("*LMS Public Notice*"), 63 FR 44456 (August 19, 1998).

<sup>2</sup> Section 3002(a), Balanced Budget Act of 1997, Pub. L. 105-33, 111 Stat. 251 (1997) ("Budget Act"); 47 U.S.C. § 309(j)(4)(F). The Commission's authority to establish a reserve price or minimum opening bid is set forth in 47 C.F.R. § 1.2104(c) and (d).

<sup>3</sup> *LMS Public Notice* at 2.



*For Bidder Information Packages, General Auction Information, and Seminar Registration, press option #2 at the prompt. Hours of service: 8 a.m. - 5:30 p.m. ET.*

- FCC Technical Support Hotline . . . . . (202) 414-1250 (voice), (202) ~~414-1251~~ (text telephone (TTY))

*Hours of service: 8 a.m. - 6 p.m. ET, Monday - Friday; 9 a.m. - 5 p.m. ET, weekend of November 14-15.*

**List of Attachments:**

- Attachment A Summary of LMS 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

**Background:** In 1995, the Commission established rules governing the licensing of the LMS in the 902-928 MHz frequency band.<sup>4</sup> LMS refers to advanced radio technologies designed to support the nation's transportation infrastructure and to facilitate the growth of Intelligent Transportation Systems.<sup>5</sup> The Commission created a new Subpart M in Part 90 of the Commission's Rules for Transportation Infrastructure Radio Services, which includes LMS and like services.

Multilateration LMS systems are designed to locate vehicles or other objects by measuring the difference in time of arrival, or difference in phase, of signals transmitted from a unit to a number of fixed points, or from a number of fixed points to the unit to be located. Such systems generally use spread-spectrum technology to locate vehicles throughout a wide geographic area. Multilateration technology is used, for example, by trucking companies to track individual vehicles, by municipalities to pinpoint the location of their buses, and by private entrepreneurs developing subscriber-based services for recovery of stolen vehicles.<sup>6</sup> The Commission defined non-multilateration systems as LMS systems that employ any technology other than multilateration technology. The Commission noted that unlike a

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<sup>4</sup> Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Report and Order*, PR Docket No. 93-61, 10 FCC Rcd 4695 (1995) ("*LMS Report and Order*").

<sup>5</sup> The term "Intelligent Transportation System," or "Intelligent Vehicle Highway System," refers to the collection of advanced radio technologies that, among other things, is intended to improve the efficiency and safety of our nation's highways. *LMS Report and Order* at 4698, ¶ 5 n.9.

<sup>6</sup> *LMS Report and Order*, 10 FCC Rcd at 4697-98, 4703, ¶ 14.

multilateration system, which determines the location of a vehicle or object over a wide area, a typical non-multilateration system uses narrowband technology whereby an electronic device placed in a vehicle transfers information to and from that vehicle when the vehicle passes near one of the system's stations.

***Due Diligence:*** Potential bidders are reminded that LMS operates in the 902-928 MHz frequency band. This band is allocated for primary use by Federal Government radiolocation systems. Next in order of priority are Industrial, Scientific and Medical devices. Federal Government fixed and mobile and LMS systems are secondary to both of these uses. The remaining uses of the 902-928 MHz band include licensed amateur radio operations and unlicensed Part 15 equipment, both of which are secondary to all other uses of the band. Part 15 low power devices include, but are not limited to, those used for automatic meter reading, inventory control, package tracking and shipping control, alarm services, local area networks, internet access, and cordless telephones. The amateur radio service is used by technically inclined private citizens to engage in self-training, information exchange, and radio experimentation. In the *LMS Report and Order*, the Commission recognized the important contribution to the public provided by Part 15 technologies and amateur radio operators and sought to develop a band plan that would maximize the ability of these services to coexist with LMS systems.<sup>7</sup>

The Commission adopted the *LMS Report and Order* with an eye toward minimizing potential interference within and among the various users of the 902-928 MHz band. The Commission's band plan accordingly permits secondary operations across the entire band by users of unlicensed Part 15 devices and amateur licensees. At the same time, the band plan separates non-multilateration from multilateration LMS systems in all but one subband so as to avert interference. The *LMS Report and Order* also established limitations on LMS systems' interconnection with the public switched network and set forth a number of technical requirements intended to ensure successful coexistence of all the services authorized to operate in the band.

Potential bidders should be aware that certain applications (including those for modification), waiver requests, petitions for reconsideration and applications for review are pending before the Commission that relate to particular incumbent multilateration LMS licensees. We note that resolution of these matters could have an impact on the availability of spectrum for EA licensees. In addition, while the Commission will continue to act on pending applications, requests and petitions, some of these matters may not be resolved by the time of the auction.

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.

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<sup>7</sup> *LMS Report and Order*, 10 FCC Rcd at 4714, ¶ 34.

In addition, potential bidders may search for information regarding LMS 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.htm>). 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 November 16, 1998.
- Submit a sufficient upfront payment and an FCC Remittance Advice Form (FCC Form 159) by November 30, 1998.
- Comply with all provisions outlined in the Bidder Information Package.

**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. To comply with this rule, bidders competing for the same license(s) are encouraged not to use the same individual 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. In such instances, the Bureau **strongly encourages** applicants to certify on their applications that precautionary steps (e.g., establishing a "Chinese wall") have been taken to prevent communication between authorized bidders and that applicants and their bidding agents will comply with the anti-collusion rule.<sup>8</sup> 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.<sup>9</sup> In the LMS auction, for example,

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<sup>8</sup> See, e.g., "Wireless Telecommunications Bureau Responds to Questions About the Local Multipoint Distribution Service Auction," *Public Notice*, 13 FCC Rcd 341 (1998); In re Application of Nevada Wireless for a License to Provide 800 MHz Specialized Mobile Radio Service in the Farmington, NM-CO Economic Area (EA-155) Frequency Band A, *Memorandum Opinion and Order*, 13 FCC Rcd 11973, 11977, ¶ 11 (1998) ("*Nevada Wireless*").

<sup>9</sup> See *Nevada Wireless*, 13 FCC Rcd at 11978, ¶ 13 (1998).

the rule would apply to any applicants bidding for the same EA. 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.<sup>10</sup> 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.<sup>11</sup> 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:*** More complete details about this auction are contained in a Bidder Information Package. The Commission will provide one copy to each company free of charge. Additional copies may be ordered at a cost of \$16.00 each, including postage, payable by Visa or Master Card, or by check payable to "Federal Communications Commission" or "FCC." To place an order, contact the FCC National Call Center at (888) CALL-FCC ((888) 225-5322, press option #2 at the prompt). Prospective bidders that have already contacted the FCC at this number expressing an interest in this auction will receive a Bidder Information Package in approximately four weeks, and need not call again unless they wish to order additional copies.

***Relevant Authority:*** Prospective bidders must familiarize themselves thoroughly with the Commission's Rules relating to the Location and Monitoring Service, contained in Title 47, Part 90 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 contained in the *LMS Report and Order*;<sup>12</sup> *Memorandum Opinion and Order and*

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<sup>10</sup> See 47 C.F.R. § 1.2105(c).

<sup>11</sup> See 47 C.F.R. § 1.65.

<sup>12</sup> Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Report and Order*, PR Docket No. 93-61, 10 FCC Rcd 4695 (1995) ("*LMS Report and Order*").

*Further Notice of Proposed Rule Making*;<sup>13</sup> *LMS Second Report and Order*;<sup>14</sup> Part 90, Subpart M of the Commission's Rules concerning Transportation Infrastructure Radio Service; Subpart X of the Commission's Rules concerning Competitive Bidding Procedures; and Part 1, Subpart Q of the Commission's Rules concerning Competitive Bidding Proceedings.

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 97-305 for the *Memorandum Opinion and Order and Further Notice of Proposed Rule Making* and FCC 98-157 for the *LMS Second Report and Order*).

**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.**

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<sup>13</sup> Amendment of Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Memorandum Opinion and Order and Further Notice of Proposed Rule Making*, PR Docket No. 93-61, 12 FCC Rcd 13942 (1997) (*Memorandum Opinion and Order and Further Notice of Proposed Rule Making*).

<sup>14</sup> Amendment of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems, *Second Report and Order*, FCC 98-157 (rel. July 14, 1998) ("*LMS Second Report and Order*").

As is the case with many business investment opportunities, some unscrupulous entrepreneurs may attempt to use the LMS 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 LMS proposals may also call the FCC National Call Center at (888) CALL-FCC ((888) 225-5322).

## **NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REQUIREMENTS**

Licensees must comply with the Commission's rules regarding the National Environmental Policy Act (NEPA). The construction of a wireless antenna facility is a federal action and licensees must comply with the Commission's NEPA rules for each wireless facility. See 47 C.F.R. §§ 1.1305-1.1319. The Commission's NEPA rules require that, among other things, licensees consult with expert agencies having NEPA responsibilities, including the U.S. Fish and Wildlife Service, the State Historic Preservation Office, the Army Corp of Engineers and the Federal Emergency Management Agency (through the local authority with jurisdiction over floodplains). Licensees must prepare environmental assessments for wireless facilities that may have a significant impact in or on wilderness areas, wildlife preserves, threatened or endangered species or designated critical habitats, historical or archaeological sites, Indian religious sites, floodplains, and surface features. Licensees must also prepare environmental assessments for wireless facilities that include high intensity white lights in residential neighborhoods or excessive radiofrequency emission.

## 2. ELIGIBILITY FOR SMALL AND VERY SMALL BUSINESS PROVISIONS

### A. General Eligibility Criteria

As described above, this auction offers one license for each of three spectrum blocks in each of the 176 Economic Areas (EAs) designated for LMS. Our goal in adopting special small business provisions is to promote and facilitate the participation of small businesses in the LMS auction and in the provision of this and other commercial mobile radio services.

#### (1) Determination of Revenues

For purposes of determining which entities qualify as very small businesses or small businesses, the Commission will consider the gross revenues of the applicant, its controlling interests, and the affiliates of the applicant and its controlling interests. 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 interests. 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 "controlling interest" 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.<sup>15</sup> 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
- the entity plays an integral role in management decisions.

#### (2) Very Small or Small Business Consortiums

A consortium of 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 very small or small business in Section

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<sup>15</sup> 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).

90.1103(b)(1) or (2). Thus, each consortium member must disclose its gross revenues along with those of its affiliates, controlling interests, and controlling interests' 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.

### **(3) 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 a very small business or small business (or consortiums of very small or small businesses) for this auction.<sup>16</sup> Specifically, for the LMS auction, applicants applying to bid as very small or small businesses (or consortiums of 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 interests; and (4) the affiliates of the applicant's controlling interests. **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 interests, 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**

Qualifying LMS applicants are eligible for a bidding credit that represents the amount by which a bidder's winning bids are discounted. The size of an LMS bidding credit depends on the average gross revenues for the preceding three years of the bidder and its controlling interests and affiliates:

- A bidder with average gross revenues not to exceed \$15 million for the preceding three years receives a 25 percent discount on its winning bids for LMS licenses; and,
- A bidder with average gross revenues not to exceed \$3 million for the preceding three years receives a 35 percent discount on its winning bids for LMS licenses.

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<sup>16</sup> See 47 C.F.R. §§ 90.1103 and 1.2105.

Bidding credits are not cumulative: qualifying applicants receive either the 25 percent or the 35 percent bidding credit, but not both. The definitions of very small business and small business (or consortiums of very small or small businesses) (including calculation of average gross revenues) are set forth in 47 C.F.R. § 90.1103(b).

LMS 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 levels of bidding credits.<sup>17</sup> Finally, LMS bidders should also note that there are no installment payment plans in the LMS auction.

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<sup>17</sup> See 47 C.F.R. § 1.2111.

### 3. PRE-AUCTION PROCEDURES

#### A. Short-Form Application (FCC Form 175) -- Due November 16, 1998

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 November 16, 1998.** 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) Filing Options

Auction applicants are strongly encouraged to file their applications electronically in order to take full advantage of the greater efficiencies and convenience of electronic filing, bidding and access to bidding data. For example, electronic filing enables the applicant to: (a) receive interactive feedback while completing the application; and (b) receive immediate acknowledgment that the FCC Form 175 has been submitted for filing. In addition, only those applicants that file electronically will have the option of bidding electronically. However, manual filing (via hard copy) is also permitted. **Please note that manual filers will not be permitted to bid electronically and therefore must bid telephonically, unless the FCC Form 175 is amended electronically prior to the resubmission date for incomplete or deficient applications.** The following is a brief description of each filing method.

##### (a) Electronic Filing

Applicants wishing to file electronically may generally do so on a 24-hour basis beginning October 26, 1998. The window for filing the FCC Form 175 electronically will remain open until 5:30 p.m. ET on November 16, 1998. 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 of November 16, 1998. Applicants who file electronically must press the "Submit Form 175" button on the "Submit" page of the electronic form to successfully submit their FCC Form 175s. Information about installing and running the FCC Form 175 application software is included in Attachment C to this Public Notice. 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 November 14-15.

##### (b) Manual Filing

Auction applicants will be permitted to file their FCC Form 175 applications in hard copy. When any manually filed FCC Form 175 and 175-S exceeds five pages in length, the FCC requires that all attachments be submitted on a 3.5-inch diskette, or the entire application

be filed in a microfiche version. **Manual filers must use the August 1998 version of FCC Form 175 and FCC Form 175-S (if necessary). Earlier versions of the FCC Form 175 will not be accepted for filing.** Copies of the FCC Form 175 can be obtained by calling the Commission's Forms Distribution Center at (800) 418-FORM ((800) 418-3676) (outside Washington, D.C.) or (202) 418-FORM ((202) 418-3676) (in the Washington area). Copies of the FCC Form 175 can also be obtained via Fax-On-Demand at (202) 418-0177 (the document retrieval number for the FCC Form 175 is 000175, and 001751 for the FCC Form 175-S), or downloaded from the Commission's World Wide Web site at <http://www.fcc.gov/formpage.html>. If applicants have any questions concerning availability of the FCC Form 175, they should call the FCC Records Management Branch at (202) 418-0210.

Manual applications must be submitted by hand delivery (including private "overnight" courier) or by U.S. mail (certified mail with return receipt recommended), addressed to:

FCC Form 175 Filing, Auction No. 21  
Federal Communications Commission  
Wireless Telecommunications Bureau  
Auctions & Industry Analysis Division  
1270 Fairfield Road  
Gettysburg, PA 17325-7245

**NOTE: Manual applications delivered to any other location or applications sent via facsimile will not be accepted.**

## **(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. Note again that applicants who file electronically must press the "Submit Form 175" button on the "Submit" page to successfully submit their FCC Form 175.

Failure to sign a manually filed FCC Form 175 will result in dismissal of the application and loss of the ability to participate in the auction. **Only original signatures will be accepted for manually filed applications.**

## **(3) Electronic Review of FCC Form 175**

The FCC Form 175 review software may be used to review and print applicants' FCC Form 175 applications. In other words, applicants that file electronically may review their own completed FCC Form 175. 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**

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 November 16, 1998, 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 November 30, 1998**

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). **Manual filers must use the July 1997 version of FCC Form 159. Electronic filers of the FCC Form 175 will have access to an electronic version of Form 159 after completing the FCC Form 175. 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 November 30, 1998.

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. 21 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 November 30, 1998 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 November 30, 1998**. 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 910-0198  
OBI Field: (Skip one space between each information item)  
"AUCTIONPAY"  
TAXPAYER IDENTIFICATION NO. (same as FCC Form 159, block 26)  
PAYMENT TYPE CODE (enter "ALMU")  
FCC CODE 1 (same as FCC Form 159, block 23A: "21")  
PAYER NAME (same as FCC Form 159, block 2)  
LOCKBOX NO. # 358410

**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. 21." 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 and will also be included in the Bidder Information Package.

### **(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.<sup>18</sup> In the *LMS Public Notice*, the Bureau proposed upfront payments for the LMS auction.<sup>19</sup> Specifically, the Bureau proposed the following upfront payments for Auction No. 21:

- (1) Block A      \$0.002\*MHz\*Pop (rounded up to the next dollar and no less than \$2,850 per license)
- (2) Block B      \$0.002\*MHz\*Pop (rounded up to the next dollar and no less than \$2,500 per license)
- (3) Block C      \$0.002\*MHz\*Pop (rounded up to the next dollar and no less than \$2,800 per license)

Comtrak argues that the Commission should adopt upfront payment amounts that better reflect the unique characteristics of the LMS spectrum and recommends the following adjustments: For Block A, an upfront payment of \$0.001\*MHz\*pop (rounded up to the next dollar and no less than \$2,850 per license); for Block B, an upfront payment of \$0.001\*MHz\*pop (rounded up to the next dollar and no less than \$2,500 per license); and for Block C, an upfront payment of \$0.001\*MHz\*pop (rounded up to the next dollar and no less than \$2,800 per license).<sup>20</sup> Comtrak argues that its proposals represent a fair assessment of the initial value of LMS spectrum because LMS is a unique and restricted niche service that will be provided to smaller segments of the population.<sup>21</sup>

We will reduce the proposed upfront payments per MHz-pop for the LMS auction but retain the proposed floors for the upfront payments. After considering the comments and subsequent discussions, we agree with Comtrak that LMS is a unique and restricted niche service that will be provided to smaller segments of the population.<sup>22</sup> Based on this

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<sup>18</sup> Amendment of Part 1 of the Commission's Rules -- Competitive Bidding Proceeding, WT Docket No. 97-82, *Order, Memorandum Opinion and Order and Notice of Proposed Rule Making*, 12 FCC Rcd. 5686, 5697-5698, ¶ 16 (1997).

<sup>19</sup> See *LMS Public Notice* at 7-8.

<sup>20</sup> Comtrak Comments at 2-3.

<sup>21</sup> *Id.* at 3-4.

<sup>22</sup> See Letter to Ms. Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission from Catherine Krupka, Esq., McDermott Will & Emery (September 15, 1998) (describing substance of meeting to discuss comments and reply comments in response to the Bureau's *Public Notice* seeking comment on reserve prices and minimum opening bids for the LMS auction); see also Letter to Ms. Amy Zoslov, Chief, Auctions and Industry Analysis Division, Wireless Telecommunications Bureau, Federal Communications Commission from Scott S. Patrick, Esq., Dow, Lohnes & Albertson (September 15, 1998) (describing substance of same meeting to discuss comments and reply comments in

assessment, and our decision to reduce minimum opening bids (see Section 4.B.(2).c., *infra*), we believe that a reduction of our proposed upfront payments is reasonable. Further, based on information provided in these discussions, we will adopt values that are slightly lower than Comtrak's proposed upfront payments. Specifically, we will adopt the following levels of upfront payments for each LMS license:

- (1) Block A      \$0.00075\*MHz\*Pop (rounded up to the next dollar and no less than \$2,850 per license)
- (2) Block B      \$0.00075\*MHz\*Pop (rounded up to the next dollar and no less than \$2,500 per license)
- (3) Block C      \$0.00075\*MHz\*Pop (rounded up to the next dollar and no less than \$2,800 per license)

These upfront payment amounts have been calculated and are listed in Attachment A. These amounts represent the deposits required to qualify to bid on LMS licenses in Auction No. 21. 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. 21, 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 the bidder wishes to place bids on and hold high bids on 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**

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response to the Bureau's *Public Notice* seeking comment on reserve prices and minimum opening bids for the LMS auction).

**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. 21 refunds. To avoid delays in processing refunds, applicants should include wire transfer instructions with any refund request they file; they may also provide this 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, December 9, 1998** should contact the FCC National Call Center at (888) CALL-FCC ((888) 225-5322, press option #2 at the prompt). 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 that file or amend the FCC Form 175 electronically are allowed to bid electronically, but must purchase remote electronic bidding software for \$175.00 **by December 1, 1998**. (Auction software is tailored to a specific auction, so software from prior auctions will not work for Auction No. 21.) A software order form is included in the Bidder Information Package.

#### **F. Auction Seminar**

On October 30, 1998, the FCC will sponsor a seminar for the LMS auction at the Ana Hotel, located at 2401 M 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 LMS service and auction rules.

To register, complete the registration form to be included in the upcoming Bidder Information Package. The registration form will include details about the time and location of the seminar. 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 beginning **December 10, 1998**. 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 December 15, 1998. 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 *LMS Public Notice*, we proposed to award the 528 multilateral licenses in LMS in a single, simultaneous multiple round auction.<sup>23</sup> Comtrak supports the use of a single, simultaneous multiple round auction for all LMS licenses.<sup>24</sup> We conclude that the 528 multilateral LMS 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**

In the *LMS 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.<sup>25</sup> We received no comments on this issue.

For the LMS 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. 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).

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.

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<sup>23</sup> *LMS Public Notice* at 4.

<sup>24</sup> Comtrak Comments at 8.

<sup>25</sup> *LMS Public Notice* at 8.

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 LMS auction.

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

In the *LMS 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.<sup>26</sup>

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 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.

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<sup>26</sup> *LMS Public Notice* at 8.

#### (4) Auction Stages

In the *LMS 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 60 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 80 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.<sup>27</sup> 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 modify our proposal by changing the activity rules for Stage One to 80 percent, and for Stage Two to 90 percent. Below are the proposed 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 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 round 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.

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<sup>27</sup> *Id.* at 5.

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

### **(5) Stage Transitions**

In the *LMS 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, 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, we further proposed that the Bureau would retain the discretion to accelerate the auction by announcement. 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.<sup>28</sup> Comtrak urges the Commission to aggressively use its authority to move the auction to completion. Comtrak supports measures such as moving the auction to the next stage, and urges the Commission to rely on percentages of licenses (as measured in bidding units) on which there are new bids, as the measure of bidder activity. Comtrak believes this measure eliminates the possibility that auction participants will be held hostage to insignificant activity.<sup>29</sup>

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 LMS auction.

### **(6) Auction Stopping Rules**

In the *LMS Public Notice* we proposed to retain the discretion to keep the 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

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<sup>28</sup> *Id.* at 4.

<sup>29</sup> Comtrak Comments at 7.

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.<sup>30</sup> Comtrak supports using the special stopping rule.<sup>31</sup>

Barring extraordinary circumstances, bidding will remain open on all licenses until bidding stops on every license. Thus, 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.

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 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 LMS 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 *LMS 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

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<sup>30</sup> *LMS Public Notice* at 10.

<sup>31</sup> Comtrak Comments at 7.

activity, administrative or weather necessity, or for any other reason that affects the fair and competitive conduct of competitive bidding.<sup>32</sup> 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.<sup>33</sup> Consistent with this mandate, the Commission has directed the Wireless Telecommunications Bureau ("Bureau") to seek comment on the use of a minimum opening

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<sup>32</sup> LMS Public Notice at 10.

<sup>33</sup> Budget Act, *see supra* note 2.

bid and/or reserve price prior to the start of each auction.<sup>34</sup> 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.<sup>35</sup> The Commission concluded that the Bureau should have the discretion to employ either or both of these mechanisms for future auctions.<sup>36</sup>

In the *LMS Public Notice*, the Bureau proposed to establish minimum opening bids for the LMS auction and to retain discretion to lower the minimum opening bids.<sup>37</sup> Specifically, the Bureau proposed the following formulae for calculating minimum opening bids on a license-by-license basis in Auction No. 21:

- (1) Block A      \$0.004\*MHz\*Pop (rounded up to the next dollar and no less than \$2,850 per license)
- (2) Block B      \$0.004\*MHz\*Pop (rounded up to the next dollar and no less than \$2,500 per license)
- (3) Block C      \$0.004\*MHz\*Pop (rounded up to the next dollar and no less than \$2,800 per license)

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.<sup>38</sup>

## **b. Comments**

Commenters contend that the Commission should reduce the proposed LMS minimum opening bids. Comtrak urges the Commission to adopt minimum opening bid amounts that better reflect the unique characteristics of the LMS spectrum by recommending the following

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<sup>34</sup> See Amendment of Part 1 of the Commission's Rules -- Competitive Bidding Procedures, WT Docket No. 97-82, *Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd. at 455-456, ¶ 141 (1998) ("*Part 1 Third Report and Order*").

<sup>35</sup> *Id.*

<sup>36</sup> *Id.*

<sup>37</sup> *LMS Public Notice* at 2.

<sup>38</sup> *Id.* at 3.

adjustments: For Block A, a minimum bid amount of  $\$0.002 \times \text{MHz} \times \text{pop}$  (rounded up to the next dollar and no less than \$2,850 per license); for Block B, a minimum bid amount of  $\$0.002 \times \text{MHz} \times \text{pop}$  (rounded up to the next dollar and no less than \$2,500 per license); and for Block C, a minimum bid amount of  $\$0.002 \times \text{MHz} \times \text{pop}$  (rounded up to the next dollar and no less than \$2,800 per license).<sup>39</sup> Comtrak argues that its proposals are fair since LMS is a unique, niche service that is restricted in use and winning bidders are required to adapt their systems to accommodate incumbent LMS licensees operating in certain markets.<sup>40</sup> Comtrak contends that the Commission's rules distinguish LMS spectrum from other auctioned spectrum and that LMS technology is not generally available or broadly deployed.<sup>41</sup>

Teletrac contends the proposed minimum opening bids are not reasonable when compared to completed auctions that employed minimum opening bids.<sup>42</sup> Teletrac contends the proposed minimum opening bids should be significantly reduced to an order of magnitude lower than those set for the largest markets for LMDS (*i.e.*,  $\$0.002 \times \text{MHz} \times \text{pop}$ ) but no higher than the minimum established for the LMDS auction (*i.e.*,  $\$0.0004 \times \text{MHz} \times \text{pop}$ ).<sup>43</sup> Teletrac argues that it is inconsistent that a service such as LMDS with flexible and exclusive use of frequencies could be valued lower than a service such as LMS.<sup>44</sup> Accordingly, Teletrac contends a reduction is reasonable because LMS is a restricted service whereby licensees are prohibited from using non-vehicular location service except where the primary purpose is to locate vehicles. In addition, Teletrac contends that LMS utilizes equipment that is restricted technologically so that unacceptable levels of interference are not caused and that LMS auction winners do not acquire exclusive rights but must share and accept interference from other services.<sup>45</sup> Teletrac further argues a reduction in minimum opening bids is justified because the high capital costs associated with LMS depend mainly on the geographical area to be covered and not the territorial population.<sup>46</sup> Teletrac argues, with Comtrak concurring, that

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<sup>39</sup> Comtrak Comments at 2-3.

<sup>40</sup> *Id.* at 3-4.

<sup>41</sup> *Id.* at 4-5.

<sup>42</sup> Teletrac Comments at 3-5.

<sup>43</sup> *Id.* at 4-5.

<sup>44</sup> *Id.* at 5.

<sup>45</sup> *Id.* at 7-8.

<sup>46</sup> *Id.* at 10-11.

Congress has provided support for reducing the proposed minimum opening bids and that such explicit authority should be followed.<sup>47</sup>

Teletrac argues, however, that the minimum opening bid values proposed by Comtrak, although lower than those proposed by the Bureau, are unreasonably high and inconsistent with the minimum opening bid levels that the Commission established in completed auctions.<sup>48</sup> Teletrac urges the Commission to reject Comtrak's proposals because Comtrak provides no valuation analysis in describing how it calculated these figures.

### **c. Discussion**

We will adopt minimum opening bids for each of the licenses in the LMS auction that are reducible at the discretion of the Bureau. However, commenters have persuaded us that our proposed levels are significantly too high. We will reduce the price per MHz-pop proposed in the *LMS Public Notice* but retain the proposed floors for the minimum opening bids. Congress has enacted a presumption that unless the Commission determines otherwise, minimum opening bids or reserve prices are in the public interest.<sup>49</sup> Based on our experience in using minimum opening bids in the 800 MHz SMR and 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.<sup>50</sup> Accordingly, we will adopt the following revised formulae for calculating minimum opening bids:

- (1)Block A      $\$0.0008 * \text{MHz} * \text{Pop}$  (rounded up to the next dollar and no less than \$2,850 per license)
  
- (2)Block B      $\$0.0008 * \text{MHz} * \text{Pop}$  (rounded up to the next dollar and no less than \$2,500 per license)
  
- (3)Block C      $\$0.0008 * \text{MHz} * \text{Pop}$  (rounded up to the next dollar and no less than \$2,800 per license)

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<sup>47</sup> Teletrac Comments at 16-17; Comtrak Reply Comments at 5-8.

<sup>48</sup> Teletrac Reply Comments at 1-2.

<sup>49</sup> 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."

<sup>50</sup> 47 U.S.C. 309(j)(3)(C).

We conclude that the revised 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.<sup>51</sup> Here, we agree with commenters that LMS is a restricted service with unique dynamics. We recognize that LMS winning bidders are prohibited from using non-vehicular location service except where the primary purpose is to locate vehicles. In addition, LMS auction winners must share and accept interference from other services. LMS operates in the 902-928 MHz frequency band.<sup>52</sup> The band is allocated for primary use by Federal Government radiolocation systems. Next in order of priority are Industrial, Scientific and Medical devices. Federal Government fixed and mobile and LMS systems are secondary to both of these uses. The remaining uses of the 902-928 MHz band include licensed amateur radio operations and unlicensed Part 15 equipment, both of which are secondary to all other uses of the band. The Commission's band plan permits secondary operations across the entire band by users of unlicensed Part 15 devices and amateur licensees. All of these facts, together with projections of the likely revenues and costs of providing multilateration LMS service, convince us that our proposed minimum opening bids should be substantially reduced. We reject, however, the specific proposal of Teletrac as being slightly undervalued. In sum, we find that these minimum opening bids will 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.<sup>53</sup>

We have formulated our minimum opening bids accordingly. 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**

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<sup>51</sup> 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).

<sup>52</sup> The definition of LMS also includes existing Automatic Vehicle Monitoring operations below 512 MHz. Unlike other LMS operations, LMS systems below 512 MHz may neither offer service to the public nor provide service on a commercial basis. See *LMS Report and Order*, 10 FCC Rcd at 4738, ¶ 86.

<sup>53</sup> 47 U.S.C. 309(j)(3)(C).

In the *LMS Public Notice*, we proposed to use an exponential smoothing methodology to calculate minimum bid increments.<sup>54</sup> We further proposed to retain the discretion to change the minimum bid increment if circumstances so dictate.<sup>55</sup> Comtrak supports increasing the amount of the minimum bid increments for licenses where there is a high level of bidding activity in order to bring the auction to a close.<sup>56</sup>

Because these techniques have proven effective in prior auctions, we adopt our proposal for the LMS 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. For the LMS auction, we will utilize, as described immediately below, an exponential smoothing methodology to calculate minimum bid increments. The Bureau retains the discretion to change the minimum bid increment if it determines that circumstances so dictate. The exponential smoothing methodology has been used in previous auctions, including the LMDS and 800 MHz SMR auctions.

### **Exponential Smoothing**

The exponential smoothing formula calculates the bid increment based on a weighted average of the activity received on each license in the current and 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 as a percentage increment that is determined using the exponential smoothing formula.

Using exponential smoothing, the calculation of the percentage bid increment for each license will be based on an activity index, which is calculated as the weighted average of the current activity and the activity index from the previous 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 current bidding period plus one minus the weighting factor times the activity index from the previous 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.

Comtrak urges the Commission to follow its precedent in the 220 MHz, LMDS and 800 MHz auctions by adopting a minimum percentage increment of 0.05 and a maximum

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<sup>54</sup> *LMS Public Notice* at 5.

<sup>55</sup> *Id.*

<sup>56</sup> Comtrak Comments at 7.

percentage increment of 0.15.<sup>57</sup> Comtrak believes these figures will ensure the auction is conducted at a reasonable pace while generating a fair price for spectrum. Comtrak believes the difference, although small, may be significant enough to alter auction patterns.<sup>58</sup>

The actual precedent set in the 220 MHz Service auction was a shift from the 0.05 to 0.15 increment range to the 0.10 to 0.20 increment range. Our proposal for the LMS auction follows this precedent. In addition, that increment addresses Comtrak's concern regarding the pace of the auction. We further believe that our proposal will result in reasonable prices for LMS spectrum. Accordingly, we 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**

$$A_i = (C * B_i) + ((1-C) * A_{i-1})$$
$$I_i = \text{smaller of } ((1 + A_i) * N) \text{ and } M$$

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

$I_i$  = percentage bid increment for the current round (round i)

N = minimum percentage increment

M = maximum percentage increment

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  $I_i$  from above times the high bid). This result will be rounded to the nearest thousand if it is over 10,000 or to the nearest hundred if it is under 10,000.

### **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 using exponential smoothing:

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<sup>57</sup> *Id.* at 7-8.

<sup>58</sup> *Id.*

$$A_1 = (0.5 * 2) + (0.5 * 0) = 1$$

The smaller of  $I_1 = (1 + 1) * 0.1 = 0.2$  or 0.2 (the maximum percentage increment)

2. Minimum bid increment using the percentage increment ( $I_1$  from above)

$$0.2 * \$1,000,000 = \$200,000$$

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 using exponential smoothing:

$$A_2 = (0.5 * 3) + (0.5 * 1) = 2$$

The smaller of  $I_2 = (1 + 2) * 0.1 = 0.3$  or 0.2 (the maximum percentage increment)

2. Minimum bid increment using the percentage increment is ( $I_2$  from above)

$$0.2 * \$2,000,000 = \$400,000$$

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 using exponential smoothing:

$$A_3 = (0.5 * 1) + (0.5 * 2) = 1.5$$

The smaller of  $I_3 = (1 + 1.5) * 0.1 = 0.25$  or 0.2 (the maximum percentage increment)

2. Minimum bid increment using the percentage increment ( $I_3$  from above)

$$0.2 * \$2,400,000 = \$480,000$$

3. Minimum acceptable bid for round 4 = \$2,880,000

#### **(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 for which it is eligible, 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 reflect 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. 21.

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 LMS 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:

$$\text{Amount Bid} = \text{High Bid} + (\text{Bid Mult} * \text{Bid Increment})$$

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 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 *LMS Public Notice*, we proposed bid removal and bid withdrawal rules.<sup>59</sup> 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 LMS auction.

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

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<sup>59</sup> See *LMS Public Notice* at 9.

associated with efforts to secure various geographic area licenses in combination, we conclude that, for the LMS 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 LMDS auction, and is in no way a reflection of our view regarding the likelihood of any speculation or "gaming" in the LMS 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. 21 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 should 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 Kenneth Burnley, Auctions and Industry Analysis Division), briefly summarizing the changes. Questions about other changes should be directed to Kenneth Burnley of the FCC Auctions and Industry Analysis Division at (202) 418-0660.

## **5. POST-AUCTION PROCEDURES**

### **A. Down Payments and Withdrawn 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 submit a properly completed long-form application and required exhibits for each LMS 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 LMS 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  
1919 M Street, N.W., Room 452  
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;  
Bob Reagle, Auctions Analysis; and Kenneth Burnley, Legal Branch at (202) 418-0660  
Commercial Wireless Division: Linda Chang at (202) 418-7240

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**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:

**Paper form version: Manual filers must use the August 1998 edition of the FCC Form 175 and the FCC Form 175-S (if necessary).** Earlier versions of the FCC Form 175 will not be accepted. Copies of the FCC Form 175 can be obtained by calling the Commission's Forms Distribution Center at (800) 418-FORM (800-418-3676) (outside Washington, D.C.) or (202) 418-FORM (202-418-3676) (in the Washington area). Copies of the FCC Form 175 can also be obtained via Fax-On-Demand at (202) 418-0177, (the document retrieval number for the FCC Form 175 is 000175, and 001751 for the FCC Form 175-S), or downloaded from the Commission's World Wide Web site at <http://www.fcc.gov/formpage.html>. If applicants have any questions concerning availability of the FCC Form 175, they should call the FCC Records Management Branch at (202) 418-0210.

**Manual Filing Address:** Manual applications may be submitted by hand delivery (including private "overnight" courier) or by U.S. mail (certified mail with return receipt recommended), address to:

FCC Form 175 Filing, Auction No. 21  
Federal Communications Commission  
Wireless Telecommunications Bureau  
Auctions & Industry Analysis Division  
1270 Fairfield Road  
Gettysburg, PA 17325-7245

**NOTE: Manual applications delivered to any other location will not be accepted.**

**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 6:** The Location and Monitoring Service (LMS) auction will be the twenty-first auction conducted by the FCC. For "Auction No." in item 6 of the FCC Form 175, enter "21."

**Item 7:** Applicants must enter their nine-digit Taxpayer Identification Number (TIN). The taxpayer identification number will be your Employer Identification Number (EIN) or Social

Security Number (SSN) as reported to the Internal Revenue Service. **However, applicants should not list their TIN Numbers on any Exhibits to their FCC Form 175s.**

Each applicant must include this same TIN when submitting amendments, additional information, or other correspondence or inquiries regarding its application, and must include this same number on each FCC Form 159 (FCC Remittance Advice Form) accompanying required auction deposits or payments. With the exception of the TIN, any information provided on this form will be available for public inspection.

**NOTE: Applicants are reminded not to include their TIN on exhibits or correspondence.**

**Item 8:** Applicants must indicate their legal classification. The August 1998 version of 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 or small business 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:** For each license on which they seek bidding eligibility, applicants must identify the license number in the Market No. column, and the frequency block or blocks in the Frequency Block/Channel No. set of columns. The market number for each Economic Area (EA) license is listed in Attachment A. Frequency blocks are A, B, and C. Applicants that wish to bid on a particular frequency block or set of blocks in a given market should select the appropriate market in the Market No. column and list the frequency block or set of blocks desired in the Frequency Block/Channel No. headings. Conversely, applicants that wish to bid on all frequency block in all markets should check the "ALL" box in the Market No. column and the "ALL" box in the Frequency Block/Channel No. headings. If filing manually, the FCC Form 175 provides space to list only five license numbers, and applicants should use one or more FCC Forms 175-S to list any additional markets.

Applicants should identify in Item 11 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 CFR § 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.

**Signature:** Manually filed FCC Forms 175 must bear an original signature. Absence of an original signature will result in dismissal of the application and disqualification of the applicant from participating in the auction. Faxed FCC Form 175s are not acceptable. Applicants filing electronically should type the name of the certifying official in the Name of Person Certifying block.

**Paper or Diskette Copies:** For this auction the FCC will accept, in lieu of paper copies, a 3.5-inch diskette which contains files of all exhibit documentation attached to the FCC Form 175. Applicants may use a variety of file formats including Word, Word Perfect, Adobe PDF, Excel, Lotus, and ASCII text and should verify that the files contain all exhibit information.

**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 who file electronically 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 filing both electronically and manually 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. Re-upload the attachment.*
- 2. 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, and then re-upload.*

**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 very small or small business consortium must provide this information. The following information is required:

### **1. General Information**

<b><i>Applicant Status</i></b>	<b><i>Required Information</i></b>
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General Partnership	Name, citizenship, and address of all partners, and the share or
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interest participation of each partner

Limited Partnership percent (as paid in and the	Name, citizenship, and address of each limited partner whose interest in the applicant is equal to or greater than 10 calculated according to the percentage of equity percentage of distribution of profits and losses)
Corporation	Corporate name and address; and name, title, and citizenship of a responsible officer or director
Limited Liability Corporation	Corporate name and address; and name, address, and citizenship of all members
Trust	Name, citizenship, and address of trustee
None of the above	Name, citizenship, title or other relation to the applicant, and address of a principal or other responsible person

## **2. Ownership Information**

### ***Applicant Status***

### ***Required Information***

All applicants	Name, citizenship, and address of all controlling interests of the applicant as defined in Section 90.1103(c)
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 <ol style="list-style-type: none"><li>the applicant;</li><li>any party with a 10 percent or greater interest in the applicant; or</li><li>a controlling interest (as defined in Section 90.1103(c) of the Commissions Rules) 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'</li></ol>

principal business and a description of each such entities' relationship to the applicant.

A

*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 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 Status**

**Required Information**

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.

applicant

required

*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.

Company

*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 a 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.

***Entity***

***Required Information***

Applicant

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**.

Applicant's Affiliates

see 47 CFR § 1.2110(b)(4) same information required as discussed above

Applicant's  
Controlling Interests

see 47 CFR § 90.1103(c) same information required as discussed above

*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 interest of the applicant under Section 90.1103(c)(1)). The applicant's Exhibit C would look like this:

Applicant Name

1995 gross revenues \$ 500,000  
1996 gross revenues \$ 1,000,000

1997 gross revenues \$ 3,000,000

Average gross revenues  
for the preceding 3 years \$ 1,500,000

Company A (an affiliate of the applicant)

1995 gross revenues \$ enter amount

**Entity**

**Required Information**

1996 gross revenues \$ enter amount  
1997 gross revenues \$ enter amount

Average gross revenues  
for the preceding 3 years \$ enter amount

Company B (has a controlling interest in the applicant)

1995 gross revenues \$ enter amount  
1996 gross revenues \$ enter amount  
1997 gross revenues \$ enter amount

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 interests**

**NOTE: Each member of an applicant that is applying to bid as a consortium of 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 Kenneth Burnley, 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 Location and Monitoring Service (LMS) auction (Auction No. 21). 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.

<u>Block Number</u>	<u>Required Information</u>
1	LOCKBOX # - Enter "358410"
2	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.
3	Total Amount Paid Enter the amount of the upfront payment associated with the FCC Form 159.
4-8	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.
9	Daytime Telephone Number Enter the telephone number of a person knowledgeable about this upfront payment.
10	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).

- 20A Payment Type Code Enter "ALMU"
- 21A Quantity Enter the number "1"
- 22A Amount Due Enter the total upfront payment due.
- 23A FCC Code 1 Enter the number "21" (indicating Auction No. 21).
- 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 submit a properly completed long-form application and required exhibits for each LMS 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

The Commission has implemented a remote access system to allow applicants to submit their FCC Form 175 applications electronically. This system will generally be available 24 hours per day beginning **October 26, 1998**. FCC Form 175 applications that are filed electronically must be submitted and confirmed by **5:30 p.m. ET on November 16, 1998**. Late applications or unconfirmed submissions of electronic data will not be accepted. Applicants who file electronically 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 who wish to file their FCC Form 175 electronically or review other FCC Form 175 applications on-line will need to meet the following minimum hardware and software requirements:

#### Minimum Hardware Requirements

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

#### Minimum Software Requirements

- o Operating System: Microsoft Windows 95/98 [*Note: The FCC no longer supports Windows 3.1x*]
- o PPP (Point-to-Point Protocol) Dialer: Use the Dial-Up Networking feature included with Windows 95/98
- o Web Browser: Netscape Communicator 4.05 with JDK 1.1 or a higher version of Netscape (available at <http://www.netscape.com>)
- o PDF Viewer: Adobe Acrobat Reader 3.0 or higher (available at <http://www.adobe.com>)

- o 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>) or Pkzip for Windows (available at <http://www.hotfiles.com>).

## 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 electronically will connect to a toll-free 800 number telephone service.

Similarly, parties reviewing FCC Form 175 applications electronically 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:

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

When electronically 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:

1. Re-upload the attachment.
2. 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 who file electronically 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.*

## B. ACCESSING THE FCC NETWORK USING WINDOWS 95/98

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.
- g. 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.
2. 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***

1. 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.*

## 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:**

*Second Report and Order* in PP Docket No. 93-253, FCC 94-61, 9 FCC Rcd. 2348, 2386-2388 (1994), paragraphs 221-226.

*Fifth Report and Order* in PP Docket No. 93-253, FCC 94-178, 9 FCC Rcd. 5532, 5570-5571 (1994), paragraphs 91-92.

*Fourth Memorandum Opinion and Order* in PP Docket No. 93-253, FCC 94-264, 9 FCC Rcd. 6858, 6866-6869 (1994), paragraphs 47-60.

*Second Memorandum Opinion and Order* in PP Docket No. 93-253, FCC 94-215, 9 FCC Rcd. 7245, 7253-7255 (1994), paragraphs 48-55.

*Memorandum Opinion and Order* in PP Docket No. 93-253, FCC 94-295, 9 FCC Rcd. 7684, 7687-7689 (1994), paragraphs 8-12.

In re Commercial Realty St. Pete, *Notice of Apparent Liability for Forfeiture*, 10 FCC Rcd. 4277 (1995); In re Commercial Realty St. Pete, *Memorandum Opinion and Order*, 11 FCC Rcd. 15374 (1996).

In re Applications of Mercury PCS II, LLC, *Notice of Apparent Liability for Forfeiture*, 12 FCC Rcd. 17970 (1997) (petition for partial reconsideration pending).

Amendment of Part 1 of the Commission's Rules -- Competitive Bidding Procedures, Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, 4660-4685 MHz, WT Docket No. 97-82, ET Docket No. 94-32, FCC 97-413, *Third Report and Order and Second Further Notice of Proposed Rule Making*, 13 FCC Rcd. 374, 463-469 (1997), paragraphs 155-166.

In re Application of US West Communications, Inc., *Notice of Apparent Liability for Forfeiture*, FCC 98-41 (March 16, 1998).

In re Application of Western PCS BTA I Corporation, *Notice of Apparent Liability for Forfeiture*, FCC 98-42 (March 16, 1998).

#### **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 FCC Rcd. 9655 (Wireless Tel. Bur. 1995).

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).

In re Applications of Mercury PCS II, LLC, For Facilities in the Broadband Personal Communications Services in the D, E, and F Blocks, *Memorandum Opinion and Order on Reconsideration*, 12 FCC Rcd. 18093 (Wireless Tel. Bur. 1997).

In the Matter of Applications of High Plains Wireless, L.P., For Authority to Construct and Operate Broadband PCS Systems on Frequency Blocks D, E, and F, *Memorandum Opinion and Order*, 12 FCC Rcd. 19627 (Wireless Tel. Bur. 1997).

In the Matter of Applications of Mercury PCS II, LLC, For Authority to Construct and Operate Broadband PCS Systems on Frequency Blocks D, E, and F, *Memorandum Opinion and Order*, 13 FCC Rcd. 5756 (Wireless Tel. Bur. 1997).

#### **Public Notices:**

"Wireless Telecommunications Bureau Clarifies Spectrum Auction Anti-Collusion Rules," *Public Notice*, 11 FCC Rcd. 9645 (1995).

"FCC Staff Clarifies Application of Anti-Collusion Rule to Broadband PCS 'C' Block Reauction," *Public Notice*, 11 FCC Rcd. 7031 (1996).

"Wireless Telecommunications Bureau Provides Guidance on the Anti-Collusion Rule for D, E and F Block Bidders," *Public Notice*, 11 FCC Rcd. 10134 (1996).

#### **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 R. Michael Senkowski from Rosalind K. Allen, Acting Chief, Commercial Radio Division, Wireless Telecommunications Bureau* (released December 1, 1994).

*Letter to Leonard J. Kennedy from Rosalind K. Allen, Acting Chief, Commercial Radio Division, Wireless Telecommunications Bureau* (released December 14, 1994).

*Letter to Jonathan D. Blake and Robert J. Rini from Kathleen O'Brien Ham, Chief, Auctions Division, Wireless Telecommunications Bureau, DA 95-2404* (released November 28, 1995).

*Letter to Mark Grady from Kathleen O'Brien Ham, Chief, Auctions Division, Wireless Telecommunications Bureau, 11 FCC Rcd. 10895* (1996).

*Letter to David L. Nace from Kathleen O'Brien Ham, Chief, Auctions Division, Wireless Telecommunications Bureau, 11 FCC Rcd. 11363 (1996).*

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

**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**

**LETTER FROM THE  
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION  
REGARDING THE LOCATION AND MONITORING SERVICE AUCTION**

Ms. 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

Ref: IRAC Doc. 30741/1 Wireless Telecommunications Action (July 14, 1998)  
FCC Adopts Auction Rules For LMS Services (PR Docket No. 93-61)

Ref: PUBLIC NOTICE, Location and Monitoring Service Spectrum Auction Scheduled  
For December 15, 1998 (DA 98-1616, August 13, 1998)

Dear Ms. Zoslov,

The purpose of this letter is to provide basic information on primary Federal spectrum usage and spectrum requirements so that prospective bidders would be put on notice in the upcoming spectrum auctions of the 902-928 MHz band. We requested that this letter be provided to the prospective bidders in the bidders package and in any further public notice in regards to this auction.

The 902-928 MHz band has been identified for the future auction of Location and Monitoring Service (LMS) licenses. Within the United States and Possessions (US&P), the 902-928 MHz band is allocated on a *primary* basis to the Federal Government radiolocation service. By a footnote to the U.S. Table of Frequency Allocations (FN US218), the 902-928 MHz band is made available for LMS systems subject to *not* causing harmful interference to, and *tolerating* interference from, the operations of all Government stations authorized in this band. Furthermore, LMS systems *must tolerate* interference from the operations of industrial, scientific, and medical (ISM) devices. Also of note, numerous Part 15 devices operate throughout the US&P in this band.

The primary Federal use of this band is for tracking radars, threat simulators, drone control, radar cross section measurement, wind profiler radars and low power devices. This band is used predominantly for military radiolocation systems that tune through the entire 902-928 MHz band. The Navy operates the AN/SPS-49(V) high power air-search radar onboard a variety of ships including all aircraft carriers and at several shore stations. The normal operating areas are littoral waters and the contiguous land mass extending 30 nautical miles inland. These modern all-solid state radars serve a critical role in the defense of the fleet, and since a large number (approx. 115) have been deployed in the fleet, it is likely that operations will continue for the foreseeable future. The Air Force uses the 902-928 MHz band to track missiles at test ranges, a capability that is important because it provides real-time tracking capability of manned and unmanned vehicles in test and training areas. The High Accuracy Multiple Object Tracking System (HAMOTS) consists of numerous ground radars and airborne transponders used throughout Arizona, California, Colorado, Nevada and Utah. The operating altitude of HAMOTS-equipped aircraft will typically extend to 35,000 feet, potentially illuminating locations up to 230 nautical miles from the operating areas. The Air Force has indicated that these operations will continue for the foreseeable future and may deploy other high power airborne radars in this band. The Department of Defense, the National Oceanic and Atmospheric Administration, and the National Science Foundation currently operate wind profiler radars in the 902-928 MHz band specifically at 915

MHz ( $\pm$  10 MHz). Wind profiler radars are sensitive Doppler radars that measure wind speed and direction at a variety of altitudes to collect atmospheric data usable in aviation, meteorology and in environmental studies. Unlike wind profilers that operate in lower bands and are located at sites selected to minimize the possibility of interaction with other systems, the wind profiler systems in the 902-928 MHz band are generally transportable and therefore can virtually operate anywhere in the US&P. The Government wind profiler radars were authorized for use in this band in 1992 and their proliferation and use is expected to continue indefinitely.

Several of the systems discussed in the previous paragraph have safety-of-life functions and National Security implications. The 902-928 MHz band has unique propagation characteristics that require these systems to continue to have primary status and assured access to this critical spectrum. The NTIA is concerned that the referenced public notices do not address Government operations in the band and may give the incorrect impression that the band is a non-Government exclusive band. In fact it is a Government primary band, and non-Government use is subject to not interfering with and tolerate interference from all authorized Government services. Thus, prospective bidders should be aware of Government operations in this band in order to design their systems to be compatible with the Government systems.

The NTIA is currently compiling technical and deployment information on several of the major Federal systems in this spectrum including those discussed above. This information will be useful for potential LMS bidders in the upcoming auction and will be provided in sufficient time for the prospective bidder to take into account.

Mr. William Druhan will be the NTIA contact point for addressing the issues raised above (phone 202-482-3529; fax 202-482-2830; email wdruhan@ntia.doc.gov).

Sincerely,

William T. Hatch  
Acting Associate Administrator  
Office of Spectrum Management

cc: Mr. Daniel Phythyon, Chief, Wireless Telecommunications Bureau, FCC  
Mr. Dale Hatfield, Chief, Office of Engineering and Technology, FCC

## ATTACHMENT A

### Summary of Multilateration Location and Monitoring Service Licenses To Be Auctioned

Market No.	License Name	License No.	Population*	**Upfront Payment (A Block)	***Minimum Opening Bid (A Block)	**Upfront Payment (B Block)	***Minimum Opening Bid (B Block)	**Upfront Payment (C Block)	***Minimum Opening Bid (C Block)
BEA001	Bangor, ME	BEA001A/B/C	533,135	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA002	Portland, ME	BEA002A/B/C	694,793	\$3,127.00	\$3,336.00	\$2,500.00	\$2,500.00	\$2,997.00	\$3,197.00
BEA003	Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH-Rl-VT	BEA003A/B/C	7,445,016	\$33,503.00	\$35,737.00	\$12,564.00	\$13,402.00	\$32,107.00	\$34,248.00
BEA004	Burlington, VT-NY	BEA004A/B/C	568,377	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA005	Albany-Schenectady-Troy, NY	BEA005A/B/C	1,147,154	\$5,163.00	\$5,507.00	\$2,500.00	\$2,500.00	\$4,948.00	\$5,277.00
BEA006	Syracuse, NY-PA	BEA006A/B/C	1,934,632	\$8,706.00	\$9,287.00	\$3,265.00	\$3,483.00	\$8,344.00	\$8,900.00
BEA007	Rochester, NY-PA	BEA007A/B/C	1,457,846	\$6,561.00	\$6,998.00	\$2,500.00	\$2,625.00	\$6,287.00	\$6,707.00
BEA008	Buffalo-Niagara Falls, NY-PA	BEA008A/B/C	1,529,735	\$6,884.00	\$7,343.00	\$2,582.00	\$2,754.00	\$6,597.00	\$7,037.00
BEA009	State College, PA	BEA009A/B/C	798,826	\$3,595.00	\$3,835.00	\$2,500.00	\$2,500.00	\$3,445.00	\$3,675.00
BEA010	New York-North New Jersey-Long Island, NY-NJ-CT-PA-MA-VT	BEA010A/B/C	23,919,008	\$107,636.00	\$114,812.00	\$40,364.00	\$43,055.00	\$103,151.00	\$110,028.00
BEA011	Harrisburg-Lebanon-Carlisle, PA	BEA011A/B/C	1,026,459	\$4,620.00	\$4,928.00	\$2,500.00	\$2,500.00	\$4,427.00	\$4,722.00
BEA012	Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD	BEA012A/B/C	6,915,860	\$31,122.00	\$33,197.00	\$11,671.00	\$12,449.00	\$29,825.00	\$31,813.00
BEA013	Washington-Baltimore, DC-MD-VA-WV-PA	BEA013A/B/C	7,454,633	\$33,546.00	\$35,783.00	\$12,580.00	\$13,419.00	\$32,149.00	\$34,292.00
BEA014	Salisbury, MD-DE-VA	BEA014A/B/C	290,800	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA015	Richmond-Petersburg, VA	BEA015A/B/C	1,247,627	\$5,615.00	\$5,989.00	\$2,500.00	\$2,500.00	\$5,381.00	\$5,740.00
BEA016	Staunton, VA-WV	BEA016A/B/C	301,626	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA017	Roanoke, VA-NC-WV	BEA017A/B/C	760,378	\$3,422.00	\$3,650.00	\$2,500.00	\$2,500.00	\$3,280.00	\$3,498.00
BEA018	Greensboro-Winston-Salem-High Point, NC-VA	BEA018A/B/C	1,604,323	\$7,220.00	\$7,701.00	\$2,708.00	\$2,888.00	\$6,919.00	\$7,380.00
BEA019	Raleigh-Durham-Chapel Hill, NC	BEA019A/B/C	1,412,330	\$6,356.00	\$6,780.00	\$2,500.00	\$2,543.00	\$6,091.00	\$6,497.00
BEA020	Norfolk-Virginia Beach-Newport News, VA-NC	BEA020A/B/C	1,588,174	\$7,147.00	\$7,624.00	\$2,681.00	\$2,859.00	\$6,850.00	\$7,306.00
BEA021	Greenville, NC	BEA021A/B/C	743,407	\$3,346.00	\$3,569.00	\$2,500.00	\$2,500.00	\$3,206.00	\$3,420.00
BEA022	Fayetteville, NC	BEA022A/B/C	465,018	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA023	Charlotte-Gastonia-Rock Hill, NC-SC	BEA023A/B/C	1,626,519	\$7,320.00	\$7,808.00	\$2,745.00	\$2,928.00	\$7,015.00	\$7,482.00
BEA024	Columbia, SC	BEA024A/B/C	815,834	\$3,672.00	\$3,917.00	\$2,500.00	\$2,500.00	\$3,519.00	\$3,753.00
BEA025	Wilmington, NC-SC	BEA025A/B/C	716,089	\$3,223.00	\$3,438.00	\$2,500.00	\$2,500.00	\$3,089.00	\$3,295.00
BEA026	Charleston-North Charleston, SC	BEA026A/B/C	541,252	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA027	Augusta-Aiken, GA-SC	BEA027A/B/C	536,809	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA028	Savannah, GA-SC	BEA028A/B/C	550,623	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA029	Jacksonville, FL-GA	BEA029A/B/C	1,557,922	\$7,011.00	\$7,479.00	\$2,629.00	\$2,805.00	\$6,719.00	\$7,167.00
BEA030	Orlando, FL	BEA030A/B/C	2,836,481	\$12,765.00	\$13,616.00	\$4,787.00	\$5,106.00	\$12,233.00	\$13,048.00
BEA031	Miami-Fort Lauderdale, FL	BEA031A/B/C	4,538,394	\$20,423.00	\$21,785.00	\$7,659.00	\$8,170.00	\$19,572.00	\$20,877.00
BEA032	Fort Myers-Cape Coral, FL	BEA032A/B/C	487,212	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00

BEA033	Sarasota-Bradenton, FL	BEA033A/B/C	624,323	\$2,850.00	\$2,997.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,872.00
BEA034	Tampa-St. Petersburg-Clearwater, FL	BEA034A/B/C	2,067,959	\$9,306.00	\$9,927.00	\$3,490.00	\$3,723.00	\$8,919.00	\$9,513.00
BEA035	Tallahassee, FL-GA	BEA035A/B/C	610,116	\$2,850.00	\$2,929.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,807.00
BEA036	Dothan, AL-FL-GA	BEA036A/B/C	307,026	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA037	Albany, GA	BEA037A/B/C	415,342	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA038	Macon, GA	BEA038A/B/C	686,336	\$3,089.00	\$3,295.00	\$2,500.00	\$2,500.00	\$2,960.00	\$3,158.00
BEA039	Columbus, GA-AL	BEA039A/B/C	449,582	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA040	Atlanta, GA-AL-NC	BEA040A/B/C	4,067,704	\$18,305.00	\$19,525.00	\$6,865.00	\$7,322.00	\$17,542.00	\$18,712.00
BEA041	Greenville-Spartanburg-Anderson, SC-NC	BEA041A/B/C	1,083,199	\$4,875.00	\$5,200.00	\$2,500.00	\$2,500.00	\$4,672.00	\$4,983.00
BEA042	Asheville, NC	BEA042A/B/C	371,635	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA043	Chattanooga, TN-GA	BEA043A/B/C	635,535	\$2,860.00	\$3,051.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,924.00
BEA044	Knoxville, TN	BEA044A/B/C	840,395	\$3,782.00	\$4,034.00	\$2,500.00	\$2,500.00	\$3,625.00	\$3,866.00
BEA045	Johnson City-Kingsport-Bristol, TN-VA	BEA045A/B/C	524,270	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA046	Hickory-Morganton, NC-TN	BEA046A/B/C	445,736	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA047	Lexington, KY-TN-VA-WV	BEA047A/B/C	1,731,306	\$7,791.00	\$8,311.00	\$2,922.00	\$3,117.00	\$7,467.00	\$7,965.00
BEA048	Charleston, WV-KY-OH	BEA048A/B/C	1,196,043	\$5,383.00	\$5,742.00	\$2,500.00	\$2,500.00	\$5,158.00	\$5,502.00
BEA049	Cincinnati-Hamilton, OH-KY-IN	BEA049A/B/C	2,003,480	\$9,016.00	\$9,617.00	\$3,381.00	\$3,607.00	\$8,641.00	\$9,217.00
BEA050	Dayton-Springfield, OH	BEA050A/B/C	1,125,936	\$5,067.00	\$5,405.00	\$2,500.00	\$2,500.00	\$4,856.00	\$5,180.00
BEA051	Columbus, OH	BEA051A/B/C	2,100,613	\$9,453.00	\$10,083.00	\$3,545.00	\$3,782.00	\$9,059.00	\$9,663.00
BEA052	Wheeling, WV-OH	BEA052A/B/C	346,375	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA053	Pittsburgh, PA-WV	BEA053A/B/C	3,003,172	\$13,515.00	\$14,416.00	\$5,068.00	\$5,406.00	\$12,952.00	\$13,815.00
BEA054	Erie, PA	BEA054A/B/C	512,673	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA055	Cleveland-Akron, OH-PA	BEA055A/B/C	4,564,666	\$20,541.00	\$21,911.00	\$7,703.00	\$8,217.00	\$19,686.00	\$20,998.00
BEA056	Toledo, OH	BEA056A/B/C	1,278,722	\$5,755.00	\$6,138.00	\$2,500.00	\$2,500.00	\$5,515.00	\$5,883.00
BEA057	Detroit-Ann Arbor-Flint, MI	BEA057A/B/C	6,626,919	\$29,822.00	\$31,810.00	\$11,183.00	\$11,929.00	\$28,579.00	\$30,484.00
BEA058	Northern Michigan, MI	BEA058A/B/C	230,066	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA059	Green Bay, WI-MI	BEA059A/B/C	624,600	\$2,850.00	\$2,999.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,874.00
BEA060	Appleton-Oshkosh-Neenah, WI	BEA060A/B/C	380,610	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA061	Traverse City, MI	BEA061A/B/C	238,720	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA062	Grand Rapids-Muskegon-Holland, MI	BEA062A/B/C	1,666,950	\$7,502.00	\$8,002.00	\$2,813.00	\$3,001.00	\$7,189.00	\$7,668.00
BEA063	Milwaukee-Racine, WI	BEA063A/B/C	2,119,557	\$9,539.00	\$10,174.00	\$3,577.00	\$3,816.00	\$9,141.00	\$9,750.00
BEA064	Chicago-Gary-Kenosha, IL-IN-WI	BEA064A/B/C	9,317,947	\$41,931.00	\$44,727.00	\$15,725.00	\$16,773.00	\$40,184.00	\$42,863.00
BEA065	Elkhart-Goshen, IN-MI	BEA065A/B/C	864,201	\$3,889.00	\$4,149.00	\$2,500.00	\$2,500.00	\$3,727.00	\$3,976.00
BEA066	Fort Wayne, IN	BEA066A/B/C	666,421	\$2,999.00	\$3,199.00	\$2,500.00	\$2,500.00	\$2,874.00	\$3,066.00
BEA067	Indianapolis, IN-IL	BEA067A/B/C	2,753,182	\$12,390.00	\$13,216.00	\$4,646.00	\$4,956.00	\$11,874.00	\$12,665.00
BEA068	Champaign-Urbana, IL	BEA068A/B/C	623,541	\$2,850.00	\$2,993.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,869.00
BEA069	Evansville-Henderson, IN-KY-IL	BEA069A/B/C	825,644	\$3,716.00	\$3,964.00	\$2,500.00	\$2,500.00	\$3,561.00	\$3,798.00
BEA070	Louisville, KY-IN	BEA070A/B/C	1,291,188	\$5,811.00	\$6,198.00	\$2,500.00	\$2,500.00	\$5,569.00	\$5,940.00
BEA071	Nashville, TN-KY	BEA071A/B/C	2,002,283	\$9,011.00	\$9,611.00	\$3,379.00	\$3,605.00	\$8,635.00	\$9,211.00
BEA072	Paducah, KY-IL	BEA072A/B/C	211,179	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA073	Memphis, TN-AR-MS-KY	BEA073A/B/C	1,687,817	\$7,596.00	\$8,102.00	\$2,849.00	\$3,039.00	\$7,279.00	\$7,764.00
BEA074	Huntsville, AL-TN	BEA074A/B/C	885,020	\$3,983.00	\$4,249.00	\$2,500.00	\$2,500.00	\$3,817.00	\$4,072.00
BEA075	Tupelo, MS-AL-TN	BEA075A/B/C	577,246	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA076	Greenville, MS	BEA076A/B/C	257,239	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA077	Jackson, MS-AL-LA	BEA077A/B/C	1,328,647	\$5,979.00	\$6,378.00	\$2,500.00	\$2,500.00	\$5,730.00	\$6,112.00

BEA078	Birmingham, AL	BEA078A/B/C	1,450,463	\$6,528.00	\$6,963.00	\$2,500.00	\$2,611.00	\$6,256.00	\$6,673.00
BEA079	Montgomery, AL	BEA079A/B/C	440,228	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA080	Mobile, AL	BEA080A/B/C	607,965	\$2,850.00	\$2,919.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA081	Pensacola, FL	BEA081A/B/C	515,942	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA082	Biloxi-Gulfport-Pascagoula, MS	BEA082A/B/C	339,791	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA083	New Orleans, LA-MS	BEA083A/B/C	1,635,720	\$7,361.00	\$7,852.00	\$2,761.00	\$2,945.00	\$7,055.00	\$7,525.00
BEA084	Baton Rouge, LA-MS	BEA084A/B/C	656,284	\$2,954.00	\$3,151.00	\$2,500.00	\$2,500.00	\$2,831.00	\$3,019.00
BEA085	Lafayette, LA	BEA085A/B/C	554,665	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA086	Lake Charles, LA	BEA086A/B/C	523,289	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA087	Beaumont-Port Arthur, TX	BEA087A/B/C	422,543	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA088	Shreveport-Bossier City, LA-AR	BEA088A/B/C	555,385	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA089	Monroe, LA	BEA089A/B/C	326,897	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA090	Little Rock-North Little Rock, AR	BEA090A/B/C	1,447,083	\$6,512.00	\$6,946.00	\$2,500.00	\$2,605.00	\$6,241.00	\$6,657.00
BEA091	Fort Smith, AR-OK	BEA091A/B/C	286,113	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA092	Fayetteville-Springdale-Rogers, AR-MO-OK	BEA092A/B/C	285,955	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA093	Joplin, MO-KS-OK	BEA093A/B/C	233,725	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA094	Springfield, MO	BEA094A/B/C	712,422	\$3,206.00	\$3,420.00	\$2,500.00	\$2,500.00	\$3,073.00	\$3,278.00
BEA095	Jonesboro, AR-MO	BEA095A/B/C	290,104	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA096	St. Louis, MO-IL	BEA096A/B/C	3,402,818	\$15,313.00	\$16,334.00	\$5,743.00	\$6,126.00	\$14,675.00	\$15,653.00
BEA097	Springfield, IL-MO	BEA097A/B/C	499,681	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA098	Columbia, MO	BEA098A/B/C	321,564	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA099	Kansas City, MO-KS	BEA099A/B/C	2,224,907	\$10,013.00	\$10,680.00	\$3,755.00	\$4,005.00	\$9,595.00	\$10,235.00
BEA100	Des Moines, IA-IL-MO	BEA100A/B/C	1,604,609	\$7,221.00	\$7,703.00	\$2,708.00	\$2,889.00	\$6,920.00	\$7,382.00
BEA101	Peoria-Pekin, IL	BEA101A/B/C	523,719	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA102	Davenport-Moline-Rock Island, IA-IL	BEA102A/B/C	548,257	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA103	Cedar Rapids, IA	BEA103A/B/C	341,001	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA104	Madison, WI-IA-IL	BEA104A/B/C	837,209	\$3,768.00	\$4,019.00	\$2,500.00	\$2,500.00	\$3,611.00	\$3,852.00
BEA105	La Crosse, WI-MN	BEA105A/B/C	220,502	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA106	Rochester, MN-IA-WI	BEA106A/B/C	292,175	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA107	Minneapolis-St. Paul, MN-WI-IA	BEA107A/B/C	3,945,443	\$17,755.00	\$18,939.00	\$6,658.00	\$7,102.00	\$17,015.00	\$18,150.00
BEA108	Wausau, WI	BEA108A/B/C	451,533	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA109	Duluth-Superior, MN-WI	BEA109A/B/C	340,675	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA110	Grand Forks, ND-MN	BEA110A/B/C	240,827	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA111	Minot, ND	BEA111A/B/C	116,054	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA112	Bismarck, ND-MT-SD	BEA112A/B/C	172,204	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA113	Fargo-Moorhead, ND-MN	BEA113A/B/C	347,670	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA114	Aberdeen, SD	BEA114A/B/C	84,696	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA115	Rapid City, SD-MT-ND-NE	BEA115A/B/C	199,782	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA116	Sioux Falls, SD-IA-MN-NE	BEA116A/B/C	478,307	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA117	Sioux City, IA-NE-SD	BEA117A/B/C	239,518	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA118	Omaha, NE-IA-MO	BEA118A/B/C	958,815	\$4,315.00	\$4,603.00	\$2,500.00	\$2,500.00	\$4,135.00	\$4,411.00
BEA119	Lincoln, NE	BEA119A/B/C	341,684	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA120	Grand Island, NE	BEA120A/B/C	277,509	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA121	North Platte, NE-CO	BEA121A/B/C	60,432	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA122	Wichita, KS-OK	BEA122A/B/C	1,094,213	\$4,924.00	\$5,253.00	\$2,500.00	\$2,500.00	\$4,719.00	\$5,034.00
BEA123	Topeka, KS	BEA123A/B/C	444,800	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA124	Tulsa, OK-KS	BEA124A/B/C	1,259,636	\$5,669.00	\$6,047.00	\$2,500.00	\$2,500.00	\$5,433.00	\$5,795.00
BEA125	Oklahoma City, OK	BEA125A/B/C	1,550,725	\$6,979.00	\$7,444.00	\$2,617.00	\$2,792.00	\$6,688.00	\$7,134.00

BEA126	Western Oklahoma, OK	BEA126A/B/C	144,847	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA127	Dallas-Fort Worth, TX-AR-OK	BEA127A/B/C	6,180,783	\$27,814.00	\$29,668.00	\$10,431.00	\$11,126.00	\$26,655.00	\$28,432.00
BEA128	Abilene, TX	BEA128A/B/C	213,430	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA129	San Angelo, TX	BEA129A/B/C	189,093	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA130	Austin-San Marcos, TX	BEA130A/B/C	922,307	\$4,151.00	\$4,428.00	\$2,500.00	\$2,500.00	\$3,978.00	\$4,243.00
BEA131	Houston-Galveston-Brazoria, TX	BEA131A/B/C	4,567,679	\$20,555.00	\$21,925.00	\$7,708.00	\$8,222.00	\$19,699.00	\$21,012.00
BEA132	Corpus Christi, TX	BEA132A/B/C	500,805	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA133	McAllen-Edinburg-Mission, TX	BEA133A/B/C	701,888	\$3,159.00	\$3,370.00	\$2,500.00	\$2,500.00	\$3,027.00	\$3,229.00
BEA134	San Antonio, TX	BEA134A/B/C	1,741,991	\$7,839.00	\$8,362.00	\$2,940.00	\$3,136.00	\$7,513.00	\$8,014.00
BEA135	Odessa-Midland, TX	BEA135A/B/C	382,517	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA136	Hobbs, NM-TX	BEA136A/B/C	185,128	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA137	Lubbock, TX	BEA137A/B/C	357,092	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA138	Amarillo, TX-NM	BEA138A/B/C	448,258	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA139	Santa Fe, NM	BEA139A/B/C	208,689	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA140	Pueblo, CO-NM	BEA140A/B/C	247,124	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA141	Denver-Boulder-Greeley, CO-KS-NE	BEA141A/B/C	3,031,140	\$13,641.00	\$14,550.00	\$5,116.00	\$5,457.00	\$13,072.00	\$13,944.00
BEA142	Scottsbluff, NE-WY	BEA142A/B/C	91,975	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA143	Casper, WY-ID-UT	BEA143A/B/C	382,095	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA144	Billings, MT-WY	BEA144A/B/C	362,513	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA145	Great Falls, MT	BEA145A/B/C	163,284	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA146	Missoula, MT	BEA146A/B/C	333,984	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA147	Spokane, WA-ID	BEA147A/B/C	691,806	\$3,114.00	\$3,321.00	\$2,500.00	\$2,500.00	\$2,984.00	\$3,183.00
BEA148	Idaho Falls, ID-WY	BEA148A/B/C	263,379	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA149	Twin Falls, ID	BEA149A/B/C	136,831	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA150	Boise City, ID-OR	BEA150A/B/C	408,246	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA151	Reno, NV-CA	BEA151A/B/C	511,004	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA152	Salt Lake City-Ogden, UT-ID	BEA152A/B/C	1,635,998	\$7,362.00	\$7,853.00	\$2,761.00	\$2,945.00	\$7,056.00	\$7,526.00
BEA153	Las Vegas, NV-AZ-UT	BEA153A/B/C	943,702	\$4,247.00	\$4,530.00	\$2,500.00	\$2,500.00	\$4,070.00	\$4,342.00
BEA154	Flagstaff, AZ-UT	BEA154A/B/C	299,753	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA155	Farmington, NM-CO	BEA155A/B/C	150,155	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA156	Albuquerque, NM-AZ	BEA156A/B/C	762,814	\$3,433.00	\$3,662.00	\$2,500.00	\$2,500.00	\$3,290.00	\$3,509.00
BEA157	El Paso, TX-NM	BEA157A/B/C	807,501	\$3,634.00	\$3,877.00	\$2,500.00	\$2,500.00	\$3,483.00	\$3,715.00
BEA158	Phoenix-Mesa, AZ-NM	BEA158A/B/C	2,365,002	\$10,643.00	\$11,353.00	\$3,991.00	\$4,258.00	\$10,200.00	\$10,880.00
BEA159	Tucson, AZ	BEA159A/B/C	794,180	\$3,574.00	\$3,813.00	\$2,500.00	\$2,500.00	\$3,425.00	\$3,654.00
BEA160	Los Angeles-Riverside-Orange County, CA-AZ	BEA160A/B/C	15,891,818	\$71,514.00	\$76,281.00	\$26,818.00	\$28,606.00	\$68,534.00	\$73,103.00
BEA161	San Diego, CA	BEA161A/B/C	2,498,016	\$11,242.00	\$11,991.00	\$4,216.00	\$4,497.00	\$10,773.00	\$11,491.00
BEA162	Fresno, CA	BEA162A/B/C	1,168,970	\$5,261.00	\$5,612.00	\$2,500.00	\$2,500.00	\$5,042.00	\$5,378.00
BEA163	San Francisco-Oakland-San Jose, CA	BEA163A/B/C	8,033,134	\$36,150.00	\$38,560.00	\$13,556.00	\$14,460.00	\$34,643.00	\$36,953.00
BEA164	Sacramento-Yolo, CA	BEA164A/B/C	1,935,487	\$8,710.00	\$9,291.00	\$3,267.00	\$3,484.00	\$8,347.00	\$8,904.00
BEA165	Redding, CA-OR	BEA165A/B/C	307,572	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA166	Eugene-Springfield, OR-CA	BEA166A/B/C	689,659	\$3,104.00	\$3,311.00	\$2,500.00	\$2,500.00	\$2,975.00	\$3,173.00
BEA167	Portland-Salem, OR-WA	BEA167A/B/C	2,310,060	\$10,396.00	\$11,089.00	\$3,899.00	\$4,159.00	\$9,963.00	\$10,627.00
BEA168	Pendleton, OR-WA	BEA168A/B/C	176,129	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA169	Richland-Kennewick-Pasco, WA	BEA169A/B/C	545,747	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA170	Seattle-Tacoma-Bremerton, WA	BEA170A/B/C	3,445,064	\$15,503.00	\$16,537.00	\$5,814.00	\$6,202.00	\$14,857.00	\$15,848.00
BEA171	Anchorage, AK	BEA171A/B/C	550,043	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
BEA172	Honolulu, HI	BEA172A/B/C	1,108,229	\$4,988.00	\$5,320.00	\$2,500.00	\$2,500.00	\$4,780.00	\$5,098.00
BEA173	Guam and Northern Mariana Islands	BEA173A/B/C	176,497	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00

<b>BEA174</b>	Puerto Rico and the U.S. Virgin Islands	<b>BEA174A/B/C</b>	3,623,846	\$16,308.00	\$17,395.00	\$6,116.00	\$6,523.00	\$15,628.00	\$16,670.00
<b>BEA175</b>	American Samoa	<b>BEA175A/B/C</b>	46,773	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
<b>BEA176</b>	Gulf of Mexico	<b>BEA176A/B/C</b>	0	\$2,850.00	\$2,850.00	\$2,500.00	\$2,500.00	\$2,800.00	\$2,800.00
Total			\$252,556,989	\$1,247,399	\$1,314,243	\$631,756	\$652,429	\$1,201,603	\$1,265,255

When identifying an individual license, only one frequency block suffix may be used (e.g., "A", "B", "C", etc.) This license number must be used on the FCC Form 159 in FCC Code 2 Block when making down payments and final payments. **DO NOT** specify individual licenses in the FCC Form 159 accompanying upfront payments.

\* All population figures are from the 4/1/90 U.S. Census, U.S. Department of Commerce, Bureau of the Census.

**\*\*Upfront Payment Calculation**

A. **A Block** Upfront Payment = License Population \* 6.000 MHz (Block size) \* \$0.00075 (rounded **up** to the next dollar and no less than \$2,850.00)

B. **B Block** Upfront Payment = License Population \* 2.250 MHz (Block size) \* \$0.00075 (rounded up to the next dollar and no less than \$2,500.00)

C. **C Block** Upfront Payment = License Population \* 5.750 MHz (Block size) \* \$0.00075 (rounded up to the next dollar and no less than \$2,800.00)

**\*\*\*\* Minimum Opening Bid Calculations:**

A. **A Block** Minimum Opening Bid Calculation = \$0.0008 \* 6.000MHz \* License Population (rounded **up** to the next dollar and **no less than** \$2,850.00)

B. **B Block** Minimum Opening Bid Calculation= \$0.0008 \* 2.250 MHz \* License Population (rounded **up** to the next dollar and **no less than** \$2,500.00)

C. **C Block** Minimum Opening Bid Calculation= \$0.0008 \* 5.750 MHz \* Licenses Population (rounded **up** to the next dollar and **no less than** \$2,800.00).