



*Commercial Spectrum
Auctions Report- Volume III*

June 1998

EXECUTIVE SUMMARY

Volume III of the Commercial Radio Spectrum Auctions Report provides the public safety community with an update on issues related to the spectrum auctions conducted by the Federal Communications Commission (FCC). The report provides information on—

- The status of licenses and services related to previously reported auctions
- The most recent FCC spectrum auction, the Local Multipoint Distribution Service (LMDS) auction
- Auctions the FCC plans to hold in 1998 and 1999.

The first section, which provides new information on previously held auctions, gives readers information on the number of licenses that have been granted after the auction. The section also examines the status of the PCS C-block licenses. The FCC suspended payments for Personal Communications Service (PCS) C-block licensees due to the difficulty many licensees have experienced making payments for the licenses. Since payments were suspended, the FCC has formulated options for licensees to choose regarding payment or return of licenses.

The second section discusses the service rules and outcome of the LMDS auction. The LMDS spectrum is the largest block of spectrum ever auctioned at one time (1,150 MHz), and the FCC is encouraging flexible use of that spectrum for a variety of fixed wireless applications. Of 984 available licenses, 864 were sold. The FCC will re-auction the remaining 120 licenses at a later date.

The last section gives information on auctions the FCC plans to hold in 1998 and 1999. They are—

- 39 GHz Wireless Service
- Paging Services
- Location and Monitoring Service
- Analog Broadcast License for Commercial Radio and Television
- PCS C-Block Re-auction.

Two other auctions, the General Wireless Communications Service and the 220 MHz Land Mobile Radio Service, were scheduled to be held this year, but have been postponed indefinitely.

TABLE OF CONTENTS

	PAGE
1. Introduction.....	1-1
1.1 Purpose	1-3
2. Updates on Auctions 1-15	2-1
2.1 Personal Communications Service (PCS).....	2-2
2.1.1 FCC Actions on PCS C-Block License Payment Issue	2-2
2.1.2 FCC Actions on Other PCS Blocks	2-4
3. Completed Auctions	3-1
3.1 Local Multipoint Distribution Service Auction	3-1
4. New Auctions.....	4-1
4.1 39 GHz Wireless Service	4-1
4.2 Private Carrier Paging (PCP) and Common Carrier Paging (CCP).....	4-2
4.3 Location and Monitoring Service (LMS).....	4-3
4.4 Public Coast Stations	4-4
4.5 Analog Broadcast Licenses for Commercial Radio and Television.....	4-5
4.6 PCS-Block Re-auction.....	4-5
4.7 220 MHz Service.....	4-6
4.8 General Wireless Communications Service (GWCS)	4-8
5. Conclusion	5-1
Appendices	
Appendix A—Acronyms.....	A-1
Appendix B—Local Multipoint Distribution Service Auction Winners	B-1
Appendix C—BTA Map.....	C-1
Appendix D—Table of 220–222 MHz Channel Designations	D-1
Appendix E—Cooperative Engagement Capability Impacted Economic Areas	E-1

1. INTRODUCTION

Radio spectrum auctions are quickly becoming the primary way in which the Federal Communications Commission (FCC) manages spectrum. The Omnibus Budget Reconciliation Act (OBRA) of 1993 authorized the FCC to auction spectrum and allow flexible use of the spectrum if the allocation is in the public interest and the proposed services would not deter investment in communications services or result in harmful interference among users. Since the FCC was given auction authority in 1993, the FCC has held 16 auctions, raising more than \$24 billion in bids.

Congress has granted the FCC the authority to continue auctioning radio spectrum into the next century. In the OBRA of 1993 and the Balanced Budget Act (BBA) of 1997, Congress identified a total of 424 MHz of government and commercial spectrum to be reallocated and auctioned to commercial entities. Table 1-1 lists the specific bands, prior use of bands identified for reallocation, and reallocation dates for the 424 MHz.

**Table 1-1
Spectrum Reallocated in the Omnibus Budget Reconciliation Act of 1993 and the Balanced Budget Act of 1997**

Frequency Band (MHz)	Amount of Spectrum (MHz)	Use Prior to Reallocation	Reallocation Date	Auction Date
54–72, 698–746, and 76–88 or 668–698	78	Recaptured broadcast channels	September 30, 2002	September 30, 2002
139–140.5 and 141.5–143	3	Military communications	January 2008	Undetermined
216–220	4	Space surveillance radar system and various low power applications	January 2002	Undetermined
756–764 and 776–794	36	Broadcast channels 60–69	January 1, 1998	After January 1, 2001
1385–1390	5	Tactical radio relays, radar, and air traffic control	January 1999	Undetermined
1390–1400	10	Defense-related communications	January 1999	Undetermined
1427–1432	5	Defense-related communications	January 1999	Undetermined
1432–1435	3	Military tactical radio relay, guided	January 1999	Undetermined

Frequency Band (MHz)	Amount of Spectrum (MHz)	Use Prior to Reallocation	Reallocation Date	Auction Date
		weapons systems		
1670–1675	5	National Oceanic and Atmospheric Administration radiosonde stations	January 1999	Undetermined
1710–1755	45	Government fixed and mobile use	January 1999 (some systems will be operational until 2004)	After January 1, 2001
1990–2110	15	Broadcast auxiliary and mobile satellite systems	September 30, 2002	Undetermined
2110–2150	40	Emerging technology band	September 30, 2002	Undetermined
2300–2310	10	Defense-related communications	Reallocation complete	Undetermined
2385–2390	5	Scientific observations and aeronautical flight test telemetry	January 2005	Undetermined
2390–2400	10	Defense-related communications	Reallocation complete	Undetermined
2400–2450	50	Defense-related communications	Reallocation complete	Undetermined
3650–3700	50	Defense-related communications	January 1999	Undetermined
4635–4685	50	Defense-related communications	Reallocation complete	Undetermined
TOTAL:	424 MHz			

In addition, in its 1999 Budget Report to Congress, the FCC said that it plans to use auctions “wherever feasible to license or authorize telecommunications services quickly and efficiently¹.” This includes new services being offered on reallocated spectrum and existing services such as radio and television broadcasting. The FCC believes that the best argument for auctioning spectrum is to get the most use out of the spectrum by focusing bidders on the available spectrum. The FCC reasons that focusing bidders on available spectrum will lead to increased competition, which leads to lower prices.

¹ Communications Daily. *FCC Emphasizes Enforcement in FY 1999 Budget Report to Congress*. p. 1, February 9, 1998.

1.1 Purpose

This report is intended to brief the public safety community on current events surrounding the spectrum auctions, including the FCC's analysis of the auctions and the auction process, changes to auction rules and procedures, new auctions, related developments in the commercial wireless industry, and reallocation of government spectrum for commercial auctions. The information contained in this report will provide local, state, and federal public safety users with insights into commercial spectrum management trends, commercial activity conducted within each respective public safety community's geographic area, and what types of services will be deployed in various regions nationwide. This report is intended to provide basic information on spectrum auctions and to serve as a catalyst for further discussion on the effect of commercial spectrum use on the public safety community.

2. UPDATES ON AUCTIONS 1-15

At the conclusion of an auction, the winning bidders must pay for their license(s) and file the FCC Long Form 600 to be granted the license. The FCC issues a public notice after the auction listing the winners who filed their FCC application forms, thereby opening a 30-day window in which other parties can file a “petition to deny.” Parties file a petition to deny to prevent a winner from receiving a license for its winning bid. Petitions to deny are granted when the FCC believes there is a technical or legal rationale for withholding a license. When the 30-day window closes, the FCC issues another public notice listing the parties to whom it will grant licenses. Winning bidders who successfully navigate through this process are then officially granted licenses. Table 2-1 provides a summary snapshot of the licenses that have been granted through this process since the inception of the auctions.

**Table 2-1
Licensing Status of Auctioned Services**

Service	Status Of Licenses/Systems
Broadband Personal Communications Service (PCS)	<ul style="list-style-type: none"> • 99 auctioned licenses granted for PCS A & B Blocks • 475 C-Block licenses initially granted
Multipoint Distribution Service (MDS)	<ul style="list-style-type: none"> • 431 of the 493 Basic Trading Areas (BTA) are listed as ready to grant • FCC has processed 577 license applications for individual stations; licenses are granted for individual channels within each BTA.
Wireless Communications Service (WCS)	All 128 licenses have been granted
Direct Broadcast Satellite (DBS)	2 of 2 auctioned licenses have been granted
Digital Audio Radio Service (DARS)	2 of 2 auctioned licenses have been granted
Specialized Mobile Radio Service (SMR)	<ul style="list-style-type: none"> • 522 of 525 auctioned 800 MHz SMR licenses have been granted • 733 of 1,020 auctioned 900 MHz SMR licenses have been granted
Interactive Video and Data Service (IVDS)	490 of 595 auctioned IVDS licenses were granted. Bidders defaulted on the remaining 125 licenses, which the FCC plans to re-auction.

The following section provides an update on recent FCC actions related to completed PCS auctions.

2.1 Personal Communications Service (PCS)

The PCS C-block auction and re-auction concluded on May 6th and July 16, 1996, respectively. The PCS C-block re-auctions raised \$9,967 in bids. The C-block is referred to as the “entrepreneurs block” because participation in the auction was limited to entities classified as “small businesses” or “entrepreneurs.” The FCC defined these entities as companies with gross revenues of less than \$125 million and assets of less than \$500 million.

A number of PCS C-block licensees have been having difficulties meeting payment schedules for their licenses. One of the C-block licensees, a subsidiary of General Wireless, Inc. (GWI), filed for bankruptcy protection in June 1997, approximately one year after the close of the auctions. In April 1998, a federal bankruptcy judge lowered the value of 14 GWI C-block licenses, stating that because the market for C-block licenses fell after the auctions ended in May 1996, the value of the licenses changed by the time GWI’s subsidiary received its licenses in January 1997. Although the court concluded that the FCC conducted the C-block auction fairly, it ruled that GWI’s subsidiary did not receive reasonably equivalent value for the price it was required to pay for the licenses.

Another C-block licensee, Pocket Communications, is planning to file a proposal in bankruptcy court that would restructure the company and allow it to retain some of its C-block licenses. FCC officials have been urging Congress to clarify that FCC licenses should not be involved in bankruptcy claims and to allow the FCC to reclaim licenses from bankrupt auction winners, but Congress has not taken action on this issue to date.

2.1.1 FCC Actions on PCS C-Block License Payment Issues

In 1997, the FCC issued a freeze on PCS C- and F-block installment payments until July 31, 1998 because of the inability of some licensees to make payments in a timely manner². In October 1997, the FCC offered C and F-block licensees four financing options, including the following:

- Status quo—Licensee can continue making installment payments
- Amnesty—Licensee can return all of its licenses and forfeit its original 10 percent down payment
- Disaggregation—Licensee can return half of its spectrum and have a corresponding 50 percent of its debt forgiven

² FCC. *Wireless Telecommunications Bureau Announces June 8, 1998 Election Date for Broadband PCS C Block Licensees*. Public Notice DA 98-741, April 17, 1998.

- Prepayment/full-price buyout plan—Licensee can purchase as many of its licenses as it can afford by pooling 70 percent of the down payments already made and forfeiting the remaining 30 percent.

The FCC originally gave companies until January 15, 1998, to choose their payment option. However, the FCC postponed the election date until June 8, 1998, and the payment date until July 31, 1998. The reason for the postponement was to give the FCC more time to evaluate arguments from C-block licensees on payment plan options.

The FCC issued an order retaining the basic framework of the original four options, but making some slight alterations. These changes allow licensees (1) more flexibility in making their elections for licenses in different geographic areas, (2) use of a greater percentage of the down payments that have already been deposited, and (3) more flexibility in the use of down payments. In revising the election options, the FCC had a number of policy goals to balance, including—

- Preserving the integrity of the auction process
- Maintaining public confidence in the stability of FCC auction rules
- Ensuring fair and impartial treatment of parties participating in all FCC auctions
- Promoting economic opportunity and encouraging broad participation in the provision of spectrum-based services
- Devising and implementing in a timely manner a workable solution that facilitates rapid introduction of services to the public without further market or regulatory delays.

The FCC modifications include³—

- Allowing licensees to make different elections for different Major Trading Areas (MTAs) in which they hold licenses
- Permitting combinations of disaggregation and pre-payment for the same license
- For licensees choosing the disaggregation and prepayment options, increasing the amount of their down payments credited their remaining license holdings.
- Offering licensees choosing the amnesty election (returning all licenses) two different options:

³ FCC. *Amendment of the Commission's Rules Regarding Installment Payment Financing for Personal Communications Services (PCS) Licensees*. Order on Reconsideration of the Second Report and Order, WT Docket No. 97-82, March 23, 1998.

- Receive no credit for down payments but remain eligible to bid in the re-auction of the returned MTA
- Receive 70% of down payments and forgo bidding eligibility for two years from the start date of the re-auction
- Extending the delinquency period for payment from 60 to 90 days and adding a 5% late fee for payments made within the 90 day delinquency period.

Any licensee that fails to file a “timely Election Notice shall be treated as having elected to continue making payments under its existing note obligations and will be required to pay, by July 31, 1998, all unpaid interest accruing from the date of license grant through July 31, 1998.”⁴ A licensee that chooses an option “for which it is not eligible or fails to include required information in its Election Notice,⁵” will also be considered to have chosen to resume making payments under its existing note obligations.

A coalition of C-block licensees has asked the FCC to extend the June 8 deadline for choosing one of the four C-block payment options as well as a delay of the July 31 date for resuming C-block license payments. To date, the FCC has not changed or delayed either the June 8 election deadline or the July 31 payment deadline.

2.1.2 FCC Actions on other PCS Blocks

On March 16, 1998, the FCC announced that it plans to fine US West and Western PCS \$1.2 million each for violating anti-collusion rules during the PCS D, E, & F Block auction. The FCC alleges that the two companies engaged in “prohibited communications” via phone and voice mail for the Olympia, Washington market that unfairly disadvantaged other bidders. US West and Western PCS must pay the fine within 30 days or appeal the ruling.

⁴ FCC, *Implementation Procedures for the Order on Reconsideration of the Second Report and Order Concerning the Broadband Personal Communications Services (PCS) C and F Block Installment Payment Plans*. Public Notice DA 98-946, May 18, 1998.

⁵ Ibid.

3. COMPLETED AUCTIONS

The FCC has completed one auction since the last report: the Local Multipoint Distribution Service (LMDS) auction. The LMDS auction raised \$578.6 million in bids, which is considerably less than the projected \$4 billion. The 220 MHz SMR and General Wireless Communication Service auctions were scheduled to be held in April and May of this year, respectively, but both auctions have been postponed indefinitely.

3.1 Local Multipoint Distribution Service Auction

Service	Frequency Range (MHz)	Auction Date
Local Multipoint Distribution Service	A-Block: 27,500–28,350, 29,100–29,250, 31,075–31,225 B-Block: 31,000–31,075 31,225–31,300	February 18–March 25, 1998

LMDS is a point-to-multipoint, emerging technology that has the capability to offer subscribers a variety of one-and two-way broadband wireless services. LMDS has the potential to evolve into a technology that will provide a wide array of telecommunications services and compete with companies offering local telephone service. LMDS technologies are capable of offering videoconferencing, voice services, local area network (LAN)/wide area network (WAN) capabilities, telemedicine, video-on-demand, real time multimedia file transfer, and wireless local loop-based services.

The LMDS auction concluded on March 25, 1998 after 128 rounds of bidding. The FCC auctioned two licenses per BTA⁶, offering a total of 984 licenses. The A-block licenses offer 1,150 MHz of spectrum per BTA; the B block licenses offer 150 MHz of spectrum per BTA. Of the 984 available licenses, 104 bidders bought only 864 licenses, covering 95 percent of the population. A list of LMDS licensees appears in Appendix B. Of the 120 licenses that were not sold, 109 are in the larger A blocks. The FCC will re-auction the licenses that were not sold, but has not yet set a date for that re-auction.

To introduce telecommunications competition, the FCC limited in-region cable companies and local exchange carriers (LEC) ownership of A-block licenses where 10 percent or more of the BTA population is within their authorized franchised or service areas. These companies were, however, permitted to bid on A-and B-block licenses in the LMDS auction and to partition⁷ the LMDS BTAs they win so that holdings in their service area(s) fall below the 10 percent limit. In

⁶ Rand McNally's division of the United States into 493 distinct areas based on physical geography, population, and other related factors. The FCC licenses certain services such as LMDS, MDS, and PCS according to BTA boundaries.

⁷ "Partitioning" refers to splitting certain geographic areas from the licensed service area.

April 1998, seven companies filed requests for a waiver of the in-region cable company/LEC ownership restriction rules. The FCC sought comment on these waiver requests and a United States Telephone Association letter that urged the FCC to eliminate these eligibility and ownership restrictions.⁸

The FCC permits flexible use of LMDS licenses. There are no restrictions on the number of licenses a given entity may acquire, and all licensees are permitted to disaggregate⁹ and partition their licenses. In addition, the FCC recently formulated the following rules and conditions¹⁰ for partitioning and disaggregating spectrum, including:

- Partitioning LMDS licenses is permitted on the basis of any geographic area defined by the parties.
- Disaggregating LMDS spectrum is allowed for any amount of spectrum, with no requirement that the disaggregator retain a certain amount of spectrum.
- Combined partitioning and disaggregation is permitted.
- Parties to LMDS partitioning (or combined partitioning and disaggregation) agreements will have two construction options for the partitioned area. Under the first option, the entity receiving partitioned spectrum from the original licensee may certify that it will satisfy the substantial service requirement for the newly partitioned area. Under the second option, the original licensee certifies that it has met or will meet the substantial service requirement for the entire market. Parties to LMDS disaggregation (or combined partitioning and disaggregation) agreements must state which of the parties will be responsible for meeting the substantial service requirement for the licensed area. Alternatively, parties may agree to share responsibility for meeting the construction requirement.
- Upon FCC approval, those receiving partitioned or disaggregated spectrum from the original licensee will hold their licenses for the remainder of the original licensees' 10-year term and may earn a renewal expectancy similar to other LMDS licensees.
- LMDS licensees who received bidding credits in the auction and who partition or disaggregate their license to an entity that would not have qualified for such a credit will be required to reimburse the FCC. The amount of the payment will be calculated on a pro rata basis, using population for partitioned areas, the amount of spectrum for

⁸ FCC. *Wireless Telecommunications Bureau Seeks Comment on Requests for Waiver of Incumbent LEC/Cable Eligibility Restrictions*. Public Notice DA 98-731, April 16, 1998.

⁹ Disaggregating licenses refers to splitting licenses into smaller frequency blocks.

¹⁰ FCC. *Rule Making to Amend Parts 1, 2, 21, and 25 of the Commission's Rules to Redesignate the 27.5-29.5 GHz Frequency Band, To Reallocate the 29.5-30.0 GHz Frequency Band, To Establish Rules and Policies for Local Multipoint Distribution Service And for Fixed Satellite Services*, Forth Report and Order, CC Docket No. 92-297, April 21, 1998.

disaggregated spectrum, or some combination thereof for combined partitioning and disaggregation.

Licensees will be required to provide what the FCC defines as “substantial service” in their service areas within 10 years.

4. NEW AUCTIONS

The FCC has scheduled four more auctions to take place by the end of 1998. Three additional auctions, (the PCS C-Block Re-auction, the General Wireless Communications Service auction, and the 220 MHz Land Mobile Radio Service auction) were scheduled to start before the end of the year, but the latter two have been postponed indefinitely. The PCS C-Block Re-auction is scheduled to take place in the first quarter of 1999.

4.1 39 GHz Wireless Service

Service	Frequency Range (GHz)	Auction Date
39 GHz Wireless Service	37.0-38.6, 38.6-40.0	3 rd Quarter 1998

Frequencies in the 39 GHz range can be used for almost any fixed or mobile short-range communication, including voice, video, and data. Currently, portions of this spectrum are being used for fixed, point-to-point, wireless local loop, voice, and data services. Many licensees are taking steps toward becoming competitors to incumbent local exchange carriers. In preparation for the 39 GHz auction, the FCC has formulated new rules for licenses in this band, including—

- Permitting partitioning and disaggregation of 39 GHz licenses
- Allowing fixed and mobile services in the 39 GHz band
- Establishing build-out requirements.

The FCC is conducting a rulemaking proceeding seeking comment on rules pertaining to future small business 39 GHz licensees¹¹.

The FCC will be auctioning approximately 6,900 39 GHz licenses according to BTA boundaries. The FCC is retaining its existing channeling plan for this band of fourteen paired 50 MHz channel blocks and allowing licensees the flexibility to subdivide their channels in the manner they deem most appropriate for meeting their service demands. Because of the large number of licensees, the FCC will conduct a series of simultaneous multiple round auctions offering three channel pairs per auction. The auction is scheduled for the third quarter of 1998, but an exact date has not been set.

4.2 Private Carrier Paging (PCP) and Common Carrier Paging (CCP)

¹¹ FCC. *Amendment of the Commission's Rules Regarding the 37.0- 38.6 GHz and 38.6- 40.0 GHz Bands*, Report and Order and Second Notice of Proposed Rulemaking, FCC 97-391, ET Docket No. 95-183, October 24, 1997.

Service	Frequency Range (MHz)	Auction Date
Private Carrier Paging (PCP) and Common Carrier Paging (CCP)	929 and 931 MHz 35-36, 43-44, 152-159, 454-460, and 931 MHz	3 rd Quarter 1998

There are two FCC classifications for commercial paging systems: private carrier paging, which refers to a private paging network, and common carrier paging, which refers to a commercial paging network. Paging systems are traditionally one-way signaling systems, but the FCC plans to formulate rules to allow paging operators to provide two-way or response paging on auctioned frequencies.

The FCC will institute auctions to resolve mutually exclusive¹² applications for PCP and CCP licenses during the third quarter of 1998. The FCC has established some rules for these services, but is undecided on others and seeks comment¹³. Currently, the FCC is restructuring the regulatory environment for PCP and CCP services through this rulemaking. It is seeking comment on—

- Coverage requirements for nationwide licenses
- Allowing small businesses to partition paging licenses
- Feasibility of disaggregating paging spectrum
- Modifying the application process for shared channels to reduce or eliminate application fraud.

In addition, the FCC is making the transition from site-by-site licensing to geographic area licensing for paging channels.

The FCC will offer nationwide and geographically based authorizations on the 929 and 931 MHz channels. Authorizations for all remaining frequency ranges¹⁴ will be organized according to 172 Economic Areas (EAs). The Rural Radiotelephone Service, including the Basic Exchange Telecommunications Service (BETRS)¹⁵ will be permitted on these paging channels.

¹² “Mutually exclusive” refers to multiple applicants who apply for use of the same frequency in the same geographic service area.

¹³ FCC, *Revision of Part 20 and Part 90 of the Commission’s Rules to Facilitate Development of Paging Systems*, Second Report and Order and Further Notice of Proposed Rulemaking, WT Docket No. 96-18, February 19, 1997.

¹⁴ 35-36, 43-44, 152-159, and 454-460 MHz.

¹⁵ The Rural Radiotelephone Service is a fixed radio service in which a wireless technology is used to provide telephone service to subscribers in remote areas. This service may operate in the paired 152/158 and 454/459 MHz bands. Conventional Rural Radiotelephone Service generally is considered by state regulators to be a separate service that is interconnected to the public switched network. Basic Exchange Telephone Radio Service is a fixed radio service in which a multiplexed, digital radio link is used as the last segment of the local loop to provide wireless telephone service to subscribers in remote areas. BETRS technology was developed in the mid-1980s and allows up to four carriers that have been state certified to provide basic exchange telephone service (or others having state approval to provide such service) in the pertinent area are eligible to hold authorizations for BETRS.

After receiving an MTA or an EA license for each channel, licensees are subject to the following coverage requirements:

- For each MTA or EA license for a channel, licensees must provide coverage to one-third of the population within three years of the license grant and to two-thirds of the population within five years of the license grant; or
- The MTA or EA licensee must provide substantial service to the geographic license area within five years of the license grant.

4.3 Location and Monitoring Service (LMS)

Service	Frequency Range (MHz)	Auction Date
Location and Monitoring Service (LMS)	904.000-909.750/ 927.750-928.000, 919.750-921.750/ 927.500-927.750, 921.750-927.250	3 rd Quarter 1998

Location and Monitoring Service (LMS) refers to advanced radio technologies designed to support the Nation's transportation infrastructure. There are two types of LMS systems: multilateration and non-multilateration¹⁶. The FCC is auctioning only frequencies designed for multilateration LMS systems on the premise that multilateration LMS licenses will be used principally to offer for-profit, subscriber-based services.

The FCC plans to hold LMS auctions in the third quarter of 1998. The FCC has established some rules for LMS services, but is undecided on others and seeks comment¹⁷ on various issues, including—

- Partitioning and disaggregation of LMS licenses
- Auction design
- Credits for small businesses and other designated entities.

One license will be offered for each spectrum block in each of the 176 EAs, for a total of 528 multilateration LMS licenses.

¹⁶ Multilateration systems are designed to locate vehicles or other objects by measuring differences in arrival time, or differences in phases of signals transmitted from a unit to a number of fixed points, or to a number of fixed points to the unit to be located. The FCC defines non-multilateration system as systems that use a narrowband technology where an electronic device is placed in a vehicle transfers information to and/or from that vehicle when the vehicle passes near one of the system's stations.

¹⁷ FCC, *Amendment to Part 90 of the Commission's Rules to Adopt Regulations for Automatic Vehicle Monitoring Systems*, Memorandum Opinion and Order and Further Notice of Proposed Rulemaking, PR Docket No. 93-61, August 28, 1997.

4.4 Public Coast Stations

Service	Frequency Range (MHz)	Auction Date
Public Coast Stations	156–162 MHz	4 th Quarter 1998

Public coast stations are land stations that serve as the links between vessels at sea and activities ashore. They are spread throughout the coastal and inland areas of the United States to carry radio signals and messages to and from ships on the water. Public coast stations connect marine radios with the public switched telephone network. Since they are considered to be common carriers, they charge fees for providing voice, fax, or data transmission services. However, they are required by law to relay distress signals free of charge.

Effective March 17, 1998, the FCC suspended the acceptance and processing of all applications for very high frequency (VHF) public coast spectrum (156–162 MHz)¹⁸. This action is actually a continuation of a suspension that was first enacted in June 1997¹⁹. The FCC decided to continue the suspension of VHF applications while awaiting the outcome of proceedings to determine final service rules. The suspensions apply to:

- Public coast stations applications to use VHF spectrum and private land mobile radio applications proposing to share that spectrum for new licenses
- Amendments to such new license applications
- Applications for modifying existing licenses (excluding applications seeking renewals, transfers, assignments, and modifications proposing neither to expand a station's service area nor to obtain additional public coast VHF spectrum)
- Pending applications that were mutually exclusive with other applications for VHF public coast spectrum.

The suspensions shall remain in effect until 60 days after the final rules are published.²⁰

The FCC has proposed to auction all currently unassigned VHF public coast stations in each of the nine designated regions based on U.S. Coast Guard Districts.

¹⁸ FCC. *In the Matter of Applications for Very High Frequency (VHF) Public Coast Spectrum in the 156-162 MHz Bands*. March 17, 1998, Docket No. 92-257.

¹⁹ The FCC imposed a suspension regarding VHF public coast spectrum applications in the Second Report and Order and Second Further Notice of Proposed rule making in PR Docket No. 92-257. The suspension became effective as of June 17, 1997 and continued through March 17, 1998.

²⁰ The FCC is waiting for the final rules, enacted in the Third Report and Order in Docket No. 92-257, to be published in the Federal Registry.

4.5 Analog Broadcast Licenses for Commercial Radio and Television

The FCC has tentatively scheduled an auction of analog broadcast licenses for commercial radio and television for the fourth quarter of 1998. Congress, in the BBA of 1997, requires that the FCC use auctions to award these licenses. Until now, the FCC has been awarding these licenses by holding comparative hearings for applications competing for the same license. The FCC is conducting a rulemaking proceeding to decide whether it should auction all analog broadcast licenses, or if it should auction only those licenses that are being applied for by more than one applicant²¹. It also is seeking comment on whether it should auction licenses for the Instructional Television Fixed Service (ITFS), a fixed broadcast service in the 2 GHz range used by educational entities. Auction rules and other details associated with the use of the licenses have not yet been decided, and a permanent auction date has not been set.

4.6 PCS-Block Re-Auction

Service	Frequency Range (MHz)	Auction Date
Broadband Personal Communication Service (PCS) C-Block Re-auction	1895–1910 MHz 1975—1990 MHz	1 st quarter 1999

The FCC will re-auction PCS C-block licenses that have been forfeited by the original winners of the C-block auction. As mentioned in Section 2, the FCC offered C-block licensees four financing options in an effort to satisfy C-block bidders seeking relief from high debts incurred in bidding and to minimize the risk that companies will declare bankruptcy because of an inability to pay the FCC for its licenses. Licensees have until June 8, 1998 to choose one of the four options. The FCC expects to release information on the re-auction procedures in the near future.

4.7 220 MHz Service

Service	Frequency Range (MHz)	Auction Date
220 MHz	Nationwide Block: 30 channels	Originally scheduled to begin

²¹ FCC. *Implementation of Section 309(j) of the Communications Act—Competitive Bidding for Commercial Broadcast and Instructional Fixed Television Service Licenses*, MM Docket No. 97-234, November 25, 1997.

	EA Block: 50 channels 220 MHz REAG Block: 75 channels	May 19, 1998, the auction has been delayed pending FCC resolution of petitions for reconsideration ²² .
--	--	--

The 220 MHz service is a land mobile radio service. The 220 MHz band is composed of 200 5-kHz paired channels. Licensees will be authorized to provide both voice and data communications. Before the FCC received auction authority in 1993, 3,800 licenses were awarded by random selection in Phase I through the use of a lottery system.²³ The auction of Phase II licenses, originally scheduled to start May 19, 1998, has been postponed while the FCC continues to review submitted petitions for reconsideration of auction and service rules. The FCC anticipates the release of final rules related to the 220 MHz service in the near future. A Public Notice will be released announcing key dates, procedures, and terms for Phase II 220 MHz auctions within five business days after the Commission releases its decision on the existing petitions for reconsideration. In Phase II, 908 licenses will be offered—three nationwide licenses, 30 Regional Economic Area Groupings (REAG) licenses, and 875 Economic Area (EA) licenses. Tables 4-1 through 4-3 show the licensing plans for these respective groups of licenses.

Table 4-1
220 MHz Nationwide Licensing Plan

Channel Blocks	Channels
Channels 51–60	10
Channels 81–90	10
Channels 141–150	10
Total	30

Table 4-2
220 MHz REAG Licensing Plan

Channel Blocks	Channels
F – Channel Groups 1, 6, 11	15
G – Channel Groups 4, 9, 14	15
H – Channel Groups 7, 12, 17	15

²² FCC. *FCC Announces Delay of 220 MHz Service Auction*. March 17, 1998, News Release, DA 98-526.

²³ Phase I licensees refers to those granted initial authorizations for operations in the 220-222 MHz band from among the applications filed on or before May 24, 1991. Licensees that filed initial applications after May 24, 1991 are referred to as Phase II applicants.

I – Channel Groups 10, 15, 20	15
J – Channel Groups 186-200	15
Total	75

Table 4-3
220 MHz EA Licensing Plan

Channel Blocks	Channels
A – Channel Groups ²⁴ 2, 13	10
B – Channel Groups 3, 16	10
C – Channel Groups 5, 18	10
D – Channel Groups 8, 19	10
E – Channel Groups 171-180	10
Total	50

Mutually exclusive applications will be subject to competitive bidding procedures. A simultaneous multiple round auction will be open to bidding by incumbents and new entrants. Small business will be eligible for bidding credits and an installment payment plan. Small businesses that have average gross revenues that do not exceed \$15 million for the preceding three years will be eligible for a 10 percent bidding credit on any Phase II 220 MHz license. Very small businesses that have average gross revenues of \$3 million or less for the preceding three years will be eligible for a 25 percent bidding credit.

Frequencies will be assigned in pairs, with base station frequencies taken from the 220-221 MHz band with corresponding mobile and control station frequencies being 1 MHz higher and taken from the 221–220 MHz band (see Appendix D)²⁵. EA and regional license holders will have a 10-year license term and will be required to meet five- and ten-year build-out requirements. The FCC has ruled that partitioning will be permitted in certain circumstances. Phase II 220 MHz license holders will be authorized to partition portions of their authorization with eligible parties.

A block of spectrum in the 220–222 MHz band has been designated for public safety use and is not subject to competitive bidding. The block consists of 45 5-kHz paired channels. Ten channels will be assigned to licensees in the public safety pool and 5 channels will be in the Emergency Medical Radio licensees. There are 30 remaining channels that will not be auctioned: 10 channels are used by the Federal Government and 20 channels are held by four incumbent nationwide Phase I licensees.

4.8 General Wireless Communications Service (GWCS)

²⁴ The Code of Federal Regulations, 46 C.F.R. § 90.721(b) defines Channel Groups as 5-channel, non-contiguous assignments.

²⁵ *CFR*, Title 47, 90.715.

Service	Frequency Range (MHz)	Auction Date
General Wireless Communications Service (GWCS)	Block A: 4660–4665 Block B: 4665–4670 Block C: 4670–4675 Block D: 4675–4680 Block E: 4680–4685	Previously scheduled to begin May 27, 1998, the GWCS auction will be postponed until further notice.

General Wireless Communications Service is a new type of service in the 4660–4685 MHz band that is intended to encourage flexible use of the band by permitting a variety of fixed and mobile services, including—

- Dispatch service
- Point-to-point microwave
- Aeronautical audio and visual service
- Wireless local loop services
- Terrestrial fixed operations
- Mobile auxiliary broadcast operations.

GWCS will not include broadcast, radiolocation, or satellite services (including mobile satellites). The GWCS band was reallocated from the Federal Government to the commercial sector in the Omnibus Budget Reconciliation Act of 1993²⁶.

Because of an “unprecedented lack of interest” the FCC has decided to postpone the GWCS auction, previously scheduled to begin May 1998. By delaying the auction the FCC hopes to avoid a repeat of the 1997 Wireless Communication Services (WCS) auction where some licenses were sold for just \$1. The FCC may combine the 4660-4685 MHz with 4635-4660, thereby making it more attractive to prospective licensees by creating a larger block where bands could be offered as pairs of channels.

The FCC is planning to auction 875 GWCS licenses. The 25 MHz band will be divided into five licenses of 5 MHz each in 175 EAs²⁷. The decision was made to auction the GWCS according to EAs rather than MTAs²⁸. The FCC decided that the use of smaller EAs “appears to be more consistent with the likely uses of GWCS licenses than the use of MTAs and that EA licensing will increase the opportunities for small businesses and other designated entities to obtain GWCS licenses.”²⁹ A single licensee will not be permitted to obtain more than 15 MHz of

²⁶ The Reconciliation Act directed the Secretary of Commerce to identify 200 MHz of spectrum, allocated for Federal Government use, to be transferred to the private sector. After the 4660-4685 band was identified by the Secretary of Commerce, the FCC adopted a Report and Order in February 1995 allocating the 4660-4685 MHz band for Fixed and Mobile services, and specifically proposed designating the band for a new service, General Wireless Communications Service.

²⁷ The Bureau of Economic Analysis of the U.S. Department of Commerce defined 175 EAs.

²⁸ The United States is divided into 47 MTAs, as defined by Rand McNally.

²⁹ FCC. *In the Matter of Allocation of Spectrum below 5 GHz Transferred from Federal Government Use, 4660-4685 MHz*. Second Report and Order, FCC 95-319, ET Docket No. 94-32.

spectrum in a given EA. This restriction will ensure that there will be at least two GWCS providers in every license area. The Wireless Telecommunications Bureau will announce a revised auction schedule once it makes a decision to move forward with the auction.

Earlier in the year, the FCC included an attachment to a public notice³⁰ that called attention to potential interference problems in this band. The proposed GWCS band is adjacent to U.S. Navy war-gaming frequencies. The Navy's Cooperative Engagement Capability (CEC) System operates in the bands immediately adjacent to 4635–4685 MHz. The Navy released some CEC technical characteristics so that future GWCS equipment could be designed to diminish interference sensitivity. Information was also released on EAs that could be affected (see Appendix E), because of their proximity to the CEC operating areas and the potential for interference. Currently, the FCC has addressed only in-band interference and has yet to mandate tight interference filtering on GWCS equipment.

³⁰ FCC. *Comment Sought on Reserve Prices or Minimum Opening Bids for the General Wireless Communications Service (GWCS) in the 4660-4685 MHz Band.*, Public Notice, DA 98-162, January 30, 1998.

5. CONCLUSION

Competition in many wireless industries is increasing as a result of the spectrum auctions. The FCC recently released its annual report to Congress on the state of commercial mobile radio services, asserting that major growth has occurred in mobile telephony, paging, and SMR industries. There are, on average, 29 paging licenses in the 25 biggest U.S. cities, and even the 25 smallest metropolitan areas have an average of 12 licensees each. The mobile phone industry gained 1 million subscribers in 1997, reaching 55 million people, or 20 percent of the U.S. population. In addition, advanced SMR services (telephone services, voice mail, and text messaging) are being rolled out in nearly every area of the country³¹.

As mentioned earlier in this report, the FCC is migrating to auctions as the primary vehicle for distributing commercial radio spectrum. It has scheduled four more auctions for the remainder of 1998, and the PCS C-Block Re-auction is scheduled to take place in the first quarter of 1999. However, considering that two of the last three auctions have raised a significantly lower amount of revenue than originally expected and that there is a possibility that more PCS C-block licenses may be returned or devalued, the FCC seems to be approaching new auctions more cautiously. The FCC postponed the GWCS and 220 MHz auctions in part because it did not believe that there was enough interest in the spectrum to warrant the auctions.

Wireless service, as the FCC commented when the above mentioned report was released, is “moving closer to the day when it will be a substitute for wireline service.” The increased use of wireless technologies for communication among the general public, public safety agencies, and private entities places a higher demand on radio spectrum. This growth affects public safety entities as advanced technologies are developed and deployed to meet mission-critical communication requirements. As public safety entities look for ways to increase their communications capabilities and promote efficient use of resources, it is important for the public safety community to be knowledgeable about developments in spectrum management and use.

³¹ Communications Daily. *FCC Reports Huge Growth in Wireless Subscribership, Competition*, p. 1, May 15, 1998.

APPENDIX A¾ ACRONYMS

BETRS Basic Exchange Telephone Radio Service
BTA Basic Trading Area
CCP Common Carrier Paging
CEC Cooperative Engagement Capability
DARS Digital Audio Radio Service
DBS Direct Broadcast Satellite
EA Economic Area
FCC Federal Communications Commission
GHz Gigahertz
GWCS General Wireless Communication Service
GWI General Wireless Incorporated
ITFS Instructional Television Fixed Service
IVDS Interactive Video and Data Service
kHz Kilohertz
LAN Local Area Network
LEC Local Exchange Carrier
LMDS Local Multipoint Distribution Service
LMR Land Mobile Radio
LMS Location and Monitoring Service
MTA Major Trading Area
MHz Megahertz
PCP Private Carrier Paging
REAG Regional Economic Area Grouping
SMR Specialized Mobile Radio Service
PCS Personal Communications Service
VHF Very High Frequency
WAN Wide Area Network
WCS Wireless Communications Service

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B014	A	Anchorage, AK	Digital and Wireless Television, L.L.C.
B014	B	Anchorage, AK	GCI Communication Corp.
B136	A	Fairbanks, AK	Digital and Wireless Television, L.L.C.
B136	B	Fairbanks, AK	WinStar LMDS, L.L.C.
B221	A	Juneau-Ketchikan, AK	LeoMax Communications
B221	B	Juneau-Ketchikan, AK	WinStar LMDS, L.L.C.
B017	A	Anniston, AL	FCC
B017	B	Anniston, AL	Baker Creek Communications, L.P.
B044	A	Birmingham, AL	Nextband Communications, LLC
B044	B	Birmingham, AL	Baker Creek Communications, L.P.
B108	A	Decatur, AL	North Alabama Cellular, LLC
B108	B	Decatur, AL	Baker Creek Communications, L.P.
B115	A	Dothan-Enterprise, AL	FCC
B115	B	Dothan-Enterprise, AL	Baker Creek Communications, L.P.
B146	A	Florence, AL	FCC
B146	B	Florence, AL	Baker Creek Communications, L.P.
B158	A	Gadsden, AL	FCC
B158	B	Gadsden, AL	Baker Creek Communications, L.P.
B198	A	Huntsville, AL	Nextband Communications, LLC
B198	B	Huntsville, AL	Baker Creek Communications, L.P.
B302	A	Mobile, AL	Gulf Coast Services, Inc.
B302	B	Mobile, AL	Baker Creek Communications, L.P.
B305	A	Montgomery, AL	Sunshine LMDS Network, Inc.
B305	B	Montgomery, AL	Baker Creek Communications, L.P.
B334	A	Opelika-Auburn, AL	Catfish Communications, L.L.C.
B334	B	Opelika-Auburn, AL	Catfish Communications, L.L.C.
B415	A	Selma, AL	Pine Belt Communications, Inc.
B415	B	Selma, AL	Baker Creek Communications, L.P.
B450	A	Tuscaloosa, AL	Pine Belt Communications, Inc.
B450	B	Tuscaloosa, AL	Baker Creek Communications, L.P.
B049	A	Blytheville, AR	FCC
B049	B	Blytheville, AR	Baker Creek Communications, L.P.
B125	A	El Dorado-Magnolia-Camden, AR	Actel Corporation
B125	B	El Dorado-Magnolia-Camden, AR	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B140	A	Fayetteville-Springdale-Rogers, AR	FCC
B140	B	Fayetteville-Springdale-Rogers, AR	Catfish Communications, L.L.C.
B153	A	Fort Smith, AR	FCC
B153	B	Fort Smith, AR	Baker Creek Communications, L.P.
B182	A	Harrison, AR	FCC
B182	B	Harrison, AR	Baker Creek Communications, L.P.
B193	A	Hot Springs, AR	FCC
B193	B	Hot Springs, AR	Baker Creek Communications, L.P.
B219	A	Jonesboro-Paragould, AR	FCC
B219	B	Jonesboro-Paragould, AR	Baker Creek Communications, L.P.
B257	A	Little Rock, AR	Telecorp LMDS, Inc.
B257	B	Little Rock, AR	Baker Creek Communications, L.P.
B348	A	Pine Bluff, AR	FCC
B348	B	Pine Bluff, AR	Baker Creek Communications, L.P.
B387	A	Russellville, AR	FCC
B387	B	Russellville, AR	Baker Creek Communications, L.P.
B144	A	Flagstaff, AZ	Ruvín IsaaK Lerman
B144	B	Flagstaff, AZ	New Wave Networks, LLC
B322	A	Nogales, AZ	TVCON/Rio Vision
B322	B	Nogales, AZ	TVCON/Rio Vision
B347	A	Phoenix, AZ	Alta Wireless, Inc.
B347	B	Phoenix, AZ	PCTV Gold, Inc.
B362	A	Prescott, AZ	PCTV Gold, Inc.
B362	B	Prescott, AZ	AirCom Consultants, Inc. dba AirCom, Inc.
B420	A	Sierra Vista-Douglas, AZ	Sulphur Springs Valley Electric Cooperative, Inc.
B420	B	Sierra Vista-Douglas, AZ	TVCON/Rio Vision
B447	A	Tucson, AZ	ARNet, Inc.
B447	B	Tucson, AZ	U S WEST Communications, Inc.
B486	A	Yuma, AZ	FCC
B486	B	Yuma, AZ	AirCom Consultants, Inc. dba AirCom, Inc.
B028	A	Bakersfield, CA	HighSpeed.Com, L.L.C.
B028	B	Bakersfield, CA	Ponderosa Telephone Co., The

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B079	A	Chico-Oroville, CA	Blackwater Holdings, LLC
B079	B	Chico-Oroville, CA	WinStar LMDS, L.L.C.
B124	A	El Centro-Calexico, CA	FCC
B124	B	El Centro-Calexico, CA	TVCON/Rio Vision
B134	A	Eureka, CA	FCC
B134	B	Eureka, CA	FCC
B157	A	Fresno, CA	WinStar LMDS, L.L.C.
B157	B	Fresno, CA	HighSpeed.Com, L.L.C.
B262	A	Los Angeles, CA	Nextband Communications, LLC
B262	B	Los Angeles, CA	WNP Communications, Inc.
B291	A	Merced, CA	FCC
B291	B	Merced, CA	HighSpeed.Com, L.L.C.
B303	A	Modesto, CA	WinStar LMDS, L.L.C.
B303	B	Modesto, CA	FCC
B371	A	Redding, CA	Blackwater Holdings, LLC
B371	B	Redding, CA	New Wave Networks, LLC
B389	A	Sacramento, CA	Nextband Communications, LLC
B389	B	Sacramento, CA	WinStar LMDS, L.L.C.
B397	A	Salinas-Monterey, CA	Blackwater Holdings, LLC
B397	B	Salinas-Monterey, CA	TWG LMDS, LLC
B402	A	San Diego, CA	Alta Wireless, Inc.
B402	B	San Diego, CA	Nextband Communications, LLC
B404	A	San Francisco-Oakland-San Jose, CA	WinStar LMDS, L.L.C.
B404	B	San Francisco-Oakland-San Jose, CA	Nextband Communications, LLC
B405	A	San Luis Obispo, CA	Nextband Communications, LLC
B405	B	San Luis Obispo, CA	TWG LMDS, LLC
B406	A	Santa Barbara-Santa Maria, CA	Nextband Communications, LLC
B406	B	Santa Barbara-Santa Maria, CA	TWG LMDS, LLC
B434	A	Stockton, CA	Blackwater Holdings, LLC
B434	B	Stockton, CA	Ponderosa Telephone Co., The
B458	A	Visalia-Porterville-Hanford, CA	HighSpeed.Com, L.L.C.
B458	B	Visalia-Porterville-Hanford, CA	Ponderosa Telephone Co., The

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B485	A	Yuba City-Marysville, CA	Blackwater Holdings, LLC
B485	B	Yuba City-Marysville, CA	Northeast Communications of Wisconsin, Inc.
B089	A	Colorado Springs, CO	BTA Associates
B089	B	Colorado Springs, CO	BTA Associates
B110	A	Denver, CO	BTA Associates
B110	B	Denver, CO	U S WEST Communications, Inc.
B139	A	Farmington, NM-Durango, CO	Tri-Corners Telecommunications, Inc.
B139	B	Farmington, NM-Durango, CO	Tri-Corners Telecommunications, Inc.
B149	A	Fort Collins-Loveland, CO	BTA Associates
B149	B	Fort Collins-Loveland, CO	Touch America, Inc.
B168	A	Grand Junction, CO	BTA Associates
B168	B	Grand Junction, CO	U S WEST Communications, Inc.
B172	A	Greeley, CO	BTA Associates
B172	B	Greeley, CO	Eclipse Communications Corporation
B366	A	Pueblo, CO	Eclipse Communications Corporation
B366	B	Pueblo, CO	BTA Associates
B184	A	Hartford, CT	WNP Communications, Inc.
B184	B	Hartford, CT	Nextband Communications, LLC
B318	A	New Haven-Waterbury-Meriden, CT	WNP Communications, Inc.
B318	B	New Haven-Waterbury-Meriden, CT	Nextband Communications, LLC
B319	A	New London-Norwich, CT	FCC
B319	B	New London-Norwich, CT	Nextband Communications, LLC
B461	A	Washington, DC	WNP Communications, Inc.
B461	B	Washington, DC	Nextband Communications, LLC
B116	A	Dover, DE	RF Development, LLC
B116	B	Dover, DE	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B107	A	Daytona Beach, FL	LMDS Ltd.
B107	B	Daytona Beach, FL	Lakedale Link, Inc.
B151	A	Fort Myers, FL	LMDS Ltd.
B151	B	Fort Myers, FL	Baker Creek Communications, L.P.
B152	A	Fort Pierce-Vero Beach-Stuart, FL	LMDS Ltd.
B152	B	Fort Pierce-Vero Beach-Stuart, FL	Baker Creek Communications, L.P.
B154	A	Fort Walton Beach, FL	Sunshine LMDS Network, Inc.
B154	B	Fort Walton Beach, FL	Baker Creek Communications, L.P.
B159	A	Gainesville, FL	Wireless Distribution Services, Inc.
B159	B	Gainesville, FL	Baker Creek Communications, L.P.
B212	A	Jacksonville, FL	WNP Communications, Inc.
B212	B	Jacksonville, FL	Baker Creek Communications, L.P.
B239	A	Lakeland-Winter Haven, FL	Wireless Distribution Services, Inc.
B239	B	Lakeland-Winter Haven, FL	Nextband Communications, LLC
B289	A	Melbourne-Titusville, FL	LMDS Ltd.
B289	B	Melbourne-Titusville, FL	Network Wireless
B293	A	Miami-Fort Lauderdale, FL	WNP Communications, Inc.
B293	B	Miami-Fort Lauderdale, FL	Baker Creek Communications, L.P.
B313	A	Naples, FL	LMDS Ltd.
B313	B	Naples, FL	Baker Creek Communications, L.P.
B326	A	Ocala, FL	FCC
B326	B	Ocala, FL	Nextband Communications, LLC
B336	A	Orlando, FL	WinStar LMDS, L.L.C.
B336	B	Orlando, FL	Telecorp LMDS, Inc.
B340	A	Panama City, FL	Sunshine LMDS Network, Inc.
B340	B	Panama City, FL	Network Wireless
B343	A	Pensacola, FL	Sunshine LMDS Network, Inc.
B343	B	Pensacola, FL	Baker Creek Communications, L.P.
B408	A	Sarasota-Bradenton, FL	LMDS Ltd.
B408	B	Sarasota-Bradenton, FL	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B439	A	Tallahassee, FL	Sunshine LMDS Network, Inc.
B439	B	Tallahassee, FL	Baker Creek Communications, L.P.
B440	A	Tampa-St. Petersburg-Clearwater, FL	WNP Communications, Inc.
B440	B	Tampa-St. Petersburg-Clearwater, FL	Baker Creek Communications, L.P.
B469	A	West Palm Beach-Boca Raton, FL	WNP Communications, Inc.
B469	B	West Palm Beach-Boca Raton, FL	Baker Creek Communications, L.P.
B006	A	Albany-Tifton, GA	FCC
B006	B	Albany-Tifton, GA	Baker Creek Communications, L.P.
B022	A	Athens, GA	Blackwater Holdings, LLC
B022	B	Athens, GA	Baker Creek Communications, L.P.
B024	A	Atlanta, GA	WNP Communications, Inc.
B024	B	Atlanta, GA	Nextband Communications, LLC
B026	A	Augusta, GA	Blackwater Holdings, LLC
B026	B	Augusta, GA	Baker Creek Communications, L.P.
B058	A	Brunswick, GA	Judicious Communications L.L.C.
B058	B	Brunswick, GA	Iron Mountain Wireless, Inc.
B092	A	Columbus, GA	FCC
B092	B	Columbus, GA	Baker Creek Communications, L.P.
B102	A	Dalton, GA	Charles J. Brinkman
B102	B	Dalton, GA	Advantage Cellular Systems, Inc.
B160	A	Gainesville, GA	Baker Creek Communications, L.P.
B160	B	Gainesville, GA	Baker Creek Communications, L.P.
B237	A	La Grange, GA	Blackwater Holdings, LLC
B237	B	La Grange, GA	Baker Creek Communications, L.P.
B271	A	Macon-Warner Robins, GA	FCC
B271	B	Macon-Warner Robins, GA	Baker Creek Communications, L.P.
B384	A	Rome, GA	Baker Creek Communications, L.P.
B384	B	Rome, GA	Baker Creek Communications, L.P.
B410	A	Savannah, GA	Blackwater Holdings, LLC
B410	B	Savannah, GA	Baker Creek Communications, L.P.
B454	A	Valdosta, GA	FCC
B454	B	Valdosta, GA	Baker Creek Communications, L.P.
B467	A	Waycross, GA	Blackwater Holdings, LLC
B467	B	Waycross, GA	NUCOM

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B190	A	Hilo, HI	HighSpeed.Com, L.L.C.
B190	B	Hilo, HI	Eclipse Communications Corporation
B192	A	Honolulu, HI	HighSpeed.Com, L.L.C.
B192	B	Honolulu, HI	Eclipse Communications Corporation
B222	A	Kahului-Wailuku-Lahaina, HI	HighSpeed.Com, L.L.C.
B222	B	Kahului-Wailuku-Lahaina, HI	Eclipse Communications Corporation
B254	A	Lihue, HI	Lakedale Link, Inc.
B254	B	Lihue, HI	New Wave Networks, LLC
B061	A	Burlington, IA	FCC
B061	B	Burlington, IA	NUCOM
B070	A	Cedar Rapids, IA	Alpine Communications, L.C.
B070	B	Cedar Rapids, IA	Baker Creek Communications, L.P.
B105	A	Davenport, IA-Moline, IL	FCC
B105	B	Davenport, IA-Moline, IL	Mary J Kuiken
B111	A	Des Moines, IA	WNP Communications, Inc.
B111	B	Des Moines, IA	U S WEST Communications, Inc.
B118	A	Dubuque, IA	FCC
B118	B	Dubuque, IA	Alpine Communications, L.C.
B150	A	Fort Dodge, IA	Webster-Calhoun Cooperative Telephone Association
B150	B	Fort Dodge, IA	ABS LMDS Venture
B205	A	Iowa City, IA	Venture Wireless, Inc.
B205	B	Iowa City, IA	West Liberty Telephone Company
B283	A	Marshalltown, IA	Mary J Kuiken
B283	B	Marshalltown, IA	Mary J Kuiken
B285	A	Mason City, IA	FCC
B285	B	Mason City, IA	ABS LMDS Venture
B337	A	Ottumwa, IA	FCC
B337	B	Ottumwa, IA	ABS LMDS Venture
B421	A	Sioux City, IA	Venture Wireless, Inc.
B421	B	Sioux City, IA	ABS LMDS Venture
B462	A	Waterloo-Cedar Falls, IA	Alpine Communications, L.C.
B462	B	Waterloo-Cedar Falls,	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
		IA	
B050	A	Boise-Nampa, ID	HighSpeed.Com, L.L.C.
B050	B	Boise-Nampa, ID	Touch America, Inc.
B202	A	Idaho Falls, ID	Touch America, Inc.
B202	B	Idaho Falls, ID	Eclipse Communications Corporation
B250	A	Lewiston-Moscow, ID	HighSpeed.Com, L.L.C.
B250	B	Lewiston-Moscow, ID	Touch America, Inc.
B353	A	Pocatello, ID	Eclipse Communications Corporation
B353	B	Pocatello, ID	Touch America, Inc.
B451	A	Twin Falls, ID	Touch America, Inc.
B451	B	Twin Falls, ID	Eclipse Communications Corporation
B046	A	Bloomington, IL	Blackwater Holdings, LLC
B046	B	Bloomington, IL	Baker Creek Communications, L.P.
B067	A	Carbondale-Marion, IL	Blackwater Holdings, LLC
B067	B	Carbondale-Marion, IL	Baker Creek Communications, L.P.
B071	A	Champaign-Urbana, IL	FCC
B071	B	Champaign-Urbana, IL	Mary J Kuiken
B078	A	Chicago, IL	WNP Communications, Inc.
B078	B	Chicago, IL	Nextband Communications, LLC
B086	A	Clinton, IA-Sterling, IL	FCC
B086	B	Clinton, IA-Sterling, IL	Baker Creek Communications, L.P.
B103	A	Danville, IL	FCC
B103	B	Danville, IL	Mary J Kuiken
B109	A	Decatur-Effingham, IL	Blackwater Holdings, LLC
B109	B	Decatur-Effingham, IL	Baker Creek Communications, L.P.
B161	A	Galesburg, IL	Baker Creek Communications, L.P.
B161	B	Galesburg, IL	Mary J Kuiken
B213	A	Jacksonville, IL	Baker Creek Communications, L.P.
B213	B	Jacksonville, IL	Mary J Kuiken
B225	A	Kankakee, IL	FCC
B225	B	Kankakee, IL	Mary J Kuiken
B243	A	La Salle-Peru-Ottawa-Streator, IL	FCC
B243	B	La Salle-Peru-Ottawa-Streator, IL	Mary J Kuiken
B286	A	Mattoon, IL	Blackwater Holdings, LLC
B286	B	Mattoon, IL	Mary J Kuiken

**APPENDIX B¾ LOCAL MULTIPPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B308	A	Mt. Vernon-Centralia, IL	Blackwater Holdings, LLC
B308	B	Mt. Vernon-Centralia, IL	Baker Creek Communications, L.P.
B344	A	Peoria, IL	FCC
B344	B	Peoria, IL	Baker Creek Communications, L.P.
B380	A	Rockford, IL	FCC
B380	B	Rockford, IL	Mary J Kuiken
B426	A	Springfield, IL	FCC
B426	B	Springfield, IL	Baker Creek Communications, L.P.
B015	A	Anderson, IN	Baker Creek Communications, L.P.
B015	B	Anderson, IN	Progressive Communications
B047	A	Bloomington-Bedford, IN	Baker Creek Communications, L.P.
B047	B	Bloomington-Bedford, IN	One Call Communications, Inc.
B093	A	Columbus, IN	FCC
B093	B	Columbus, IN	Baker Creek Communications, L.P.
B126	A	Elkhart, IN	Actel Corporation
B126	B	Elkhart, IN	Baker Creek Communications, L.P.
B135	A	Evansville, IN	Baker Creek Communications, L.P.
B135	B	Evansville, IN	One Call Communications, Inc.
B155	A	Fort Wayne, IN	Actel Corporation
B155	B	Fort Wayne, IN	Baker Creek Communications, L.P.
B204	A	Indianapolis, IN	WNP Communications, Inc.
B204	B	Indianapolis, IN	Nextband Communications, LLC
B233	A	Kokomo-Logansport, IN	FCC
B233	B	Kokomo-Logansport, IN	Baker Creek Communications, L.P.
B235	A	Lafayette, IN	Baker Creek Communications, L.P.
B235	B	Lafayette, IN	Baker Creek Communications, L.P.
B280	A	Marion, IN	Swayzee Telephone Company
B280	B	Marion, IN	Baker Creek Communications, L.P.
B294	A	Michigan City-La Porte, IN	FCC
B294	B	Michigan City-La Porte, IN	Baker Creek Communications, L.P.
B309	A	Muncie, IN	FCC
B309	B	Muncie, IN	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B373	A	Richmond, IN	Baker Creek Communications, L.P.
B373	B	Richmond, IN	Baker Creek Communications, L.P.
B424	A	South Bend- Mishawaka, IN	Actel Corporation
B424	B	South Bend- Mishawaka, IN	Baker Creek Communications, L.P.
B442	A	Terre Haute, IN	FCC
B442	B	Terre Haute, IN	Baker Creek Communications, L.P.
B457	A	Vincennes-Washington, IN	Blackwater Holdings, LLC
B457	B	Vincennes-Washington, IN	Baker Creek Communications, L.P.
B088	A	Coffeyville, KS	Liberty Cellular, Inc.
B088	B	Coffeyville, KS	Eclipse Communications Corporation
B114	A	Dodge City, KS	Liberty Cellular, Inc.
B114	B	Dodge City, KS	Liberty Cellular, Inc.
B129	A	Emporia, KS	Liberty Cellular, Inc.
B129	B	Emporia, KS	Liberty Cellular, Inc.
B163	A	Garden City, KS	Liberty Cellular, Inc.
B163	B	Garden City, KS	FCC
B170	A	Great Bend, KS	Liberty Cellular, Inc.
B170	B	Great Bend, KS	Liberty Cellular, Inc.
B187	A	Hays, KS	Liberty Cellular, Inc.
B187	B	Hays, KS	Liberty Cellular, Inc.
B200	A	Hutchinson, KS	SKSW LMDS Venture
B200	B	Hutchinson, KS	SKSW LMDS Venture
B247	A	Lawrence, KS	Liberty Cellular, Inc.
B247	B	Lawrence, KS	Liberty Cellular, Inc.
B253	A	Liberal, KS	Liberty Cellular, Inc.
B253	B	Liberal, KS	Panhandle Telecommunication Systems, Inc.
B275	A	Manhattan-Junction City, KS	Liberty Cellular, Inc.
B275	B	Manhattan-Junction City, KS	Liberty Cellular, Inc.
B349	A	Pittsburg-Parsons, KS	Craw-Kan Telephone Cooperative, Inc.
B349	B	Pittsburg-Parsons, KS	Liberty Cellular, Inc.
B396	A	Salina, KS	FCC

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B396	B	Salina, KS	Liberty Cellular, Inc.
B445	A	Topeka, KS	Liberty Cellular, Inc.
B445	B	Topeka, KS	Liberty Cellular, Inc.
B472	A	Wichita, KS	SKSW LMDS Venture
B472	B	Wichita, KS	SKSW LMDS Venture
B052	A	Bowling Green- Glasgow, KY	FCC
B052	B	Bowling Green- Glasgow, KY	Baker Creek Communications, L.P.
B083	A	Clarksville, TN- Hopkinsville, KY	Baker Creek Communications, L.P.
B083	B	Clarksville, TN- Hopkinsville, KY	Advantage Cellular Systems, Inc.
B098	A	Corbin, KY	Fleming-Mason Service Corporation
B098	B	Corbin, KY	Baker Creek Communications, L.P.
B197	A	Huntington, WV- Ashland, KY	Vanguard LMDS Corp.
B197	B	Huntington, WV- Ashland, KY	CRH Consortium
B252	A	Lexington, KY	Nextband Communications, LLC
B252	B	Lexington, KY	Baker Creek Communications, L.P.
B263	A	Louisville, KY	Nextband Communications, LLC
B263	B	Louisville, KY	Baker Creek Communications, L.P.
B273	A	Madisonville, KY	Fleming-Mason Service Corporation
B273	B	Madisonville, KY	Baker Creek Communications, L.P.
B295	A	Middlesboro-Harlan, KY	FCC
B295	B	Middlesboro-Harlan, KY	Baker Creek Communications, L.P.
B338	A	Owensboro, KY	Fleming-Mason Service Corporation
B338	B	Owensboro, KY	Baker Creek Communications, L.P.
B339	A	Paducah-Murray- Mayfield, KY	FCC
B339	B	Paducah-Murray- Mayfield, KY	Baker Creek Communications, L.P.
B423	A	Somerset, KY	Baker Creek Communications, L.P.
B423	B	Somerset, KY	Fleming-Mason Service Corporation
B474	A	Williamson, WV- Pikeville, KY	FCC
B474	B	Williamson, WV-	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
		Pikeville, KY	
B009	A	Alexandria, LA	Command Connect, LLC
B009	B	Alexandria, LA	Actel Corporation
B032	A	Baton Rouge, LA	Command Connect, LLC
B032	B	Baton Rouge, LA	Telecorp LMDS, Inc.
B180	A	Hammond, LA	Command Connect, LLC
B180	B	Hammond, LA	Baker Creek Communications, L.P.
B195	A	Houma-Thibodaux, LA	FCC
B195	B	Houma-Thibodaux, LA	Baker Creek Communications, L.P.
B236	A	Lafayette-New Iberia, LA	Kaplan Telephone Company, Inc.
B236	B	Lafayette-New Iberia, LA	Baker Creek Communications, L.P.
B238	A	Lake Charles, LA	Command Connect, LLC
B238	B	Lake Charles, LA	Baker Creek Communications, L.P.
B304	A	Monroe, LA	Actel Corporation
B304	B	Monroe, LA	Command Connect, LLC
B320	A	New Orleans, LA	WinStar LMDS, L.L.C.
B320	B	New Orleans, LA	Telecorp LMDS, Inc.
B419	A	Shreveport, LA	Actel Corporation
B419	B	Shreveport, LA	Baker Creek Communications, L.P.
B051	A	Boston, MA	WNP Communications, Inc.
B051	B	Boston, MA	Nextband Communications, LLC
B201	A	Hyannis, MA	FCC
B201	B	Hyannis, MA	Baker Creek Communications, L.P.
B351	A	Pittsfield, MA	FCC
B351	B	Pittsfield, MA	Baker Creek Communications, L.P.
B427	A	Springfield-Holyoke, MA	WNP Communications, Inc.
B427	B	Springfield-Holyoke, MA	Baker Creek Communications, L.P.
B480	A	Worcester-Fitchburg-Leominster, MA	WNP Communications, Inc.
B480	B	Worcester-Fitchburg-Leominster, MA	Baker Creek Communications, L.P.
B029	A	Baltimore, MD	WNP Communications, Inc.
B029	B	Baltimore, MD	Nextband Communications, LLC
B100	A	Cumberland, MD	FCC

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B100	B	Cumberland, MD	Baker Creek Communications, L.P.
B179	A	Hagerstown, MD- Chambersburg, PA- Martinsburg, WV	Vanguard LMDS Corp.
B179	B	Hagerstown, MD- Chambersburg, PA- Martinsburg, WV	Baker Creek Communications, L.P.
B398	A	Salisbury, MD	RF Development, LLC
B398	B	Salisbury, MD	Baker Creek Communications, L.P.
B030	A	Bangor, ME	Vanguard LMDS Corp.
B030	B	Bangor, ME	Baker Creek Communications, L.P.
B251	A	Lewiston-Auburn, ME	Media Pcs Ventures, Inc.
B251	B	Lewiston-Auburn, ME	Baker Creek Communications, L.P.
B357	A	Portland-Brunswick, ME	Vanguard LMDS Corp.
B357	B	Portland-Brunswick, ME	Baker Creek Communications, L.P.
B363	A	Presque Isle, ME	Baker Creek Communications, L.P.
B363	B	Presque Isle, ME	FCC
B465	A	Waterville-Augusta, ME	Media Pcs Ventures, Inc.
B465	B	Waterville-Augusta, ME	Baker Creek Communications, L.P.
B005	A	Adrian, MI	Actel Corporation
B005	B	Adrian, MI	Baker Creek Communications, L.P.
B011	A	Alpena, MI	Blackwater Holdings, LLC
B011	B	Alpena, MI	Baker Creek Communications, L.P.
B033	A	Battle Creek, MI	Actel Corporation
B033	B	Battle Creek, MI	Baker Creek Communications, L.P.
B039	A	Benton Harbor, MI	Actel Corporation
B039	B	Benton Harbor, MI	Baker Creek Communications, L.P.
B112	A	Detroit, MI	WNP Communications, Inc.
B112	B	Detroit, MI	Nextband Communications, LLC
B132	A	Escanaba, MI	Blackwater Holdings, LLC
B132	B	Escanaba, MI	Northeast Communications of Wisconsin, Inc.
B145	A	Flint, MI	Actel Corporation
B145	B	Flint, MI	Baker Creek Communications, L.P.
B169	A	Grand Rapids, MI	Actel Corporation
B169	B	Grand Rapids, MI	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B194	A	Houghton, MI	Blackwater Holdings, LLC
B194	B	Houghton, MI	Northeast Communications of Wisconsin, Inc.
B206	A	Iron Mountain, MI	Blackwater Holdings, LLC
B206	B	Iron Mountain, MI	Northeast Communications of Wisconsin, Inc.
B207	A	Ironwood, MI	Blackwater Holdings, LLC
B207	B	Ironwood, MI	Northeast Communications of Wisconsin, Inc.
B209	A	Jackson, MI	Actel Corporation
B209	B	Jackson, MI	Baker Creek Communications, L.P.
B223	A	Kalamazoo, MI	Actel Corporation
B223	B	Kalamazoo, MI	Baker Creek Communications, L.P.
B241	A	Lansing, MI	Actel Corporation
B241	B	Lansing, MI	Baker Creek Communications, L.P.
B282	A	Marquette, MI	Blackwater Holdings, LLC
B282	B	Marquette, MI	Northeast Communications of Wisconsin, Inc.
B307	A	Mt. Pleasant, MI	Actel Corporation
B307	B	Mt. Pleasant, MI	Baker Creek Communications, L.P.
B310	A	Muskegon, MI	Actel Corporation
B310	B	Muskegon, MI	Baker Creek Communications, L.P.
B345	A	Petoskey, MI	Blackwater Holdings, LLC
B345	B	Petoskey, MI	LeoMax Communications
B390	A	Saginaw-Bay City, MI	FCC
B390	B	Saginaw-Bay City, MI	Actel Corporation
B409	A	Sault Ste. Marie, MI	Blackwater Holdings, LLC
B409	B	Sault Ste. Marie, MI	Northeast Communications of Wisconsin, Inc.
B446	A	Traverse City, MI	FCC
B446	B	Traverse City, MI	Actel Corporation
B037	A	Bemidji, MN	Northern Communications, Inc.
B037	B	Bemidji, MN	Northern Communications, Inc.
B054	A	Brainerd, MN	FCC
B054	B	Brainerd, MN	Actel Corporation
B119	A	Duluth, MN	FCC
B119	B	Duluth, MN	Actel Corporation
B142	A	Fergus Falls, MN	Touch America, Inc.
B142	B	Fergus Falls, MN	Baker Creek Communications, L.P.
B234	A	La Crosse, WI-Winona,	FCC

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
		MN	
B234	B	La Crosse, WI-Winona, MN	Actel Corporation
B277	A	Mankato-Fairmont, MN	Midwest Wireless Communications, L.L.C.
B277	B	Mankato-Fairmont, MN	Baker Creek Communications, L.P.
B298	A	Minneapolis-St. Paul, MN	WNP Communications, Inc.
B298	B	Minneapolis-St. Paul, MN	Nextband Communications, LLC
B378	A	Rochester-Austin-Albert Lea, MN	Midwest Wireless Communications, L.L.C.
B378	B	Rochester-Austin-Albert Lea, MN	Baker Creek Communications, L.P.
B391	A	St. Cloud, MN	Touch America, Inc.
B391	B	St. Cloud, MN	Cellular Mobile Systems of St. Cloud G. P., LLP
B477	A	Willmar-Marshall, MN	Midwest Wireless Communications, L.L.C.
B477	B	Willmar-Marshall, MN	Cellular Mobile Systems of St. Cloud G. P., LLP
B481	A	Worthington, MN	Midwest Wireless Communications, L.L.C.
B481	B	Worthington, MN	ABS LMDS Venture
B066	A	Cape Girardeau-Sikeston, MO	FCC
B066	B	Cape Girardeau-Sikeston, MO	Baker Creek Communications, L.P.
B090	A	Columbia, MO	FCC
B090	B	Columbia, MO	Baker Creek Communications, L.P.
B217	A	Jefferson City, MO	FCC
B217	B	Jefferson City, MO	Baker Creek Communications, L.P.
B226	A	Kansas City, MO	Alta Wireless, Inc.
B226	B	Kansas City, MO	Nextband Communications, LLC
B230	A	Kirksville, MO	Mark Twain Communications Company, Inc.
B230	B	Kirksville, MO	Mark Twain Communications Company, Inc.
B355	A	Poplar Bluff, MO	FCC

**APPENDIX B¾ LOCAL MULTIPPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B355	B	Poplar Bluff, MO	Baker Creek Communications, L.P.
B367	A	Quincy, IL-Hannibal, MO	FCC
B367	B	Quincy, IL-Hannibal, MO	Mary J Kuiken
B383	A	Rolla, MO	FCC
B383	B	Rolla, MO	Baker Creek Communications, L.P.
B393	A	St. Joseph, MO	Liberty Cellular, Inc.
B393	B	St. Joseph, MO	Liberty Cellular, Inc.
B394	A	St. Louis, MO	WNP Communications, Inc.
B394	B	St. Louis, MO	Nextband Communications, LLC
B414	A	Sedalia, MO	FCC
B414	B	Sedalia, MO	Baker Creek Communications, L.P.
B428	A	Springfield, MO	Hamilton Contracting, Inc.
B428	B	Springfield, MO	Iron Mountain Wireless, Inc.
B470	A	West Plains, MO	FCC
B470	B	West Plains, MO	Baker Creek Communications, L.P.
B042	A	Biloxi-Gulfport-Pascagoula, MS	Cellular Holding, Inc.
B042	B	Biloxi-Gulfport-Pascagoula, MS	Baker Creek Communications, L.P.
B094	A	Columbus-Starkville, MS	Cellular Holding, Inc.
B094	B	Columbus-Starkville, MS	Baker Creek Communications, L.P.
B175	A	Greenville-Greenwood, MS	Cellular Holding, Inc.
B175	B	Greenville-Greenwood, MS	Actel Corporation
B186	A	Hattiesburg, MS	Cellular Holding, Inc.
B186	B	Hattiesburg, MS	Baker Creek Communications, L.P.
B210	A	Jackson, MS	Cellular Holding, Inc.
B210	B	Jackson, MS	Baker Creek Communications, L.P.
B246	A	Laurel, MS	Cellular Holding, Inc.
B246	B	Laurel, MS	Baker Creek Communications, L.P.
B269	A	McComb-Brookhaven, MS	Cellular Holding, Inc.
B269	B	McComb-Brookhaven, MS	Baker Creek Communications, L.P.
B292	A	Meridian, MS	Cellular Holding, Inc.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B292	B	Meridian, MS	Baker Creek Communications, L.P.
B315	A	Natchez, MS	Cellular Holding, Inc.
B315	B	Natchez, MS	Duckhorn Broadcasting, Inc.
B449	A	Tupelo-Corinth, MS	FCC
B449	B	Tupelo-Corinth, MS	Baker Creek Communications, L.P.
B455	A	Vicksburg, MS	Cellular Holding, Inc.
B455	B	Vicksburg, MS	Baker Creek Communications, L.P.
B041	A	Billings, MT	Touch America, Inc.
B041	B	Billings, MT	Eclipse Communications Corporation
B053	A	Bozeman, MT	Cable & Communications Corporation
B053	B	Bozeman, MT	Eclipse Communications Corporation
B064	A	Butte, MT	Touch America, Inc.
B064	B	Butte, MT	Eclipse Communications Corporation
B171	A	Great Falls, MT	Touch America, Inc.
B171	B	Great Falls, MT	Eclipse Communications Corporation
B188	A	Helena, MT	Touch America, Inc.
B188	B	Helena, MT	Eclipse Communications Corporation
B224	A	Kalispell, MT	LeoMax Communications
B224	B	Kalispell, MT	Touch America, Inc.
B300	A	Missoula, MT	Eclipse Communications Corporation
B300	B	Missoula, MT	Touch America, Inc.
B020	A	Asheville-Hendersonville, NC	FCC
B020	B	Asheville-Hendersonville, NC	Baker Creek Communications, L.P.
B062	A	Burlington, NC	FCC
B062	B	Burlington, NC	Catfish Communications, L.L.C.
B074	A	Charlotte-Gastonia, NC	WNP Communications, Inc.
B074	B	Charlotte-Gastonia, NC	Baker Creek Communications, L.P.
B141	A	Fayetteville-Lumberton, NC	FCC
B141	B	Fayetteville-Lumberton, NC	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B165	A	Goldsboro-Kinston, NC	FCC
B165	B	Goldsboro-Kinston, NC	Baker Creek Communications, L.P.
B174	A	Greensboro-Winston-Salem-High Point, NC	WinStar LMDS, L.L.C.
B174	B	Greensboro-Winston-Salem-High Point, NC	Baker Creek Communications, L.P.
B176	A	Greenville-Washington, NC	FCC
B176	B	Greenville-Washington, NC	Baker Creek Communications, L.P.
B189	A	Hickory-Lenoir-Morganton, NC	Nextband Communications, LLC
B189	B	Hickory-Lenoir-Morganton, NC	Baker Creek Communications, L.P.
B214	A	Jacksonville, NC	FCC
B214	B	Jacksonville, NC	Baker Creek Communications, L.P.
B316	A	New Bern, NC	FCC
B316	B	New Bern, NC	Baker Creek Communications, L.P.
B368	A	Raleigh-Durham, NC	WNP Communications, Inc.
B368	B	Raleigh-Durham, NC	Baker Creek Communications, L.P.
B377	A	Roanoke Rapids, NC	FCC
B377	B	Roanoke Rapids, NC	Baker Creek Communications, L.P.
B382	A	Rocky Mount-Wilson, NC	FCC
B382	B	Rocky Mount-Wilson, NC	Baker Creek Communications, L.P.
B478	A	Wilmington, NC	FCC
B478	B	Wilmington, NC	Baker Creek Communications, L.P.
B045	A	Bismarck, ND	Touch America, Inc.
B045	B	Bismarck, ND	Eclipse Communications Corporation
B113	A	Dickinson, ND	Consolidated Telephone Cooperative
B113	B	Dickinson, ND	Eclipse Communications Corporation
B138	A	Fargo, ND	Eclipse Communications Corporation
B138	B	Fargo, ND	Touch America, Inc.
B166	A	Grand Forks, ND	Eclipse Communications

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
			Corporation
B166	B	Grand Forks, ND	Eclipse Communications Corporation
B299	A	Minot, ND	Eclipse Communications Corporation
B299	B	Minot, ND	Northwest Communications Cooperative
B476	A	Williston, ND	Northwest Communications Cooperative
B476	B	Williston, ND	Eclipse Communications Corporation
B167	A	Grand Island-Kearney, NE	Glenwood Telephone Membership Corporation
B167	B	Grand Island-Kearney, NE	Eclipse Communications Corporation
B185	A	Hastings, NE	Glenwood Telephone Membership Corporation
B185	B	Hastings, NE	PinPoint Communications Inc.
B256	A	Lincoln, NE	Eclipse Communications Corporation
B256	B	Lincoln, NE	U S WEST Communications, Inc.
B270	A	McCook, NE	PinPoint Communications Inc.
B270	B	McCook, NE	PinPoint Communications Inc.
B323	A	Norfolk, NE	FCC
B323	B	Norfolk, NE	Eclipse Communications Corporation
B325	A	North Platte, NE	Eclipse Communications Corporation
B325	B	North Platte, NE	Baker Creek Communications, L.P.
B332	A	Omaha, NE	ARNet, Inc.
B332	B	Omaha, NE	U S WEST Communications, Inc.
B411	A	Scottsbluff, NE	Eclipse Communications Corporation
B411	B	Scottsbluff, NE	Baker Creek Communications, L.P.
B227	A	Keene, NH	FCC
B227	B	Keene, NH	Baker Creek Communications, L.P.
B249	A	Lebanon-Claremont, NH	FCC
B249	B	Lebanon-Claremont, NH	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B274	A	Manchester-Nashua-Concord, NH	WNP Communications, Inc.
B274	B	Manchester-Nashua-Concord, NH	Baker Creek Communications, L.P.
B025	A	Atlantic City, NJ	Baker Creek Communications, L.P.
B025	B	Atlantic City, NJ	Lakedale Link, Inc.
B008	A	Albuquerque, NM	ARNet, Inc.
B008	B	Albuquerque, NM	ARNet, Inc.
B068	A	Carlsbad, NM	PVT NetWorks, Inc.
B068	B	Carlsbad, NM	ENMR Telephone Cooperative, Inc.
B087	A	Clovis, NM	ENMR Telephone Cooperative, Inc.
B087	B	Clovis, NM	AirCom Consultants, Inc. dba AirCom, Inc.
B162	A	Gallup, NM	FCC
B162	B	Gallup, NM	FCC
B191	A	Hobbs, NM	ENMR Telephone Cooperative, Inc.
B191	B	Hobbs, NM	ENMR Telephone Cooperative, Inc.
B244	A	Las Cruces, NM	Eclipse Communications Corporation
B244	B	Las Cruces, NM	FCC
B386	A	Roswell, NM	ENMR Telephone Cooperative, Inc.
B386	B	Roswell, NM	ENMR Telephone Cooperative, Inc.
B407	A	Santa Fe, NM	Eclipse Communications Corporation
B407	B	Santa Fe, NM	ARNet, Inc.
B245	A	Las Vegas, NV	BCK/RIVGAM, L.L.C.
B245	B	Las Vegas, NV	BCK/RIVGAM, L.L.C.
B372	A	Reno, NV	BCK/RIVGAM, L.L.C.
B372	B	Reno, NV	New Wave Networks, LLC
B007	A	Albany-Schenectady, NY	WNP Communications, Inc.
B007	B	Albany-Schenectady, NY	Baker Creek Communications, L.P.
B043	A	Binghamton, NY	Vanguard LMDS Corp.
B043	B	Binghamton, NY	Baker Creek Communications, L.P.
B060	A	Buffalo-Niagara Falls, NY	WNP Communications, Inc.
B060	B	Buffalo-Niagara Falls, NY	Baker Creek Communications, L.P.
B127	A	Elmira-Corning-	Vanguard LMDS Corp.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
		Hornell, NY	
B127	B	Elmira-Corning-Hornell, NY	Baker Creek Communications, L.P.
B164	A	Glens Falls, NY	FCC
B164	B	Glens Falls, NY	Baker Creek Communications, L.P.
B208	A	Ithaca, NY	Mr. Watson
B208	B	Ithaca, NY	WinStar LMDS, L.L.C.
B215	A	Jamestown-Dunkirk, NY-Warren, PA	FCC
B215	B	Jamestown-Dunkirk, NY-Warren, PA	Baker Creek Communications, L.P.
B321	A	New York, NY	WNP Communications, Inc.
B321	B	New York, NY	Nextband Communications, LLC
B333	A	Oneonta, NY	Mr. Watson
B333	B	Oneonta, NY	NUCOM
B352	A	Plattsburgh, NY	FCC
B352	B	Plattsburgh, NY	Baker Creek Communications, L.P.
B361	A	Poughkeepsie-Kingston, NY	Mr. Watson
B361	B	Poughkeepsie-Kingston, NY	Baker Creek Communications, L.P.
B379	A	Rochester, NY	WNP Communications, Inc.
B379	B	Rochester, NY	Nextband Communications, LLC
B438	A	Syracuse, NY	WNP Communications, Inc.
B438	B	Syracuse, NY	Baker Creek Communications, L.P.
B453	A	Utica-Rome, NY	FCC
B453	B	Utica-Rome, NY	Baker Creek Communications, L.P.
B463	A	Watertown, NY	FCC
B463	B	Watertown, NY	Baker Creek Communications, L.P.
B021	A	Ashtabula, OH	Cortelyou Communications Corp.
B021	B	Ashtabula, OH	Orwell Communications, Inc.
B023	A	Athens, OH	Vanguard LMDS Corp.
B023	B	Athens, OH	Baker Creek Communications, L.P.
B065	A	Canton-New Philadelphia, OH	Cortelyou Communications Corp.
B065	B	Canton-New Philadelphia, OH	Baker Creek Communications, L.P.
B080	A	Chillicothe, OH	Cortelyou Communications Corp.
B080	B	Chillicothe, OH	Baker Creek Communications, L.P.
B081	A	Cincinnati, OH	Cortelyou Communications Corp.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B081	B	Cincinnati, OH	Nextband Communications, LLC
B084	A	Cleveland-Akron, OH	Cortelyou Communications Corp.
B084	B	Cleveland-Akron, OH	NEXTBAND Communications, LLC
B095	A	Columbus, OH	Cortelyou Communications Corp.
B095	B	Columbus, OH	Nextband Communications, LLC
B106	A	Dayton-Springfield, OH	Cortelyou Communications Corp.
B106	B	Dayton-Springfield, OH	Baker Creek Communications, L.P.
B122	A	East Liverpool-Salem, OH	FCC
B122	B	East Liverpool-Salem, OH	Baker Creek Communications, L.P.
B143	A	Findlay-Tiffin, OH	Cortelyou Communications Corp.
B143	B	Findlay-Tiffin, OH	Bascom Mutual Telephone Company-Sycamore Telephone
B255	A	Lima, OH	Cortelyou Communications Corp.
B255	B	Lima, OH	Orwell Communications, Inc.
B278	A	Mansfield, OH	Cortelyou Communications Corp.
B278	B	Mansfield, OH	Nextband Communications, LLC
B281	A	Marion, OH	Cortelyou Communications Corp.
B281	B	Marion, OH	Baker Creek Communications, L.P.
B342	A	Parkersburg, WV-Marietta, OH	Vanguard LMDS Corp.
B342	B	Parkersburg, WV-Marietta, OH	Baker Creek Communications, L.P.
B359	A	Portsmouth, OH	Baker Creek Communications, L.P.
B359	B	Portsmouth, OH	NUCOM
B403	A	Sandusky, OH	Cortelyou Communications Corp.
B403	B	Sandusky, OH	Orwell Communications, Inc.
B444	A	Toledo, OH	Cortelyou Communications Corp.
B444	B	Toledo, OH	Nextband Communications, LLC
B484	A	Youngstown-Warren, OH	Cortelyou Communications Corp.
B484	B	Youngstown-Warren, OH	Lakedale Link, Inc.
B487	A	Zanesville-Cambridge, OH	Cortelyou Communications Corp.
B487	B	Zanesville-Cambridge, OH	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B004	A	Ada, OK	Chickasaw-People's PCS
B004	B	Ada, OK	CoServ, L.L.C.
B019	A	Ardmore, OK	Chickasaw-People's PCS
B019	B	Ardmore, OK	Kingdon R. Hughes
B031	A	Bartlesville, OK	Totelcom of Oklahoma, Inc.
B031	B	Bartlesville, OK	Totelcom of Oklahoma, Inc.
B130	A	Enid, OK	AKS LMDS Venture
B130	B	Enid, OK	AKS LMDS Venture
B220	A	Joplin, MO-Miami, OK	Craw-Kan Telephone Cooperative, Inc.
B220	B	Joplin, MO-Miami, OK	Totelcom of Oklahoma, Inc.
B248	A	Lawton-Duncan, OK	ARNet, Inc.
B248	B	Lawton-Duncan, OK	Chickasaw-People's PCS
B267	A	McAlester, OK	Star Search Rural TV & Cellular, Inc.
B267	B	McAlester, OK	Chickasaw-People's PCS
B311	A	Muskogee, OK	Totelcom of Oklahoma, Inc.
B311	B	Muskogee, OK	Chickasaw-People's PCS
B329	A	Oklahoma City, OK	ARNet, Inc.
B329	B	Oklahoma City, OK	CoServ, L.L.C.
B354	A	Ponca City, OK	AKS LMDS Venture
B354	B	Ponca City, OK	Totelcom of Oklahoma, Inc.
B433	A	Stillwater, OK	Central Oklahoma Telephone Company
B433	B	Stillwater, OK	Totelcom of Oklahoma, Inc.
B448	A	Tulsa, OK	ARNet, Inc.
B448	B	Tulsa, OK	ARNet, Inc.
B038	A	Bend, OR	HighSpeed.Com, L.L.C.
B038	B	Bend, OR	New Wave Networks, LLC
B097	A	Coos Bay-North Bend, OR	Blackwater Holdings, LLC
B097	B	Coos Bay-North Bend, OR	FCC
B133	A	Eugene-Springfield, OR	HighSpeed.Com, L.L.C.
B133	B	Eugene-Springfield, OR	U S WEST Communications, Inc.
B231	A	Klamath Falls, OR	HighSpeed.Com, L.L.C.
B231	B	Klamath Falls, OR	Nextband Communications, LLC

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B288	A	Medford-Grants Pass, OR	HighSpeed.Com, L.L.C.
B288	B	Medford-Grants Pass, OR	Nextband Communications, LLC
B358	A	Portland, OR	Nextband Communications, LLC
B358	B	Portland, OR	U S WEST Communications, Inc.
B385	A	Roseburg, OR	HighSpeed.Com, L.L.C.
B385	B	Roseburg, OR	AirCom Consultants, Inc. dba AirCom, Inc.
B395	A	Salem-Albany-Corvallis, OR	Farmers Mutual Telephone Company
B395	B	Salem-Albany-Corvallis, OR	HighSpeed.Com, L.L.C.
B460	A	Walla Walla, WA-Pendleton, OR	HighSpeed.Com, L.L.C.
B460	B	Walla Walla, WA-Pendleton, OR	Touch America, Inc.
B010	A	Allentown-Bethlehem-Easton, PA	Vanguard LMDS Corp.
B010	B	Allentown-Bethlehem-Easton, PA	Baker Creek Communications, L.P.
B012	A	Altoona, PA	Vanguard LMDS Corp.
B012	B	Altoona, PA	Baker Creek Communications, L.P.
B117	A	Du Bois-Clearfield, PA	FCC
B117	B	Du Bois-Clearfield, PA	Baker Creek Communications, L.P.
B131	A	Erie, PA	FCC
B131	B	Erie, PA	Baker Creek Communications, L.P.
B181	A	Harrisburg, PA	Vanguard LMDS Corp.
B181	B	Harrisburg, PA	Baker Creek Communications, L.P.
B203	A	Indiana, PA	FCC
B203	B	Indiana, PA	Baker Creek Communications, L.P.
B218	A	Johnstown, PA	FCC
B218	B	Johnstown, PA	Baker Creek Communications, L.P.
B240	A	Lancaster, PA	Vanguard LMDS Corp.
B240	B	Lancaster, PA	Baker Creek Communications, L.P.
B287	A	Meadville, PA	FCC
B287	B	Meadville, PA	Baker Creek Communications, L.P.
B317	A	New Castle, PA	FCC
B317	B	New Castle, PA	NUCOM

**APPENDIX B¼ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B328	A	Oil City-Franklin, PA	FCC
B328	B	Oil City-Franklin, PA	Baker Creek Communications, L.P.
B330	A	Olean, NY-Bradford, PA	FCC
B330	B	Olean, NY-Bradford, PA	Baker Creek Communications, L.P.
B346	A	Philadelphia, PA- Wilmington, DE-Trenton, NJ	WNP Communications, Inc.
B346	B	Philadelphia, PA- Wilmington, DE-Trenton, NJ	Baker Creek Communications, L.P.
B350	A	Pittsburgh, PA	WNP Communications, Inc.
B350	B	Pittsburgh, PA	Baker Creek Communications, L.P.
B360	A	Pottsville, PA	Vanguard LMDS Corp.
B360	B	Pottsville, PA	Baker Creek Communications, L.P.
B370	A	Reading, PA	Vanguard LMDS Corp.
B370	B	Reading, PA	Baker Creek Communications, L.P.
B412	A	Scranton-Wilkes Barre- Hazleton, PA	Vanguard LMDS Corp.
B412	B	Scranton-Wilkes Barre- Hazleton, PA	Baker Creek Communications, L.P.
B416	A	Sharon, PA	FCC
B416	B	Sharon, PA	Baker Creek Communications, L.P.
B429	A	State College, PA	Vanguard LMDS Corp.
B429	B	State College, PA	Baker Creek Communications, L.P.
B435	A	Stroudsburg, PA	Vanguard LMDS Corp.
B435	B	Stroudsburg, PA	Baker Creek Communications, L.P.
B437	A	Sunbury-Shamokin, PA	Vanguard LMDS Corp.
B437	B	Sunbury-Shamokin, PA	Baker Creek Communications, L.P.
B475	A	Williamsport, PA	Vanguard LMDS Corp.
B475	B	Williamsport, PA	Baker Creek Communications, L.P.
B483	A	York-Hanover, PA	Vanguard LMDS Corp.
B483	B	York-Hanover, PA	Baker Creek Communications, L.P.
B364	A	Providence-Pawtucket, RI-New Bedford-Fall River, MA	WNP Communications, Inc.
B364	B	Providence-Pawtucket, RI-New Bedford-Fall River, MA	Nextband Communications, LLC

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B016	A	Anderson, SC	FCC
B016	B	Anderson, SC	Baker Creek Communications, L.P.
B072	A	Charleston, SC	Home Telephone Company, Inc.
B072	B	Charleston, SC	Baker Creek Communications, L.P.
B091	A	Columbia, SC	Nextband Communications, LLC
B091	B	Columbia, SC	Baker Creek Communications, L.P.
B147	A	Florence, SC	FCC
B147	B	Florence, SC	Baker Creek Communications, L.P.
B177	A	Greenville-Spartanburg, SC	WNP Communications, Inc.
B177	B	Greenville-Spartanburg, SC	Baker Creek Communications, L.P.
B178	A	Greenwood, SC	Baker Creek Communications, L.P.
B178	B	Greenwood, SC	Baker Creek Communications, L.P.
B312	A	Myrtle Beach, SC	Horry Telephone Cooperative, Inc.
B312	B	Myrtle Beach, SC	Horry Telephone Cooperative, Inc.
B335	A	Orangeburg, SC	FCC
B335	B	Orangeburg, SC	Baker Creek Communications, L.P.
B436	A	Sumter, SC	Farmers Telephone Cooperative, Inc.
B436	B	Sumter, SC	Baker Creek Communications, L.P.
B001	A	Aberdeen, SD	Venture Wireless, Inc.
B001	B	Aberdeen, SD	Eclipse Communications Corporation
B199	A	Huron, SD	Venture Wireless, Inc.
B199	B	Huron, SD	Eclipse Communications Corporation
B301	A	Mitchell, SD	ABS LMDS Venture
B301	B	Mitchell, SD	Eclipse Communications Corporation
B369	A	Rapid City, SD	Golden West Wireless, Inc.
B369	B	Rapid City, SD	Eclipse Communications Corporation
B422	A	Sioux Falls, SD	ABS LMDS Venture
B422	B	Sioux Falls, SD	Eclipse Communications Corporation
B464	A	Watertown, SD	Golden West Wireless, Inc.
B464	B	Watertown, SD	Eclipse Communications Corporation
B076	A	Chattanooga, TN	Nextband Communications, LLC
B076	B	Chattanooga, TN	Baker Creek Communications, L.P.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B085	A	Cleveland, TN	Scientific Software Solutions, Inc.
B085	B	Cleveland, TN	Scientific Software Solutions, Inc.
B096	A	Cookeville, TN	Advantage Cellular Systems, Inc.
B096	B	Cookeville, TN	Advantage Cellular Systems, Inc.
B120	A	Dyersburg-Union City, TN	FCC
B120	B	Dyersburg-Union City, TN	Baker Creek Communications, L.P.
B211	A	Jackson, TN	FCC
B211	B	Jackson, TN	Baker Creek Communications, L.P.
B232	A	Knoxville, TN	WNP Communications, Inc.
B232	B	Knoxville, TN	Baker Creek Communications, L.P.
B290	A	Memphis, TN	WNP Communications, Inc.
B290	B	Memphis, TN	Baker Creek Communications, L.P.
B314	A	Nashville, TN	WNP Communications, Inc.
B314	B	Nashville, TN	Baker Creek Communications, L.P.
B003	A	Abilene, TX	Kingdon R. Hughes
B003	B	Abilene, TX	Eclipse Communications Corporation
B013	A	Amarillo, TX	ARNet, Inc.
B013	B	Amarillo, TX	ARNet, Inc.
B027	A	Austin, TX	WNP Communications, Inc.
B027	B	Austin, TX	Nextband Communications, LLC
B034	A	Beaumont-Port Arthur, TX	Command Connect, LLC
B034	B	Beaumont-Port Arthur, TX	Telecorp LMDS, Inc.
B040	A	Big Spring, TX	Eclipse Communications Corporation
B040	B	Big Spring, TX	Kingdon R. Hughes
B056	A	Brownsville-Harlingen, TX	Valley Telephone Cooperative, Inc.
B056	B	Brownsville-Harlingen, TX	TVCON/Rio Vision
B057	A	Brownwood, TX	Central Texas Telephone Investments, Inc.
B057	B	Brownwood, TX	Central Texas Telephone Investments, Inc.
B059	A	Bryan-College Station, TX	ARNet, Inc.

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B059	B	Bryan-College Station, TX	CoServ, L.L.C.
B099	A	Corpus Christi, TX	Actel Corporation
B099	B	Corpus Christi, TX	Baker Creek Communications, L.P.
B101	A	Dallas-Ft. Worth, TX	WNP Communications, Inc.
B101	B	Dallas-Ft. Worth, TX	CoServ, L.L.C.
B121	A	Eagle Pass-Del Rio, TX	FCC
B121	B	Eagle Pass-Del Rio, TX	TVCON/Rio Vision
B128	A	El Paso, TX	ARNet, Inc.
B128	B	El Paso, TX	ARNet, Inc.
B196	A	Houston, TX	WNP Communications, Inc.
B196	B	Houston, TX	Baker Creek Communications, L.P.
B242	A	Laredo, TX	Alenco Communications, Inc.
B242	B	Laredo, TX	Alenco Communications, Inc.
B260	A	Longview-Marshall, TX	Actel Corporation
B260	B	Longview-Marshall, TX	Baker Creek Communications, L.P.
B264	A	Lubbock, TX	ENMR Telephone Cooperative, Inc.
B264	B	Lubbock, TX	ARNet, Inc.
B265	A	Lufkin-Nacogdoches, TX	Command Connect, LLC
B265	B	Lufkin-Nacogdoches, TX	Baker Creek Communications, L.P.
B268	A	McAllen, TX	Valley Telephone Cooperative, Inc.
B268	B	McAllen, TX	TVCON/Rio Vision
B296	A	Midland, TX	Eclipse Communications Corporation
B296	B	Midland, TX	Kingdon R. Hughes
B327	A	Odessa, TX	Eclipse Communications Corporation
B327	B	Odessa, TX	TVCON/Rio Vision
B341	A	Paris, TX	Chickasaw-People's PCS
B341	B	Paris, TX	Star Search Rural TV & Cellular, Inc.
B400	A	San Angelo, TX	Central Texas Telephone Investments, Inc.
B400	B	San Angelo, TX	Central Texas Telephone

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
			Investments, Inc.
B401	A	San Antonio, TX	WNP Communications, Inc.
B401	B	San Antonio, TX	CoServ, L.L.C.
B418	A	Sherman-Denison, TX	Kingdon R. Hughes
B418	B	Sherman-Denison, TX	Kingdon R. Hughes
B441	A	Temple-Killeen, TX	Kingdon R. Hughes
B441	B	Temple-Killeen, TX	Kingdon R. Hughes
B443	A	Texarkana, TX/AR	Actel Corporation
B443	B	Texarkana, TX/AR	Network Wireless
B452	A	Tyler, TX	Actel Corporation
B452	B	Tyler, TX	Baker Creek Communications, L.P.
B456	A	Victoria, TX	FCC
B456	B	Victoria, TX	CoServ, L.L.C.
B459	A	Waco, TX	Kingdon R. Hughes
B459	B	Waco, TX	Kingdon R. Hughes
B473	A	Wichita Falls, TX	ARNet, Inc.
B473	B	Wichita Falls, TX	Comcell, Inc.
B258	A	Logan, UT	Ruin Isaak Lerman
B258	B	Logan, UT	Touch America, Inc.
B365	A	Provo-Orem, UT	WinStar LMDS, L.L.C.
B365	B	Provo-Orem, UT	Touch America, Inc.
B392	A	St. George, UT	American Wireless, Inc.
B392	B	St. George, UT	New Wave Networks, LLC
B399	A	Salt Lake City-Ogden, UT	WinStar LMDS, L.L.C.
B399	B	Salt Lake City-Ogden, UT	Eclipse Communications Corporation
B075	A	Charlottesville, VA	CRH Consortium
B075	B	Charlottesville, VA	Baker Creek Communications, L.P.
B104	A	Danville, VA	Virginia Tech Foundation, Inc
B104	B	Danville, VA	Baker Creek Communications, L.P.
B156	A	Fredericksburg, VA	FCC
B156	B	Fredericksburg, VA	Baker Creek Communications, L.P.
B183	A	Harrisonburg, VA	CRH Consortium
B183	B	Harrisonburg, VA	Baker Creek Communications, L.P.
B229	A	Kingsport-Johnson City, TN-Bristol, VA/TN	Virginia Tech Foundation, Inc

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B229	B	Kingsport-Johnson City, TN-Bristol, VA/TN	Baker Creek Communications, L.P.
B266	A	Lynchburg, VA	CRH Consortium
B266	B	Lynchburg, VA	Baker Creek Communications, L.P.
B284	A	Martinsville, VA	Virginia Tech Foundation, Inc
B284	B	Martinsville, VA	Baker Creek Communications, L.P.
B324	A	Norfolk-Virginia Beach-Newport News-Hampton, VA	WinStar LMDS, L.L.C.
B324	B	Norfolk-Virginia Beach-Newport News-Hampton, VA	Baker Creek Communications, L.P.
B374	A	Richmond-Petersburg, VA	WNP Communications, Inc.
B374	B	Richmond-Petersburg, VA	Baker Creek Communications, L.P.
B376	A	Roanoke, VA	Virginia Tech Foundation, Inc
B376	B	Roanoke, VA	Baker Creek Communications, L.P.
B430	A	Staunton-Waynesboro, VA	FCC
B430	B	Staunton-Waynesboro, VA	CRH Consortium
B479	A	Winchester, VA	CRH Consortium
B479	B	Winchester, VA	Baker Creek Communications, L.P.
B063	A	Burlington, VT	FCC
B063	B	Burlington, VT	Baker Creek Communications, L.P.
B388	A	Rutland-Bennington, VT	FCC
B388	B	Rutland-Bennington, VT	Baker Creek Communications, L.P.
B002	A	Aberdeen, WA	FCC
B002	B	Aberdeen, WA	Eclipse Communications Corporation
B036	A	Bellingham, WA	FCC
B036	B	Bellingham, WA	Eclipse Communications Corporation
B055	A	Bremerton, WA	American Telecasting Development, Inc.
B055	B	Bremerton, WA	Eclipse Communications

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
			Corporation
B228	A	Kennewick-Pasco-Richland, WA	HighSpeed.Com, L.L.C.
B228	B	Kennewick-Pasco-Richland, WA	Touch America, Inc.
B261	A	Longview, WA	Eclipse Communications Corporation
B261	B	Longview, WA	AirCom Consultants, Inc. dba AirCom, Inc.
B331	A	Olympia-Centralia, WA	FCC
B331	B	Olympia-Centralia, WA	Eclipse Communications Corporation
B356	A	Port Angeles, WA	Eclipse Communications Corporation
B356	B	Port Angeles, WA	FCC
B413	A	Seattle-Tacoma, WA	Nextband Communications, LLC
B413	B	Seattle-Tacoma, WA	Eclipse Communications Corporation
B425	A	Spokane, WA	Touch America, Inc.
B425	B	Spokane, WA	HighSpeed.Com, L.L.C.
B468	A	Wenatchee, WA	HighSpeed.Com, L.L.C.
B468	B	Wenatchee, WA	Touch America, Inc.
B482	A	Yakima, WA	HighSpeed.Com, L.L.C.
B482	B	Yakima, WA	Eclipse Communications Corporation
B018	A	Appleton-Oshkosh, WI	Actel Corporation
B018	B	Appleton-Oshkosh, WI	Northeast Communications of Wisconsin, Inc.
B123	A	Eau Claire, WI	FCC
B123	B	Eau Claire, WI	Northeast Communications of Wisconsin, Inc.
B148	A	Fond du Lac, WI	Blackwater Holdings, LLC
B148	B	Fond du Lac, WI	Northeast Communications of Wisconsin, Inc.
B173	A	Green Bay, WI	Northeast Communications of Wisconsin, Inc.
B173	B	Green Bay, WI	Actel Corporation
B216	A	Janesville-Beloit, WI	FCC
B216	B	Janesville-Beloit, WI	ABS LMDS Venture
B272	A	Madison, WI	Actel Corporation

**APPENDIX B¾ LOCAL MULTIPPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B272	B	Madison, WI	ABS LMDS Venture
B276	A	Manitowoc, WI	Blackwater Holdings, LLC
B276	B	Manitowoc, WI	Northeast Communications of Wisconsin, Inc.
B279	A	Marinette, WI- Menominee, MI	Northeast Communications of Wisconsin, Inc.
B279	B	Marinette, WI- Menominee, MI	Northeast Communications of Wisconsin, Inc.
B297	A	Milwaukee, WI	WNP Communications, Inc.
B297	B	Milwaukee, WI	Nextband Communications, LLC
B417	A	Sheboygan, WI	Rubin Isaak Lerman
B417	B	Sheboygan, WI	Northeast Communications of Wisconsin, Inc.
B432	A	Stevens Point- Marshfield-Wisconsin Rapids, WI	Northeast Communications of Wisconsin, Inc.
B432	B	Stevens Point- Marshfield-Wisconsin Rapids, WI	Actel Corporation
B466	A	Wausau-Rhineland, WI	Northeast Communications of Wisconsin, Inc.
B466	B	Wausau-Rhineland, WI	Actel Corporation
B035	A	Beckley, WV	FCC
B035	B	Beckley, WV	Baker Creek Communications, L.P.
B048	A	Bluefield, WV	FCC
B048	B	Bluefield, WV	Baker Creek Communications, L.P.
B073	A	Charleston, WV	Vanguard LMDS Corp.
B073	B	Charleston, WV	Baker Creek Communications, L.P.
B082	A	Clarksburg-Elkins, WV	FCC
B082	B	Clarksburg-Elkins, WV	Baker Creek Communications, L.P.
B137	A	Fairmont, WV	Gateway Telecom, LLC
B137	B	Fairmont, WV	Baker Creek Communications, L.P.
B259	A	Logan, WV	Vanguard LMDS Corp.
B259	B	Logan, WV	Iron Mountain Wireless, Inc.
B306	A	Morgantown, WV	Gateway Telecom, LLC
B306	B	Morgantown, WV	CRH Consortium
B431	A	Steubenville, OH- Weirton, WV	Gateway Telecom, LLC

**APPENDIX B¾ LOCAL MULTIPOINT DISTRIBUTION SERVICE AUCTION
WINNERS**

Market No.	Frequency Block	License Description	Winning Bidder Name
B431	B	Steubenville, OH-Weirton, WV	Baker Creek Communications, L.P.
B471	A	Wheeling, WV	Gateway Telecom, LLC
B471	B	Wheeling, WV	Baker Creek Communications, L.P.
B069	A	Casper-Gillette, WY	Touch America, Inc.
B069	B	Casper-Gillette, WY	Eclipse Communications Corporation
B077	A	Cheyenne, WY	Alta Wireless, Inc.
B077	B	Cheyenne, WY	Touch America, Inc.
B375	A	Riverton, WY	FCC
B375	B	Riverton, WY	Eclipse Communications Corporation
B381	A	Rock Springs, WY	Ruin Isaak Lerman
B381	B	Rock Springs, WY	Eclipse Communications Corporation
B488	A	San Juan, PR	FCC
B488	B	San Juan, PR	Telecorp LMDS, Inc.
B489	A	Mayaguez-Aguadilla-Ponce, PR	FCC
B489	B	Mayaguez-Aguadilla-Ponce, PR	Telecorp LMDS, Inc.
B490	A	Guam	IT&E Overseas, Inc.
B490	B	Guam	IT&E Overseas, Inc.
B491	A	US Virgin Islands	Antilles Wireless Cable TV Co.
B491	B	US Virgin Islands	Telecorp LMDS, Inc.
B492	A	American Samoa	Vernal Communications
B492	B	American Samoa	WinStar LMDS, L.L.C.
B493	A	Northern Mariana Islands	IT&E Overseas, Inc.
B493	B	Northern Mariana Islands	IT&E Overseas, Inc.

APPENDIX C ³/₄ BTA MAP

APPENDIX D¼ TABLE OF 220-222 MHZ- CHANNEL DESIGNATIONS

** Only the lower half of the frequency pair(s) is listed.

Channel Number	Base Frequency (MHz)
1	220.0025
2	.0075
3	.0125
4	.0175
5	.0225
6	.0275
7	.0325
8	.0375
9	.0425
10	.0475
11	.0525
12	.0575
13	.0625
14	.0675
15	.0725
16	.0775
17	.0825
18	.0875
19	.0925
20	.0975
21	220.1025
22	.1075
23	.1125
24	.1175
25	.1225
26	.1275
27	.1325
28	.1375
29	.1425
30	.1475
31	.1525
32	.1575
33	.1625

APPENDIX D¼ TABLE OF 220-222 MHZ- CHANNEL DESIGNATIONS

** Only the lower half of the frequency pair(s) is listed.

Channel Number	Base Frequency (MHz)
34	.1675
35	.1725
36	.1775
37	.1825
38	.1875
39	.1925
40	.1975
41	220.2025
42	.2075
43	.2125
44	.2175
45	.2225
46	.2275
47	.2325
48	.2375
49	.2425
50	.2475
51	.2525
52	.2575
53	.2625
54	.2675
55	.2725
56	.2775
57	.2825
58	.2875
59	.2925
60	.2975
61	220.3025
62	.3075
63	.3125
64	.3175
65	.3225
66	.3275
67	.3325

APPENDIX D¼ TABLE OF 220-222 MHZ- CHANNEL DESIGNATIONS

** Only the lower half of the frequency pair(s) is listed.

Channel Number	Base Frequency (MHz)
68	.3375
69	.3425
70	.3475
71	.3525
72	.3575
73	.3625
74	.3675
75	.3725
76	.3775
77	.3825
78	.3875
79	.3925
80	.3975
81	220.4025
82	.4075
83	.4125
84	.4175
85	.4225
86	.4275
87	.4325
88	.4375
89	.4425
90	.4475
91	.4525
92	.4575
93	.4625
94	.4675
95	.4725
96	.4775
97	.4825
98	.4875
99	.4925
100	.4975
101	220.5025

APPENDIX D¼ TABLE OF 220-222 MHZ- CHANNEL DESIGNATIONS

** Only the lower half of the frequency pair(s) is listed.

Channel Number	Base Frequency (MHz)
102	.5075
103	.5125
104	.5175
105	.5225
106	.5275
107	.5325
108	.5375
109	.5425
110	.5475
111	.5525
112	.5575
113	.5625
114	.5675
115	.5725
116	.5775
117	.5825
118	.5875
119	.5925
120	.5975
121	220.6025
122	.6075
123	.6125
124	.6175
125	.6225
126	.6275
127	.6325
128	.6375
129	.6425
130	.6475
131	.6525
132	.6575
133	.6625
134	.6675
135	.6725

APPENDIX D¼ TABLE OF 220-222 MHZ- CHANNEL DESIGNATIONS

** Only the lower half of the frequency pair(s) is listed.

Channel Number	Base Frequency (MHz)
136	.6775
137	.6825
138	.6875
139	.6925
140	.6975
141	220.7025
142	.7075
143	.7125
144	.7175
145	.7225
146	.7275
147	.7325
148	.7375
149	.7425
150	.7475
151	.7525
152	.7575
153	.7625
154	.7675
155	.7725
156	.7775
157	.7825
158	.7875
159	.7925
160	.7975
161	220.8025
162	.8075
163	.8125
164	.8175
165	.8225
166	.8275
167	.8325
168	.8375
169	.8425

APPENDIX D¼ TABLE OF 220-222 MHZ- CHANNEL DESIGNATIONS

** Only the lower half of the frequency pair(s) is listed.

Channel Number	Base Frequency (MHz)
170	.8475
171	.8525
172	.8575
173	.8625
174	.8675
175	.8725
176	.8775
177	.8825
178	.8875
179	.8925
180	.8975
181	220.9025
182	.9075
183	.9125
184	.9175
185	.9225
186	.9275
187	.9325
188	.9375
189	.9425
190	.9475
191	.9525
192	.9575
193	.9625
194	.9675
195	.9725
196	.9775
197	.9825
198	.9875
199	.9925
200	220.9975

**APPENDIX E¾ COOPERATIVE ENGAGEMENT CAPABILITY
IMPACTED GWCS ECONOMIC AREAS**

Economic Area No.	Economic Area Name
3	Boston-Worcester-Lawrence-Lowell-Brockton MA-NH-RI-VT
5	Albany-Schenectady-Troy NY
6	Syracuse NY-PA
7	Rochester NY-PA
8	Buffalo-Niagara Falls NY-PA
9	State College PA
10	New York-No. New Jer.-Long Island NY-NJ-CT-PA-MA-VT
11	Harrisburg-Lebanon-Carlisle PA
12	Philadelphia-Wilmington-Atl. City PA-NJ-DE-MD
13	Washington-Baltimore DC-MD-VA-WV-PA
14	Salisbury MD-DE-VA
15	Richmond-Petersburg VA
16	Staunton VA-WV
17	Roanoke VA-NC-WV
18	Greensboro-Winston-Salem-High Point NC-VA
19	Raleigh-Durham-Chapel Hill NC
20	Norfolk-Virginia Beach-Newport News VA-NC
21	Greenville NC
22	Fayetteville NC
23	Charlotte-Gastonia-Rock Hill NC-SC
24	Columbia SC
25	Wilmington NC-SC
26	Charleston-North Charleston SC
27	Augusta-Aiken GA-SC
28	Savannah GA-SC
29	Jacksonville FL-GA
30	Orlando FL
33	Sarasota-Bradenton FL
34	Tampa-St. Petersburg-Clearwater FL

**APPENDIX E¾ COOPERATIVE ENGAGEMENT CAPABILITY
IMPACTED GWCS ECONOMIC AREAS**

Economic Area No.	Economic Area Name
35	Tallahassee FL-GA
36	Dothan AL-FL-GA
37	Albany GA
38	Macon GA
39	Columbus GA-AL
40	Atlanta GA-AL-NC
41	Greenville-Spartanburg-Anderson SC-NC
42	Asheville NC
45	Johnson City-Kingsport-Bristol TN-VA
46	Hickory-Morganton NC-TN
47	Lexington KY-TN-VA-WV
48	Charleston WV-KY-OH
53	Pittsburgh PA-WV
54	Erie PA
73	Memphis TN-AR-MS-KY
74	Huntsville AL-TN
75	Tupelo MS-AL-TN
76	Greenville MS
77	Jackson MS-AL-LA
78	Birmingham AL
79	Montgomery AL
80	Mobile AL
81	Pensacola FL
82	Biloxi-Gulfport-Pascagoula MS
83	New Orleans LA-MS
84	Baton Rouge LA-MS
85	Lafayette LA
86	Lake Charles LA
87	Beaumont-Port Arthur TX
88	Shreveport-Bossier City LA-AR

**APPENDIX E¾ COOPERATIVE ENGAGEMENT CAPABILITY
IMPACTED GWCS ECONOMIC AREAS**

Economic Area No.	Economic Area Name
89	Monroe LA
90	Little Rock-North Little Rock AR
122	Wichita KS-OK
126	Western Oklahoma OK
127	Dallas-Fort Worth TX-AR-OK
128	Abilene TX
129	San Angelo TX
131	Houston-Galveston-Brazoria TX
135	Odessa-Midland TX
136	Hobbs NM-TX
137	Lubbock TX
138	Amarillo TX-NM
139	Santa Fe NM
140	Pueblo CO-NM
141	Denver-Boulder-Greeley CO-KS-NE
151	Reno NV-CA
152	Salt Lake City-Ogden UT-ID
153	Las Vegas NV-AZ-UT
154	Flagstaff AZ-UT
155	Farmington NM-CO
156	Albuquerque NM-AZ
157	El Paso TX-NM
158	Phoenix-Mesa AZ-NM
159	Tucson AZ
160	Los Angeles-Riverside-Orange County CA-AZ
161	San Diego CA
162	Fresno CA
163	San Francisco-Oakland-San Jose CA
164	Sacramento-Yolo CA
172	Honolulu HI

**APPENDIX E¾ COOPERATIVE ENGAGEMENT CAPABILITY
IMPACTED GWCS ECONOMIC AREAS**

Economic Area No.	Economic Area Name
174	Puerto Rico and the U.S. Virgin Islands